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**Working Paper**

## Complementarities in Corporate Governance - A Survey of the Literature with Special Emphasis on Japan

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Kiel Working Paper No. 947

## **Complementarities in Corporate Governance**

**A Survey of the Literature with Special Emphasis on Japan**

by

Ralph Heinrich

September 1999

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## **Abstract\***

The present paper uses a comparison of Japan and the US to argue that the debate about corporate governance reform is best framed in terms of systems of complementary instruments and institutions. It argues that the Japanese and US systems of corporate governance differ along many dimensions, yet can both be understood as efficient combinations of complementary instruments adapted to a particular institutional and regulatory environment. The paper also shows how exogenous shocks and piecemeal regulatory reforms have undermined the internal consistency of the Japanese system in the recent past.

(90 words)

**Keywords:** Corporate governance, Complementarity, Agency problem, Japan

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# 1 Introduction\*

Corporate governance reform is currently on the agenda in the EU, the US, Japan and emerging market economies in eastern Europe and in Asia. In contrast to much of the literature, this paper argues that in order to succeed, reform of corporate governance systems must take into account complementarities among governance instruments and between governance instruments on the one hand and the institutional and regulatory environment on the other hand. As a result, corporate governance reforms must be comprehensive rather than piecemeal.

In illustrating these points I focus on Japan because the debate about corporate governance reform was touched off by the spectacular success of Japanese exporters in world markets in the 1980s (see e.g. Kester 1992), because the Japanese system of corporate governance has been recommended as a model for other countries, notably transition economies (Prowse 1994) but has fallen out of favor in the wake of the recent financial crisis in Asia (Rajan and Zingales 1999), and because significant exogenous shocks and significant policy changes have taken place in Japan which hold lessons for corporate governance reform elsewhere.

In the remainder of the paper, I first briefly discuss agency problems and the role of corporate governance in reducing the attendant costs (Section 2). Section 3 surveys the institutional and regulatory framework and the governance instruments of the Japanese economy using the US as a benchmark. Section 4 discusses the limits of the empirical evidence available on the performance of Japanese corporate governance, while Section 5 gives an explanation of the evidence in terms of complementarities between governance instruments and the regulatory and institutional framework. In Section 6 I explore the role of exogenous shocks and of policy responses and reform efforts in influencing the performance of the Japanese system. Section 7 concludes.

## 2 Complementarities and Corporate Governance

In their seminal paper on agency problems at the firm, Jensen and Meckling (1976) have argued that the *sum* of agency costs can be minimized by suitably choosing the mix of debt and equity in the capital structure (leverage). Jensen and Meckling argued that the agency problem between external owners and management (undersupply of

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\* I thank Claudia Buch for helpful comments. All remaining errors are my responsibility.

managerial effort) could in principle be avoided if the firm was financed purely with outside debt (and managerial equity) rather than with outside equity. To explain why firms in reality are not financed wholly with outside debt, Jensen and Meckling pointed out that debt finance creates its own agency problem between creditors and owners of the firm, namely a tendency for excessive risk taking. In other words, reducing the costs of the agency problem between equity owners and management by increasing leverage comes at the opportunity cost of aggravating the agency problem between owners and creditors. By proposing a mix of debt and outside equity in the capital structure as a solution to the corporate governance problem, Jensen and Meckling thus proposed to trade off the costs of the two agency problems at the margin.

The present paper builds on this idea but extends it in three ways. First, it considers not just the agency problem of debt and the problem of undersupply of managerial effort, but also the free cashflow problem (Jensen 1986) and the agency problems between controlling and minority owners. Second, the paper argues that the optimal solution to the combination of agency problems facing the firm involves not just one governance instrument (the capital structure) but several instruments. Specifically, the fact that a given governance instrument used to mitigate some agency problem has opportunity costs in terms of aggravating other agency problems makes it worthwhile to use additional governance instruments to counteract the adverse effects of the first instrument on the costs of these other agency problems. Hence the opportunity costs of governance instruments give rise to *Edgeworth complementarities* between instruments. These complementarities explain why firms use characteristic clusters of governance instruments to solve their agency problems.

Third, the present paper also explicitly considers the institutional environment as an important determinant of the opportunity costs of governance instruments. Hence, complementarities need to be taken into account when making policy choices as regards the institutional environment.<sup>1</sup>

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<sup>1</sup> For a formal model see Heinrich (1999). An application to transition economies is offered in Heinrich (1998). After writing the first draft of the present paper, I became aware of a similar conceptual approach in Hoshi (1998). However, his approach is more limited than the one suggested in the present paper in that he does not consider agency problems between controlling and minority owners, he does not distinguish between overinvestment and undersupply-of-effort problems, he does not consider the bankruptcy law as a distinguishing institutional parameter, and he has no explanation for the simultaneity between concentrated equity holdings and concentrated debt holdings. In other respects, Hoshi (1998) goes beyond the present paper. He considers the roles of the government, of workers and of suppliers and customers as stakeholders in firms, and he considers the development and competitiveness of labor and product markets as additional institutional parameters affecting the corporate governance system. See also Berglöf (1991) for an approach considering interactions between the capital structure, and the concentration of equity and debt holdings in the resolution of conflicts between creditors and owners and between managers and owners.

### *Agency Problems*

In what follows we will distinguish four agency problems. One is the externality generated by the *separation of ownership and control*. It arises because the manager of a firm bears a private cost if he exerts effort to raise profits but has to share these profits with external owners. Hence managers will tend to *undersupply effort* relative to the efficient amount. The second agency problem (and a variant on the first) is the *free cash flow problem* which arises if the firm generates cash flow in excess of what is needed to finance investment projects which are expected to generate the market rate of return. In this case, owners would want managers to pay out the cash flow as dividends. However, managers may prefer to use the cash flow generated within the firm to invest into pet projects which do not meet the test of the market but which generate some private benefit for managers. Hence this problem is also known as the *overinvestment problem*.

Financing the firm with debt avoids the externality caused by the separation of ownership from control, but creates an *agency problem of debt*. This arises because debt entails a fixed claim whereas equity is a claim to the firm's residual income. Hence creditors do not share in excess profits. They do, however, run the risk of losing their investment in the event of insolvency. Therefore they prefer lower-risk projects than would be chosen in the absence of agency conflicts. Owners by contrast gain from high profits but can share losses with creditors which is why they have an inherent preference for riskier projects than would be chosen in the absence of agency conflicts. Hence, raising leverage to govern the problem of inefficiently low managerial effort comes at the opportunity cost of inducing *excessive risk taking*.

Finally, an externality may arise from the fact that control over a corporation may confer non-pecuniary private benefits and may create an *agency problem between controlling and minority owners*. Controlling owners may be able to raise the private benefits they obtain at the expense of the returns paid to minority shareholders. As an example, controlling owners might use transfer pricing to extract profits from the firm and transfer them to firms they own fully, thereby avoiding to have to share the profits with the minority owners of the first firm. Hence controlling ownership, which can mitigate free rider problems in the supervision of management, and can thus reduce the costs of undersupply of managerial effort, comes at the opportunity cost of inducing *inefficient generation of private benefits*.

### *Governance Instruments*

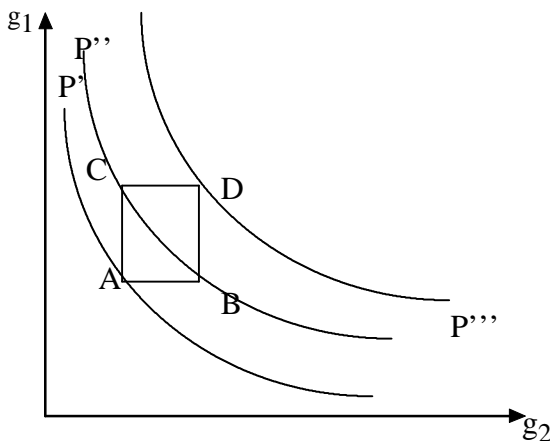
A non-exhaustive list of governance instruments used by firms to govern agency conflicts includes incentive pay, monitoring and intervention by boards of directors, the ownership structure and the incentives and rights it creates for monitoring and in-

tervention by shareholders at shareholder meetings, the market for corporate control with the attendant takeover threat, debt and the attendant bankruptcy threat, monitoring by banks and other creditors, monitoring by regulators and financial market analysts, the market for managers, and product market competition. Firms typically use not one, but several of these instruments simultaneously. Moreover, the importance of various governance instruments differs widely across countries. These differences in combinations of governance instruments have led to the identification of different *systems* of corporate governance (Zingales 1998).

The general idea of the present paper can be illustrated with a simple example using the familiar complementarity rectangle (Georgescu-Roegen 1952, Figure 1). Assume the firm faces two agency problems. Let one be the problem of undersupply of managerial effort due to externalities arising from the separation of ownership from control. Let the other be the problem of excessive risk taking due to externalities arising from the different cashflow rights attached to debt and equity. Further suppose that there are two governance instruments available, and that they are at least of ordinal scale. For concreteness, let  $g_1$  be the capital structure, with a higher  $g_1$  indicating higher leverage, and let  $g_2$  be the fraction of board seats held by creditors.

These governance instruments can be used to maximize the firm's profit. Let profit isoquants be labelled by  $P'$ ,  $P''$  and  $P'''$ . Compare a move from point A to point B with a move from point C to point D. In both cases, the use of governance instrument  $g_2$  is raised to the same extent. The difference is that in the former case instrument  $g_1$  is used less than in the latter case. By definition, if the difference between  $P'$  and  $P''$  is less than the difference between  $P''$  and  $P'''$ , the two instruments are Edgeworth complements. Then if the system is originally in point A, and for some reason it becomes worthwhile using more of governance instrument  $g_1$ , then it also becomes more attractive to use more of its complement, instrument  $g_2$ .

Figure 1 — Georgescu-Roegen Complementarity Rectangle





Higher leverage reduces the need for external equity financing and hence reduces the externality which creates incentives for the manager to supply inefficiently low amounts of effort. Hence higher leverage would raise the firm's profit. At the same time, higher leverage increases the externality which creates incentives for the firm to undertake excessively risky investment projects. This makes leverage more costly and tends to reduce profits, since creditors will want to be compensated *ex ante* for financing a high-risk firm. Therefore the rise in profits attendant on moving from A to C will be small.

However, by having seats on the board of directors, which give them a say in the firm's major business decisions, creditors may be able to limit the amount of risk the firm undertakes. As a result, the same increase in leverage will raise the cost of leverage by less if creditors are granted board seats, and thus the increase in profits attendant on a move from B to D will be larger than when moving from A to C.

Therefore in this simple example, the higher leverage, the more attractive it is for creditors to have seats on the board, and vice versa. A profit-maximizing firm would therefore grant additional board seats to creditors in exchange for additional debt finance. Of course, which combination of leverage and board seats for creditors is optimal will depend on the parameters of the problem, such as the institutional environment.

Real world corporate governance systems are obviously more complex than this simple example. The following section surveys the institutional environment and the governance instruments prevailing in Japan using the US as a benchmark. It develops in some detail the argument that there exist distinct systems of corporate governance differing substantially in the use of governance instruments. This survey provides the backdrop to the subsequent interpretation of corporate governance systems as clusters of complementary elements supported by specific features of the respective institutional environments.

### **3 Corporate Governance Systems — Comparing Japan to the US**

This section discusses the regulatory and institutional framework and the instruments of corporate governance prevailing in Japan.<sup>2</sup> The regulatory and institutional framework reflects policy decisions and hence the impact of economic policy on corporate

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<sup>2</sup> It is based on Charkham (1995), Aoki (1990, 1994a), Aoki and Patrick (1994), Hall (1998), Kato and Rockel (1992), La Porta et al. (1998), Sheard (1994), Ueda (1994).

governance. The focus of this section will be on the regulation of capital markets and banks and on the bankruptcy regime. These provide the environment in which firms and investors choose governance instruments. The instruments considered in this section are ownership structures, the roles of boards of directors, pecuniary incentives for managers, the role of the market for corporate control, the role of banks, and of the financial structure of non-financial enterprises.

### 3.1 Regulatory and Institutional Framework

Of particular relevance for corporate governance are regulations governing capital markets and the activities of banks, and bankruptcy legislation. Capital markets and banks are relevant to corporate governance for several reasons. *First*, the agency problems which corporate governance is meant to address are often closely linked to capital markets and banks. The separation of ownership from control for instance is most severe in firms publicly traded in stock markets. Hence while affording benefits of portfolio diversification, stock markets create or at least exacerbate agency problems between owners and managers. By the same token, borrowing either in bond markets or from banks creates agency conflicts between creditors and borrowers. Hence in order to gauge how significant different types of agency problems potentially are, and to understand what role corporate governance instruments may be playing, it is important to know what roles capital markets and banks are playing in enterprise financing. Regulation in turn can encourage or discourage firms in turning to capital markets and banks for financing.

*Second*, control rights are frequently tied to cashflow rights in characteristic ways (Dewatripont and Tirole 1994a), and so by studying sources of finance, insight can be gained into the sources of corporate control. *Third*, managerial incentives can be tied to performance signals from capital markets, and *fourth*, capital markets and banks can perform monitoring functions.

Bankruptcy legislation is important because the threat of bankruptcy gives creditors a lever with which to influence and discipline company management *ex ante*, and because reorganization or liquidation under bankruptcy can be the last resort in cases where other governance mechanisms have failed to prevent the firm from failing.

#### *Capital Market Regulation*

The corporate bond market in Japan was stunted by administrative regulation until well into the 1980s. The market had been dominated by a government-sponsored cartel of leading nation-wide banks. The cartel had been supported by a law allowing only selected banks to manage the collateral associated with bond issues (Weinstein and

Yafeh 1998). Unsecured corporate bonds as well as secondary trading in bonds were illegal until the 1980s. The cartel had accepted only a handful of firms as issuers of bonds. Commissions on bond issues had been 15 times higher than in the Euromarkets. These regulations were designed to facilitate government control over interest rates.

Liberalization began in the late 1970s (Korkie and Nakamura 1997). One of the key motives for the deregulation of interest rates and the liberalization of the bond market was that, as the Japanese economy matured, domestic investment opportunities began falling short of the still high domestic savings (Lincoln 1998). The gap was closed through growing fiscal deficits financed by bonds. Banks increasingly resisted accepting these bonds at artificially low interest rates, and so the government eventually allowed deregulation of interest rates. Japanese banks also faced the problem that, as domestic investment opportunities grew scarcer, finding borrowers grew more difficult. This is why the banks pushed for deregulation of the capital account and for access to the domestic real estate market.

After interest rate liberalization had been initiated in the late 1970s, the first major step towards reform of the financial system came in 1980 when the Foreign Exchange Control Law was relaxed, allowing Japanese firms to borrow in the Euromarkets. The result was that those major Japanese firms who were able to obtain an international credit rating increasingly used international bond issues to substitute for domestic credits. After the Foreign Exchange Control Law had been relaxed, the bond market cartel was forced to lower its commission rates drastically and to allow more firms to place bonds domestically. The number of firms doing so rose dramatically.

At least on paper, antitrust laws and insider trading laws on Japanese stock markets are similar to their US counterparts, although the stringency of enforcement in Japan has been questioned (Prowse 1994). However, disclosure requirements for publicly traded companies are clearly less stringent in Japan.<sup>3</sup> The liquidity of securities markets was suppressed further until 1992 by securities transaction taxes.

Both stock market liquidity and the ability of small investors to influence firms continue to be limited by administrative regulations. For instance, the minimum trading unit (MTU) at the Tokyo stock exchange results in an average price of an MTU which is 30 percent higher than on the NYSE (Amihud et al. 1998). This limits the ability of small investors to trade. Also odd lot shares, i.e. shares less than an MTU, cannot be

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<sup>3</sup> In a survey in 1989 the OECD found that less than one percent of Japanese multinationals were in full compliance with the OECD's guidelines on disclosure of operating results, whereas the clear majority of US and UK firms was (Prowse 1994).

traded on secondary markets and cannot be voted (although they are eligible for dividends).<sup>4</sup>

### *Banking Regulation*

The Japanese banking industry has been parcelled out into segments for short term versus long term loans, nation-wide versus regional operations, large firms versus small firms, and each segment has been covered by a different set of banks (Hall 1998). Entry into these segments has been strictly controlled by the Ministry of Finance. It is only since the early 1990s that these regulations are beginning to be relaxed. A major reform effort has been initiated in 1998. This will form the subject of Section 6 below.

In addition to the segmentation of the banking industry, the Ministry of Finance and the Bank of Japan had regulated interest rates heavily until the 1980s, keeping both deposit and lending rates down and maintaining a spread that guaranteed handsome profits to incumbent banks. In contrast to the US, Japanese commercial banks have been allowed to directly own equity stakes in client firms. The limits to these holdings had been 10 percent of the firm's equity for most of the postwar period, but were reduced to five percent in 1987. By the same token, limits on the concentration of equity ownership by life insurance firms have been more generous in Japan than in the US.

### *Bankruptcy Regime*

Japanese bankruptcy procedures are complex. Ryser (1994) describes in detail five legal procedures, two intended to lead to liquidation, and three intended to lead to reorganization.<sup>5</sup> On balance, Japanese reorganization procedures must be considered relatively tough on debtors when compared for instance to Chapter 11 in the US (Rajan and Zingales 1995). Eisenberg and Tagashira (1996) claim that for large publicly held corporations the bankruptcy procedure ("corporate reorganization" based on old US chapter 10) is a "rigid proceeding" and "almost always entails a change of management" (p. 504).

Table 1 gives an overview of the main features of Japanese bankruptcy legislation in comparison to the US. As for the two Japanese procedures designed to apply to potentially viable firms, composition and reorganization, the latter is open only to stock companies. The two procedures also differ in that in order for a firm to be eligible for composition it must really be on the verge of collapse, whereas applications under the

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<sup>4</sup> Under certain conditions Japanese companies can reduce their MTUs, but over the period 1992-1996 there have been only 88 cases where this has happened. Amihud et al. (1998) find that these decisions have increased the value of the stocks involved, and they explain this with reference to increased liquidity and better risk diversification for investors.

<sup>5</sup> The US and Germany by contrast only have two procedures, one for liquidation and one for reorganization (Chapters 7 and 11 in the US, viz. Konkurs and Vergleich in Germany).

corporate reorganization plan are possible also if the firm is only in danger of insolvency. Quantitatively, reorganization is the dominant legal procedure for large corporations (Eisenberg and Tagashira 1994).

*Table 1 — Bankruptcy Regimes in Japan and in the United States*

	Japan			US	
	Liquidations	Composition	Reorganiza- tion	Chapter 7 (liquidation)	Chapter 11 (reorganiza- tion)
Initiative	both firm and credi- tors may file	only firm may file	both firm and credi- tors may file	both firm and credi- tors may file	both firm and credi- tors may file
Control	3rd party appointed	managemen t stays in control	3rd party appointed	3rd party appointed	managemen t mostly stays in control
Automatic stay on claims	all creditors stayed	only unse- cured creditors stayed	all creditors stayed	all creditors stayed	all creditors stayed
Priority of claims	highest priority for secured creditors			highest pri- ority for se- cured creditors	frequent violations of absolute priority rule, primarily to the benefit of equity holders
Duration	median around four years	n.a.	median more than six years	typically short	typically several years
Distribution	n.a.	prevalent for small and medium firms	prevalent for large firms	88 percent of cases	12 percent of cases

Sources: Compiled based on information in Ryser (1994), Rajan and Zingales (1995), Hackethal and Tyrrell (1998).

Comparing this reorganization procedure to its US equivalent, which is Chapter 11, the main difference is that management loses control under the Japanese reorganization procedure. By contrast, Chapter 11 allows management to stay in control during the reorganization process. Hence management and owners in the US can obtain temporary protection from creditors (and this protection may actually last for years) while maintaining control of the firm. Indeed, deviations from absolute priority in bankruptcy resolution, i.e. cases where senior creditors agree to accept less than the contractual value of their claims to the benefit of owners are common in the US, and Chapter 11 is often criticized for being too soft on incumbent managements (Aghion et al. 1992, Betker 1995).

Japanese creditors are in a significantly stronger position in that debtor firms can obtain a stay on creditor claims only at the cost of transferring control to a third-party trustee. Partly as a result of the weaker position of management and owners, deviations from the original order of priority of claims are less frequent in Japan.

In addition to the relatively strong position of creditors in bankruptcy proceedings, there is another mechanism in Japan which strengthens the hand of creditors vis-à-vis firms. This is the "suspension of banking transactions" system (Ryser 1994).<sup>6</sup> If payment of a check or promissory note issued by a firm is refused by its bank due to lack of funds in the drawn-on account and if this occurs twice within six months, the firm concerned is prohibited from using the services of any bank for two years (or until the banks collectively decide that the firm has become a reliable debtor again).

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<sup>6</sup> In fact, roughly 90 percent of all business failures in Japan occur through this measure rather than through formal court-mediated bankruptcy proceedings. The overwhelming dominance of suspensions and private liquidations is due to the fact that those methods are the most useful for small firms (where the value of assets is so small as not to justify the expenses of going to court). Among the largest firms, legal bankruptcy proceedings are much more common, but even for those they reach only 40 percent, implying that the majority of cases are settled privately through suspension of banking transactions.

Obviously having all banking transactions suspended is virtually equivalent to shutting down the business as no firm can survive for two years without access to banking services. Shutting down then occurs through private liquidation (as opposed to court-ordered and court-supervised liquidation). Of course the decision whether a firm will be subjected to this lies with the firm's bank. If the bank thinks that the firm is solvent or can otherwise be rescued through reorganization, it will grant overdraft facilities to the firm rather than let its notes or checks bounce.

### 3.2 Governance Instruments

The following gives an overview of ownership structures and concentration, the role of the market for corporate control, the significance of pecuniary incentives for managers, capital structure and the monitoring role of banks.

#### *Stock Market Size and Liquidity*

Japanese stock markets list about 2,400 companies. This is about 2 percent of all companies. In terms of market capitalization the Japanese stock market is today considerably smaller than the US market (Table 2). However, in the late 1980s, after the US stock market crash of 1987 and during the height of the Japanese bubble economy, the relationship was reversed.

*Table 2 — Stock Market Capitalization 1981-97 (Percent of GDP)*

	1981-85	1986-1990	1991-1995	1996-1997
Japan	46.4	113.3	75.0	64.2
US	49.4	57.6	77.3	125.1

Source: IFC (1988, 1998); own calculations.

But for the role of the stock market in corporate governance, its overall size relative to GDP is less important than its liquidity. Without sufficiently liquid stocks, speculators do not have the appropriate incentives to analyze firms and hence stock market monitoring will not be effective (Holmström and Tirole 1993). Liquidity as measured by the percentage of market capitalization actually turned over in a given period has been lower in Japan than in the US except for the early 1980s (Table 3).<sup>7</sup> Even during the 1980s, when liquidity in the Japanese stock market was relatively high, hostile

<sup>7</sup> Caution must be used when comparing turnover ratios across countries as countries and even individual stock exchanges within countries may differ in the extent to which their turnover statistics cover transactions taking place outside exchanges.

takeovers did not become more common due to the prevalence of stable cross-shareholdings.

*Table 3 — Stock Market Liquidity 1981–1997 (Turnover in Percent of Market Capitalization)*

	1981-85	1986-1990	1991-1995	1996-1997
Japan	47.2	64.1	30.8	48.5
US	38.3	67.6	62.0	87.1

Source: IFC (1988, 1995, 1998); own calculations.

### *Concentration of Ownership*

One indicator of the liquidity of the stock market - or lack thereof - is the concentration of ownership. Large ownership stakes are more difficult to sell than small stakes because putting a large stake on the market will likely depress the share price. Therefore large stakes tend to be sold less frequently. Ownership concentration in Japan has been higher than in the Anglo-Saxon countries (Table 4).

*Table 4 — Ownership Concentration in Large Firms (Percentage of Outstanding Shares Owned by the Five Largest Investors)*

	Japan	US
mean	33.1	25.4
median	29.7	20.9
standard deviation	13.8	16.0

Japan: 1984, US 1980.

Source: Corbett (1998).

A characteristic feature of the corporate landscape in Japan are the *keiretsu*, i.e. groups of affiliated enterprises linked through cross-shareholdings and often centered round a bank. Although the *keiretsu* make up less than 20 percent of quoted companies by capital, assets, and sales, according to Hoshi et al. (1991) less than ten percent of the non-financial corporations listed on the Tokyo stock exchange were completely independent of all industrial groups (in 1981).

On average about a fifth of the shares of any given member firm of a *keiretsu* are held by other members. While banks often hold sizeable packages of shares up to the legal limit of currently five percent of a firm's stock, other member enterprises typically only hold ownership stakes of one percent or less, although there are no legal



limits on cross-shareholdings. Thus, ownership concentration per se is actually not particularly high, although it is clearly higher than in the US or the UK. The relatively dispersed ownership structure may be due to the insider trading and disclosure laws molded on the US example and which are discouraging concentrated ownership there.

Despite the fairly dispersed nature of shareholdings, these holdings are relatively stable even over and above the cross-ownership within *keiretsu*. On average 50 to 70 percent of shares are held by friendly investors for the long-term. These long-term holdings are underpinned by long-term business relationships.

### *Ownership Structure*

Table 5 confirms that in contrast to the Anglo-Saxon countries, banks and non-financial corporations are the dominant owners in Japan. Cross-shareholdings between non-financial firms are a major feature of the Japanese system of corporate finance and corporate control. Around 70 percent of the equity of non-financial firms is owned either by financial institutions or by other non-financial corporations. This creates a stable core of owners and insulates firms from hostile takeover threats.

*Table 5 — Ownership Patterns 1995 (Percent of Equity Outstanding)*

	Japan	US
Individuals	22.2	36.4
Corporations	67.0	59.5
Non-financial corporations	31.2	15.0
All financial institutions	35.8	44.5
Banks	13.3	0.2
Other financial Institutions	22.5	44.3
Foreign Owners	10.3	4.2
Government	0.5	0

Source: Deutsche Bundesbank (1997).

By contrast, institutional investors are less important in Japan than in the US or the UK. Like small individual investors, they have been basically passive and have not tried to exert corporate control to any significant extent. Shareholder meetings have been largely ceremonial. The behavior of institutional investors is expected to change somewhat in the future due to the ageing of Japanese society which forces insurance

companies to press for higher dividends so that they can meet pay-outs to their clients, and due to the slump in the stock market, which has taken away capital gains as a source of income for institutional investors.

### *Sources of Finance*

Using various alternative definitions of *leverage*, Rajan and Zingales (1995) find for the period 1987-1991 that US firms were more highly leveraged than Japanese firms based on market values of equity. However, the differences between the US and Japan were found to be relatively small.

The importance of bank loans as a source of finance has changed significantly in the 1980s for large manufacturing firms. As a percentage of the total assets at book value of large manufacturing firms, bank loans declined from well over 50 percent in 1980 to less than a quarter in 1990 (Charkham 1995). Over the same period the share of bonds more than doubled to one fifth, and the share of equity rose from 37 percent to well over 50 percent.

In terms of flows, retained earnings have been the main source of total financing in Japan (Table 6). This is in line with the evidence for most countries. External financing has been more important than for instance in the US. When comparing the first half of the 1980s with the second half, the effect of the deregulation of the domestic bond market and of the liberalization of access to foreign bond markets are readily apparent. The share of bonds as a source of financing doubled and thereby reached proportions not too different from what is common in the US. Corresponding to the rise of bond finance, the importance of bank loans as a source of financing declined. In the second half of the 1980s it was actually less important than both share and bond issues (Ueda 1994). It is interesting to note, however, that this decline has been due entirely to reduced short-term borrowing, whereas long-term borrowing actually expanded significantly. In the 1990s, after the financial bubble had burst, financing patterns again exhibit a dramatic change. Financing through share issues declined markedly. But more remarkably, the bond market virtually collapsed as a source of funding, and long-term borrowing from banks picked up the slack. This suggests that in the first half of the 1990s, main banks were still trying to play their role as providers of insurance against financial distress for non-financial firms. As the massive banking crisis which erupted in the second half of the decade shows, this attempt ended in failure.<sup>8</sup>

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<sup>8</sup> See Berghaus and Gmelin (1998) and the references therein for an overview of the crisis.

Table 6 — Sources of Financing of Non-Financial Enterprises 1981–1995 (Percent of All Sources)

	1981–85		1986–90		1991–95	
	Japan	US	Japan	US	Japan	US
Retained earnings	55	92	52	103	83	109
Long-term bonds	5	10	10	12	0	9
Share issues	9	–6	12	–14	7	–2
Short-term borrowing from financial institutions	13	9	–1	7	–2	0
Long-term borrowing from financial institutions	3	1	7	3	14	–2
Other	15	–6	20	–11	–2	–14

Notes: Japan - Manufacturing industries; Other sources of financing include notably trade credit, foreign direct investment, and borrowing from "other" sources.

Source: OECD (1999), own calculations.

In terms of the net contribution to *investment in real assets only*, bank finance in all firms declined from one third in the first half of the 1980s to one fourth in the second half (Corbett and Jenkinson 1996). While Japan traditionally had had a higher share of bank finance than e.g. the US, the UK or Germany, in the second half of the 1980s bank finance in Japan made a less important contribution than it did in the UK. In the same time period the share of bonds rose from negligible proportions to 9 percent. Yet, bank finance still remained the dominant external source of finance in Japan, whereas in the US, bond issues had overtaken bank finance by the second half of the 1980s. The net contribution of new equity issues to the financing of investment has been small in Japan, as is typically the case in most countries (Rajan and Zingales 1995). However, it has been positive, while in the 1980s it was negative on a net basis in the US. The low net contributions of new equity issues in the US and UK may be due to a higher degree of share buybacks in those countries and to a lower level of cross-shareholdings.<sup>9</sup>

<sup>9</sup> Brioschi and Paleari (1996) find that the net contribution of equity is lower in Japan when taking into account increases and decreases in equity financing due not to the issuance of new shares, but to trading in existing shares. If a firm sells part of its holdings in a listed subsidiary, this constitutes equity financing for the parent firm according to these authors. Conversely, buying additional shares of a listed firm with which one has ownership links reduces the amount of equity financing to the firm. Overall, though, their findings are still broadly in line with the net contributions of equity found for Japan by Corbett and Jenkinson (1996) and Rajan and Zingales (1995).

### *Hostile Takeovers*

Hostile takeovers have played virtually no role in Japan. Stable cross-shareholdings have proven an effective defense against attempts at hostile takeovers (Lichtenberg and Pushner 1992). Even counting all mergers and acquisitions, friendly or hostile, the market for control has been about fifteen times more active in the US than in Japan in the second half of the 1980s (Prowse 1994). But despite the absence of hostile takeover threats, Japanese managers have not been shielded from external intervention (Kaplan and Minton 1994, Kang and Shivdasani 1995, 1996). Specifically intervention has occurred through appointment of outside directors from main banks and other corporations.

### *Main Banks*

A characteristic feature of Japanese corporate governance has been the *main bank system*. Its main characteristics have been close and exclusive relations between one bank and a firm, based on historical connections (e.g. pre-war industrial groups (*zaibatsu*), or war-time designated bank relationships), and reinforced by bank ownership of significant equity stakes. Traditionally, main banks have played an important role not only in financing but also in monitoring firms and providing insurance against financial distress. Main banks and firms are intimately linked also through lead-management of bond issues, and cash management. Which aspects dominate is contingent on the wealth position of the firm. In firms with very strong wealth positions the main bank's role is largely limited to equity ownership, managing bond issues and cash management. Firms with weaker wealth positions which do not have access to the bond markets rely on their main banks also to syndicate loans.

The main bank typically leads loan syndicates, but on average supplies only about 20 percent of the loan funds. The other syndicate members rely on the main bank's ex ante evaluation of the investment project. Hence main banks act as delegate monitors also for other lenders. By the same token, "interim" monitoring during the gestation period of the project is delegated to the main bank. The monitoring role of main banks has been based on their ability to collect key information on the company, based on their roles as cash managers, lenders and equity owners.

Apart from ongoing monitoring, main banks are expected to take care of possible financial distress of their borrowers. Main banks routinely guarantee the trade credits extended from one *keiretsu* firm to another. When a firm underperforms and begins experiencing financial distress, a process of concentration of the firm's debt sets in as the main bank is called upon to make good on its guarantees of trade credits granted to the firm, and as it also acts as the representative of the syndicate of bank lenders in addition to the sizeable portion of the firm's debt that the main bank holds outright.

This concentration of debt enables the main bank to take effective control of a firm in or on the verge of financial distress (Berglöf and Perotti 1994).

In the event of financial distress, the main bank typically bears a share of the costs disproportionate to its share in the original loan. It may organize rescue operations, by rescheduling loans, granting new emergency loans, supplying management resources and reorganizing the firm. In so doing, it may also replace the incumbent management.

### *Management Remuneration*

Apart from the threat of intervention and replacement, management can be motivated also through performance-related remuneration contracts. Performance incentives for employees are in general provided through a *rank hierarchy* system in Japan. (Aoki 1990, 1994a, Milgrom and Roberts 1994). Each rank in the hierarchy carries a certain level of pay but is not related to a specific job. Employees compete for promotion in the rank hierarchy. Differences in speed of promotion are based on merit, where merit is not measured on particular jobs but on general problem-solving and communication skills. Moreover, firms tend to hire only at the bottom of the rank hierarchy and to fill positions at higher ranks through internal promotions. As a result, employees who are laid off have a low probability of finding a new job of comparable rank elsewhere.

The average level of *CEO pay* is much lower than in the US when normalized to the average wage in the industry involved. The multiple Japanese CEOs earn over the average wage is only one tenth to one third of that of their US counterparts. A significant part of performance incentives in Japan seem to come in the form of deferred compensation through promotions and through job placements with affiliated companies at the end of managerial careers (Rebick 1995).<sup>10</sup>

Kato and Rockel (1992) found that Japanese CEO compensation was not significantly linked to shareholder returns nor return on equity, whereas the cash compensation of US CEOs was positively associated with shareholder returns. These findings seem to support the notion that Japanese firms were not primarily run for the benefit of shareholders. However, the study looked at only a single year, and so the result may rather point to a short time horizon of US managerial incentives and a longer time horizon for Japanese managers.

Kaplan (1994) compares the determinants of cash compensation in Japan and the US for the first half of the 1980s. In contrast to the findings of Kato and Rockel (1992), cash compensation is found to respond in broadly similar ways to current profits, sales growth and stock returns in both countries. By far the strongest impact on cash com-

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<sup>10</sup> The practice of offering jobs at affiliated companies for employees past the mandatory retirement age is very common in Japan, but it may be more applicable for middle managers than for the top level.

pensation in both countries stems from variations in firm profits. The impact of stock returns by contrast is either insignificant or even negative.<sup>11</sup> Hence the main difference between the two studies is not in the assessment of the responsiveness of cash compensation to firm performance in Japan, but in the US.

However, US CEOs on average own a much larger fraction of their firms' equity than Japanese top executives. The strong link between firm performance and CEO compensation in the US is attributable almost exclusively to changes in the market value of the stock and stock options held by CEOs (Hall and Liebman 1998). Hence when taking stock and stock options into account, overall CEO compensation is likely to be significantly more sensitive to stock returns in the US than in Japan.

Current profits thus seem to play a larger role than stock returns in the motivation of top managers in Japan relative to the US. This is confirmed by Xu (1997) who studies empirically the determinants of salaries and bonuses of Japanese executives over the 1983-1991 period. He finds that salaries and bonuses can be understood as prizes in promotion tournaments, and that bonuses are also sensitive to current profits but not to changes in share prices. Hence the notion that Japanese top managers are more insulated from the stock market than their US counterparts is supported by the evidence.

To summarize, the regulatory environment in Japan has not been conducive to assigning capital markets a significant role in corporate governance. The size, liquidity and transparency of both bond and equity markets has been constrained by legal and administrative barriers. As a result, capital markets have hardly served as sources of information about firm performance nor as devices to discipline managers. Managerial incentives have not been based to a significant degree on stock ownership, and the market for corporate control has been virtually non-existent.

However, the regulatory environment has facilitated a central role for the country's major banks for three reasons. First, the very fact that the stock and particularly the bond market have been kept to the sidelines for a long time has forced firms to rely heavily on banks as their main sources of external finance. Second, in contrast to the US, banks have been allowed to hold significant ownership stakes in non-financial firms, and they have frequently used this opportunity to the limit. Third, the Japanese bankruptcy regime has been comparatively tough on borrowers. The threat of intervention by creditor banks therefore carries considerably more force in Japan than for instance in the US.

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<sup>11</sup> When controls for other performance measures are omitted, stock returns in Japan show a significantly positive impact on cash compensation. So while stock returns per se show a positive impact on cash compensation, this is an artefact of the positive impact of profits on cash compensation.

## 4 Empirical Evidence on Performance

The previous section has shown that the Japanese system of corporate governance differs significantly from the US system along several key dimensions. What remains unclear is whether these differences are a source of inefficiency of one of the two systems relative to the other. Unfortunately, the empirical evidence on the performance of the Japanese system has remained extremely scant. Also, what little empirical evidence there is covers largely the 1980s. Even the most recent empirical studies so far do not extend to the second half of the 1990s, a period when particularly the Japanese banking system has come under severe strain due to large amounts of non-performing loans. Also, the impact of the most recent reforms initiated since 1998 obviously still awaits empirical evaluation.

Partly, the limitations on the empirical evidence are due to general problems of adequately measuring the performance of corporate governance instruments. Self selection among optimizing firms should see to it that in competitive equilibrium no correlation between governance instruments and performance would be observed, as each firm would be using those instruments best suiting its needs.<sup>12</sup> Moreover, some information required to assess the performance of governance mechanisms may not be readily available.<sup>13</sup> Finally, comparisons across countries are usually fraught with difficulties because of differences in disclosure, accounting and tax rules. But partly the limitations in the empirical evidence are also due to a failure to recognize the systemic nature of corporate governance.

Several approaches have been suggested, but none is fully satisfactory.<sup>14</sup> Blanchard et al. (1994) use event studies to assess empirically how well corporate governance in the US deals with free cashflow problems. They study firms which won large damages in law suits (or won law suits that had been brought against them and so saved payment of damages). Blanchard et al. find that these firms use the associated windfall gains mainly to finance additional investment rather than paying out the gains to shareholders. Hence free cashflow problems have been potentially serious in the US. However, no similar studies have been undertaken for Japan. Nonetheless, the Japanese

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<sup>12</sup> For instance Hermalin and Weisbach (1991) do not find any correlation between the fraction of outsiders on boards of directors in US firms and firm performance. They argue that this may be due to different board compositions being optimal for different types of firms, and all firms choosing the board composition which is optimal for them.

<sup>13</sup> In the case of Japan for instance, information on the compensation of chief executive officers (CEOs) is not published. Empirical studies have been forced to proxy for the compensation of CEOs by either using an average over all board members or inferring incomes from tax returns.

<sup>14</sup> Apart from the approaches discussed in the text, indices based on qualitative assessments of the enforceability of the rights of minority shareholders and creditors have been used to determine empirically the role of deficiencies in corporate governance in the Asian financial crises of 1997-98 (Johnson et al. 1998).

corporate governance system may be at a disadvantage relative to the US when it comes to governing free cashflow problems because it is easier in the US for firms to return cash to shareholders through dividends and share repurchases (Kaplan 1997, see also Kester 1992). Share repurchases were illegal in Japan until 1994 and remain restricted, and dividends carry a tax penalty when paid to other corporations, which is very often the case given the large cross-shareholdings in Japan.

Macey (1998) suggests three ways to measure the performance of corporate governance systems. First, the premium paid in the stock market for voting over non-voting shares can be used as a measure of the private benefits of control over a corporation, and thereby as a measure of the costs of agency conflicts between controlling and minority investors. The larger the premium, the larger the private benefits of control and the larger the costs of this agency conflict. Zingales (1995) finds the average voting premium in US markets to be ten percent with a median of only three percent. This is at the lower end of the spectrum in international comparison, suggesting that conflicts between controlling and minority owners are relatively minor in the US system (Zingales 1994). Unfortunately, there is no study which has measured the voting premium for Japan. But qualitative indices of legal protection for minority shareholders have been constructed for a cross-section of countries (La Porta et al. 1998a).<sup>15</sup> These suggest that legal protection has been weaker in Japan than in the US.

It might be thought that the degree of ownership concentration could also be used as a measure of agency conflicts between controlling and minority investors. As documented in Section 3, ownership has been more concentrated in Japan than in the US. However, this measure does not allow unambiguous conclusions to be drawn. On the one hand, ownership concentration might be viewed as evidence that investors are willing to take minority positions in firms with concentrated ownership. This would suggest that agency conflicts between controlling and minority owners are being governed satisfactorily. Conversely, the fact that the vast majority of US firms does not have controlling investors would then have to be interpreted as evidence that in the US agency problems between controlling and minority investors are avoided because the system would be poor at governing them. On the other hand, though, the dispersed ownership structure in the US can also be interpreted as evidence that it does not pay for any investor to acquire control because minority investors' rights are so well protected that there are no private benefits of control available. In other words, the interpretation of prevailing ownership structures depends on whether you look at it from the perspective of under which conditions minority investors would allow an investor

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<sup>15</sup> The legal rules considered by La Porta et al. are one-share-one-vote rules, the possibility of proxy voting by mail, that share trades are not blocked before shareholder meetings, cumulative voting in elections to boards of directors, and oppressed minority mechanisms.



to take control (namely if agency problems are governed well) or from the perspective of under which conditions an investor might want to take control (namely if agency problems are not governed well).

However, the degree of ownership dispersion can be taken as a measure of the severity of agency conflicts between managers and dispersed owners. This is the second measure of the performance of corporate governance systems proposed by Macey (1998). The costs of the separation of ownership from control will be borne by the founder of the enterprise (Jensen and Meckling 1976), and so decisions to take a firm public and to separate ownership from control should be negatively associated with the agency costs of separating ownership from control. There are significant international differences in the extent to which firms choose to go public given that they satisfy the listing requirements of their respective stock exchanges (Macey 1998). But unfortunately, there is again no evidence on this for Japan. However, in 1994 Japan had considerably fewer firms listed on its stock markets relative to its population than the US (La Porta et al. 1997). As mentioned above, ownership concentration has also tended to be higher in Japan. This would tend to support the view that agency problems between managers and dispersed owners are more severe in Japan than in the US.

More generally, a negative correlation has been found between the legal protection of minority investor rights and the degree of ownership concentration (La Porta et al. 1998a, 1998b). Since large owners are able to monitor and control management even in the absence of legal rules protecting the rights of minority shareholders, the absence of such rules does not imply a deficit in monitoring. But it does imply that monitoring by large shareholders comes at the opportunity cost of foregoing the advantages of a separation of ownership from control, which essentially amount to better risk diversification for investors and access to a larger pool of external capital for firms.

However, even if there are strong rules protecting minority shareholders, firms with dispersed ownership structures still have to confront the free rider problem first raised by Berle and Means (1932): why would dispersed shareholders ever incur the costs of exercising the rights the legal system confers on them to exert control? Hence the virtual absence of controlling shareholders in most US corporations might suggest that the rules protecting minority investors from abuse by controlling investors, and thereby discouraging ownership concentration, are excessively stringent to the point of preventing effective control of management through owners.

The third criterion suggested by Macey (1998) for the efficacy of a corporate governance system is whether poor share price performance leads to changes in management, be it through hostile takeovers or through other means. On this count, there are several empirical studies on Japan. When other rescue measures are failing, Japanese main banks often intervene and oust incumbent managements. Aoki (1990) has coined

the term "bank takeover" for cases where the main bank temporarily takes over management of a troubled firm. This is done through decisions by the board and the shareholder meeting (although the main bank is prohibited legally from owning more than 5 percent of the stock of the firm and so clearly cannot do this on its own).

Interventions through the board of directors have been triggered by poor stock price performance and poor current earnings (Kaplan and Minton 1994, Kang and Shivdasani 1995, 1996). At the same time, these interventions have led to more frequent management turnover. Apart from main banks, large shareholders have also played an important role in initiating these changes. Forced managerial turnovers have benefitted shareholders through significantly positive abnormal stock returns.

While these findings suggest that the threat of outside intervention has linked the interests of Japanese managers to those of shareholders, this does not yet imply that the interests of shareholders receive a similar weight as they do in other corporate governance systems.

Kaplan (1994) therefore compares the determinants of top management turnover in Japan and the US. He claims that in Japan the probability of non-routine departures of top executives is linked to prior firm profits in ways similar to the US. However, these results must be viewed with a considerable amount of caution because the data on the US do not distinguish between routine and non-routine CEO turnovers. Inter alia, takeovers are treated as missing observations rather than as cases of non-routine CEO turnover. If non-routine turnovers in the US were more sensitive to profits than all turnovers, an assumption that would seem plausible, then the differences between Japan and the US would be expected to be larger. In contrast to the similarities found with respect to current profits, turnover probabilities are significantly less sensitive to prior stock returns in Japan.<sup>16</sup> Thus, while large shareholders in Japan have been able to intervene in management in response to poor share price performance, this type of intervention seems to have been less likely than in the US. Indeed, in Japan probabilities of non-routine management turnovers were not significantly related to stock returns, neither in the short-run nor in the long-run Abe (1997).

As a final measure of the effectiveness of corporate governance, the role of main bank relationships in lowering the agency costs of debt and of financial distress has been studied empirically. Long-term relationships can reduce asymmetries of information between banks and firms and can thus reduce agency problems. As a result, the

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<sup>16</sup> The difference is less significant when controls for other performance variables, such as profits and sales, are omitted. On the one hand this means that stock returns per se do have a similar impact on turnover probabilities in the two countries. On the other hand, the findings suggest that this impact really is a coincidence stemming from a positive correlation between period profits and stock returns. Moreover, the same caveat applies as above: no distinction is made between routine and non-routine managerial turnover for the US.

cost of loans can be reduced. In support of these claims, Hoshi et al. (1991) find for the late 1970s and early 1980s that firms with main bank relationships were less liquidity-constrained than firms without them.

In a similar vein, it has been argued that main banks have been acting as delegate monitors for all lenders and thus have reduced the agency costs of debt further (Fukuda and Hirota 1996). Hence firms with strong main bank relationships should have lower credit costs and borrow more. Conversely, high leverage creates significant potential conflicts of interest and so firms with high leverage have a particularly strong interest in a main bank relationship to govern these conflicts. Thus main bank relationships can be explained as arising endogenously and as reinforcing high leverage. Flath (1993) finds empirical support for this for the early to mid-1980s.

Moreover in 1990, when the effects of the bond market liberalization had had time to work their way through to balance sheets, firms with significant growth opportunities tended to rely more on bank debt, whereas firms with few growth opportunities relied more on bond finance (Anderson and Makhija 1999).<sup>17</sup> This pattern is consistent with minimizing agency costs of debt since assessing and realizing growth potential is beset by particularly severe asymmetries of information. Hence agency problems between creditors and owners tend to be more severe in firms with large growth potential.

Also, close relationships between banks and firms can be particularly valuable in reducing the real costs of financial distress. Real costs of financial distress are caused by the disruptions in financing and supplier and customer relations that financial distress may cause. In particular, if creditors (and suppliers and customers) are many and if each has a small stake, they are unlikely to be well-informed about the prospects of the firm. Under these circumstances, rescheduling of debts may fail due to free rider problems, and viable firms may suffer from lack of access to fresh capital.

By contrast, if debt is concentrated, or if there is a main bank acting as delegated monitor for all debt holders, and if customers and suppliers are shareholders and have close long-time relationships with the distressed firm, then investors and suppliers are likely to be better informed. Bargaining about reorganization is then less likely to fail inefficiently (Detragiache 1993).<sup>18</sup>

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<sup>17</sup> Some caveats are in order about the statistical validity of the paper's results, since in the period under study, growth opportunities declined on average at the same time as the bond market was liberalized. Therefore the positive association between declining growth opportunities and rising bond finance may to some extent be spurious.

<sup>18</sup> Detragiache (1994) explains the trade-off between private, i.e. closely-held debt (such as bank credit) and public, i.e. widely-held debt (bonds) in terms of efficient renegotiation in financial distress (which is easier with closely-held debt), and efficient ex-ante risk taking (which is easier with widely-held debt precisely because ex-post renegotiation is less likely in this case).

Based on data from the early 1980s, Hoshi et al. (1996) argue that financially distressed firms that were either members of *keiretsu* or had a relatively large share of their debt originate from a single lender (whence a strong main bank relationship) invested more and maintained higher sales than other firms. This finding corroborates the role of main banks in limiting the costs of financial distress. Further support is provided by Weinstein and Yafeh (1998) who find that most of the rents from main bank relationships are captured not by the firms but by the banks through high lending rates and by nudging firms towards more conservative, less risky, but also less profitable investment strategies than would be pursued by independent firms.<sup>19</sup>

However, claims about lower costs of debt and lower costs of financial distress in Japan as a result of the Japanese system of corporate governance have been called into question more recently. In particular, the studies above do not attempt to compare agency costs in Japan and the US. Hall and Weinstein (1996) find no differences between distressed firms in the US and Japan with respect to total investment spending and sales. All their results hold up even when the Japanese sample is restricted to *keiretsu* member firms. Thus the results contradict the earlier findings of Hoshi et al. (1996) that *keiretsu* firms were less liquidity-constrained, particularly in distress. The two studies differ in several respects, including in the industrial sectors covered. But the main cause for the disagreement in results appears to be that in contrast to Hoshi et al. (1996), Hall and Weinstein (1996) also cover the period 1986-92.

Going one step further, Kang and Stulz (1997) even argue that close ties with banks may have adverse effects on firms in times of financial crises. They study the stock price performance of Japanese firms during the asset price deflation of 1990-1993. They find that firms with high bank debts performed worse after controlling for other performance-relevant variables. Firms with high bank debt also invested less during that period. Thus under bank-centered corporate governance firms appear to suffer along with the controlling banks.<sup>20</sup> Again, this finding is in stark contrast with the earlier results of Hoshi et al. (1991, 1996) and Fukuda and Hirota (1996), who found that firms with main bank relations were less liquidity constrained.

Thus it may well be that the burst of the Japanese asset bubble at the end of the 1990s has impaired the functioning of the main bank as an insurer against financial distress. To the extent that reduced insurance and financing abilities also reduce the influence of the banks over firms, the burst of the bubble may also have reduced the

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<sup>19</sup> The ability to capture rents during times of normal business conditions is key for banks to be able to support firms in periods of financial distress and thus to sustain long-term relationships.

<sup>20</sup> The banks suffered from the asset price deflation in a number of ways including through loss of value of real estate investment and of stock market investments, and through the general economic downturn caused by the burst of the bubble.

banks' effectiveness as delegate monitors. Moreover, the deregulation of the bond market in the early 1980s and the reduction in 1987 of the maximum ownership stake a bank is allowed to hold in a firm may have further undermined the Japanese main bank system. We will return to this issue in Section 6 below.

The studies surveyed above are useful because they demonstrate the empirical significance of agency costs. However, all of the proposed measures of the performance of corporate governance systems remain unsatisfactory in that they invariably focus on a single source of agency costs, neglecting others. Studies of the use of windfall gains single out the agency costs of free cashflow. The voting premium measures the costs of agency conflicts between controlling and minority owners. Shareholding concentration measures as well as findings about management changes in response to poor share price performance measure the costs of agency problems between owners and managers. And studies on the costs of bank debt and on liquidity constraints in financial distress focus on agency problems of debt only.

All of these empirical measures are likely to give misleading results when used to assess the performance of alternative governance systems in terms of overall welfare for two reasons. First, it would be inappropriate to conclude from the existence of one type of agency costs that corporate governance has failed. Rather, with several agency conflicts to be governed, and with any governance instrument giving rise to opportunity costs, the optimal level of agency costs is unlikely to be zero.

Second, it would be inappropriate to conclude from a comparison of different governance systems based on agency costs of one type that the system where this type of agency costs is lower necessarily performs better. It is conceivable that the other system produces lower costs of governing other agency conflicts.

This point has been recognized implicitly in connection with the evaluation of hostile takeovers in the US. Share price appreciations in the wake of hostile takeovers may reflect a redistribution of (quasi-) rents to shareholders and away from stakeholders like employees, customers and suppliers, or management (Shleifer and Summers 1988, Castanias and Helfat 1992). Hence the welfare gains of hostile takeovers may be overestimated by the changes in the combined market value of the shares of the acquiring and target firms. By analogy, changes in share prices may reflect redistributions between shareholders and creditors or among different groups of shareholders. Hence, by opening up the possibility of redistributions of (quasi-) rents, the possibility of hostile takeovers may well exacerbate agency conflicts between owners and creditors, or between controlling and minority owners.

Moreover, even when focusing on one agency problem, care must be taken when evaluating empirical studies based on the analysis of only one or a few governance in-

struments. In particular, attempts to derive conclusions about the success in reducing agency costs merely from investigations about whether a particular governance instrument is being used can go seriously awry. To use an analogy, from an empirical investigation which finds that firms in one industry are not using a particular production factor as intensively as firms in another industry, one would hardly draw any conclusions as to the relative efficiency of the two industries. In order to be able to draw such conclusions, one would need a theory of optimal factor demand. This theory would tell us first that it is typically optimal to use a combination of factors, and second that the optimal combination depends on the technology used and on relative factor prices. Hence, empirical investigations of the use of one factor (e.g. labor demand) control for differences in technologies, differences in relative factor prices, and differences in the use of other inputs.

Applied to corporate governance in Japan, the finding of a relatively weak responsiveness of both managerial turnover and managerial compensation to changes in the share price in Japan might be interpreted as evidence of poor corporate governance. However, it is a tenet of agency theory that incentives should ideally be based on the best possible measure of the agent's performance. Specifically, monitoring management is valuable because it allows owners to discriminate between the effects of random shocks and managerial effort and to reward effort without subjecting management to the risk induced by random shocks (Holmström 1979). Main banks and large shareholders in Japan have had stronger incentives to engage in active monitoring than is the case in the US with its dispersed ownership structure.<sup>21</sup> Hence owners in Japan may have better measures of managerial performance than the share price. In a similar vein, the lower liquidity of shares in Japan may result in share prices having a lower information content in Japan than in the US. If so, the weak responsiveness of managerial turnover and performance cannot be interpreted as a sign of poor corporate governance.

Similarly, a rigorous test of the hypothesis that free cashflow problems are especially serious would have to go beyond the observation that share repurchases have been illegal in Japan and that dividends carry a tax penalty (Kaplan 1997) and would have to control for other governance instruments that might potentially alleviate the problem.

To summarize, the empirical evidence on the performance of the Japanese governance system is sketchy. There are no papers studying to what extent Japanese enterprises succeed in minimizing the *sum* of the costs arising from agency conflicts between management and various groups of investors, and among groups of investors.

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<sup>21</sup> Bhidé (1993) argues that the liquidity of the US stock market prevents active monitoring and comes at the cost of „impaired corporate governance“. See also Holmström and Tirole (1993) for a model in which different incentives in liquid and illiquid markets generate different kinds of information about firms.

The limited evidence on the governance of individual agency problems is fraught with serious methodological difficulties. Likewise, the evidence on the relative performance of corporate governance systems in Japan and the US is ambiguous. However, in the late 1980s and early 1990s the ability of the Japanese system to govern agency problems appears to have deteriorated as a result both of policy changes (the deregulation of the bond market) and exogenous shocks (the burst of the asset bubble).

Despite the problems with the empirical evidence, the foregoing discussion suggests three conclusions. First it confirms that there are several agency problems which are of importance empirically. Second, it suggests that interrelationships between governance instruments may be important. And third it suggests that changes in the institutional environment can have an impact on the performance of the system. Building on these conclusions, the following section offers an explanation of corporate governance systems in terms of complementary instruments that reinforce and support each other in the simultaneous solution of several agency problems.

## **5 Systemic Complementarities**

Deferring until Section 6 the most recent problems experienced by the Japanese economy, firm behavior and corporate governance outcomes in Japan do not appear to have been systematically inferior to the US. This raises the question how the Japanese system could be effective despite differing from the US system along many important dimensions. Some authors have claimed that these differences are in degree rather than in kind (Garvey and Swan 1992), or that, while they are real, they are smaller than differences between either one of them and governance systems in less successful economies (Shleifer and Vishny 1997). However, these rationalizations do not really contribute to informing the policy debates on reforming corporate governance currently under way in several OECD economies as well as in emerging markets in Asia and Eastern Europe.

This section offers an alternative explanation for the coexistence of two different systems of corporate governance based on the multitude of agency problems typically to be governed within a given firm.<sup>22</sup> These agency problems can arise between controlling owners and minority owners, between owners and managers, and between owners and creditors. It will be argued that governance instruments and parameters of

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<sup>22</sup> See Heinrich (1999) for a formal model.

the institutional environment can be Edgeworth complements or substitutes.<sup>23</sup> Because of these complementarity and substitution relationships, specific combinations of instruments tend to reinforce each other and to fit together better than alternative combinations. Therefore the Japanese and the US systems of corporate governance can be understood as specific combinations of instruments minimizing the sum of all agency costs in a given institutional environment.

It might be objected based on the empirical evidence presented in the previous section that differences within Japan in the types of governance instruments firms are using cannot be explained by the institutional environment. For instance empirical studies of the effects of main bank relationships are based on comparing firms with main bank ties to firms without them. Since the institutional environment is obviously largely identical for both types of Japanese firms, it follows that the Japanese institutional environment is compatible with more than one combination of governance instruments.

The question then arises what other additional factors determine the use of governance instruments. Moreover, it must be asked why these other factors could not lead to governance instruments associated above with the Japanese system being viable in the US institutional environment and vice versa.

To be sure, industry characteristics have an important role to play in the choice of governance instruments besides the institutional environment, because the severity of the agency problems discussed in Section 2 varies across industries. For instance, the prime example of an industry in the US where overinvestment problems were prevalent was the oil industry in the late 1970s and early 1980s. The OPEC cartel had forced up the world market price for oil, and so US oil firms enjoyed huge cashflows. At the same time oil consumers responded to the higher price with efforts to reduce demand. Therefore the oil industry had few viable new investment projects. It was therefore optimal from the point of view of shareholders for US oil firms to pay out most of their cashflow, whereas managers preferred to invest the cashflow in order to enjoy private benefits. Free cashflow problems have been less prevalent in other industries and at other times. Similarly, differences in industry characteristics have been advanced as explanations for differences in the severity of other agency problems and in the use of governance instruments.

Thus the empirical fact that not all Japanese firms have been using the exact same combination of governance instruments can be attributed to differences in industry characteristics that bear on the relative severity of different agency problems. To the

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<sup>23</sup> I.e. the benefit of giving a *larger* role to a given governance instrument is *increasing* in the *levels* of complementary governance instruments, or in the levels of complementary parameters characterizing the institutional environment.



extent that the above stylized facts about Japanese corporate governance are nonetheless accepted as typical, this means that the characteristics of most Japanese industries have been compatible with choosing governance instruments in conformity with these stylized facts.

Note that these observations do not necessarily imply anything about the industrial structure of Japan relative to, say, the US. I.e. from the fact that the stylized facts of corporate governance in the US are different it does not follow that the industries with which these stylized facts are best compatible are others than those with which the Japanese system of corporate governance is best compatible. The institutional differences between the two countries must be taken into account as well, and they may conceivably be such that the same industries would be compatible with the two different governance systems.

The Japanese system of corporate governance differs significantly e.g. from the US system along several key dimensions (Table 7). In the US, the stock market is both liquid and large relative to GDP. There is an elaborate regulatory framework protecting minority investors and at the same time discouraging active involvement in corporate governance by large investors and financial intermediaries (Bhide 1993, Prowse 1994). For instance, any shareholder who is found to exercise control over a firm, be it through majority or minority shareholding, may be liable for the firm's actions. Also, communication among large shareholders on the affairs of firms has been restricted by the stock market regulator. Moreover, investors acquiring five percent or more of the equity of a firm are required to disclose their holdings, sources of finance and business plans. In addition, rules on the taxation of dividends penalize intercorporate stockholdings.

US banks have been prohibited from owning any stock under normal circumstances, although debt-equity swaps have been allowed in debt restructuring deals (James 1996).<sup>24</sup> Holding companies can own up to five percent of a firm's stock on the condition that their holdings remain passive. Trust banks can invest in equities on behalf of

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<sup>24</sup> James (1996) shows that out of 139 cases of troubled debt restructurings at listed companies in the US in 1981-1991, 37 involved debt-equity swaps by banks. In the process, banks on average acquired more than 40 percent of the outstanding equity and held on to it for several years. The performance of the firms concerned improved relative to firms in which public bond holders but not banks had taken equity stakes. While US banks' equity holdings overall have been very small (cf. Table 5 above), these findings suggest that at the margin, US banks may have used ownership stakes to help turn around financially troubled firms. However, it is not entirely clear to what extent banks have actually been active owners. Exercising control over a borrower can expose a bank to lender liability suits. Also, the US Bankruptcy Code specifies that any investor with the power to vote at least 20 percent of the debtor's voting stock is considered an insider, and therefore its claims on the debtor may lose their seniority. This stipulation is voided only if the voting stock is held solely for the purpose of securing debt and if voting power is not exercised (James 1996). Hence the positive performance of firms in which banks took equity stakes may be due more to selection of firms with positive growth prospects rather than to banks actively improving the firms' performance.

Table 7 — *Stylized Characteristics of the US and Japanese Systems of Corporate Governance*

US	Japan
1. dispersed stock ownership, primarily by households and institutional investors	more concentrated stock ownership
2. little cross-shareholdings between firms and little bank ownership of firms	substantial cross-shareholdings between firms and significant bank ownership of firms
3. active market for corporate control (hostile takeover, proxy contests) <sup>25</sup>	no significant market for control
4. little bank involvement in firms' operations	substantial direct involvement of banks in firm operations (monitoring, decision making, restructuring)
5. high-powered management incentives	more low-powered management incentives
6. high ratio of bonds to loans in firm liabilities	low ratio of bonds to loans in firm liabilities
7. far-reaching disclosure and accounting requirements in stock market, substantial minority shareholder protection, barriers to large shareholder activity	limited disclosure and accounting requirements, limited minority shareholder protection, few barriers to large shareholder activity
8. rules favorable to or at least not actively hostile to corporate bond market	(until recently) legal obstacles limiting the size of the corporate bond market
9. bankruptcy legislation tends to emphasize protection from creditors	bankruptcy legislation tends to emphasize protection of creditor claims

beneficial owners, but trustee laws require them to maintain well-diversified portfolios as part of their fiduciary duties towards beneficial owners. Life insurance firms may

<sup>25</sup> Hostile takeovers have been a dominant feature of the merger wave of the 1980s. Proxy contests have played a more important role in earlier episodes of intense activity on the market for corporate control (Auerbach 1988, Jensen 1993).

own no more than two percent of any one firm. Mutual funds are discouraged from owning more than ten percent of any one firm through regulatory and tax rules. Similar to trust banks, pension funds are required to maintain highly diversified portfolios.<sup>26</sup> Finally, any creditor is discouraged from taking equity positions in firms it is lending to, because its loans might be subordinated to other, more junior claims on the firm if it was found that the creditor was exercising control over the firm.

As a result of these regulatory rules, ownership of firms is typically highly dispersed, with households and well-diversified institutional investors holding the bulk of outstanding shares. Takeovers have been a major means for concentrating ownership and effecting changes in firm management, organization and financial structure.

Similarly to the stock market, there is a vibrant corporate bond market in the US. Accordingly, corporate debt is relatively dispersed as well.

Moreover, top managers in the US face strong pecuniary incentives tied to the firm's stock market value (Hall and Liebman 1998).<sup>27</sup> Finally, the US bankruptcy law is comparatively lenient towards borrowers and grants a particularly strong position to managers during the reorganization process.

By contrast, in the Japanese system of corporate governance the stock market does not play a significant role. Although market capitalization is quite large, liquidity has been rather low. The market for corporate control is virtually non-existent. Liquidity has been limited through transactions taxes and through weak disclosure rules which make it difficult for speculators to make trading profits. As a result, individual share ownership is far less significant than in the US. Insider trading laws are comparable to the US on paper but have not been enforced as strictly. Yet they may be responsible partly for the fact that ownership concentration, while clearly higher than in the US, is still relatively limited in Japan (for instance compared with Germany) (La Porta et al. 1998).

Similarly, the bond market has been stunted by yield controls, stiff eligibility criteria (completely abolished only in 1996) and transaction taxes. Hence debt has been predominantly in the form of bank credit for most of the post-war period, and has been correspondingly concentrated in the hands of relatively few major banks (note that even bond issues were often bought by the banks). Moreover, pecuniary incentives for managers have been attenuated. For instance average managerial ownership stakes have been significantly lower than in the US.

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<sup>26</sup> Despite this, the largest US pension funds have begun in recent years to try to get actively involved in monitoring at least some of the companies they are investing in. See for instance Nesbitt (1994).

<sup>27</sup> The intensity of pecuniary performance incentives seems to have increased dramatically in the US since 1980, and the increase is attributable exclusively to the use of stock and stock options.

Overall, in the US both equity and debt holdings are dispersed, securities markets are liquid and transparent, takeovers are frequent, banks play a limited role in monitoring, the bankruptcy law is comparatively soft on debtors, and pecuniary incentives for managers are strongly tied to share prices. In Japan by contrast, equity and debt holdings tend to be more concentrated, securities markets tend to be less liquid, takeovers are unheard of, banks play a central role in monitoring and disciplining managements, the bankruptcy law is relatively tough, and pecuniary incentives appear less closely linked to share prices.

It is obvious that the regulations mentioned above have played a decisive role in shaping the liquidity of securities markets, the ownership structures, and the role of banks in monitoring in the two countries.

But apart from this, the characteristic combinations of governance instruments can be understood as consistent responses to agency problems. Let us consider the combinations found in the US and in Japan in turn.

## 5.1 Corporate Governance in the US as a System of Complementary Elements

With neither large owners nor banks or other financial intermediaries able or willing to exercise control over management in the US, agency costs resulting from conflicts of interest between controlling and minority owners are comparatively unimportant. This is confirmed empirically by the low premium which is paid for voting rights in the US stock market, and which can be interpreted as evidence that private benefits of control are small (Macey 1998).<sup>28</sup> These benefits are minimized by the elaborate capital market regulations protecting the interests of minority owners.<sup>29</sup> Indeed, these regulations are a major reason for the generally dispersed nature of ownership in the US (La Porta et al. 1998b). At the same time, these regulations make for a highly liquid stock market in which minority owners can easily exit whenever they are dissatisfied with a firm's performance (La Porta et al. 1997).

The dominant agency problems in the US therefore are those between owners and managers (Berglöf 1997) and between owners and creditors. It is important to under-

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<sup>28</sup> Zingales (1995) finds the average voting premium in US markets to be ten percent with a median of only three percent. This is at the lower end of the spectrum in international comparison (Zingales 1994).

<sup>29</sup> It is true that in a takeover ownership becomes more concentrated, so that agency conflicts between controlling owners and minority owners may become more important. However, minority owners enjoy some protection from this in that prospective raiders are not allowed to make tender offers only for controlling blocks of shares. Rather, tender offers must be extended to all shareholders. Indeed, this form of protection for minority owners may lead to the failure of some efficiency-enhancing takeover bids due to free rider problems (Grossman and Hart 1980).

stand that the efforts to limit agency problems between controlling and minority shareholders *by essentially eliminating controlling shareholders* are directly responsible for making agency problems between owners and managers, and between owners and creditors potentially more severe.

This is because because diversified owners will underinvest in monitoring the firm due to free rider problems (Bhide 1993).<sup>30</sup> Moreover, the regulations described above place obstacles in the way of shareholder activism even when shareholders otherwise would be willing to monitor and discipline managers.

At the same time, the diversification of portfolios which results from the bias towards dispersed shareholdings raises shareholders' tolerance for risky investments. By contrast, creditors prefer the firm to incur as little risk as is compatible with generating a return sufficient to service its debt. Hence the higher tolerance for risk which dispersion induces in owners exacerbates the agency problem between owners and creditors.

Thus, the US system has a particular need for instruments to effectively govern conflicts between owners and managers, and between owners and creditors. As a result there is a complementarity between a regulatory environment that more or less eliminates agency problems between controlling and minority shareholders, and governance instruments which mitigate agency problems between owners and managers, and between owners and creditors.

The more is done to eliminate the former agency problem, the more valuable it becomes to employ instruments to govern the latter problems. And the reason for the complementarity is that the regulations which eliminate the former problem at the same time exacerbate the other two problems.

Pecuniary incentives tied to share prices, the absence of bank shareholdings, takeovers, and dispersed debt holdings are precisely instruments which can govern agency problems between owners and managers, and between owners and creditors in an environment characterized by dispersed share ownership.

As for the role of the US regulatory environment in aggravating agency problems between owners and creditors, there are two considerations here. First, prevailing US regulation has tended to aggravate agency problems between owners and creditors by largely ruling out a solution already suggested in Jensen and Meckling (1976), namely for creditors to be owners at the same time.<sup>31</sup>

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<sup>30</sup> To some extent though, this underinvestment in monitoring may be compensated by capital market monitoring.

<sup>31</sup> Creditor ownership is not entirely ruled out by US regulation since it is obviously possible to simultaneously hold bonds and shares of a given firm. But banks have been prohibited largely from owning shares. Hence one could also interpret the liquid and sizeable corporate bond market as a way to mitigate agency problems between owners and creditors despite the restrictions placed on banks' ability to own shares.

Second, one of the advantages of ownership dispersion in the US is that it enables owners to diversify away investment risk. Indeed, one of the standard assumptions of managerial agency models is that owners are risk-neutral. In addition, the equity claims of owners are convex in the firm's profits, a fact which encourages owners to prefer the firm to undertake relatively high-risk investments. As a result, the agency problem between owners and creditors is potentially particularly severe as well when ownership is dispersed.

The significance of the corporate bond market in the US can be understood as an attempt to mitigate the agency problem of debt by affording debt holders an opportunity to diversify as well. Hence to the extent that the agency problem of debt is aggravated by dispersed ownership of equity, dispersed debt holdings are complementary to ownership dispersion.

The benefit of risk diversification for US debt holders is further reinforced by managerial incentives tied to the share price. These align managerial incentives closely with the interests of owners and thereby increase the danger from the point of view of creditors that the firm will take on more risk than undiversified creditors might like.

In a similar vein, Detragiache (1994) argues that dispersed debt holdings mitigate the agency problems between owners and creditors *ex ante* by making *ex-post* renegotiation more difficult due to collective action problems. With renegotiation less likely even if *ex post* desirable, the incentives for owners to take on excessive risk are reduced.

As the discussion on the regulation of the Japanese bond and stock markets has shown, government policy has a key role to play in determining how liquid stock and bond markets will be, and how dispersed holdings of equity and debt will end up being. Therefore, from a policy perspective, regulations which encourage a liquid bond market are complementary to regulations encouraging a liquid stock market and dispersed equity ownership.

In addition to agency conflicts between owners and creditors, the US regulatory environment, by discouraging concentrated ownership, also tends to aggravate agency problems between owners and managers. These come essentially in two forms. First, managers must be motivated to expend effort (Jensen and Meckling 1976). Second, managers must be motivated to pay out to shareholders that part of the firm's internally generated cashflow for which the firm does not have investment projects which would generate the market rate of return (Jensen 1986).<sup>32</sup>

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<sup>32</sup> More generally, an effective system of governance must facilitate the shrinking as well as the growing of firms in order to help reallocate resources to their most productive uses. Beside the takeover mechanism, another way to achieve this can be bankruptcy, on which more below.

The first of these problems is solved in the US mainly by providing strong pecuniary incentives for managers through bonuses, stocks and stock options. But these cannot solve the second problem, since paying out free cashflow does nothing to raise the value of the firm. Therefore, the second problem is governed through the market for corporate control, i.e. through proxy contests and hostile takeovers. Takeovers and proxy contests can bring in new management teams who restructure the firm, terminating wasteful investment projects and paying out to shareholders the free cashflow accumulated in the target firm. Also, many takeovers in the 1980s have been leveraged buy-outs (LBOs). Hence they have resulted in an increase in the leverage of the acquired firm. This change in financial structure can serve as a commitment device for management to pay out free cashflow in the future.<sup>33</sup>

Thus, the simultaneous existence in the US governance system of regulations biasing the system towards dispersed share ownership and of strong incentives tied to share prices, as well as hostile takeovers, can be explained as one possible response to the need to deal simultaneously with the potential for agency problems between controlling and minority shareholders, and between owners and managers. The above governance instruments can be thought of as Edgeworth complements which reinforce each other in that one becomes more useful in the presence of the others.

For instance, the benefit to owners of making managerial pay more responsive to firm value will be larger if the ownership structure is more dispersed. Hence a dispersed ownership structure is complementary to strong pecuniary incentives tied to firm value, and ownership dispersion and pecuniary incentives tend to fit together.

At the same time, stocks and stock options will be effective in motivating management only if the share price is a reasonably accurate measure of managerial performance,<sup>34</sup> and if it cannot be manipulated by owners to the detriment of management. These conditions will be more likely to be satisfied if the stock market is liquid and transparent, and if ownership is dispersed so that there are no dominant owners who could influence the share price. Hence, the effectiveness of pecuniary incentives like stocks and stock options is enhanced by a dispersed ownership structure and a liquid stock market.

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<sup>33</sup> In principle, the threat of hostile takeovers can also be thought of as an ex-ante incentive device motivating managers to exert optimal effort. However, the available empirical evidence suggests that LBOs in particular do not tend to target firms that are underachieving relative to their industry average (Lichtenberg 1992). This suggests that the prime motivation for these transactions is to cut out financial and operational slack rather than to correct inadequate managerial effort. Moreover, to the extent that other takeovers do target underachieving firms, Lichtenberg (1992) explains this as corrections of mismatches between firms and managers rather than as responses to managerial moral hazard.

<sup>34</sup> Ideally, if the share price were a sufficient statistic for managerial performance, i.e. if it contained all available information on managerial performance, then managerial pay should be tied strictly and exclusively to the share price (Holmström 1979). To the extent that the stock market may not be perfectly efficient, other pay schedules may be superior.

Therefore, the pecuniary incentives prevalent in the US complement the prevailing ownership structure, which is supported by the regulation of the stock market. And at the same time the prevailing ownership structure and the transparency of the market complement the prevailing managerial incentives.

Moreover, it has been argued that a capital structure which involves both debt and equity *held by different groups of investors* can be effective in providing ex ante performance incentives for managers, i.e. in mitigating agency problems between owners and managers (Dewatripont and Tirole 1994). The idea is that a threat to intervene and discipline management after poor performance may not be credible ex ante because ex post, intervention may be costly to investors. Hence it may be necessary to create additional incentives for investors to intervene ex post as a way to make the ex ante commitment to intervention credible.

Leverage can be used to create a bankruptcy threat. If intervention in the operation of the firm results in lowering the riskiness of its operations, then investors holding only debt will naturally be more inclined to intervene than investors holding only equity, given that debt is a claim whose pay-off is concave in the returns of the firm, whereas the pay-offs to equity are convex. Hence creditors will be „tough“ principals, whereas shareholders are likely to be „soft“.

To the extent that intervention in the firm is desirable only after poor performance, a capital structure which allocates control over the firm to „soft“ shareholders after good performance and to „tough“ creditors after poor performance will thus provide strong ex ante incentives for management. By contrast, joint ownership of equity and debt would make investors less tough after poor performance and would thus reduce the ex ante credibility of the bankruptcy threat. In this sense the fact that banks have largely been prevented from owning shares in the US can be understood as another response to the agency problem between managers and owners. To the extent that the agency problem between owners and creditors is aggravated by this, the liquid bond market can be understood as a response to the trade-off between agency problems between owners and managers, and agency problems between owners and creditors.<sup>35</sup>

Finally, with both equity holders and debt holders highly dispersed, there are potentially severe hold-up and collective action problems in the event of financial distress. For this reason Berglöf (1991) argues that market-oriented financial systems are more prone than bank-oriented systems to lead to premature liquidations of viable firms.

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<sup>35</sup> By simultaneously holding bonds and shares of a given firm, a non-bank investor could still jointly own debt and equity even under US rules. This might weaken the ex ante incentive effects described by Dewatripont and Tirole (1994a) even in the US. But dispersed bond holders face collective action problems which may prevent them from being soft on the debtor even if their simultaneous equity holdings would give them an incentive to do so.



However, US bankruptcy legislation mitigates the danger of inefficient liquidations which might arise from a failure of owners and creditors to agree on a reorganization plan by giving management a strong position in bankruptcy.<sup>36</sup> In terms of Edgeworth complements, the benefit from weakening the position of creditors in bankruptcy is larger when debt is dispersed than when it is concentrated.

Also, a bankruptcy law which is tough on borrowers raises the incentives for owners to conceal financial problems as long as possible, and to gamble available resources on extremely risky projects in the hope that the gamble will pay off and they can avoid bankruptcy (Aghion et al. 1998, Buch and Heinrich 1999). This danger is likely to be especially pronounced when managers' pay is tied closely to the share price, so that they share in the upside of the gamble. These are additional reasons why a comparatively soft bankruptcy law may fit well with the US corporate governance system.<sup>37</sup>

## 5.2 Complementarities in Japanese Corporate Governance

Compared to the US, main banks have been dominant investors in Japan. Agency problems between owners and creditors are mitigated through this system for two reasons. First, banks combine ownership stakes and debt claims on the firm, thereby aligning their interests with those of other owners more strongly than would be the case in the US. Second, asymmetries of information between the banks as creditors and other owners are kept small by the fact that main banks act as delegated monitors for other owners. Bank monitoring is aided by the banks' roles as lenders and cash managers as well as their equity stakes. The delegation of monitoring authority is supported as follows (Berglöf and Perotti 1994). Typically owners other than the main bank have also extended short-term credits to the firm (be it bank credit in the case of non-main banks, be it trade credits in the case of non-financial firms). These other credits are frequently guaranteed by the main bank. Hence in the event of financial distress, a concentration of debt claims in the hands of the main bank sets in. This gen-

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<sup>36</sup> However, Detragiache (1994) argues that the strong position of management in bankruptcy under US Chapter 11 is an obstacle to efficient reorganization because it can lead to violation of the contractually agreed order of priority of claims against the firm (absolute priority rule or APR). In particular, by appealing to bankruptcy courts even in cases which could have been settled out of court, owners may be able to extract positive pay-outs despite their firms being insolvent. To the extent that using bankruptcy courts is more costly than a private debt work-out, Chapter 11 would therefore be inefficient. See Berkovitch et al. (1999) however for a model where violations of APR and a bias in favor of management enhance the efficiency of bankruptcy.

<sup>37</sup> Obviously, a relatively soft bankruptcy law tends to attenuate the ex ante incentives which Dewatripont and Tirole (1994) have ascribed to a capital structure with debt and equity held by different groups of investors. This may explain why we observe in the US both pecuniary incentives tied to the share price on top of the ex ante incentives provided by the threat of bankruptcy.

erates incentives for the main bank to actively monitor the firm also on behalf of other investors.

Extensive hands-on monitoring by main banks also serves to reduce asymmetries of information and hence agency problems between managers and owners in Japan. Random shocks can be filtered out from firm performance better than in the US system with less hands-on monitoring. Managerial pay can then be made to vary only with managerial effort rather than with firm value without compromising performance incentives (rewards through promotions, tenure and retirement benefits). Hence the lower responsiveness of pay to firm value in Japan may not signal an inefficiency relative to the US.

Moreover, if it is true that managers in the US are forced to bear a substantial amount of risk because it would be too costly for dispersed investors to separate out the effects of managerial effort and random shocks, then US firms will have to pay higher risk premia to their CEOs because they are exposing them to a greater degree to random shocks.<sup>38</sup>

At the same time the lower liquidity and transparency of the Japanese stock market, which is a direct consequence of the regulatory environment and which is the flipside of the more concentrated and more stable ownership structure, would make pecuniary incentives like stocks and stock options less effective in Japan, because share prices are less likely to reflect all information on CEO performance, and are potentially more subject to manipulation by owners.

Furthermore, owners in Japan will tend to hold less diversified portfolios due to the more concentrated ownership structure. Hence their preference for risky investment projects will tend to be less pronounced than if their holdings were as diversified as is frequently the case in the US. Consequently, the agency problem of debt, which arises out of different preferences for risky investments between creditors and owners, will tend to be less severe in Japan.<sup>39</sup> Thus there is less need for creditors to diversify their positions, and so the higher concentration of corporate debt in few major banks in Japan fits well with the more concentrated ownership structure.

Finally, since creditors and owners (by virtue of long-term business relationships) have been well-acquainted with the situation of firms and because at least debt hold-

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<sup>38</sup> This would explain the significantly lower level of managerial pay in keiretsu firms in Japan, i.e. in firms where monitoring is likely to be more intense than in independent firms (Kato 1997). However, empirically there is debate whether pay levels are lower or actually higher in keiretsu firms (see Berglöf and Perotti 1994).

<sup>39</sup> However, by reducing owners' tolerance towards investment risk, more concentrated ownership might also reduce the owners' willingness to insure management against random shocks. If this were true, the implication derived above, according to which Japanese firms should make managerial pay less sensitive to firm value than US firms, would need to be qualified.

ings have been relatively concentrated, bankruptcy legislation could be more stringent than in the US. Information sharing and small numbers of bargaining parties facilitate conflict resolution, so that the danger of inefficient liquidation is small. Hence there is less need of debtors for legal protection from creditors. Thus it is not surprising that in Japan the of real costs of financial distress are lower due to fewer free rider problems in the presence of main banks (Hoshi et al. 1996). Indeed, given the limits to bank ownership in non-financial firms, and given the lack of market monitoring, tough bankruptcy procedures are helpful to give main banks the levers to monitor and intervene in firms.

While the foregoing suggests that the Japanese system of corporate governance has been internally consistent and capable of governing agency conflicts between owners and managers and between owners and creditors, there are two issues that remain to be addressed.

First, the fact that main banks have been at the center of corporate governance in Japan, and that they have been working as delegated monitors (Berglöf and Perotti 1994) raises the issue of who monitors the monitors. Put differently, how does the Japanese system take care of the potential agency conflicts between controlling and minority investors ? Second, the agency problem of free cashflow has not been addressed so far. We consider these issues in turn.

Agency problems of free cashflow were long of minor importance as most firms had more viable investment projects than they could finance with their internal cashflow. For instance, Table 6 in Section 3 documents that the share of retained earnings in the source of financing has been considerably lower in Japan than in the US, particularly in the 1980s. The following section will return to this issue, arguing that free cashflow problems have gained prominence in the late 1980s and 1990s and have been a source of pressure on the Japanese governance system.

As to how best to monitor, one of the advantages of bank credit over public debt is that with public debt each buyer has to monitor the issuing firm in order to make an informed decision. This may lead to wasteful duplication of monitoring efforts, or alternatively to inefficiently low monitoring efforts due to free-rider problems. By contrast, banks can act as intermediaries, pooling the savings of many depositors and undertaking investment and monitoring on their behalf. In this way duplication of monitoring, as well as free riding, can be avoided (Diamond 1984).

Diamond (1984) also argues that the issue of who is to monitor the monitors can be skirted if the banks maintain well-diversified credit portfolios. Given that depositors contract for a fixed payment, the banks' owners remain residual claimants. Therefore they have undistorted incentives to maximize profits. Moreover, with a fully diversified

portfolio, the risk of insolvency vanishes, since bank revenues become deterministic. Therefore, depositors do not face the danger of not being paid their contractual return (assuming owners face a sufficiently large penalty for refusal to pay depositors when the bank is solvent).

However, this argument assumes away the problem by assuming full diversification without explaining how this would be enforced (Dewatripont and Tirole 1994b). The agency problem of debt arises precisely because the banks' owners are residual claimants whereas depositors have contracted for a fixed return. This creates incentives for owners *not* to diversify fully, but to invest in more risky projects than depositors would like (Jensen and Meckling 1976). By doing so, the banks' owners can reap higher profits in good states of the world while sharing losses with depositors in bad states.

While this agency problem of debt in principle arises in any lending relationship, it is particularly severe between banks and their depositors because depositors are typically dispersed and poorly informed, and because banks are usually leveraged much more highly than non-financial firms (Dewatripont and Tirole 1994b). Hence solving the problem of monitoring the monitors requires regulation and supervision of the banking industry.

The argument of Dewatripont and Tirole (1994b) is incomplete, though, in the sense that it fails to consider incentives for risk taking which emanate from the assets side of banks' balance sheets. To the extent that banks use deposits to make loans, their assets consist of claims which are concave in the underlying profits of borrowing firms. Per se this means that banks as creditors will prefer to finance relatively low-risk projects. Thus while deposits on the liabilities side tend to encourage banks to take on more risks than depositors would like, loans on the assets side tend to encourage banks to finance projects that are less risky than the owners of borrowing firms might like. Hence the two effects tend to mitigate each other, and agency problems between depositors and bank owners should be relatively mooted in banks which primarily engage in lending.

However, to the extent that banks use deposits to invest in equity of non-financial firms, their assets consist of claims which are convex in underlying profits. As a result, banks will be encouraged to pick relatively risky investments. This will tend to exacerbate the agency problem between the banks' owners and their depositors. Hence the problem of monitoring the monitors will tend to be most serious when banks are allowed to own equities in addition to making loans. Therefore, banking regulation and supervision become all the more important the more banks are allowed to invest in equities. The empirical evidence surveyed in Section 4, according to which the performance of the main bank system may have deteriorated beginning in the late 1980s, thus raises the key question whether banking regulation and supervision in Japan have

been deteriorating. This issue will be taken up in the following section where we discuss pressures for change in the Japanese system.

Overall, the stylized facts about the Japanese corporate governance system can be interpreted as an internally consistent response to the problem of how to minimize the sum of the agency costs facing the firm. The comparison with the US highlights how different combinations of governance instruments can trade off the costs of several agency conflicts. It also shows how differences in the institutional environment, including the liquidity of financial markets, the bankruptcy regime and the growth prospects of the economy, can influence the relative severity of different agency conflicts and can thereby have an impact on which combinations of governance instruments fit together. But as the empirical evidence discussed in the preceding section suggests, there have been important changes in the Japanese system, both exogenous and policy-induced, and they appear to have affected the performance of the system. The following section looks in more detail at these changes, at the pressure they have created for further changes in the Japanese system, and at how economic policy has been responding to these pressures. It also briefly discusses an abortive attempt at corporate governance reform after the second world war which is instructive in underscoring the importance of comprehensive and mutually consistent rather than piecemeal reforms.

## **6 Exogenous Shocks and Pressure for Change**

The US system of corporate governance was shaped decisively by regulations designed to curb the influence of large shareholders and financial intermediaries on non-financial firms (Roe 1993, Smith and Sylla 1993). Interestingly, attempts to introduce a similar system by imposing similar regulations in Japan failed immediately after the second world war (Teranishi 1994, Miyajima 1995). Firms subjected to the reforms imposed by the US occupation administration tended to perform worse than their unreformed industry peers because of diffuse ownership and inadequate monitoring (Yafeh 1995). The central reform introduced by the occupation administration was to dissolve the large conglomerates (zaibatsu) which had dominated the Japanese economy before the war and to create a dispersed ownership structure in the major firms emerging from the dissolution of the conglomerates. The deteriorating performance of the firms subjected to the reforms is interpreted as evidence of insufficient monitoring by dispersed shareholders. In response, shareholdings began to be concentrated through secondary trading in the 1950s, and main banks emerged as major shareholders and key monitors. The interesting question of course is why in contrast to the US, dispersed ownership proved not to be viable in Japan.

One answer is that complementary elements of sound corporate governance were not introduced simultaneously. For instance, protection of minority shareholders remained far less encompassing than in the US. Moreover, active measures were taken to prevent a market for corporate control from developing. In order to stabilize stock prices after a stock market crash in 1949, banks were allowed to buy shares in non-financial firms and enterprises were allowed to buy shares in each other (Barca et al. 1999). Eventually, restrictions on cross-ownership between industrial enterprises were removed, and the limits on shareholdings by individual banks were raised from 5 to 10 percent of a given firm's stock. Thus the government encouraged enterprises and banks to create the web of stable cross-shareholdings that has effectively insulated managers from takeover threats. Given the absence of the takeover threat as a device to discipline managers, main banks emerged to take on that function as delegate monitors.

Hence the attempt at implanting parts of the US governance system on Japan failed.<sup>40</sup> Instead, a unique Japanese system of corporate governance emerged. But like the US system, the Japanese main bank system was shaped decisively by regulation of capital markets and the banking industry. In particular, interest rate ceilings and limits on raising capital abroad may have prompted banks to use close ties with firms as a criterion to allocate credit.

Pressure for liberalization started to build in the second half of the 1970s when the government needed to sell large amounts of bonds to finance its budget. This led also to the growth of a corporate bond market (Ueda 1994). Before the liberalization of the 1980s, corporate bonds could be issued only with official consent at artificially low yields and there was no secondary market. Utilities were virtually the only firms that had access to the bond market before liberalization. Liberalization did not only occur inside Japan. Japanese firms also were able increasingly to issue bonds in foreign markets, notably the Eurobond market. By the mid-1985 roughly half of all securities issued by Japanese corporations were foreign issues (Kester 1991). Moreover, the greatly facilitated access to foreign bond markets undercut the cartel that before had dominated and stifled the Japanese bond market. For large firms the liberalization of the 1980s resulted in a dramatic change in sources of finance. The shares of both equity and bond finance doubled between the second half of the 1970s and the second half of the 1980s, while the share of loans dropped from more than 50 percent to 10 percent.

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<sup>40</sup> It has been argued that the recent crises in several Asian economies provide a unique opportunity to reform their relationship-based corporate governance systems much as the Great Depression provided an opportunity to replace the relationship-based system then prevailing in the US with a market-based system (Rajan and Zingales 1999). In light of the failure of the similar attempt in Japan after the second world war, care would have to be taken in any such reforms in order to ensure the mutual consistency of the elements of the new system.

On the one hand, this shift may reflect a correction of the previous underdevelopment of bond markets, with firms taking advantage of cheaper finance than banks could offer due to their reserve requirements and the monitoring costs they incur. On the other hand, the shift to market finance may be an attempt by firm managers to evade external control by banks (Hoshi et al. 1991).

There is evidence that Japanese firms may have made their choices between bond debt and bank debt in accordance with the goal of minimizing agency costs of debt (Anderson and Makhija 1999). In particular, firms with significant growth opportunities have relied less on bond finance and more on bank credit. This is consistent with minimizing agency costs of debt to the extent that firms whose value consists largely of growth opportunities may be more risky and hence may need closer hands-on monitoring than firms whose value consists largely of assets already deployed.

However, in firms without growth potential free cashflow problems tend to be particularly severe. Hence to govern this type of agency problem, investor monitoring might be particularly useful precisely in firms with low growth potential. Thus Anderson and Makhija's results can also be interpreted as further confirmation that the deregulation of the bond market allowed firms to escape the scrutiny of banks and aggravated the free cashflow problem.

Considerable financial slack indeed started to build up on firms' balance sheets in the 1980s (Kojima 1997). As the Japanese economy matured, growth slowed and internal investment opportunities of firms diminished. At the same time, their strong positions notably on world markets generated large amounts of cashflow. Rather than paying out this free cashflow to shareholders in the form of dividends or share buy-backs, Japanese firms tended to use their internally generated resources to retire debt and to invest into financial assets. Thus they reduced their degree of leverage precisely in a situation where high leverage would have been called for to ensure efficient uses of funds.

As shown in Table 6 of Section 3, the share of retained earnings in all financing had been relatively low in the 1980s and rose in the first half of the 1990s. This is consistent with the view that over time, Japanese firms were increasingly able to finance their investments internally and were less in need to go to the capital markets to seek financing.<sup>41</sup>

For the US, Jensen (1986) has argued that hostile takeovers can be understood as a tool with which the managements of underleveraged firms with substantial free cash-

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<sup>41</sup> However, the rising share of internal finance must be attributed also to the effects of the collapse of the stock market bubble and the onset of the banking crisis. Both developments curtailed the supply of external funds to enterprises, thereby raising the share of retained earnings in overall financing. Even so, free cashflow problems may have contributed to the misallocation of capital during the bubble economy.

flows can be prevented from squandering the firms' resources: raiders finance takeovers largely with debt and subsequently use the firms' free cashflow to pay down the debt. In the Japanese system, hostile takeovers have essentially been blocked by the web of stable cross-shareholdings.<sup>42</sup> Hence it would have been the job of main banks to step in and find ways to force firms to return free cashflow to shareholders. However, they have not been in a position to do so. Hostile takeovers concentrate ownership or at least control in the hands of a raider who can then make decisions on how the free cashflow is to be used. By contrast, the influence of main banks over firms stems from the central role the banks play in financing the firms. This lever loses much of its effectiveness precisely when a firm has available substantial free cashflow. The influence of banks over firms was reduced further when in 1987 the upper limit on the equity holdings of individual banks in non-financial firms was reduced from ten to five percent of the firms outstanding shares.<sup>43</sup>

Another consequence of the liberalization of financial markets and the attendant increase in competition for borrowers has been that banks now have weaker incentives to intervene in and restructure financially distressed firms. Recall that originally, banks were able to rescue troubled firms because they knew that after a successful rescue operation they would be able to obtain some rents from their lending to the firm. These rents would be available because firms became captive customers of their main banks in an environment in which alternative sources of finance were scant and main banks over time accumulated substantial information advantages over potential competitors.

With financial liberalization, firms became increasingly able to move out of their captive relationship with their main banks. Hence the rents main banks could expect to earn from firms after a successful rescue were reduced significantly. In turn, this made it less attractive for banks to rescue firms, and hence to invest into monitoring and information acquisition *ex ante*. At the same time, knowing that banks would be less likely than in the past to step up and mount a rescue operation if needed, firms became less eager to maintain long-term relationships with main banks and to share information with them. The ability of banks to support ailing firms has been further weakened by the collapse of the asset bubble at the end of the 1980s (Kang and Stulz 1997). In turn, one of the causes of the real estate bubble of the late 1980s may have been that the liberalization of the bond market and the stock market boom subjected banks to intense competition for borrowers and many banks responded to that by investing in

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<sup>42</sup> Recently some institutional shareholders have announced that they may start selling so far stable shareholdings because they are dissatisfied with dividends. However, institutional investors have not begun to exercise voting rights to influence management (Kanda 1997).

<sup>43</sup> See Petersen and Rajan (1995) for a model where increased competition in credit markets reduces the value of long-term lending relationships if creditors cannot hold equity claims.



real estate or financing investments in real estate with their loans (Ueda 1994, Hoshi and Kashyap 1999).<sup>44</sup>

In addition, the financial liberalization of the 1980s is likely to have increased the asymmetry of information between the banks and their regulators for two reasons. First, the liberalization has expanded the number of asset types banks can invest in. It has allowed banks to enter foreign markets and the domestic real estate market. This has exposed banks to new types of business risk. At the same time it increased the complexity of the business and expanded the scope for banks to hide risks. In turn, this required of the regulators and supervisors to learn new ways of monitoring.<sup>45</sup> Second, the liberalization has increased competition and has thus made banking an inherently much riskier business, requiring closer and more frequent monitoring of each individual bank and thereby straining the monitoring resources of the supervisory authorities. There is evidence that regulation and supervision have failed recently. Hall (1998) relates major incidents of wrong-doing in the 1990s not only at Japanese banks but also at the main supervisory bodies, the Ministry of Finance and the Bank of Japan. These findings suggest that the problem of monitoring the monitors has been a serious one in Japan of late.

Overall then, there were four developments that adversely affected the Japanese system of corporate governance. First, the maturing of the economy generated significant free cashflow problems for the first time. The Japanese system proved to be ill-equipped to deal with this new agency problem because the influence of main banks mainly rested on their role in financing firms. But this very role was diminished by the emergence of free cashflow (Kojima 1997). Second, financial liberalization enabled firms to move out of their captive relationship with their main banks and so weakened the incentives for main banks to invest in monitoring. This may have exacerbated agency conflicts both between managers and owners, and between owners and creditors. Third, financial liberalization also made the job of banking supervision and regulation more difficult. Agency problems between the banks and their depositors, viz. between the banks as controlling investors and other, minority investors may thereby have been aggravated (Kojima 1997). Finally, the asset price deflation at the end of the 1980s has reduced the influence of main banks over firms, first by reducing their ability to insure firms against adverse shocks, second by diminishing the banks' ability and willingness to provide financing (credit crunch), and then by implication by diminishing the banks' clout with firms and their access to inside information.

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<sup>44</sup> Of course regulatory changes were not the only factors in the development of the bubble economy. On a macroeconomic level, expansionary monetary policy in the second half of the 1980s also played a role (Siebert 1998).

<sup>45</sup> For instance, Kole and Lehn (1997) argue that deregulation exacerbated agency problems in the US airline industry.

In terms of the theoretical explanation of Japanese corporate governance as a system of complementary elements, the changes discussed so far can be given the following interpretation. Both the exogenous shocks and the regulatory changes discussed above undermined the main bank as the central pillar of the Japanese governance system. As a result, other complementary elements of the system turned into liabilities. In particular, management contracts had relied on close hands-on monitoring to measure and reward managerial performance. As monitoring by main banks became less effective, managerial performance incentives weakened and the costs of agency conflicts between owners and managers rose. At the same time, the relatively illiquid stock market and the relatively concentrated ownership structure kept more high-powered managerial incentives less effective than they would have been in the US. Moreover, stable cross-shareholdings continued to prevent hostile takeovers, which in the US provide another means to motivate managers. More dispersed ownership, which might have remedied this, continued to be discouraged by a lack of legislation protecting minority investors. In addition, the tough bankruptcy law, whose systemic role in the past had been to support the main banks in their role as monitors by giving creditors wide-ranging powers in the event of financial distress, began to raise problems as credit became more dispersed through the emergence of the bond market and as bank creditors became less well informed. With creditors as a group still wielding far-reaching powers in financial distress but now facing significantly greater collective action problems than before, the danger of inefficient liquidations increased. Meanwhile the traditional drawbacks of a tough bankruptcy law, namely that it tends to discourage early revelation of financial distress, remained (Berghaus and Gmelin 1998).

Despite growing awareness that changes in the institutional environment had destroyed the internal consistency of the Japanese corporate governance system (Yoshikawa 1997) it was not until the late 1990s that the government responded by introducing more far-reaching regulatory reforms.

#### *The „Big Bang“ Reforms<sup>46</sup>*

The piecemeal financial deregulation of the 1980s had undermined the Japanese governance system by weakening its central pillar, the main banks, without enabling an alternative system to emerge. From the disappointing performance of the financial system in the 1990s sprung the impetus for the so-called "Big Bang" financial reforms announced in late 1996 and implemented beginning in the spring of 1998. The immediate effect of the latest round of reforms will be to further increase competitive pressure on Japanese banks. The reforms allow Japanese depositors to invest abroad with greater ease. Securities markets should become more liquid as brokerage commissions

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<sup>46</sup> For overviews of the "Big Bang" reforms see Lincoln and Litan (1998) and Hall (1998).

are being liberalized and are being driven down by competition, and as the securities transaction tax is lifted. Also, brokers owned by banks have now been allowed to participate in secondary trading of securities (von Lüpke 1997).

Barriers to entry in the financial industries are being lowered. The restrictive licensing requirement for new entrants has been dropped. Financial holding companies are being legalized. They are allowed to own banks, insurance companies and securities firms. By founding financial holdings, insurance firms, banks and securities firms are now allowed to enter each other's businesses.

Remaining restrictions on the ability of banks and non-bank financial intermediaries to issue corporate bonds are being lifted. Banking supervision is being carved out of the Ministry of Finance and is placed with a new independent regulator. This change is expected to reduce political tutelage of the banking industry by the Ministry of Finance. If so, this will mean that banks will increasingly have to take full responsibility for their own lending decisions.

At the same time, the severe solvency problems within the banking sector are being addressed as well. At the end of 1997 the banking sector was saddled with non-performing loans to the tune of up to USD 700 bn. By comparison, the total loans outstanding of the US banking sector amounted to USD 800 bn (Lincoln and Litan 1998). Since December 1997 several measures to clean up the banking system have been taken (Daigo et al. 1999). In particular, accounting rules have been revised and public money has been injected to boost bank capital. However, it remains to be seen whether these measures, together with the change in supervision, will be sufficient to restore the banking system to health.

In the securities markets, the Big Bang reforms include tightening insider trading rules and raising penalties for insider trading. The reforms also aim at improving the ability of market analysts and participants to evaluate firms on the basis of the information they publish. Corporations are required to register their assets at market value rather than at purchase value. Also there are plans to introduce consolidated financial statements for holding companies. Auditing procedures are being adjusted to international standards. In particular, auditing by independent external specialists is to replace the current system of auditing by company employees or representatives of affiliated firms.

Although it is still too early to say to what extent the planned reforms will be implemented and enforced, the thrust of the reforms prepares the Japanese corporate governance system for a greater role to be played by capital markets in the future. While

this does not necessarily imply that main bank relationships will disappear,<sup>47</sup> the theory advanced in the present paper predicts that these changes in turn should lead to changes in the way Japanese managers are being rewarded and in the ownership and capital structures of Japanese firms.

## 7 Conclusions

The present paper argues that corporate governance aims at minimizing the sum of the costs arising from agency conflicts between managers and owners and among different groups of investors. Minimization of agency costs is achieved by combining several governance instruments, each of which mitigates some agency conflicts at the opportunity cost of aggravating others. These opportunity costs give rise to complementarities among groups of governance instruments. In turn, complementarities give rise to characteristic clusters of instruments which reinforce and support each other. Depending on the regulatory and institutional environment, different clusters of governance instruments will be optimal. Characteristic combinations of governance instruments and institutional and regulatory environments create *systems* of corporate governance. Exogenous shocks may impair the effectiveness of governance systems. In these cases, the complementarities supporting governance systems may call for coordinated reforms along several or all dimensions of the institutional and regulatory environment. Piecemeal reforms which fail to take complementarities into account may destroy a mutually reinforcing system of corporate governance and may not only fail to improve its performance but may actually lead to deteriorating performance.

To illustrate these points, the present paper has discussed the Japanese system with the US as a benchmark. It offers an explanation of both systems in terms of internally consistent alternatives adapted to different institutional and regulatory contexts. However, the available empirical evidence on the performance of the Japanese system is poor. Most of the literature studies one agency problem and one governance instrument in isolation and fails to take complementarities into account. As a result, opportunity costs remain outside the scope of the analysis.

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<sup>47</sup> Hoshi and Kashyap (1999) predict that both savers and firms will increasingly use capital markets directly and that the banking system will shrink considerably within the next ten years as a result of the Big Bang. Aoki and Dinc (1997) on the other hand argue that competition from bond markets makes arm's length loans less profitable for banks relative to relationship lending. Hence banks may continue to invest in long-term relationships even if increased competition makes it more difficult for banks to reap the quasi-rents from such investment. Moreover, there can be path dependencies in that banks which built up monitoring capabilities before the onset of liberalization may treat these as sunk investments and may continue to engage in relationship lending even after competition has made it uneconomical for new entrants to build up monitoring capabilities.

The available evidence is consistent, though, with the interpretation that in the past, investment in Japan was being allocated efficiently because main banks provided effective corporate governance. Agency costs rose and inefficient investments became more prevalent as the influence of the main bank started to wane in the late 1980s and early 1990s. This happened for three reasons. First, an increasing number of Japanese firms in the 1980s reached the size and creditworthiness to raise capital directly without going through banks. Second, financial liberalization intensified competition for customers and reduced the maximum ownership stake Japanese banks can take in non-financial firms. At the same time liberalization made the supervision of banks significantly more challenging and thereby aggravated the problem of how to monitor the erstwhile monitors. Third the stock market crash and the poor investment decisions of clients, themselves partly a result of weakening corporate governance, left banks weak and vulnerable.

These developments undermined one of the central pillars of the Japanese governance system. As a result, other complementary features of the system, which had contributed to its effectiveness in the past, turned into liabilities. With the disciplining influence of main banks on the wane, other sources of managerial discipline would have been needed. However, the government failed to clear the way for an alternative governance system to emerge. Limited disclosure rules and intransparent accounting standards continue to make it difficult for outside analysts to monitor and assess companies. Hence the stock market continues to be unattractive for non-controlling investors. As a result, dispersed but stable cross-shareholdings by affiliated firms continue to insulate management from takeover threats. Moreover, incentive pay through stock options was allowed only in 1997 and is unlikely to be effective in an illiquid stock market. The banking crisis was allowed to fester on for the better part of a decade before a serious attempt was made to address it properly. Bankruptcy legislation has not been reformed at all. It is only recently that these concerns have begun to be addressed in the context of the so-called „Big Bang“ reforms.

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