
Original Article

South Korea's efforts for structural changes in corporate governance of large Korean business groups after the Asian financial crisis

Received (in revised form): 5th February 2013

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ABSTRACT This study introduces the characteristics of large Korean business groups (*chaebols*) and reviews various efforts toward structural changes in South Korea to improve the accounting system and corporate governance in the post Asian financial crisis period. Using descriptive trend analysis, this study also examines the consequences of the structural changes. Our findings show that major important financial indicators of the Korean economy have improved, implying that Korea's efforts seem to be somewhat successful. However, some sophisticated indicators, such as the magnitude of ownership discrepancy between cash flow rights and voting rights and the level of discretionary accruals, are shown to be rather deteriorated, indicating that the efforts toward structural changes have not fully resolved the fundamental problems prevalent in large Korean business groups.

International Journal of Disclosure and Governance (2014) 11, 211–230. doi:10.1057/jdg.2013.3;
published online 7 March 2013

Keywords: corporate governance; ownership; business group; financial crisis

INTRODUCTION

Since the Asian financial crisis (hereafter the financial crisis), South Korea (hereafter Korea) has widely opened up its stock and capital

markets to foreign investors and tried to attract foreign capital through its considerable efforts to improve the accounting system and corporate governance. Actually, foreign investors' equity investments in Korea have grown sharply in light of the rapid globalization and increasing interest in Korean markets. Figure 1 shows the medians for the percentage of foreign investors' ownership in firms traded in the Korean Stock Exchange (KOSPI) market of the Korea

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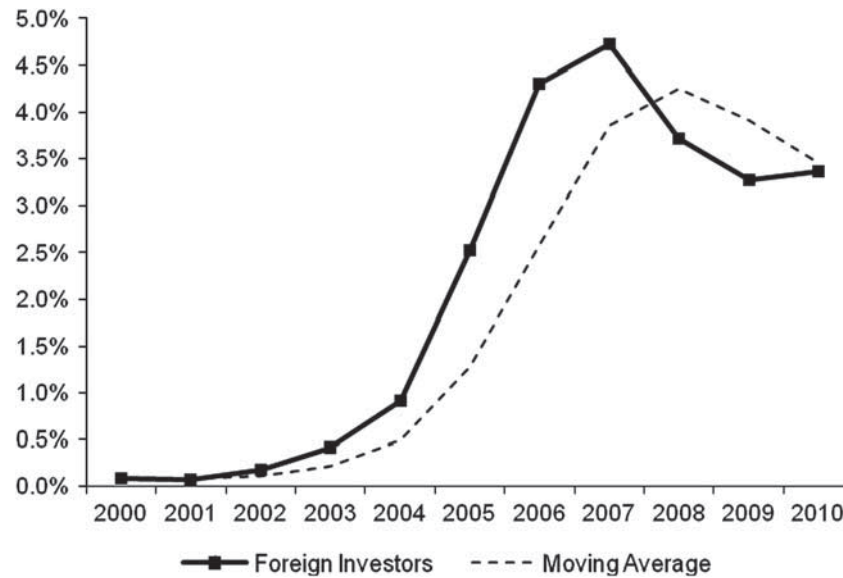


Figure 1: Percentage of foreign investors' ownership in Korean firms traded in KOSPI.

Exchange from 2000 to 2010. Although foreign investors' ownership decreased momentarily around 2008 because of the global financial crisis, foreign investors' ownership in the KOSPI market increased dramatically. Despite substantially increased foreign investments, there is little in-depth study into Korea's recent efforts to improve the quality of the system and corporate governance to open its markets to foreign investors.

This study therefore aims to (i) provide a better understanding of large Korean business groups, particularly concentrating on their ownership structure, (ii) carefully review Korea's various efforts into structural changes to overcome the effects of the financial crisis and (iii) examine the outcomes from such efforts.

Since Berle and Means's (1932) study that emphasizes the separation of control and ownership, common belief has been that the majority of companies are well diversified. In contrast, studies on ownership structure around the world show that relatively few firms are widely held. For example, La Porta *et al* (1999) find that few of firms, except in a few developed countries, are widely held and instead are

controlled by families or the state. Only 36.48 per cent of their sample has a widely held ownership structure.

Korea is one example of those countries dominated by state- or family-owned companies. Most leading companies in Korea are characterized as a large affiliated business group, often referred to as a *chaebol* in Korean. In many cases, the founder and his/her family members are the controlling (or ultimate) shareholders, and they dominate the control of the business group, typically through a pyramid, a circular or a crossing-holding ownership structure. Historically, *chaebols* have received a great deal of advantages with strong support from the Korean government, especially early in the development of the Korean economy after the Korean War. In spite of the *chaebols'* remarkable achievements in the Korean economy, their existence in the Korean stock markets has been viewed as a major negative determinant in valuations of Korean firms because of their low quality of corporate governance. Interestingly, some argue that the 'Korea discount' seems to be caused by the complex ownership structure of large Korean business groups, not by the threat of instability triggered



by North Korea, as is shown in the following excerpt:

It is sometimes asserted that low South Korean equity valuations stem from the threat of instability in North Korea. But the prime cause of the discount is more likely to be poor corporate governance at the family-run chaebol conglomerates that dominate the economy. A recent report by Tonyang Securities, a broker, drew an explicit link between Korea's low equity valuations and the practices of 'tunneling' and 'propping', which benefit insiders at the expense of smaller investors. – The Economist (February 11, 2012)

One of the critical concerns of the Korean government has been the *chaebols'* departure from the 'one share-one vote' principle. The ownership discrepancy between voting rights and cash flow rights is caused by a circular or cross-holding ownership structure, which allows the possibility of exploiting minority shareholders' interests and results in weak corporate governance. Weak corporate governance might not be a direct cause of the financial crisis, but it could make the country's economy more vulnerable to the effects of the crisis (Mitton, 2002). Prior studies also document that the ownership discrepancy tends to be associated with firm value (Lins, 2003; Claessens *et al*, 2002); firm values are likely to decrease when the ownership discrepancy is higher.

On the basis of the costly experience of the financial crisis, the Korean government recognized serious underlying defects in the ownership structure of the *chaebols'* affiliation system. Since the financial crisis, the Korean government has worked hard to make structural changes in the accounting system and corporate governance to improve the soundness of the Korean economy. These efforts include (i) nominating outsiders to boards of directors and mandating the establishment of an audit committee, (ii) revising accounting standards to match international accounting standards and (iii) revising or enacting regulations to protect the rights of minority shareholders.

Although the Korean government's efforts were timely, desirable and successful, few studies have questioned whether these efforts are still effective, whether the fundamental problems of ownership structure in *chaebols* (for example, ownership discrepancy between cash flow rights and voting rights) are mitigated or whether the economic soundness of firms is significantly improved. In this article, after introducing the various efforts toward structural changes in the Korean economy, we try to answer those questions from our trend analysis. We expect this study to provide helpful insights into the role of the quality of ownership structure and to improve the understanding of large Korean business groups.

LARGE BUSINESS GROUPS (CHAEBOLS) IN KOREA

Emergence of large business groups (*Chaebols*) in Korea

The question of 'Who substantially controls the business?' presumably relies on cultural context. La Porta *et al* (1999) document that ultimate owners could be classified as family, the state, widely held financial firms, widely held corporations or miscellaneous. Large business groups in Korea seem to be primarily based on family ownership. Historically in Korea, a founder, his/her descendants and all family members have attempted to diversify businesses through complex ownership structures. Large business groups in Korea controlled by a few ultimate owners or their family members are called *chaebols*. Although '*chaebol*' is commonly used in the press and everyday life in Korea, the term is not clearly defined in the literature. In the Korean language, *chaebol* literally means 'a group with enormous wealth.' However, in the Korean literature, the term *chaebol* is often used to indicate 'large-sized companies', 'the capitalist class' or even 'the high-class people.' In this study, following the definition of large business groups as stated in the regulation entitled *Monopoly Regulation and Fair Trade Act* of Korea, we define a *chaebol* as follows: 'A large

business group is a group of companies with more than two companies, where an ultimate owner (or an entity) substantially control the business'.¹

After the Korean War, the Korean economy depended more on economic plans initiated and developed by the Korean government than the free market economy because the country had a weak economic infrastructure due to the war. The Korean government attempted to control the nation's capital market through financial institutions such as banks, and supported selected companies by their dominance over the market (Kuk, 2011). The government initiated economic plans that focused on efficiency, concentrating their resources on a small number of selected firms. The selected companies then tried to diversify their business based on the government's strong support. The government's biased support of a few of selected firms may have been unavoidable at that time. Eventually, a group of companies naturally emerged and was called a *chaebol* affiliation. Why did large Korean companies choose diversification as their strategy? In a less-developed economy, diversification might be one of the most effective business strategies because it could reduce risk and uncertainty (Leff, 1978; Joh, 2003) and minimize transaction costs through intra-group trading (Leff, 1978; Chang and Choi, 1988). In addition, with the Korean government's strong support, large Korean companies could borrow funds from banks at special low interest rates and operate their own internal capital market, enabling them to easily inject capital into their affiliates (Joh, 2003). For example, inferior companies could avoid operating difficulties with financial help from a superior company in their *chaebol* (Joh, 2003).

In terms of efficiency, particularly in the early stage of Korea's economic development, the creation and the operation of *chaebols* was considered to be quite successful. However, as the Korean economy developed, a number of drawbacks to *chaebols* were revealed. A developed external capital market reduced the advantage

of the internal capital market. *Chaebol* owners were accustomed to using both the internal capital market and the intra-group trading for their private gains, and their diversification was used for their own empire-building. As a result, agency costs and conflicts of interest between *chaebol* family members and minority shareholders intensified (Joh, 2003). Furthermore, repeated and relentless debt guarantees by the government for *chaebols* gave them incentives to aggressively raise capital and keep investing it in their businesses, regardless of low profits, resulting in the excessive expansion of business groups. In 1996, a year before the financial crisis, the average debt held by the 30 largest *chaebols* was 9.7 times their stockholders' equity (Choi, 2009). Over time, these factors have accelerated the erosion of the *chaebols*' competitive advantages.

Legal provisions related to large business groups (*chaebols*) in Korea

There are important provisions to prevent concentration of economic power from a head of a *chaebol* affiliation in the *Monopoly Regulation and Fair Trade Act* of Korea. These key provisions are briefly summarized as follows: (i) companies in a large business group are prohibited from reciprocally acquiring the shares of a counterpart that already owns the shares of the other side (article 9), (ii) companies in a large business group are prohibited from giving debt guarantees to their domestic affiliated companies (article 10-2), (iii) financial or insurance companies in a large business group are prohibited from exercising voting rights for their domestic affiliated companies (article 11), (iv) companies in a large business group are required to disclose general discussions and analyses on themselves, their ownership structure, related party transactions and so on (article 11-4), (v) companies that are not publicly traded but are in a large business group are required to disclose their ownership structure and governance, events that significantly affect their financial positions and major activities by management (article 11-3).



Furthermore, the *Monopoly Regulation and Fair Trade Act* contains other related provisions on holding companies.

The first (article 9) and the fourth (article 11-4) provisions deserve closer attention. According to the first (article 9), cross-holdings in a mutual fashion are restricted. However, this does not mean that cross-holdings in a circular fashion are also restricted. Regarding the fourth (article 11-4), with such disclosure, investors are expected to receive enough relevant information to determine which firms belong to a large business group. The disclosure requirement implies that the government emphasizes market mechanism rather than restriction to resolve problems associated with a large business group.

Types and examples of circular equity investment in large Korean business groups

A large Korean business group forms conglomerates to readily invest in each other and the whole group is dominated by an ultimate owner or his/her family members. Typically, large Korean business groups are controlled through a pyramid or cross-holding ownership structure. With respect to cross-shareholdings, it is possible to consider a few complex ownership structures such as a horizontal, radical or circular form. The circular form is particularly worth examining because it is the most typical form of large Korean business groups' ownership structure and it enables them to exercise greater voting rights than cash flow rights.²

Figure 2 shows a schematic representation of circular equity investment in large business groups and Figure 3 shows specific examples for ownership patterns in Figure 2. Cross-holdings in a circular form could be divided into three types. Type A represents a circular equity investment with the principal business unit dominating other affiliated companies. An example of type A is *Samsung* business group. Type B is similar to Type A, except that it does not have a principal business unit. In this case, no prominent company leads the

group – they are simply connected as affiliated companies. An example of Type B is *Hyundai Motor* group. Type C is similar to Type B in that it does not have a core business unit, but it has a simpler form than Type B. An example of Type C, called a simple triangle, is *Hyundai Heavy Industries* group.

THE ASIAN FINANCIAL CRISIS AND KOREA'S EFFORTS TO OVERCOME IT

In the aftermath of the financial crisis in the late 1990s, enhanced business transparency became the most urgent issue. The Korean government organized the *Financial Services Commission* and *Securities and Futures Commission* in 1998 to improve transparency of accounting information to recover the foreign investors' trust in Korean financial markets. The government believed that transparency in business could be obtained through accounting information (Financial Supervisory Service, 1998a). Major efforts were made in four areas: (i) accounting standards, (ii) corporate governance, (iii) audit quality and (iv) protection of minority shareholders' rights. Table 1 presents a summary of the primary efforts implemented by Korea after Asian financial crisis to improve accounting information transparency and corporate governance.

Improvement in accounting standards

After the financial crisis, the authority to establish and revise accounting standards was transferred from the public sector to the private sector. Before the financial crisis, the government's Financial Service Commission was a principle agent of establishing Korea's accounting standards. However, critics continuously cast doubt on setting standards by the government agency because such a process likely lacked expertise. After the Korean government and the International Bank of Reconstruction and Development agreed to create an independent private standard-setting organization in 1998, Korea Accounting Institute (KAI),

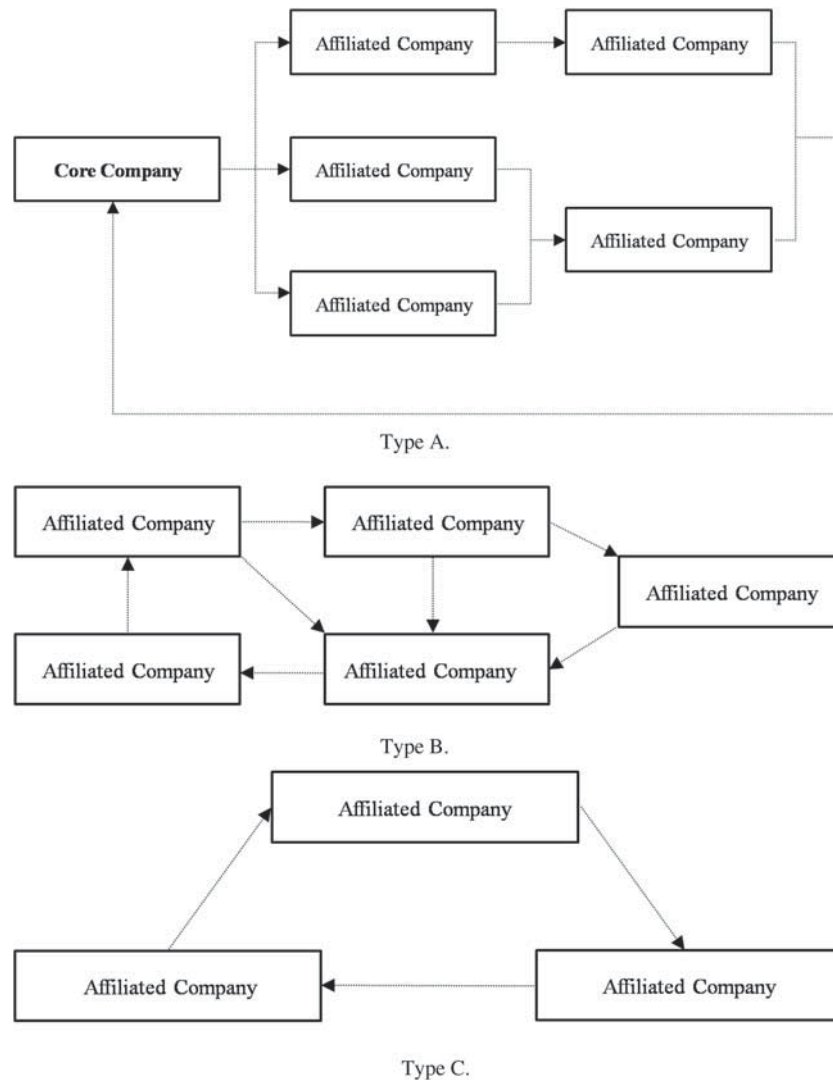


Figure 2: Types of cross-holdings in a circular form. (i) Type A. Form of single core unit; (ii) Type B. Form of multiple core unit; (iii) Type C. Form of simple triangle. *Source:* Press Release by Fair Trade Commission of Korea (2012).

the research institute of accounting standards, was founded (Financial Supervisory Service, 1998a), thus authorizing ability to the private sector to establish accounting standards.³

Since that time, the domestic accounting standards of Korea have been challenged to conform to the international accounting standards. Both the International Financial Reporting Standards and the US accounting standards were recommended as benchmarks

for revisions of accounting standards of Korea. In addition, provision-type accounting standards were transformed into statement-type standards because the former are more likely to make the interpretation of standards ambiguous (Financial Supervisory Service, 1998a). Moreover, the government introduced combined financial statements to improve the quality of financial reporting and disclosure from large business groups (Financial Supervisory Service, 1998b).

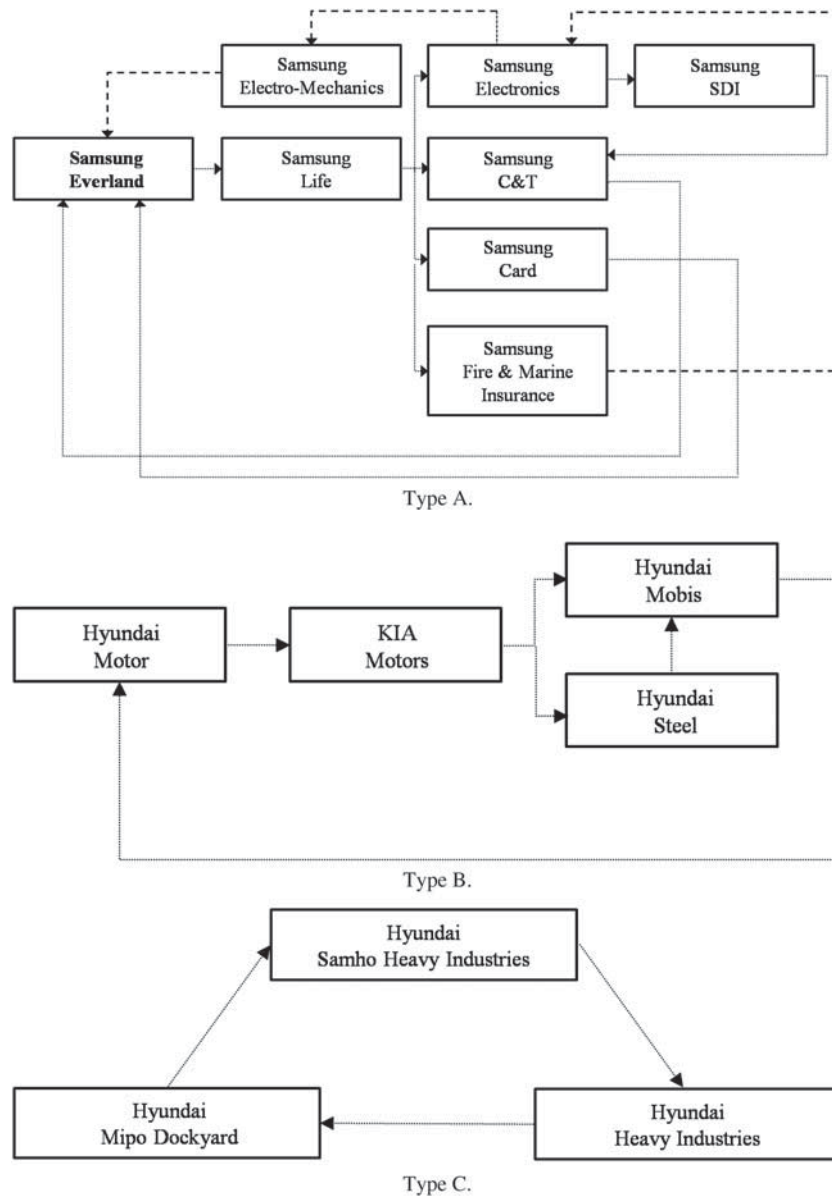


Figure 3: Examples of cross-holdings in a circular form. (i) Type A. Form of single core unit – Samsung; (ii) Type B. Form of multiple core unit – Hyundai Motor; (iii) Type C. Form of simple triangle – Hyundai Heavy Industries.

Source: Press Release by Fair Trade Commission of Korea (2012).

One noticeable and influential revision after the financial crisis was made in the area of accounting for assets revaluation, which is, essentially, the concept of reporting the assets on the statement of financial position (or balance sheet) at fair value. In Korea, assets revaluation often has been used as an alternative to improve the capi-

tal structure (Cheon and Park, 2002). Since the accounting standard for assets revaluation was first introduced in 1958, it had been revised eight times until 1998. In 1998, after the financial crisis, the ninth revision was executed and assets revaluation was temporarily permitted until 2000. At that point, the high debt-to-equity ratio was

Table 1: Summary of primary efforts implemented by Korea after the financial crisis to improve accounting information transparency and corporate governance

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- A. *Accounting standards*
- Independent, private and nonprofit standard setter: KASB
 - Pursuit of conformity with international accounting standards (or US generally accepted accounting principles (GAAP))
 - Standards presentation: provision form versus statement form
 - Adoption of combined financial statements
 - Revision of accounting for assets revaluation
- B. *Corporate governance*
- Nomination of outsiders to boards of directors
 - Establishment of audit committee (including a committee for nominating outsider directors)
 - Expected role of foreign investors as external monitors
 - Regulation of internal control over financial reporting
- C. *Audit quality*
- Deregulation of audit fees
 - Independence of external auditors (audit engagement for multiple fiscal years, mandatory rotation of audit firms)
- D. *Rights of minority shareholders*
- Revision of *Securities and Exchange Act* and *Commercial Law*
-

blamed for helping to exacerbate the impact of the financial crisis. Most companies could not afford seasoned equity offerings or debt redemption. The government, after considering the flaws in the debt structure and how to reduce the high leverage ratio, determined that the assets held by companies had not been assessed appropriately because of the drawbacks of the existing accounting standards.⁴ Consequently, assets revaluation was temporarily permitted for the next 3 years (Kim and Koh, 2006).

Improvement in corporate governance

There have been noticeable changes in the board of directors system in Korean firms

since the Asian financial crisis. In response to increased social demands for structural changes in *chaebol* affiliations, the *Commercial Law* and *Securities and Exchange Act* of Korea were significantly revised. The amendments specify plans to effectively reorganize boards of directors and place greater emphasis on boards' independence, activity and professionalism. These three attributes were regarded as the keys to help monitor the activities of management and reduce agency costs.

To address board independence, the *Securities and Exchange Act* of Korea was revised to require that companies listed on the stock market have boards comprising more than 25 per cent of outside directors.⁵ In addition, companies with a total equity of more than 2 trillion Korean won (₩) are required to nominate at least three outside directors as board members, and the percentage of outside directors must be higher than 50 per cent of the total number of directors (paragraph 16 of article 191).

Active and professional subcommittees should be in place to make the board work well. In the past, these subcommittees could be organized freely within the board without any obligations or restrictions. The *Securities and Exchange Act* of Korea was revised to require that an audit committee and a committee for nominating outside directors be established if the total assets of a company are more than 2 trillion Korean won (paragraph 17 of article 191; paragraph 16 of article 191).

A number of aspects concern the issue of foreign investors. Immediately after the financial crisis, the Korean government expected direct foreign investment affect the Korean market in two ways: (i) It could provide stable capital sources instead of foreign loans, and (ii) foreign investors, as participants with a long-term perspective, could be involved in monitoring management activities. The government changed course and set an aggressive policy to attract direct foreign investment after the financial crisis (Lee, 2004).⁶ The *Foreign Investment Promotion Act* of Korea was enacted to simplify the direct foreign investment



process. As a result, foreign investment has gradually increased.

The need for an effective internal control system to ensure transparent financial reporting arose in the wake of a number of accounting scandals involving large companies such as Hanbo Iron & Steel, Daewoo Group, Dong Ah Construction Industrial, SK Telecom and so forth. These are comparable with the accounting debacles in the United States with firms such as Enron or WorldCom that resulted in *Sarbanes-Oxley Act of 2002*. Finally, the *Internal Accounting Control System* of Korea was enacted to regulate control over financial reporting. The new regulation required both the CEO and the officer in charge of internal control systems to identify and report the weakness of internal control systems, and eventually certify it (Kim *et al*, 2012).⁷ This process was expected to result in increased reliability of financial reporting.

Improvement in audit quality

To attain transparency in accounting, it is essential to ensure that (i) the auditor has enough incentive to put in the necessary effort and (ii) the auditor has independence.

Before the financial crisis, fees paid to the auditor by the client were determined in accordance with *The Korean Institute of Certified Public Accountants*-specified upper limit of audit fees. It is generally believed that low audit fees fail to reflect the client-specific characteristics in a variety of audit environments and they create an incentive for the auditor to provide his/her in a minimal amount of time (Kwon and Kim, 2001). In fact, according to Choi and Joo's (1998) study, the audit fee charged by audit firms in Korea was much lower than that in countries with well-developed audit markets. For example, at the time of that study, the total audit fees charged for companies in Korea were approximately 20 per cent of the total audit fees in Japan, 25 per cent of the total audit fees in the United States and 65 per cent of the total audit fees in Taiwan. In 1999, the regulation on audit fees was nullified to induce high quality audit services.

To ensure the independence of audit firms, two requirements were mandated: (i) multiple-fiscal-year audit engagement and (ii) mandatory auditor rotation. Multiple-fiscal-year audit engagement requires a company that designates an audit firm to engage that auditor for at least 3 consecutive fiscal years. The *Financial Supervisory Service* of Korea believes that otherwise the auditor is readily subject to the risk of losing the contract renewal; similarly, audit literature posits that auditor change tends to attenuate the auditor independence (Rho and Bae, 2002). Mandatory auditor rotation requires that the company must change its audit firm at least every 6 years.⁸ Although this requirement was only effective for 3 years, from 2006 to 2008, it was expected to help break the chain of collusive ties between auditors and clients that stemmed from long-term engagements.

Regulations for protection of minority shareholders' rights

Regulations were implemented to protect the rights of minority shareholders. The revision was designed to facilitate shareholder activism among shareholders with minimal ownership. The regulations that were primarily revised to address the rights of minority shareholders were the *Securities and Exchange Act* and *Commercial Law* of Korea.

The *Securities and Exchange Act* and the *Commercial Law* of Korea lowered the minimum ownership requirement for shareholders to exercise their rights. This was designed to stop the ultimate owner from pursuing his/her own private interests when making decisions and to monitor management's activities more effectively (Park and Lee, 2003). According to the revised *Commercial Law* of Korea, shareholders with only 1 per cent of ownership can file a lawsuit against the company for directors' responsibility (article 403), dismiss directors (article 385) or call for an injunction to prevent the potential damage caused by directors (article 402). With 3 per cent of ownership, shareholders can make proposals for the annual meeting (article 363-2) or open the accounting

books with less restriction (article 466). The items revised in the *Securities and Exchange Act* of Korea were the same as those in the *Commercial Law* of Korea, except for the level of ownership and the condition of holding periods necessary to exercise the rights. The *Securities and Exchange Act* of Korea was revised to require much lower ownership to exercise shareholders' rights than the *Commercial Law* of Korea.

DATA

We obtained financial data to calculate financial ratios from the KisValue database offered by the *National Information and Credit Evaluation Inc.* and ownership data on large business groups from the *Online Provision of Enterprises Information System* (OPNI) offered by the *Fair Trade Commission* of Korea. We also manually collected governance data from companies' annual reports offered by *Data Analysis, Retrieval and Transfer System*.

The initial sample obtained consists of 7934 firm-years listed on the KOSPI market of the Korea Exchange from 2000 to 2010. Of this initial sample, we exclude firms in financial service related industries (684 firm-years) and firms that do not use the fiscal year end of December (441 firm-years) to get financial data consistent in terms of accounting. The international accounting standards were introduced in 2011, but the regulator allowed companies to adopt the international standards starting in 2009, and we have excluded those firms that applied the standards in advance (40 firm-years). We require at least 10 firm-years for each industry-year grouping based on two-digit Korean Standard Industry Classification (KSIC) to estimate discretionary accruals (1126 firm-years). Missing data reduce the sample by 421. We exclude firms not classified as firms affiliated with large business groups (4157 firm-years), which are the focus of this article. Consequently, the final sample contains 1065 firm-year observations.

RESULTS

After the financial crisis, various structural reforms were planned and implemented in

Korea. Using descriptive statistics of financial and governance indicators, we conduct a trend analysis to examine what has changed in large Korean business groups.

Financial indicators in the post Asian financial crisis period

Table 2 presents medians of major financial ratios by year in the post Asian financial crisis period. They are categorized into four broad areas: profitability, assets turnover, liquidity and leverage, and growth ratios.⁹ Figures 4 through 8 display the primary results of Table 2 in graphic form, which helps illustrate what happened after the financial crisis at a glance.

Figure 4 shows the changes in both gross profit margin and earnings before interest and taxes (EBIT) margin, which seem to be stable over time. It is difficult to find any significant effect of the effort made by the government and firms on these two measures in the post financial crisis periods. In addition, it is generally believed that kinky profitability can revert to any normal level. Thus, the smooth line of moving averages of these two measures in Figure 4 is consistent with such general belief.

Even though it is not depicted in graph form, the measure of days' receivables, as a whole, decreases slightly over time as is shown in Table 2. It indicates that accounts receivable turnover increases in the post financial crisis period. The change in property, plant and equipment (PP&E) turnover is more dramatic. Figure 5 shows how significantly PP&E turnover increases in the post financial crisis period. This result stems from the emphasis on efficient investment in and operation of long-term assets after the financial crisis.

The Korean government was required by the International Monetary Fund (IMF) to address the high debt-to-equity ratio before the financial crisis to improve the corporate capital structure in return for its financial support. Accordingly, the Korean government addressed the issue as quickly as possible.¹⁰

**Table 2:** Medians of major financial ratios by year: Profitability, assets turnover, liquidity and leverage, and growth ratio

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Profitability</i>											
GP margin	0.1566	0.1632	0.1676	0.1632	0.1552	0.1485	0.1443	0.1487	0.1556	0.1575	0.1435
EBIT margin	0.0796	0.0695	0.0784	0.0773	0.0828	0.0749	0.0782	0.0853	0.0532	0.0766	0.0811
ROA	0.0553	0.0559	0.0629	0.0645	0.0735	0.0659	0.0549	0.0564	0.0640	0.0483	0.0541
<i>Assets turnover</i>											
Days' receivables	37.466	42.230	38.180	38.877	35.042	36.724	39.718	39.878	35.839	38.731	33.172
PP&E turnover	2.2861	2.2326	2.1639	2.2762	2.8032	2.7012	2.8102	3.2249	3.7369	3.2262	3.5973
<i>Liquidity and leverage</i>											
Current ratio	0.7978	0.9103	1.0106	1.0404	1.1409	1.1881	1.1724	1.2622	1.1455	1.1621	1.1159
Debt-to-equity	1.5803	1.4870	1.2888	0.9498	0.9914	0.9891	1.0193	1.0058	1.1130	0.9182	0.9279
Net interest rate	0.0566	0.0479	0.0321	0.0250	0.0195	0.0173	0.0179	0.0171	0.0176	0.0214	0.0183
<i>Growth</i>											
Dividends	0.0038	0.0045	0.0036	0.0062	0.0052	0.0094	0.0078	0.0083	0.0085	0.0047	0.0040
Sales growth	0.1166	0.0171	0.0415	0.0668	0.1677	0.0450	0.0474	0.1092	0.1421	0.0297	0.1660

Notes: The financial ratios are defined as follows: *GP margin*: gross profit divided by total sales; *EBIT margin*: earnings before interests and income taxes divided by total sales; *ROA*: operating income divided by total assets at the beginning of the period; *days' receivables*: accounts receivables divided by average sales per day; *PP&E turnover*: total sales divided by property, plant and equipment; *current ratio*: current assets divided by current liabilities; *debt-to-equity*: total liabilities divided by total equity; *net interest rate*: net interest expenses (interest expenses-interest income) divided by total liabilities; *dividends*: cash dividends paid divided by total assets at the beginning of the period; *sales growth*: percentage of annual growth in total sales.

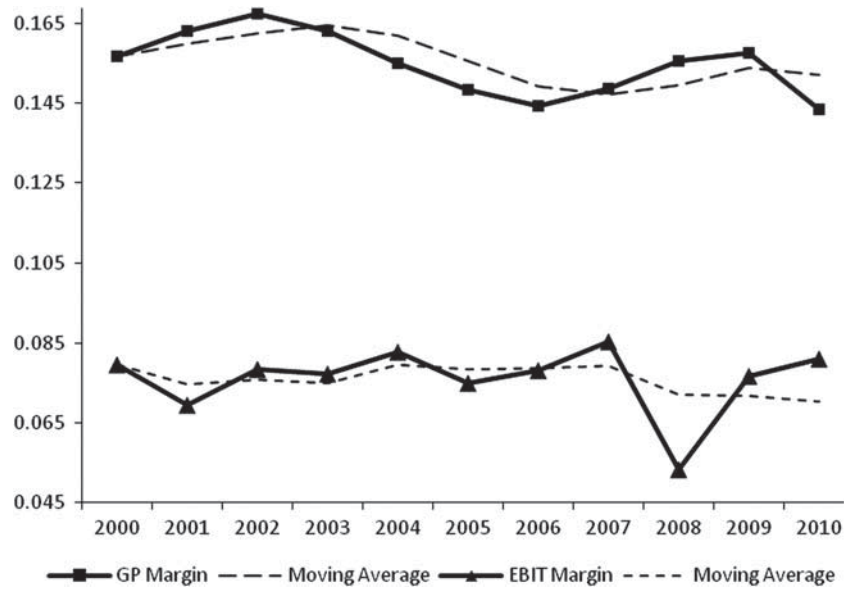


Figure 4: Changes in profit margins after the Asian financial crisis.

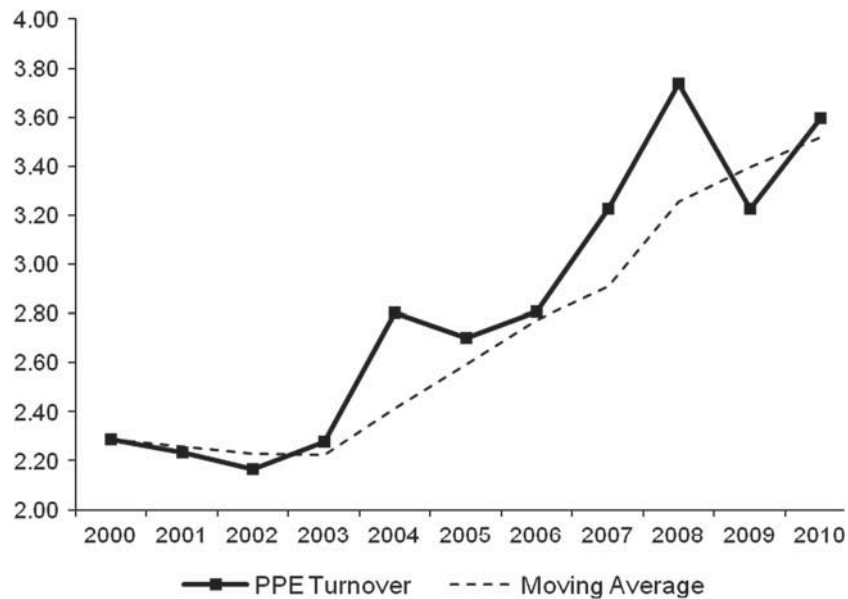


Figure 5: Changes in PP&E turnover after the Asian financial crisis.

For example, the presidents of the four largest business groups, including Samsung and Hyundai, agreed to reduce their debt-to-equity ratio rapidly (Lee and Choi, 2007). Figure 6 shows the changes in this measure after the financial crisis. The debt-to-equity ratio

sharply decreased from 2000 to 2003, and it mainly remained at the level of about 100 per cent after that, indicating that the Korean government’s effort was quite successful. Furthermore, Figure 6 shows that the current ratio, which is a measure to evaluate the

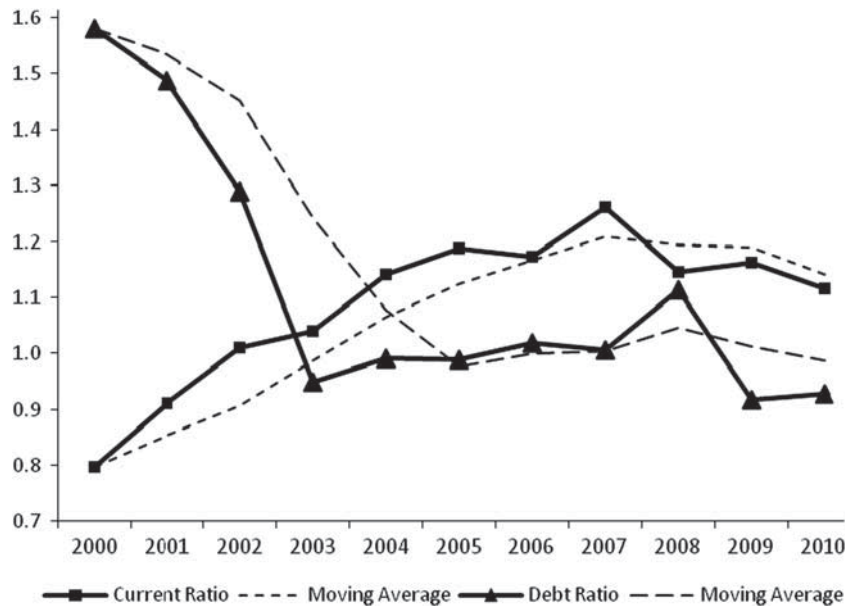


Figure 6: Changes in current ratio and debt ratio after the Asian financial crisis.

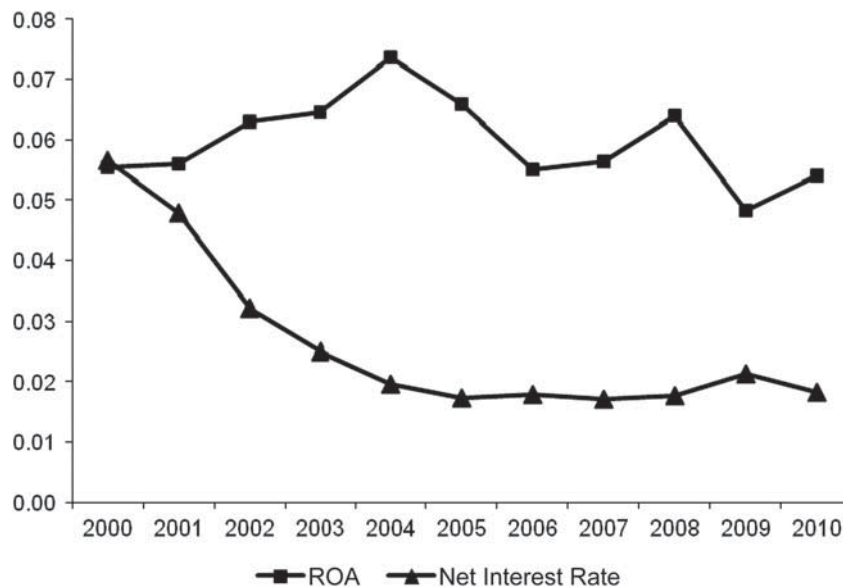


Figure 7: Changes in spread of ROA and net interest rate after the Asian financial crisis.

risk related to current liabilities, continues to increase over time.

Figure 7 shows that spread between return on assets (ROA) and the net interest rate has steadily improved. It is interesting that the net interest rate decreased after the financial crisis.

It indicates that debt in itself was substantially reduced after the financial crisis. We can speculate the accounting standard for assets revaluation that was revised in 1998 significantly contributed to the reduction of debt-to-equity ratio by increasing stockholders' equity (Lee

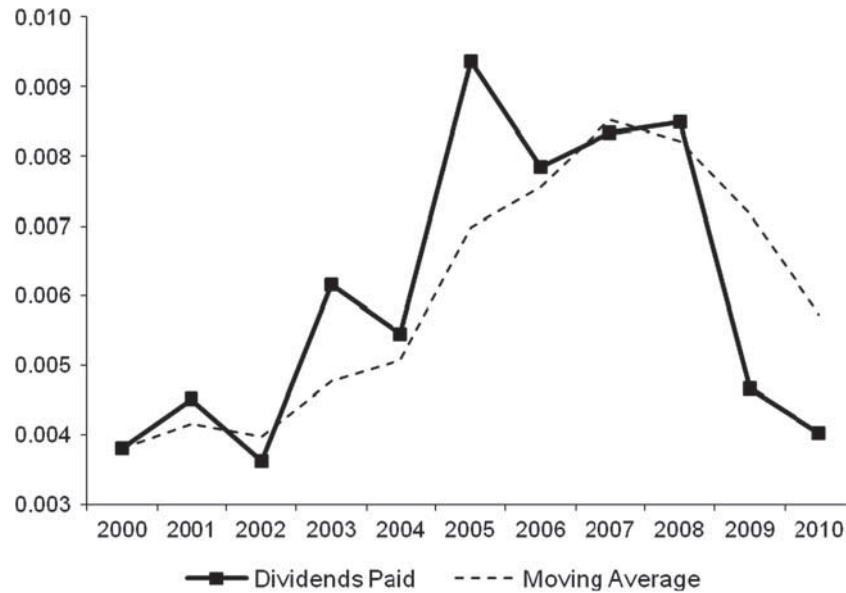


Figure 8: Changes in dividends paid after the Asian financial crisis.

and Choi, 2007). However, it is also true that affiliated companies in large business groups tried to improve the financial structure.

Figure 8 shows the change in dividends paid after the financial crisis. In fact, dividends paid out might be interpreted in a variety of ways. It could be the proxy to indicate the degree of emphasizing shareholders' value. From this perspective, the increasing dividends can be interpreted as a continuous emphasis on shareholders' value after the financial crisis.¹¹ On the other hand, it could be also interpreted as the reduction of reinvestment, hampering the long-term growth and competitiveness of a company. In this article, we simply presume that it was the measure of shareholders' value maximization.

Governance indicators in the post Asian financial crisis period

Table 3 presents major governance indicators by year after the financial crisis.¹² Governance indicators cover the following four areas: auditor, board of directors, ownership discrepancy and earnings management. Figure 9 through 11 display the changes in the percentage of outside

directors, the magnitude of ownership discrepancy and the level of discretionary accruals in graphic form.

In Table 3, the variable of Big 4 indicates that most of companies in large business groups (from minimum 85 per cent to maximum 97 per cent) are audited by firms affiliated with Big 4 accounting firms in the United States. Larger audit firms are expected to have more auditing expertise and a higher exposure to legal liability than smaller audit firms (Ge and McVay, 2005). Thus, we can expect that larger audit firms play more active roles as external monitors, actively seeking to identify the weakness in internal control systems and providing high-quality audit services.

Figure 9 shows the changes in outside directors after the financial crisis. The variable outside directors represents the percentage of outside directors on the board, which represents independence. Medians of the percentage of outside directors increase up to 50 per cent over time. The variable of firms overfulfilling minimum outside directors represents the number of firms that voluntarily nominate more than the mandatory minimum number



Table 3: Big four auditor, outside directors, ownership structure and earnings management by year

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<i>Auditor</i>											
Big 4	0.9189	0.8873	0.8659	0.8500	0.8454	0.8962	0.9167	0.9565	0.9633	0.9744	0.9633
<i>Board of directors</i>											
Outside directors	0.2929	0.2857	0.2857	0.3000	0.3333	0.3542	0.3875	0.5000	0.5000	0.5000	0.5000
Firms over-fulfilling minimum	0.3108	0.2958	0.3659	0.3300	0.4433	0.5660	0.5648	0.6630	0.6697	0.6838	0.6514
<i>Ownership structure</i>											
outside directors											
Cash flow rights	0.0222	0.0705	0.0747	0.0633	0.0840	0.0839	0.0838	0.0420	0.0375	0.0295	0.0703
Voting rights	0.3291	0.4036	0.3921	0.4143	0.4304	0.4331	0.4447	0.4204	0.4267	0.4267	0.4561
Ownership	0.2277	0.2328	0.2344	0.2544	0.2696	0.2752	0.2523	0.2701	0.2772	0.2978	0.3069
discrepancy											
Discretionary accruals (DA)	-0.0378	-0.0032	-0.0075	0.0016	0.0049	0.0178	0.0029	0.0075	-0.0057	0.0143	-0.0007
<i>Earnings management</i>											

Notes: The indicators above are defined as follows: *Big 4:* the number of firms audited by auditors affiliated with the US Big 4 (PwC, Deloitte, E&Y and KPMG) divided by the total number of firms in each year; *outside director:* the number of outside directors divided by the total number of directors on the board; *firms over-fulfilling minimum outside directors:* the number of firms with more outside directors than the mandatory minimum requirement divided by the total number of firms in each year; *cash flow rights:* the percentage of shares held by ultimate owners (including their family members); *voting rights:* the percentage of shares substantially controlled by the ultimate owner in a business group; *ownership discrepancy:* the difference between voting rights and cash flow rights (voting rights – cash flow rights); *DA:* discretionary accruals estimated by the following model used in Geiger and North (2006) for each industry-year grouping:

$$\frac{AC_{i,t}}{TA_{i,t-1}} = \alpha \left(\frac{1}{TA_{i,t-1}} \right) + \beta_i \left(\frac{CREV_{i,t} - CAR_{i,t}}{TA_{i,t-1}} \right) + \epsilon_{i,t}$$

where *AC*=(change in noncash current assets) – (change in current liabilities excluding the current portion of long-term debt), *CREV*=change in total sales, *CAR*=change in accounts receivable, and *TA*=total assets.

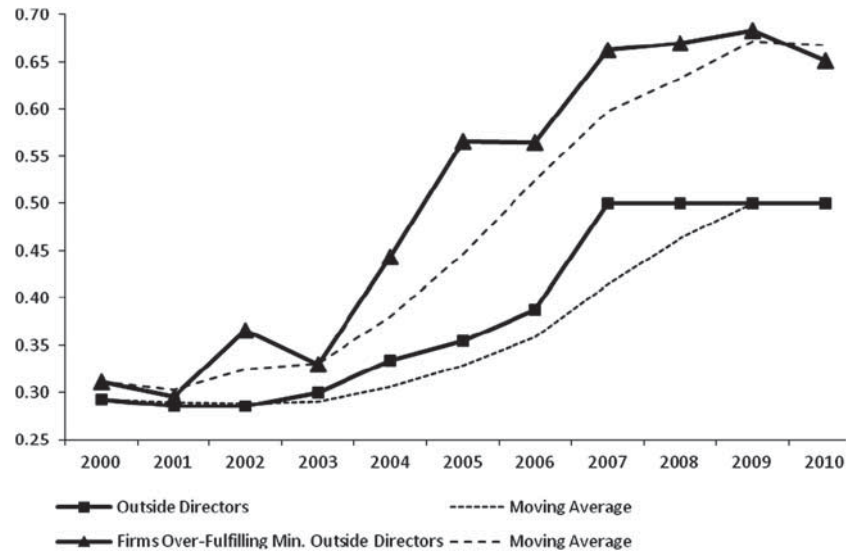


Figure 9: Changes in percentage of outside directors after the Asian financial crisis.

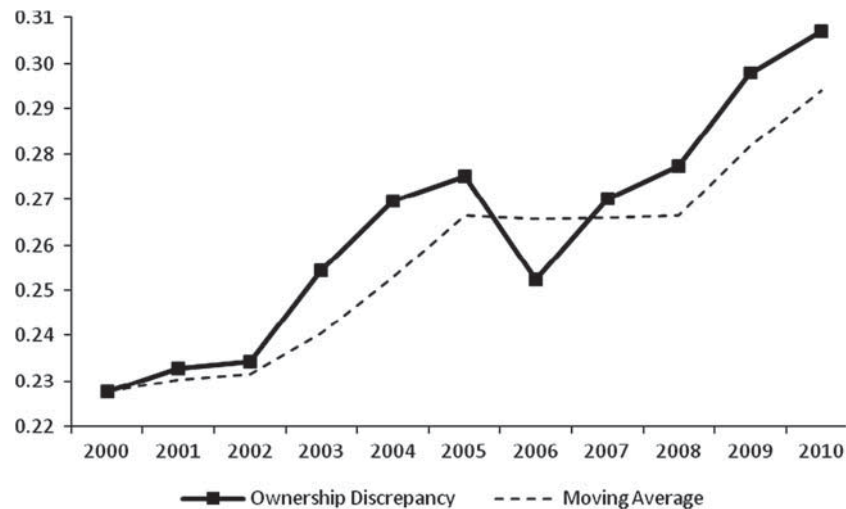


Figure 10: Changes in ownership discrepancy between cash flow rights and voting rights after the Asian financial crisis.

of outside directors in the year. As shown in Figure 9, the number of firms that exceed the mandatory requirement of minimum outside directors steadily increases over time, up to a maximum of 68 per cent.

The ownership discrepancy between cash flow rights and voting rights can be created by complex ownership structures such as cross-holdings.¹³ Lins (2003) suggests that firms with

greater ownership discrepancy are more likely to have managerial agency problems. In addition, the magnitude of the ownership discrepancy between cash flow rights and voting rights represents the possibility of controlling shareholders to invade minor shareholders' rights and interest. Figure 10 shows the changes in the ownership discrepancy in the post financial crisis period. It indicates that the ownership

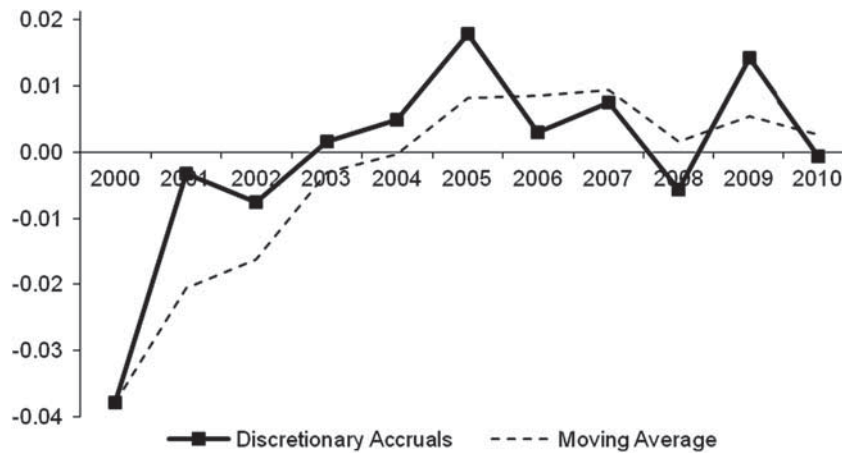


Figure 11: Changes in discretionary accruals after the Asian financial crisis.

discrepancy has continued to increase since the financial crisis.

Figure 11 shows the changes in the medians of the level of discretionary accruals in the post Asian financial crisis period. The level of discretionary accruals is often used as a proxy to indicate the likelihood of earnings management (Jones, 1991; Geiger and North, 2006). Since the financial crisis, it consistently has increased, leading to positive discretionary accruals after year 2003.

Our findings show that the major financial measures, especially debt-to-equity ratio, spread between ROA and net interest rate and dividends paid, are dramatically improved in the post financial crisis periods. We also find that independence of boards of directors is improved. However, the results show that the magnitude of ownership discrepancy that indicates the implicit potentials of exploiting minority shareholders' interests has not been lessened, but rather widened. Furthermore, the level of discretionary accruals has increased, implying that earnings-management behavior in large Korean business groups is not effectively restrained.

Since the financial crisis, the Korean government has tried to actively expedite the structural reform in enhancing the quality of the accounting system and corporate governance to

overcome the aftermath of the financial crisis. One of the government's challenges was recovering the credibility of Korean markets through protecting minority shareholders' interests. Although the existence of large Korean business groups (*chaebols*) was not the direct cause of the financial crisis, their typical ownership structures certainly induced potential deteriorations in the one share-one vote principle, resulting in poor quality of corporate governance. As is shown in the results of this study, several of the structural changes implemented by Korea are obviously timely and desirable, and they seem quite successful. On the other hand, it seems that the effective outcomes of structural changes are limited only to areas officially and explicitly regulated by the Korean government. For example, improvements in overall quality of corporate governance, such as a decrease in ownership discrepancy or the reduction of management's discretions in financial reporting, which were implicitly expected, have not occurred. These results suggest that effective control systems to actively monitor an entire business group must be urgently developed.

CONCLUSION

This study introduces characteristics of large Korean business groups and briefly reviews various efforts by Korea to overcome the financial



crisis, and examines the consequences of those efforts by conducting trend analysis.

We find that most of financial ratios have improved since the financial crisis. Profitability measures indicate that companies in large business groups generate stable profit margins over time, seemingly reverting to a normal level. Turnover measures indicate that the efficiency of assets is improved. Regarding leverage and liquidity indicators, the debt-to-equity ratio dramatically increased to about 100 per cent, and the spread between ROA and the net interest rate has improved. In particular, the decrease in the net interest rate implies the possibility that net debt was substantially reduced after the financial crisis. Furthermore, the current ratio and dividends increased after the financial crisis.

We also find that a few governance indicators have improved since the financial crisis. Most companies in large business groups are audited by large audit firms affiliated with the Big 4 in the United States, and the independence of boards of directors is highly enhanced. However, the magnitude of ownership discrepancy and the measure of earnings management indicate that rudimentary problems in large business groups have not disappeared. These results imply that the only changes being made are those required by the government. It seems that most companies in large business groups are more likely to make only the mandatory changes that stemmed from the financial crisis and avoid voluntary modifications.

It is interesting to note that in Korea and worldwide, widely held companies are far less common than family- or state-controlled companies. This article has the implication for all countries with ownership structures similar to that of Korea. Pyramids or cross-holding ownership structures tend to create an ownership discrepancy between cash flow rights and voting rights, and thus impeding the one share-one vote principle, which is considered to be desirable in the financial market. The results of this study suggest that a novel approach is needed to make a breakthrough in deep-seated problems of

large business groups, such as enacting control systems to embrace the entire business group. Finally, we expect that this study could be a catalyst for further discussions.

NOTES

1 In the *Monopoly Regulation and Fair Trade Act* of Korea, a business group is defined as follows:

The term 'business group' refers to a group of companies, whose businesses are substantially controlled by the same persons under the standards prescribed by the Presidential Decree, pursuant to the following distinctions:

- a. *When the 'same person' is a company, the same person and the group of one or more companies the same person controls.*
 - b. *When the 'same person' is not a company, the group of two or more companies the same person controls. (paragraph 2 of article 2 in chapter 1).*
- 2 According to the press release by Fair Trade Commission (2012), as of 2011, about 24 per cent of large business groups (63 business groups in total) in Korea are classified as cross-holdings in a circular fashion. In addition, they are all controlled by a head of group called a *chaebol* owner.
- 3 The Korean Accounting Standards Board (KASB), which is similar to the Financial Accounting Standards Board in the United States, is the organization in the KAI organized to set, revise and interpret accounting standards.
- 4 As mentioned earlier, however, it is also true that many companies aggressively borrowed from financial institutions before the financial crisis.
- 5 The *Securities and Exchange Act* of Korea has been replaced with the new act referred to as the *Financial Investment Services and Capital Markets Act*, effective in February 2009. In addition, regulations associated with boards of directors in the *Securities and Exchange Act* of Korea were transferred to the *Commercial Law* of Korea in March 2009 (Fair Trade Commission, 2010).



- 6 The *Foreign Investment Promotion Act* of Korea defines foreign direct investment as equity investment of more than 10 per cent of equity capital by a single foreign person or firm (Lee, 2004).
- 7 The *Internal Accounting Control System* of Korea is similar to *Sarbanes-Oxley Act of 2002* in the United States, but the details are fairly different from Sarbanes-Oxley Act (SOX), especially in the level of assurance.
- 8 Before the settlement of the mandatory auditor rotation, there was a requirement prohibiting the same director of the audit firm from engaging in audit services for the same client company for more than 6 consecutive years. Therefore, the mandatory auditor rotation is, so to speak, the reinforcement of the previously existing requirement (Park *et al*, 2008).
- 9 With regard to financial indicators, we adopt four broad categories such as profitability, assets turnover, liquidity and leverage, and growth ratios, allowing for the discussion of Palepu *et al* (2003).
- 10 Specifically, the reference guideline for the debt-to-equity ratio set by the government at that time was less than or equal to 200 per cent (Park *et al*, 2011).
- 11 The plummet of dividends in 2008 likely resulted from the global financial crisis. However, dividends appear to have increased after the financial crisis as a whole.
- 12 Regarding the analysis of corporate governance, we consider four broad categories: Big 4 auditors, independence of Board of Directors, ownership structure and earnings management.
- 13 *Cash Flow Rights* and *Voting Rights* are calculated as follows:
- (i) $Cash\ flow\ rights = [(the\ number\ of\ shares\ held\ by\ the\ ultimate\ owner) + (the\ number\ of\ shares\ held\ by\ his/her\ family\ members)] \div [(total\ number\ of\ shares\ issued) - (the\ number\ of\ treasury\ stock)]$
 - (ii) $Voting\ rights = [(the\ number\ of\ shares\ held\ by\ the\ ultimate\ owner) + (the\ number\ of\ shares\ held\ by\ his/her\ family$

members) + (the number of shares held by directors) + (the number of shares held by affiliated firms) + (the number of shares held by nonprofit entities)] ÷ [(total number of shares issued) - (the number of treasury stocks)] These are, in fact, different from those released by OPNI from 2000 through 2007. We slightly modified them because of the availability of ownership information after 2008; the information on reciprocally acquired shares is not available after 2008. Basically, it is prohibited by the regulation to reciprocally acquire the shares of the counterpart. Thus, there are few, if any, such companies.

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