

# 기업지배구조 개혁의 상반된 두 논리: 자본시장 대 혁신을 위한 협조, 프랑스의 경우 (1998~2005)<sup>†</sup>

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## Competing Rationales for Corporate Governance Reform: Capital Markets vs. Coordinated Innovation in France, 1998~2005

### *Abstract*

*This paper analyzes why converging and diverging forces coexist in corporate governance reform of an economy and what the result is. Using a panel data on CAC40 firms in France(1998~2005), we show that the competing rationale interacts in the context of financial efficiency and coordinated innovation system. The mechanism of the shareholder model is required for efficient resource acquirement from capital markets. The change of auditing rule contributes to the increased market capitalization of CAC40 firms. However, the rationale for the stakeholder model still continues under coordinated innovation system. The characteristic French mode of control such as state ownership and shareholders' agreement has positive effects on innovation activities such as R&D intensity and patent intensity. This conflicting but compatible phenomenon explains the selective path-dependent trajectory of corporate governance reform.*

## I. Introduction

France has experienced rapid institu-

tional change in corporate governance system toward the American shareholder model. Foreign ownership has substantially increased and external monitoring mechanism is widely introduced (O'Sullivan, 2003; Goyer, 2001; Morin, 2000).

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However, its characteristic family control still continues (Faccio and Lang, 2002) and the presence of the state has not disappeared from the firm. It is an illustration of the continuing stakeholder model in France. On the one hand, French firms are significantly less dependent on bank loans (European Committee of Central Balance Sheet Offices, 2000) and their financial flexibility is derived from liquidities through capital markets (Sauvé and Scheuer, 1999). With free flow of capital, the idea of shareholder value maximization dominates corporate governance reform (Gilson, 2001; Thomsen and Pedersen, 2000; Coffee, 1999). Thus we find the influx of institutional change in accordance to the shareholder model: the market for corporate control and outside monitoring mechanisms (Hart and Moore, 1990; Kosnik, 1987). On the other hand, it is argued that the adoption of the shareholder model principles does not lead to a one-directional result due to institutional contexts of each economy (Boyer, 2004; Charreaux, 2004; Roe, 2003; Whitley, 1998). Each economy has its own convention that evolves within a context of socially constructed beliefs (Gomez and Jones, 2000).

On the characteristic trajectory of corporate governance reform in France, the-

oretical and empirical research implies that France does not easily fit into the dichotomous frameworks (Gomez, 2004; Charreaux, 2004; Schmidt, 2003). None of the convergence and the divergence arguments can explain the coexistence of the shareholder model and the stakeholder model in the corporate governance reform of France. It is noteworthy that there are both dimensions for and against the shareholder model in corporate governance reform: resource acquirement and resource allocation. In order to appeal to capital markets as a principal resource acquirement channel, the shift to the ideology of the shareholder model is promoted (Gedajlovic et al., 2004; Kogut and Macpherson, 2003; Carney and Gedajlovic, 2002; Pfeffer and Salancik, 1978; Pfeffer, 1972). At the same time, the global trend of coordinated innovation among the state, academia and industry requires coordination among various stakeholders, which is a process of resource allocation (Aguilera and Jackson, 2003; O'Sullivan, 2000a; Lazonick, 1999). The continuation against the shareholder model is prevalent in innovation system through characteristic control mode such as the state's coordinating role (Bebchuk and Roe, 2004). The conflicting forces from the two dimensions, capital markets and in-

novation system, are a natural result of value creation that is relying on the skills as well as on the financial configurations of the firm (Teece et al., 1994). However, the existing literature on convergence or divergence in corporate governance reform does not pay enough attention to the possibility that the conflicting phenomenon of an economy can be integrated by disaggregating resource acquirement and resource allocation in the analysis of corporate governance reform.

By examining both dimensions simultaneously, capital markets for resource acquirement and innovation system for resource allocation, this paper empirically demonstrates how appropriately the integrated framework explains the conflicting French case: compatibility between reform and continuity. If the integrated framework works, we could have more comprehensive knowledge about the conflicting phenomenon in which the institutional change is substantial in monitoring mechanisms such as outside directors and change of auditing rules, while the mode of control still resides in the hand of family or the state. This paper thus highlights that one-sided convergence or divergence arguments cannot capture the interacting forces of institu-

tional change under globalization, suggesting that corporate governance reform follows the selective path-dependent trajectory (Roe, 2003).

This paper consists of the following sections. The first section discusses an analytical framework that integrates the conflicting phenomenon in capital markets and innovation system. Based on the framework, hypotheses for empirical test are designed with reviews on the literature. The second section deals with methodology. Research design, sample, and variables are explained. This paper relies on panel data from CAC40 firms of France (1998 to 2005). After reporting the results of the empirical test, implications for business policy and strategy are discussed.

## II. Theoretical Model and Hypotheses

### 1. Corporate Governance Reform in Capital Markets and Coordinated Innovation

With limitations of dependence on bank financing and the subsequent growth of

capital markets, corporate governance reform has become indispensable for acquiring external financial resources (Pfeffer and Salancik, 1978; Pfeffer, 1972). Imposing several constraints on the stakeholder model economies such as revising rigid labor relations, capital markets function as a restructuring force toward the shareholder model. However, given that investment activities are affected by ownership structure (Jensen and Meckling, 1976), corporate governance is as much about resource allocation as about resource acquirement (Gedajlovic et al., 2004; Carney and Gedajlovic, 2002). Corporate governance system is, thus, closely related to innovation activities such as R&D investments (O'Sullivan, 2000a; Tylecote and Conesa, 1999; Lazonick and O'Sullivan, 1996; Hitt et al., 1996, 1991; Hill and Snell, 1988; Hoskisson and Hitt, 1988). Accordingly, corporate technological competitiveness and specialization depend on the structure of corporate governance (Hall and Soskice, 2001; Zysman, 1994; Porter, 1992). However, research on corporate governance has not systematically incorporated an analysis of the economics of innovation (O'Sullivan 2000a: 413).

This paper draws on a different kind

of global force from that of financial markets: partnership-based cooperation has become more critical in successful innovation (Walsh and Le Roux, 2004; Galia and Legros, 2004; Papon, 1998; Sternberg, 1996). This trend is favorable for the relationship-based corporate governance, the stakeholder model. In other words, it works against the shareholder model. The coordinated innovation system does not leave even the US that is regarded as a typical shareholder model economy from the imposing trend of cooperation between the state, academia, and industry. For instance, the US government's presence is pervasive in a form of legal support as well as by financial subsidies in biotechnology sector (Walsh and Le Roux, 2004). Furthermore, the US government's expenditure on health and environment is twice as much as that of all the European Union governments and the Japanese government combined (Walsh and Le Roux, 2004). Even in the shareholder model economy, where separation of owner and manager and the laissez-faire relationship between the state and industry are recognized as a norm, we can find that the government's coordinating role functions as a catalyst for corporate innovation activities.

At this point, we have a provisional picture for understanding the competing phenomenon between the shareholder model and the stakeholder model. In capital markets for resource acquirement, corporate governance reform is dominated by the shareholder model, while in a process of resource allocation for coordinated innovation, the stakeholder model is overwhelming. However, the competing interaction between the two models is not straightforward. We can also find the competing forces within each model. Contrary to theoretical predictions, the shareholder model discloses prevalent Enron-type inefficiency in monitoring managerial behavior and resolving moral hazard (Deakin and Konzelmann, 2004; Blair, 2003; Partnroy, 2003). The accounting scandals exploded in 2002 reveal the endogenous weaknesses of the shareholder model, warning the world of the risk of its unconditional adoption. Furthermore, the shareholder model is criticized to fail in measuring value creation for long-term perspective (Porter, 1992). The short-termism represented by the emphasis on financial performance tends to neglect the long-term investment that has uncertain prospects. This makes the shareholder model harm

the maximization objective of the shareholder value itself in the end (Charreaux and Desbrières, 2001). The internal flaws of the shareholder model could deter one-sided adoption of the model even in capital markets for resource acquirement.

The stakeholder model that emphasizes the coordination of various stakeholders in an economy and its positive influence on firm performance (Blair, 1995) also discloses its endogenous vulnerable points. Compared with those of the shareholder model economies such as the USA and the UK, the technological competitiveness of the stakeholder model economies such as Germany and Japan is inferior in radical innovation (Hoskisson et al., 2004; Hall and Soskice, 2001). The laggardness is attributable to the institutional arrangements of the stakeholder model economies. While bank financing and relationship-based employment contributed to their economic growth at the transitional stage, they have become a burden in responding to market financing led by free flow of capital (Aoki, 1994). This phenomenon illustrates that even in the coordinated innovation system the stakeholder model has to adapt to the formulas of the shareholder model such as promoting venture capital in

order to acquire technological competitiveness in radical innovation.

The interaction between capital markets and innovation system shows a more complicated figure. In general, capital

markets function as a converging force toward the shareholder model and coordinated innovation system drives an economy to adopt the coordinating mechanism of the stakeholder model. Inter-

<Table 1> Conflicting but Compatible Interactions Between Capital Markets and Innovation System

	Shareholder model	Stakeholder model
Capital market	<ul style="list-style-type: none"> <li>◦ The importance of capital markets increases for resource acquirement (Kogut and Macpherson, 2003).</li> <li>◦ To appeal to capital market, corporate governance reform appropriate for market capitalization is compulsory (Pfeffer, 1972).</li> <li>◦ The change functions as a converging force toward the shareholder model (Coffee, 1999).</li> <li>◦ <b>Hypothesis 1:</b> shareholder model mechanism → market capitalization (+)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Capital markets are criticized for its short-termism (Porter, 1972).</li> <li>◦ Family control and stable ownership such as state ownership and inside ownership can compromise the short-termism (Carney, 2005; Dore, 2000).</li> <li>◦ The role of the stakeholder model could function complementarily for market capitalization (Boyer, 2004).</li> <li>◦ <b>Hypothesis 2:</b> stakeholder model mechanism → market capitalization (partly +)</li> </ul>
Innovation system	<ul style="list-style-type: none"> <li>◦ Congruent capital and labor market with radical innovation can be prosperous with capital markets facilitated by the shareholder model (Hoskisson et al., 2004; Hall and Soskice, 2001).</li> <li>◦ The external monitoring mechanism of the shareholder model has a disciplining role on reckless risk management and underinvestment (Fama and Jensen, 1983).</li> <li>◦ <b>Hypothesis 3:</b> shareholder model mechanism → radical innovation activities (+)</li> </ul>	<ul style="list-style-type: none"> <li>◦ The importance of cooperation between the state, academia, and industry is increasing (Etzkowitz and Leydesdorff, 2000).</li> <li>◦ For the coordinated innovation, the coordinating role of the state is newly highlighted (Walsh and Le Roux, 2004).</li> <li>◦ The mode of control between various stakeholders should be emphasized (Lazonick and O'Sullivan, 1996), which supports divergence against the shareholder model (Lazonick, 1999).</li> <li>◦ <b>Hypothesis 4:</b> stakeholder model mechanism → overall innovation activities (+)</li> </ul>

nally, however, the two models reveal inappropriate aspects such as Enron-type inefficiency and laggardness in radical innovation respectively. The internal weaknesses prevent the rationale for capital markets or coordinated innovation system from being unconditionally dominant for resource acquirement or for resource allocation, when introduced for corporate governance reform. In an integrated framework of capital markets and innovation system, the shareholder model is supported by capital markets, while its adoption is restrained by coordinating role of the stakeholder model in coordinated innovation system. At the same time, in a focused framework of capital markets, the shareholder model shows effectiveness in firm performance measured by financial outcomes, while its efficient performance is limited by short-termism and the Enron-type inefficiency. Even in capital markets alone, the shareholder model needs to be complemented with the coordinating mechanism of the stakeholder model. The dominant rationale of the stakeholder model in coordinated innovation system is also restricted by the similar constraints: competing rationale from the opposite corporate governance model as well as inter-

nal inefficiency for radical innovation. This complicated interaction between capital markets and coordinated innovation system, thus, explains why converging and diverging forces coexist in corporate governance reform with conflicting but compatible rationale.

This paper extends the scope of analysis on corporate governance reform to the conflicting interactions between capital markets and innovation system. Based on the integrated framework, this paper empirically tests what results the conflicting interactions bring about to corporate governance reform in the CAC40 firms of France.

## 2. Resource Acquirement from Capital Markets: Converging Forces for the Shareholder Model

Since the 1980s, global capital markets have been facilitated by free flow of capital (Faugérolas, 2003). With reflux of bank-based credit and proliferation of stock market financing, it is argued that the shareholder-value-driven corporate governance reform is inevitable for economic growth through multinational in-

vestment (Kogut and Macpherson, 2003; Van de Elst, 2003). Consequently, such mechanisms as outside directors, independent audit system, and dividend payout effectively work in providing corporate entities with transparency (Van Hulle, 2003; Ferrarini, 2003; Johnson et al., 2000). The adoption of the shareholder model mechanism helps firms successfully attract capital markets as a critical resource acquirement channel (Kosnik, 1987).

Firstly, the dependence on environment that provides critical resource determines the structure and behavior of firms (Pfeffer and Salancik, 1978; Pfeffer, 1972). Corporate governance system, a controlling body for corporate decision making, is under direct pressure for response to the changing financial environment. The composition of board of directors, “as an instrument for dealing with the organization’s environment” (Pfeffer, 1972: 218), is a barometer in estimating how firms interact with their environment: “one form of a more general tendency to manage the environment by appointing significant external representatives to positions in the organization” (Pfeffer and Salancik, 1978: 161). The changing environment under globalization thus expects

the change of board composition. The recent recession of bank financing and the increasing role of external equity markets show the dominance of the American shareholder model on which capital markets rely. As illustrated by the increase of US FDI outflow to OECD countries from 142 billion USD of 2001 to 252 billion USD of 2004 (OECD, 2005), the ideology of the American shareholder model drives each economy to adopt outside directors into board of directors. As expected by the resource dependence perspective, the rationale for converging on the shareholder model is illustrated by the financial difficulties in the stakeholder model economies such as France. The FDI inflow from OECD countries to France gradually decreased from 51 billion USD of 2001 to 24 billion USD of 2004 (OECD, 2005). Accompanied by the government’s liberalization policy and subsequent arm’s length relationship with banks, firms in the stakeholder model economies should adapt to the shareholder model: “To survive, organizations require resources. Typically, acquiring resources from external providers means that the organization must interact with others who control those resources” (Pfeffer and Salancik, 1978: 258). We,

thus, expect the increase of outside directors in board of directors for resource acquirement from capital markets.

*Hypothesis 1a : Outside directors are positively related to the resource acquirement from capital markets.*

Secondly, as the influence of market capitalization increases, external monitoring mechanisms for investor protection are also emphasized. If external equity financing facilitates the dispersion of share ownership and investors (principal) and managers (agent) are seeking their own benefit, it is sensible to recognize that the benefit of the agent is not always consistent with that of the principal (Jensen and Meckling, 1976). Disclosure and transparency matter. For instance, increased foreign ownership requires effective monitoring mechanisms to reduce potential corruption. As revealed by an empirical analysis that the more rapid the rate of change in FDI, the higher the level of corruption (Robertson and Watson, 2004), the agency problem is an urgent issue with market capitalization. External monitoring mechanisms are also necessary for removing inefficiencies such as reckless risk management and un-

derinvestment in innovation (Fama and Jensen, 1983). The fraudulent behavior such as expropriation or tunneling that refers to “the transfer of resources out of a company to its controlling shareholder” (Johnson et al., 2000: 22) could occur more frequently in the stakeholder model economies due to the lack of monitoring mechanism (La Porta et al., 1998). This phenomenon drives the shareholder model that developed the rationale for external monitoring mechanisms to be a dominant ideology in capital markets. Accordingly, well-equipped monitoring mechanisms help overcome the turbulent financial environment under globalization as well as entice external resources.

Devising effective monitoring devices is emphasized with extensive legal reforms (Pistor and Xu, 2005; La Porta et al., 2000a). Among them, audit system emerges as a crucial device for monitoring (Sherman, 2004) and is recently highlighted by the US Sarbanes-Oxley Act of 2002, which is a response to several corporate and accounting scandals such as Enron, Tyco International, and WorldCom. The law intensifies the rules of auditing practice including auditor independence and financial disclosure.

Consequently OECD principles of corporate governance assert that “an annual audit should be conducted by an independent, competent and qualified, auditor in order to provide an external and objective assurance to the board and shareholders that the financial statements fairly represent the financial position and performance of the company in all material respects” (OECD, 2004: 22). The Bouton report of France, released in 2002 right after the Sarbanes-Oxley Act, devoted the whole chapters to promote efficiency and transparency, emphasizing appropriate auditing rules. Asian economies that have experienced the need of external financing since the 1997 Financial Crisis are also under pressure for stricter audit principles. Given that external investors are concerned about how to monitor the firms in which they invest, we, thus, expect that the adoption of audit rules that follow the shareholder model decreases the difference for investor protection among countries (La Porta et al., 2000a). It could help market capitalization from external investors efficiently mobilized.

***Hypothesis 1b*** : *Audit rules that follow the shareholder model is positive related*

*to the resource acquirement from capital markets.*

Finally, separation of owners and managers, facilitated by market capitalization, raises an issue of dividend payout (La Porta et al., 2000b; Gomes, 2000; Jensen, 1986). One of the motivations in market capitalization is to diversify corporate financial resources from bank financing. Dividend payout functions as a signaling device for firm reputation which leads to successful market capitalization. Gomes (2000) argues that in capital markets with weak legal protection for minority shareholders, firms deliberately develop dividend policy as a signaling framework. Firms whose controlling shareholders can implicitly commit not to expropriate minority shareholders, for instance, with increased dividend payout, enjoy higher stock prices and have more opportunity of market capitalization. Even though the payouts to shareholders reduce firm internal resources, firms do it as a trade-off for new capital they obtain from capital markets (Jensen, 1986; Easterbrook, 1984).

For investors that provide financial resources through capital markets, dividend is a kind of monitoring mechanism as an

indicator for agency cost, the possibility of expropriation (La Porta et al., 2000b). An empirical research on 4,000 firms of 33 countries (La Porta et al., 2000b) finds a different practice from the signaling explanations above. It illustrates that firms are less likely to implement the dividend payout in order to increase their reputation. An economy with well-established protection system for external investors shows higher dividend rate than that of an economy with weak protection mechanism.

However, it is noteworthy that the well-established protection systems are generally found in the economies that rely on common law system, which is regarded as the shareholder model economy such as the USA. From resource dependence perspective, corporations that are seeking after external resources have to find some devices in order to appeal to capital markets whose ideology depends on the shareholder value maximization and, thus, is accustomed to the higher rate of dividend payout. Even though firms from the stakeholder model economy are not interested in protection of minority shareholders, they cannot neglect it any more without sacrificing the opportunity of external resource ac-

quirement. Although dividend rate is highly associated with better protection of minority shareholders rather than signaling for reputation for shareholder protection (La Porta et al., 2000b: 27), corporate governance reform in the stakeholder model economies should pay attention to both explanations of dividend payout. On the one hand it needs to increase dividend for enticing foreign investment. It, on the other hand, should implement higher dividend in order to keep the acquired financial resources. Thus, controlling shareholders in the stakeholder model economies are restricted from serving their interests at the expense of that of minority shareholders. We, thus, expect that higher dividend payout enables firms to access external funds more easily through capital markets.

***Hypothesis 1c** : Dividend payout is positively related to the resource acquisition from capital markets.*

However, despite some empirical analyses that agency cost is much larger in the stakeholder model economy due to the lack of monitoring mechanisms (Johnson et al., 2000: 22; La Porta et al., 1998), there is an intrinsic weakness in

the shareholder model that deters it from being one best model: the Enron-type inefficiency. As a financial engineering firm rather than energy company, “Enron was made possible by the spread of financial innovation and deregulation in financial markets” (Partnoy, 2003: 296-297). Recent financial scandals revealed in Enron and WorldCom have important implications: managerial governance of the shareholder model cannot appropriately respond to the demand of increased individual shareowners and can raise some issues about the withdrawal of the state from large swathes of activity and the concentration of economic weight in a few, very large, corporations (Gomez and Korine, 2005: 745). The two firms have followed the US accounting principles that require external and independent auditing. However the independent audit firm did not commit all the required fairness. Andersen Consulting was questioned under the same charges. Even though it is deemed that the American shareholder model is superior to the stakeholder model in terms of transparency (Gilson, 2000), the reality is quite contrary to the theoretical expectation. Given that Enron-type scandal, rooted in the radical “financialization” that consolidates

the economic power of financial industry, restricts the state’s coordinating role (Boyer, 2004), and that emphasizes the invisible hand (Dore, 2000), the external monitoring mechanisms are not sufficient to regulate profit-seeking firms. Even worse, firms under the influence of the shareholder model are forced to show their outcomes in short term (Porter, 1992; Froot et al., 1992). This is demonstrated by the phenomenon that owners from financial institutions are positively affecting market-to-book values of firms, while their association with asset returns and sales growth is insignificant or negative respectively (Thomsen and Pederesen, 2000). Plain guarantees of independence for non-executive directors and audit firms in the Sarbanes-Oxley Act do not solve the endogenous inefficiency of the shareholder model (Deakin and Konzelmann, 2004).

The performance of the ownership structure in the stakeholder model, characterized by concentration, also provides the rationale for the resistance to the one-sided convergence on the shareholder model. In addition to the positive effects of family control and state ownership on firm growth, the concentrated ownership structure has satisfactory res-

ponse to the demands of capital markets with positive effects on market-to-book values and asset returns (Thomsen and Pedersen, 2000). The argument that there exists no significant relationship (Demsetz and Lehn, 1985) or positive relationship (Leech and Leahy, 1991) between ownership concentration, which tends to decrease with the shareholder model, and company profitability, exempts the stakeholder model, at least, from the criticism that the stakeholder model deteriorates firm values. We, thus, expect that the stakeholder model mechanism that facilitates family control and state ownership do not always disappoint the expectations of the external resource providers.

***Hypothesis 2** : Stakeholder mechanisms are partly positively related to market capitalization.*

### 3. Resource Allocation in Innovation System: Diverging Forces against the Shareholder Model

The dominance of agency theory as the framework for understanding corporate governance system has not paid enough attention to the concept of resource allocation (O'Sullivan, 2000b) or

taken it for granted that the rationale of resource allocation for investment should be the same with that of resource acquisition from capital markets: "the process of value creation through the emergence of the investment opportunity set is still neglected [by the financial view points]" (Charreaux, 2004: 11).

Coordinated innovation system between the state, academia and industry whose importance is empirically emphasized (Walsh and Le Roux, 2004; Etzkowitz and Leydesdorff, 2000) could be complementary to the analysis of corporate governance reform. Increasing importance of R&D cooperation is widely recognized and highlights coordination among diverse actors: "the network model of R&D is complex and difficult to manage because it engages a variety of internal and external actors, spanning the private and public domains more closely than [other] models" (Lam, 2005: 242). The coordination in innovation system leads us to reconsider the shareholder model that emphasizes the priority of financial resource providers' interest, which could have conflict in coordinating the values of diverse stakeholders (Lazonick and O'Sullivan, 1998).

Differences among each country's in-

novation system in terms of state-industry relationship lie in a decreasing trend. A comparative analysis of pharmaceutical companies of France and the USS reveals that the governments in both countries play much more important roles than theoretical expectations that American culture is associated with opposition to government intervention (Walsh and Le Roux, 2004). The total R&D funds in the category, 'health and environment,' represents over half of the funding of civil R&D projects by the US government, while a variety of basic research projects in life sciences (for instance, genomics and cello biology) are funded through public institutions such as CNRS (National Center for Scientific Research) in France (Walsh and Le Roux, 2004: 1311-1313). The eroding differences of the two countries with distinctive corporate governance models, in which France is represented by the stakeholder model and the USS supports the shareholder model, reminds us that the removal of the state could risk misunderstanding of the process of resource allocation.

The cooperation between the state and the industry is supported by legal changes as well as by common practices.

The Federal Transfer of Technology Act (1986) promoted public institutions to cooperate in R&D activities with private corporations in the USA. The serial renewal of innovation laws in France such as 1982 Research Act, the 1999 Innovation and Research Act, and the 2006 Program for Research Act also puts focus on establishing the tri-lateral networks among the state, academia and industry. Regardless of the corporate governance models, the coordinative role of government in innovation is conspicuous. It makes us reconsider the reduction of capitalism at the market (Boyer, 2004). We, thus, expect that coordinated innovation system functions as another kind of global forces for the stakeholder model in corporate governance reform.

***Hypothesis 3a** : State ownership is positively related to a firm's innovation activities.*

Despite findings that enterprises of most countries are still under family control (Barca and Becht, 2001; La Porta et al., 1999), few studies in the mainstream management literature have examined the family as an explanatory variable or emphasized the importance of its dy-

namics (see Daily et al., 2003; Schulze et al., 2001). Dyer (2003) argues that the analysis of family-owned and family-controlled firms should include the family dynamics, not traditional strategy theory and models, because the family affects firm behavior through corporate governance structure. Given that the long-lasting characteristics of family control, as exemplified by Mintzberg and Water's (1982) analysis on a Canadian firm, Steinberg, Inc., and that innovation also requires long-term perspective (Porter, 1992), understanding of innovation system needs to analyze the role of family control that is still present in corporate governance system. In the coordinated innovation system, characterized by learning (Lundavall, 1992) through the network of institutions in public and private sectors (Freeman, 1989), family control assumes the function of strategic control that would not avoid risk-taking with little pressure for internal and external process of accountability (Carney, 2005).

In France, characterized by such institutional arrangements as concentrated political relationships (Hofstede, 2001), *dirigiste* economic behavior (Oru, 1997), elite education system (Bourdieu, 1996), and low trust social capital (Knack and

Keefe, 1997), family control functions as links to external resources (Miozzo and Dewick, 2002) with long-term perspective. In contrary to the practice of American firms, the family controlled-firms makes it possible to invest in firm-specific projects that demands significant R&D funding at the expense of efficiency in short run (Porter, 1992). The exemption of tough accountability enables firms to cooperate with government's national strategies more easily. With the increasing market capitalization, the managers under contract- and performance-based remuneration scheme is more likely to avoid risk-taking and is less likely to plan long-term projects.

***Hypothesis 3b*** : *Family control is positively related to a firm's innovation activities.*

The managers that have only a small portion of ownership in firms are likely to pursue personal interest at the expense of shareholders' interest (Jensen and Meckling, 1976). Empirical research supports the positive function of concentrated ownership (Thomsen and Pedersen, 2000). It is interpreted that inside ownership that builds a large blockholder

through familial relationship, affiliated firms and contract-based or implicitly-consolidated relationship with financial institutions or the state decreases the agency cost between owners and managers by active monitoring incentives. In practice, large blockholders in France participate in management with an advantage of inside information derived from “less porous” elite networks (Burt et al., 2000) and close relationship between the state and industry. Franks and Mayer (1995) show that ownership in France is concentrated in the hands of two groups: family and other companies. Under the environment of increasing market capitalization that makes the change of ownership occurs more frequently, the stable status of the inside ownership helps overcome short-term perspectives of capital markets, which helps risk-taking in innovation with uncertain prospects.

***Hypothesis 3c*** : *Inside ownership is positively related to a firm’s innovation activities*

With free flow of capital, firms are under threat of takeovers (Jensen, 1986). The takeover threat is interpreted that it

makes corporations concentrate on devising mechanisms for protecting firms from adverse takeovers. This results in negative outcomes on firm innovation activities. Hitt et al. (1996; 1991) argue that the market for corporate control brings about resources less available for innovation and dilutes manager’s commitment for innovation. Faced with the threat from capital markets, some devices for supporting stable ownership are necessary.

Discriminating voting rights that grant more voting rights to the shareholders that satisfy some conditions such as shareholding period and nationality of shareholders is a popular device for protecting the stable ownership. As easily found in the stakeholder model economies, the discriminating voting rights provide effective tools for restricting the power of portfolio investors with increasing discrepancy between share ownership and voting rights (Becht and Mayer, 2001). Despite the criticism that double voting rights sacrifice the interest of minority shareholders, it secures some favor for long-term investors. For instance, Michelin, a French tyre manufacturer, provides strict double voting rights to the shareholders that hold shares for more than

four years as residents of EU countries. The practice of discriminating voting rights for enduring investors could be positive on firm innovation activities. An empirical analysis shows that public pension funds support long-term process of internal innovation, while professional investment funds prefer acquiring innovation results from takeover process (Hoskisson et al., 2002). We, thus, expect discriminating voting rights contribute to promoting the stable ownership structure, which helps firm innovation activities.

***Hypothesis 3d*** : *Discriminating voting rights are positively related to a firm's innovation activities.*

In France, cross-shareholding among related or unrelated firms has been called as "hard-core." With external resource acquirement from capital markets, the average equity stake of the core shareholder group dissolved from 20% to around 10% in CAC40 firms (Goyer, 2001). However, despite the falling trend of cross-shareholding, shareholders' agreement in CAC40 firms is still maintained. According to their annual reports, 15 firms of CAC40 firms officially keep

shareholders' agreement at the level of parent company as of 2005. If we consider the agreements between parent company and its affiliates, the number increases. It implies that the shareholders' agreement is now as much about promoting coordinated innovation activities as about protecting stable ownership structure. For instance, EADS keeps an agreement between Daimler-Chrysler and Lagardère SCA, which helps the company maintain stable control as well as secure coordinated innovation system. Regarding the implicit shareholders' agreement, Renault is an exemplary case. It uses the term, alliance agreement. Renault exchanges ownership with Nissan, a Japanese motor company. Through the agreement, it expands its market share in America and Asia as well as promotes new product developments such as sports utility vehicles that have not existed in its product lines.

***Hypothesis 3e*** : *Shareholder's agreement is positively related to a firm's innovation activities.*

However, with regard to radical innovation, it is argued that the institutional complementarities of the market-based

system with transactional capital and flexible labor markets are more appropriate for explorative and revolutionary innovations than the relationship-based governance system with bank capital and internal labor markets (Hoskisson et al., 2004). Without competition from venture enterprises, the current success of big business-led innovation system in the stakeholder model economies finds it difficult to catch-up with radical innovation. The environmental change caused by globalization is also calling for institutional change in the stakeholder model economies. As pointed out by the obsolete characteristics of the bank financing and its complementary institutions such as life-long employment in Japan (Aoki, 1994), the coordination of stable relationship among various stakeholders could make the economy inappropriate in responding to newly emerging technologies. It is argued that the competitiveness in fast-moving technology sectors such as biotechnology, semiconductors, and software development relies on the institutional arrangements such as the corporate governance system of the shareholder model (Hall and Soskice, 2001). In the environment of radical change and rapid decision making, the stable

characteristics of the stakeholder model risk disadvantage. Consequently, the need for radical innovation leads to change in ownership structure (Goyer, 2001), which drives transformation of corporate governance system toward the shareholder model.

*Hypothesis 4 : Shareholder-oriented mechanisms are positively related to a firm's innovation activities in radical innovation.*

### III. Methods

#### 1. Research Design

This analysis relies on eight-year panel data. Since 1997, financial resources of French firms have substantially relied on capital markets. However, most of the empirical research on corporate governance reform in France does not show the institutional change since 1997. At best they analyzed the change just around 2000 (See Alexander and Charreaux, 2004). By extending the time window to 2005, this paper analyzes what results the competing rationale between capital markets and coordinated innova-

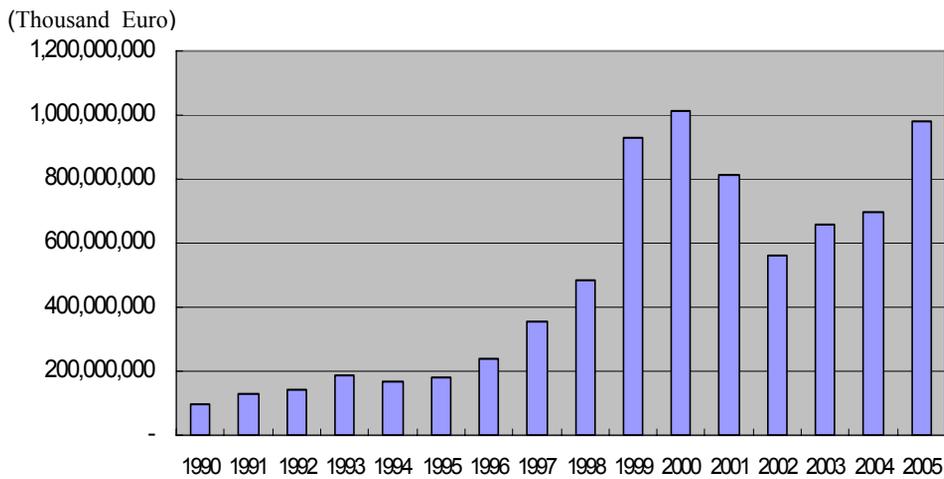
tion brings about to corporate governance reform in France.

In order to test the integrated framework for understanding the conflicting phenomenon, this paper develops two sets of regression models. The first set tests how effectively the corporate governance reform of France responded to capital markets for resource acquirement and what effects the mode of control in the stakeholder model has on market capitalization. The second set of regression models traces whether the logic of the resource allocation in the stakeholder model executed by family control and state influence is positive on firm innovation activities. It also analyzes whether market mechanism is positive on radical

innovation.

Innovation activities can be measured with such indicators as R&D inputs, patent counts, patent citations, and new product announcements, among which any indicators can capture innovation activities (Hagedoorn and Cloodt, 2003). This paper takes two indicators: R&D intensity as an input measure (Lee and O'Neill, 2003) and patent intensity (Hitt et al., 1991) and patent counts for output measures.

For parameter estimation of each variable, this paper relies on panel data GLS regression for the dependent variable of market capitalization and patent intensity and negative binomial regression for the dependent variable of patent counts. For



Source: Data Stream.

[Figure 1] Change in Market Capitalization: 150 listed firms of France, 1990~2005

residual estimation, random effects model is adopted for all the regression models. Given that the CAC40 firms are diverse in terms of industry, size, and ownership structure, the error term can be viewed as random draws from a common population (Hsiao, 2003). The regression results with AR (1) disturbances have no difference from those without AR (1) disturbances. However, the results with AR (1) disturbances show higher  $R^2$  scores, which this paper reports.

## 2. Sample and Data

The sample of this analysis is 40 firms from CAC40 index of France. Even though 40 samples are not large enough to acquire analytical validity and to generalize the findings across France and other economies, the economic importance of CAC40 firms is generally recognized in capital markets. Created in 1983, CAC40 index has been quoted as a main indicator for evaluating the French industry and the French capital markets. Further, the time span of eight years during 1998 to 2005 helps overcome the statistical weakness of the small sample size. The empirical analysis of this paper, thus, depends on the panel data of CAC

40 firms in France (1998 to 2005).

The data rely on each company's annual reports, registration documents, and form 20-F documents based on availability. The data for market capitalization are complemented by Data Stream. When there is conflict between annual reports and Data Stream, the analysis uses the annual reports. INPI (Institut National de la Propriété Industrielle, National Institute for Patent Rights) provides patent counts for each company.

## 3. Measures

### 3.1 Dependent Variables

*Market capitalization*, measured by the number of common shares multiplied by year-end share price, is a critical indicator of a public firm's success or failure, which reflects capital markets' evaluation on the firm. Due to skewness caused by the characteristic of panel data (Lee and O'Neill, 2003), a logarithmic transformation is adopted with 1 year lag.

*R&D intensity*, measured by R&D expenses divided by sales (Lee and O'Neill, 2003, Hitt et al., 1991), is an input indicator of innovation activities, which

reflects the current input and will also affect the allocation of the future R&D resources (Hagedoorn and Cloodt, 2003). 1 year lag is applied.

*Patent counts*, measured by newly registered number of patents, are an output indicator of innovation activities. While other indicators such as patent citations and new product announcements could capture the quality or the marketability of innovation activities and patent itself has some biases such as industry effect (Archibugi, 1992), patent is generally accepted as one of the most appropriate indicators that enable researchers to compare the inventive or innovative performance of companies in terms of new technologies, new processes and new products (Hagedoorn and Cloodt, 2003: 1368). Regarding time lag, while there is not an established standard, 1 year and 2 years are frequently used in analyzing patent data (Hagedoorn and Cloodt, 2003). This paper adopts a time lag of 1 year and 2 years simultaneously. Patents that belong to ICT (Information and Communication Technology), bio and chemical sectors based on the INPI's categorization are regrouped as patents in radical innovation (Hall and Soskice, 2001).

*Patent intensity*, calculated by the ne-

wly registered number of patents divided by sales, is a measure that reflects a strong relationship between patent counts and firm size (Hitt et al., 1991). The time lag of 1 year plus 2 years is also applied. The classification of patent intensity in radical innovation follows the same rationale in patent counts.

### 3.2 Independent Variables

*Outside director* is defined as "all non-management members of the board" (Johnson et al., 1996: 417). However, Bouton report (2002) of France does not regulate outside directors. Instead, French system of corporate governance adopts the definition of independent directors. Outside director is, thus, measured by the proportion of independent directors in the board of directors.

*Audit rules*. Given that the Act of New Economic Regulations in 2001 and the Act of Financial Safety in 2003 regulate compulsory reforms that firms adopt, it is difficult to distinguish firms with better auditing rules from firms with worse rules. However, some firms adopt US GAAP (Generally Accepted Audit Principles), while others do not. Given the influence of FDI outflow from the

US and the popularity of listing on US stock markets such as NYSE (New York Stock Exchange), the rules of auditing is, thus, measured by whether a firm adopts US GAAP or not, which is a binary variable.

*Dividend payout* is measured by dividend per share.

*Family control* is a binary variable that indicates whether a family including relatives and affiliated firms under his control has the largest share ownership. While some research exceptionally includes the family factor (see Chang, 2003), they deal with the variable as a ratio variable. It means that they discriminate a 29% family-owned firm from a 30% family-owned firm even though both firms are under effective family control. However, given that in France family usually is a large blockholder and consolidates its control power by pyramidal ownership structure (Bloch and Kremp, 2001), the discrimination of family control based on the size of share ownership could lead to misunderstanding of the influence of the family control on firm performance. This paper suggests that if a family has an effective control as the largest shareholder, then the presence of

the family in corporate governance system has analytical meanings. Thus, this paper draws on whether a firm is under family control or not (Maury, 2006; Thomsen and Pedersen, 2000).

*State ownership* is measured by whether the state is present at a firm by share ownership, which is a binary variable on the same rationale for the family control.

*Inside ownership* is measured by the share ownership held by the largest shareholder, the shareholders that entered into shareholders' agreement with the largest shareholder, affiliated firms under control of the largest shareholder. The shares owned by the state and French financial institutions are also included. The state and French financial institutions are considered as stable shareholders favorable for the controlling shareholder in the tradition of cross-shareholding (Goyer, 2001), which is illustrated by the Crédit Lyonnais case that involved the Ministry of Finance, Mr. Pinault and CDR (Consortium de Réalisation).

*Discriminating voting rights* are measured by whether a firm has double voting system, which is a binary variable.

*Shareholders' agreement*, measured by a binary scheme according to whether a firm has shareholder's agreement or pact, indicates the extent to which the traditional cross-shareholding still remains.

### 3.3 Control Variables

*Firm size* is measured by sales. Since sales vary according to industry, a logarithmic transformation is applied.

*Firm age* is included in the control variable, given that innovation is a result of accumulated learning (Lundvall, 1992).

*ROA (Return on Asset)*, as a performance indicator, is included.

*Industry* is also controlled by two-digit NAF (Nomenclature d'Activités Françaises) code. Due to small sample size, this paper considers whether a firm belongs to manufacturing or service industries based on the definition of the US NAPCS (North American Product Classification System). Firms belonging to ICT, bio and chemical industry are further categorized in high-tech industry. Other firms belonging to the manufacturing industry are categorized as medium/low-tech industry. Service is a baseline industry.

## IV. Results

Basic statistics for all the variables are presented in <Table 2>. The results in <Table 3> and <Table 4> explain how influential corporate governance reform on the requirements of capital markets and coordinated innovation.

### 1. Corporate Governance Reform and Market Capitalization.

Hypotheses 1a, 1b, and 1c state that corporate governance reform has positive effect on market capitalization. Hypothesis 2 asserts that the stakeholder model mechanism is complementary to shareholder-oriented devices for market capitalization. Regression results support those hypotheses. Controlling firm size, age, ROA, and industry, model 1 in <Table 3> that deals with the independent variables directly related to ownership structure shows that inside ownership has negative effects on market capitalization ( $p < 0.001$ ). Outside directors, family control, and state ownership are not statistically significant. Model 2 that deals with the independent variables functioning as devices for consolidating a specific ownership structure shows that

&lt;Table 2&gt; Means, Standard Deviations, and Correlations

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9
1. Firm size (log)	9.567	1.050	1.00								
2. Firm age (log)	4.406	.763	0.04	1.00							
3. ROA	.669	.373	0.15*	-0.10	1.00						
4. Industry (high-tech)	.325	.469	-0.12*	-0.14*	0.06	1.00					
5. Industry (medium/low-tech)	.353	.479	0.28*	0.24*	0.22*	-0.50*	1.00				
6. Independent director	.468	.211	-0.06	0.17*	-0.02	-0.18*	0.06	1.00			
7. Audit rules	.351	.478	0.15*	0.06	-0.09	0.25*	-0.14*	0.17*	1.00		
8. Dividend payout	1.188	1.174	0.25*	0.23*	0.02	-0.18*	0.18*	0.19*	-0.12*	1.00	
9. Family control	.446	.498	-0.22*	-0.09	0.27*	-0.12*	-0.06	-0.01	-0.13*	-0.03	1.00
10. State ownership	.289	.454	0.19*	-0.24*	-0.03	0.25*	0.08	-0.12*	0.13*	-0.08	-0.56*
11. Inside ownership	.332	.243	0.13*	-0.19*	-0.17*	0.12*	0.15*	-0.50*	-0.07	-0.33*	-0.22*
12. Discriminating voting system	.601	.491	0.06	0.12*	0.23*	0.08	-0.06	-0.06	0.04	0.10	0.33*
13. Shareholders' agreement	.403	.491	-0.00	-0.26*	-0.10	0.23*	-0.51*	-0.04	0.06	-0.15*	-0.00
14. Market capitalization (log) (T1)	9.156	2.157	0.19*	0.12*	0.09	0.14*	-0.23*	0.17*	0.29*	0.21*	0.06
15. R&D intensity (T1)	.057	.113	-0.27*	-0.27*	-0.12	0.24*	-0.23*	-0.01	0.00	-0.00	0.06
16. Patent intensity (T1+T2)	10.047	15.874	0.15*	0.05	0.08	0.38*	0.05	-0.01	-0.01	-0.05	-0.13
17. Patent intensity (T1+T2) - radical innovation sector	4.972	10.756	-0.01	0.03	0.01	0.63*	-0.31*	0.01	0.21*	-0.21*	-0.18*
18. Patent count (T1+T2)	96	156.684	0.18*	0.05	0.08	0.36*	0.06	-0.03	-0.02	-0.04	-0.12
19. Patent count (T1+T2) - radical innovation sector	45.971	101.870	0.01	0.04	0.00	0.62*	-0.30*	-0.01	0.21*	-0.20*	-0.17*
10. State ownership	1.00										
11. Inside ownership	0.47*	1.00									
12. Discriminating voting system	-0.33*	-0.31*	1.00								
13. Shareholders' agreement	0.04	-0.00	0.07	1.00							
14. Market capitalization (T1)	-0.15*	-0.44*	0.26*	0.23*	1.00						
15. R&D intensity (T1)	-0.01	0.01	0.11	0.17*	0.03	1.00					
16. Patent intensity (T1+T2)	0.26*	0.13	-0.07	0.01	0.17*	0.01	1.00				
17. Patent intensity (T1+T2) - radical innovation sector	0.22*	0.12	0.03	0.20*	0.19*	0.09	0.72*	1.00			
18. Patent count (T1+T2)	0.27*	0.13	-0.08	-0.02	0.16*	0.00	0.997*	0.68*	1.00		
19. Patent count (T1+T2) - radical innovation sector	0.22*	0.12	0.03	0.18*	0.19*	0.08	0.72*	0.998*	0.69*	1.00	

주) \* p &lt; 0.05,

<Table 3> Results of Regression Analysis of Market Capitalization on Corporate Governance Reform

Dependent Variables	Random-Effects GLS Regression with AR (1) Disturbances Market Capitalization (T1)		
	Model 1	Model 2	Model 3
Intercept	4.437*	4.247*	4.668*
Firm size	.523**	.338†	.432*
Firm age	.129	.226	.090
ROA	.020	.317	.052
Industry (high-tech)	.308	-.352	.080
Industry (medium/low-tech)	-.608	-.891†	-.532
Independent director	.111		.267
Audit rules		.723*	.639†
Dividend payout		.060	-.016
Family control	.216		.054
State ownership	.124		.1721
Inside ownership	-2.866***		-2.603**
Discriminating voting system		.825*	.677†
Shareholders' agreement		.295	.326
Wald Chi2	28.97**	25.17**	45.07***
R <sup>2</sup>	.27	.25	.32
N	245	274	245

주) † p < 0.1; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

audit rules contribute to market capitalization (p < 0.05). Discriminating voting rights for the stakeholder model are also positive on market capitalization (p < 0.05). Dividend payout and shareholders' agreement are not statistically significant. Model 3 that includes all the independent variables shows the same result with model 1 and 2. Audit rules and discriminating voting rights are positive (p < 0.1), while inside ownership is

negative (p < 0.01) on market capitalization. Other independent variables such as independent director, dividend payout, family control, state ownership, and shareholders' agreement are not statistically significant. Among control variables, firms size has positive effect in all models (p < 0.01, 0.1, 0.05) respectively and medium/low-tech industries are inferior to other industries in market capitalization (p < 0.1) in model 2.

&lt;Table 4&gt; Results of Regression Analysis of Innovation Activities on Corporate Governance Reform

Dependent Variable	Random-Effects GLS Regression with AR (1) Disturbances					Random-Effects Negative Binomial Regression				
	R&D Intensity (T1)		Patent Intensity (T1+T2)		Radical innovation sector		Patent Count (T1+T2)		Radical innovation sector	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	.455**	-22.202	-12.515	-.052	-5.649 <sup>†</sup>					
Firm size	-.031*	1.762	.630	.190	.535*					
Firm age	-.036*	3.135	2.283	.487	.804***					
ROA	-.059 <sup>†</sup>	.449	-.445	.351	.272					
Industry (high-tech)	.049	5.844*	5.633*	.699	.408					
Industry (medium/low-tech)	.045	5.209	.721	.981	.294					
Independent director	.002	-2.648	-1.135	-.329	-1.049*					
Audit rules	.018	-.872	-.171	.162	.027					
Dividend payout	.013	-1.076 <sup>†</sup>	-.813	-.079*	-.100					
Family control	.011	1.199	1.057	.222	.561					
State ownership	-.015	10.678*	6.113 <sup>†</sup>	-1.017	1.755 <sup>†</sup>					
Inside ownership	.001	-9.033*	-4.992	-.899*	-1.299*					
Discriminating voting system	.033	-.464	.609	-.879 <sup>†</sup>	-.315					
Shareholders' agreement	.064***	.376	.926	.425*	.476 <sup>†</sup>					
Wald chi2	30.78**	22.76 <sup>†</sup>	22.02 <sup>†</sup>	38.24***	40.04***					
LR chi2	.24	.17	.34	174	174					
R <sup>2</sup>	.213	.174	.174	174	174					
N										

주) <sup>†</sup> p < 0.1; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

## 2. Corporate Governance Reform and Innovation Activities

Hypotheses 3a, 3b, 3c, 3d, and 3e state that stakeholder mechanisms have positive effect on corporate innovation activities, while hypothesis 4 asserts that shareholder-oriented mechanisms can be complementary to the stakeholder model for radical innovation. Regression results of the <Table 4> largely support the hypotheses. Model 1 of <Table 4> analyzes the effect of corporate governance reform on R&D intensity. It shows that shareholders' agreement has positive effect ( $p < 0.001$ ). Other variables are not statistically significant. Model 2 that deals with patent intensity shows that positive effect of state ownership ( $p < 0.05$ ) and negative effect of dividend payout ( $p < 0.1$ ) and inside ownership ( $p < 0.1$ ). Other variables are not statistically significant. Model 3 that analyzes radical innovation sectors reports that state ownership has positive effect ( $p < 0.1$ ). Other variables are not statistically significant. With regard to patent counts, model 4 reveals that dividend payout, inside ownership, and discriminating voting rights are negative ( $p < 0.05$ ,  $0.05$ ,

$0.1$ ) respectively. Shareholders' agreement has positive effect ( $p < 0.05$ ). Other variables are not statistically significant. Regarding patent counts for radical innovation in model 5, state ownership and shareholders' agreement have positive effects ( $p < 0.1$ ), while independent directors and inside ownership negatively affect ( $p < 0.05$ ). There is not statistically significance in other variables. Among control variables, firm size ( $p < 0.05$ ), age ( $p < 0.05$ ), and ROA ( $p < 0.1$ ) are negative on R&D intensity. High-tech industries are better than other industries in patent intensity for both total ( $p < 0.05$ ) and radical innovation sectors ( $p < 0.05$ ). Firm size ( $p < 0.05$ ) and age ( $P < 0.001$ ) positively affect patent counts for radical innovation.

## V. Discussion

### 1. Reconsidering Capital Markets and the Shareholder Model

For resource acquirement from capital markets, the corporate governance reform in France has emphasized shareholder-oriented mechanisms. Outside directors,

the change of audit rules, and dividend payout are emphasized. The findings in the two regression tables confirm that the change of audit rules helps market capitalization to be successful, while inside ownership of the stakeholder model negatively affects. This phenomenon supports the rationale for convergence on the shareholder model: efficiency in capital markets.

Any of the devices for the shareholder model, however, does not positively affect corporate innovation activities. Dividend payout is negative on patent intensity and patent counts, while independent directors have negative effects on patent counts for radical innovation. Contrary to the theoretical expectations, shareholder-oriented mechanisms do not have positive effects on firm innovation activities for radical innovation. The finding that firm age reveals highly positive effects on patent counts of radical innovation sectors also explains that the shareholder model supporting for frequent change of ownership has limitations in promoting firm innovation activities. The phenomenon is due to the efficiency rationale: tightening expenses and maximizing achievements. It can be approached

by “short-termism” (Roberts, 2001; Porter, 1992): capital markets emphasizing profit on investment could neglect long-term investment. The result of the regression implies that the shareholder model of capital markets might focus on the result rather than the process. It is not a totally unexpected consequence, given that ROA, one of the indicators that measure profitability of firm operation, shows negative influence on R&D intensity. Overall, it is not easy to say that the corporate governance system of the shareholder model strongly promote firm innovation activities.

## 2. Revisiting Innovation and the French Stakeholder Model

Corporate governance system of France, represented by family control and state ownership, has been criticized as a main factor to be responsible for the economic recession for the last two decades of the 20<sup>th</sup> century (Goyer, 2001). In the French legal system, expropriation has frequently happened, while the interest of minority shareholders has been sacrificed for the dominant blockholders (La Porta et al., 1998). The phenomenon is proved

by the negative role of inside ownership on market capitalization and even on patent intensity and patent counts regardless of whole or radical innovation sectors.

However, the state ownership still contributes to innovation activities such as patent intensity and patent counts. Contrary to theoretical expectations, the radical innovation also needs the contribution of the state ownership. The shareholders' agreement also shows strong influence on R&D intensity. This result is noteworthy, given that venture industry of France is still struggling for its survival. With increasing free floating of share ownership, the shareholders' agreement functions as a facilitator for corporate innovation commitment. As explained by Hitt et al. (1996; 1991), it saves firm resources and managerial commitment from M&A threats. Even for market capitalization, double voting has positive effect, which shows that stakeholder mechanisms can be complementary to the shareholder model in order to reduce agency cost caused by free floating of share ownership. This is an illustration that the traditional French stakeholder model still functions as a reservoir of corporate entrepreneurship.

### 3. Policy and Strategy for Accommodating the Conflicting Rationale for Capital Markets and Coordinated Innovation

Although the transplantation of the shareholder model has dominated the reform process of corporate governance in France, the panel data analysis of CAC40 firms (1998~2005) tells a different story. The shareholder value maximization model is not well functioning for firm innovation activities. Some stakeholder model mechanisms such as inside ownership are negative for market capitalization as well as for innovation. The French case illustrates how to deal with institutional change in corporate governance under the competing rationales. The Bouton report, released in September 2002, implements the demands of capital markets in its own way. It defines 'independent' directors instead of 'outside' directors: "The designation as 'independent' simply goes to the objective situation of the director, who is thus deemed not to have any potential conflicts of interest with the company" (Bouton, 2002: 8).

However, the nuance and the subtlety of the 'independent directors' should be

recognized from the definition of ‘outside’ directors: “all non-management members of the board” (Johnson et al., 1996: 417). Even though the Bouton report seeks after the value of the typical shareholder model such as adequacy of accounting standards and practices, quality of financial information, and effectiveness of internal and external controls, it relies on the characteristic French style. The report emphasizes the relations between companies and the various categories of shareholders. The role of various other market players is also highlighted: banks, financial analysts, and rating agencies.

The analysis of the paper sheds light on the *dirigiste* tradition of France. A few firms such as Renault and France Telecom still have the conspicuous presence of the state. While privatization is an irresistible process for resource acquisition, the states’ contribution to innovation activities cannot be neglected even for radical innovation. This result reflects the strategic recession of the state from corporate activities: considerable adjustments of the state’s regulatory stance but still government’s initiative in coordinating for coordinated innovation between the state, academia, and indu-

stry. The trend is illustrated by the recent research agenda on the ‘triple helix.’ Given the complementary aspects of the stakeholder and the shareholder models, the government policy for arranging efficient corporate governance system for innovation should consider how to promote innovation and entrepreneurship. Even though there are conspicuous vulnerabilities such as tunneling (Johnson et al., 2000), stable ownership structure through shareholders’ agreement still plays a positive function as a catalyst for corporate entrepreneurship.

The result of the regressions reveals that the firm responds to capital markets as well as to coordinated innovation. The mode of control matters for a stable ownership structure. Adjustment of inside ownership is indispensable. It is negative for innovation activities as well as for market capitalization. It harms firm innovative performance for radical innovation. The argument that the dissolution of indiscrete cross-shareholding has contributed to the resurgence of French innovation (Goyer, 2001) is persuasive. This paper draws on the disciplining role of the shareholder model. Relying on only internal monitoring systems could lead to substantial expropriation, as pro-

ved by the Credit Lyonnaise case. However, proportionate change toward the shareholder model is in need. As revealed by the contribution of shareholders' agreement and state ownership to innovation activities, firms should be progressive in participating coordinated innovation system.

## VI. Conclusion

By linking the contexts of financial efficiency and coordinated innovation with panel data from CAC40 firms of France, this research explains why we can see conflicting but compatible phenomenon in corporate governance reform: convergence on the shareholder model in capital markets but divergence from it in coordinated innovation. This paper presents an empirical support for the framework in which both converging and diverging institutional changes coexist despite conflicting rationales. This paper also shows what results the conflicting phenomenon brings about the corporate governance reform: selective path-dependent mode of control. In France, there are sustained state ownership and dissolving inside ownership. For ownership

devices, we see the competing logic: the alternative shareholders' agreement and the disciplining role of audit rules.

It highlights that a desire for normalization of convergence arguments could neglect the appropriately adjusting "convention" (Gomez and Jones, 2000) under the "national systems of governance" (Charreaux, 2004). The French experience of corporate governance reform reveals the institutional viability that escapes conventional predictions based on the dichotomous approaches. Thus the observation of institutional change in the French corporate governance system confirms that complex interactions between resource acquirement and resource allocation results in multiplicity of corporate governance reform and multiplicity of destinies of the capitalist systems (Boyer, 2004).

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