

**Corporate Governance in Transitional Economies:
Lessons from the Pre-War Japanese Cotton Textile Industry**

By Yoshiro Miwa & J. Mark Ramseyer*

Abstract: Observers of the formerly communist transitional economies urge firms there to obtain funds from a relatively few sources. They note the institutional problems the firms face: courts not working, markets not developed, statutes not written. Because these firms cannot rely on the courts to discipline managers, they predict that firms will do best if they raise their capital only from a few concentrated sources.

Firms in Japan at the close of the 19th century faced a similar “transitional” institutional environment. They too faced disfunctional courts, nascent markets, and non-existent statutes. Yet the firms that succeeded in Japan were not the ones that took the tack proposed by modern observers of transitional economies. They were the ones that used little debt and raised their equity from a large number of investors. In this article, we outline how concentrated finance can introduce problems potentially as severe as the ones it supposedly mitigates, and discuss why dispersed equity did not reduce firm efficiency in late-19th century Japan. Although investors with relatively large stakes can indeed provide a firm value, they do so only under limited conditions -- and we explore what some of those conditions might be.

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Disfunctional courts, nascent markets, non-existent statutes, and firms controlled by communist hacks -- for many observers, that combination characterizes modern “transitional economies.” For firms in that environment, observers preach concentrated finance: rather than to rely on broadly dispersed shareholdings (with their well-known collective action problems), they urge entrepreneurs to raise capital from a few sources and to rely heavily on bank debt. Because managers often lack the skills they need and the courts provide little protection, firms with broadly dispersed investors will find themselves adrift with incompetent and unconstrained managers. If only to discipline themselves, they should restrict themselves to more concentrated sources for funds.

In this article, we use data from turn-of-the-century (*i.e.*, turn of the last century) Japan to test this hypothesis. Disfunctional courts, nascent markets, non-existent statutes, and firms controlled by people without a clue -- all this describes late-19th-century Japan as much as present-day eastern Europe. Within this “transitional” Japan, we pick the largest industrial sector -- cotton spinning -- and ask what capital and governance structures the more successful firms adopted.

Consistently, we find that the most successful spinning firms relied on equity and raised it from many shareholders. Although the successful firms often did have prominent investors with 5-15 percent interests in the firm, they did not focus on highly concentrated sources of equity capital or bank debt. Instead, they used bank debt only for their short-term needs, raised equity from hundreds of shareholders, and deliberately structured their governance to cripple the ability of unwanted shareholders to intervene in firm management. Corrupt and badly informed dominant shareholders can present risks potentially as large as corrupt, inept, or lazy managers -- and Japanese entrepreneurs recognized the risk. Some major investors could indeed provide value: those with broad reputations among investors, for example, or those who could provide (or recruit) the necessary technological talent. These investors the Japanese firms actively recruited. Other large-block shareholders, however, the firms did their best to cripple.

We begin by summarizing the current literature on corporate governance in transitional economies (Section I). We then describe the institutional environment of late 19th-century Japan, the cotton spinning firms that dominated this economy, and the capital structure of the most successful of these firms (Section II). We conclude by investigating how these firms mitigated the conflict of interest between shareholders and managers, and why they adopted the governance structures that they did (Section III).

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I. Finance in Transitional Economies

A. The Tradeoff Between Liquidity and Control:

Flux and change are the stuff of social scientific research, and “transitional” economies (by definition) present nothing if not flux and change. In studying those economies, several observers argue that firms there will need to structure themselves in ways radically different from the ways firms structure themselves in the U.S. Rather than raise funds on the stock or bond markets, they will need to obtain the bulk of any investment from a relatively few places: through intermediated (generally, bank) debt, or from large-block shareholders. As Bergloef (1995: 81-82; ital. in orig.) put it in a recent World Bank study:

- *Most of the external funding will have to come from control-oriented finance. ...*
- *Stock and bond markets are not going to play a major role in the provision of funds during early phases of economic transition. ...*
- *Holdings of debt and equity will be concentrated, with little turnover in control blocks. ...*
- *Both mutual funds and commercial banks will be needed, but banks are likely to be more important in corporate governance. ...*

The logic is straightforward. For expositional simplicity, assume that an “entrepreneur” at each firm chooses its investment structure. He chooses how much debt to issue, and how much stock. He chooses how much stock to hold himself, and how much to issue to others. He chooses how much earnings to reinvest, and how much to distribute in dividends. Whether debt or equity, however, he also chooses whether to try to raise the funds from a large number of sources or to raise them from only a few investors. He could, for example, try to borrow \$10 million broadly from wide variety of bondholders, or to borrow it from a small number of banks. He could try to sell \$10 million in stock to hundreds of diversified investors, or to sell it to a few plutocrats.

In choosing between dispersed and concentrated sources of capital, the entrepreneur trades off liquidity against monitoring. If he obtains his money from a wide group of investors, he can offer a liquid claim: an investment they can more easily sell and more readily fit within a diversified portfolio. All else equal, investors will prefer more liquid and diversifiable investments to less. If he obtains his money from a small group of investors, they can more effectively constrain managers: because they each hold a large interest in the firm, they face fewer collective action problems in monitoring or intervening; because they can more readily monitor and intervene, they can better prevent managers from doing silly or crooked things. All else equal, investors will prefer honest and effective managers to the foolish and dishonest.

Given this calculus, all entrepreneurs everywhere will not prefer the same capital strategy. As Demsetz and Lehn (1985) explained many years ago, they will choose the strategy that maximizes firm value -- but which strategy does so will vary by firm. All else equal, for example, an entrepreneur who needs more money than even the rich can easily spare will tend to raise capital broadly. An entrepreneur who finds it hard to commit not to cheat investors will tend to turn to fewer investors.

B. Transitional Economies:

Within transitional economies, observers point to two factors that they believe will favor entrepreneurs who raise money from a relatively few sources. First, stock and bond markets work only if investors have access to sophisticated courts.¹ Not only do investors need courts that will

¹ Thus, LaPorta, Lopez-Silanes, Shleifer & Vishny (1998) argue that legal systems that offer less shareholder protection will tend -- all else equal -- to have more concentrated ownership structures.

enforce their property rights to these stocks and bonds. Given the risk of managerial misconduct, they also need courts that will enforce the claims they derivatively hold against incumbent managers. Such claims, however, raise sensitive legal questions not usually amenable to bright line rules (Black & Kraakman, 1996) -- questions that go to the market value of illiquid assets sold by investors to the firm, or to whether managers exercised “reasonable” care in making business decisions that eventually went bad. Unfortunately, most transitional economies have few lawyers and judges, and those they have, come with precious little experience.

Second, many firms in these transitional economies are run by men who obtained their jobs at best by luck, and sometimes through ties to the old communist bureaucracy or the new mob.² Often, they lack much business sense or technical education, let alone reputations for integrity. As a result, they present massive monitoring problems. Only investors with concentrated interests, explain observers, will be able to make investments in these firms profitable. As Aoki and Kim (1995: xiii) put it:³

In the transitional economies ..., both competitive capital and labor markets are lacking. Managers have established strong control within their enterprises; there is no external agent with the decisive power to dismiss them for poor management performance or moral hazard behavior. ... Outsiders would then anticipate substantial agency costs to investing in insider-controlled enterprises. Therefore, the funds necessary for restructuring formerly state-owned enterprises would be difficult to come by from the capital market.

The conclusion follows straightforwardly -- or so it would initially seem. “Taking into account present-day conditions in the East European region,” conclude Frydman, Phelps, Rapaczynski & Shleifer (1993: 200), “one class of mechanisms, namely, outsider control by banks and other financial intermediaries, is well-designed to promote enterprise performance ...” By contrast, “some of the other mechanisms, such as a stock market or foreign investment, will not be strong enough in the near future, if ever, to be a major source of outside governance.”⁴ On corporate governance, it seems, the transitional economies yield a corner solution: not a Demsetz-Lehn mix of concentrated and dispersed ownership patterns, but an overwhelming focus on bank debt and large-block shareholders.

C. The Japanese Analogy:

If firms in transitional economies will tend to focus on concentrated capital sources, one need not read far in the corporate governance literature to intuit the next step: learn from Japan. After all, most scholars place large-block shareholders and large bank loans at the center of post-war Japanese finance. For example, another World Bank study (Litwack, 1995: 100) cites David Scharfstein for the proposition that “the Japanese financial model [may be] a better fit for a

² Black & Kraakman find this independence of managers in transitional economies one of the pivotal problems facing firms there (1996: 1915): “an acute problem in Russia is protecting minority investors against exploitation by managers or controlling shareholders. Protection of minority investors has also emerged as a central political issue in the most successful post-Communist economy, the Czech Republic, and is at the core of recent reforms in Israeli corporate law.”

³ See also, e.g., Frydman, Pistor & Rapaczynski (1995). For the argument that concentrated debt financing would not be appropriate for the transitional economies, see Dittus & Prowse (1996); for a discussion of the problems posed by institutional investors in the Czech Republic, see Coffee (1996).

⁴ See also, e.g., Frydman & Rapaczynski (1994: 37): the U.S. patterns of diversified investment “would not be suitable for the restructuring needs of the East European economies.”

capitalist economy at an earlier stage of development when information problems, including the lack of business reputations and sophisticated market analysis, make stock or bond-based finance exceedingly difficult.”⁵

Similarly, in their plea that these countries not ditch their socialist heritage completely, Bardhan and Roemer (1992: 103), urge them to ape their vision of Japan if they must ape capitalism at all:

[W]e are skeptical that the option of the ‘real thing,’ Western-style capitalism, is available to some of the East European countries, China, or Vietnam, however much some people in these countries may crave it. The institutions of Western capitalism, including its legal, political, and economic infrastructure, evolved over a long period. Some of them are not easily replicable. In fact, the bank-centric organization ... is a way of mitigating an historical handicap in capital market institutions. ... Even in the case of Japan, ... the main bank system originated in the highly imperfect financial markets and economic uncertainties of the immediate postwar period.

In this essay, we test these predictions against the Japanese experience. But not the post-war experience.⁶ Instead, we believe the current transitional economies face predicaments far closer to those Japan faced between the Meiji Restoration and World War II. Many of the problems said to characterize these economies parallel the problems said to have characterized Japan during various parts of this period: insufficient and inadequately trained lawyers, accountants, bankers and other professionals; novice judges; an absence of economically knowledgeable regulators; (during the early years) a dysfunctional statutory framework; an absence of large and smoothly functioning stock and bond markets; even an absence of a working managerial labor market.

Crucially, by looking at pre-War Japan, we can look at a “transitional economy” and ask which firms succeeded in the long-run. Because we are only a few years into the current European transition, we cannot yet tell which types of firms do best. But in deciding what governance structures to recommend, we do not want to know what structures current Russian firms adopt. We want to know which structures facilitate long-term Russian economic success. Toward that end, we need to know which firms have the highest odds of ultimately succeeding. For that, we need to be able to view the entire period retrospectively. Pre-War Japan gives us that retrospective view. And to focus our inquiry, we examine the industry that most radically revolutionized the pre-war economy: cotton textiles.

II. The Cotton Textile Industry in Pre-War Japan

A. Legal Structure:

Although it hardly harbored a brood of recovering Leninists, Japan at the end of the 19th century underwent a transition every bit as radical as anything among the formerly communist states at the end of the 20th. When Commodore Perry sailed into Uraga Bay in 1853, he sailed into a country that had deliberately rejected the west for two centuries. It had not been a splendid isolation.

⁵ Frydman & Rapaczynski (1994: 37-38) argue that “the East European economies need precisely [the German and Japanese] kind of institutions to supervise the restructuring effort,” provided agency problems are solved.

⁶ Though we are also skeptical whether the post-war Japanese experience provides any evidence in favor of the recommendations offered by transitional economy observers. See generally Miwa (1999; 1996: chs. 5-7).

The national government was badly in disarray, and had been for decades. Even in the best of times, it had not maintained a very effective legal system. Although the domainal governments had maintained their own courts too, these courts used rules that varied widely and jurisdiction was haphazard at best. In this vacuum, merchants did create a sophisticated customary commercial law system. Crucially, they never developed firms with transferrable equity stakes.⁷

In the name of the young Meiji emperor, a coalition of regional military leaders overthrew this government in 1868. For several years they faced continuing threats to their control, but they quelled the last major rebellion in 1877. They organized the first national courts in 1872.⁸ Ostensibly on behalf of the emperor, they passed a constitution in 1889. Through the new parliament, they then enacted a Civil Procedure Code in 1890⁹ and a Civil Code (essentially, contract, tort, property, agency, and family law) in 1896 and 1898.¹⁰ They passed one version of the Commercial Code (consider it the Uniform Commercial Code, the Uniform Partnership Act, an insurance act, and a corporations code rolled into one) in 1890 with the corporate law provisions taking effect in 1893. They then abandoned it and passed an almost entirely new one in 1899.¹¹

B. The Cotton Spinning Industry:

Cotton-spinning had not been a significant industry in Japan, but come the new regime matters changed. The government of Satsuma province opened the first “modern” cotton spinning mill in 1867 with several British spinning machines. The national Ministry of Home Affairs imported two more in 1878, and another ten in 1879. None of these government-run operations succeeded, nor did the government offer firms in the industry any other targeted help. Instead, because the “unequal treaties” forced it to keep trade barriers minimal, it did little more than subject its textile firms to international competition.¹²

From these inauspicious beginnings, the industry grew rapidly. After some early false starts, Japanese firms soon became major international competitors. When World War I closed the Suez Canal, they made enormous profit in the Asian market. By the 1920s, Japanese firms consumed more raw cotton than British firms. Despite a deep recession in the industry after the war, Japanese textile firms in the 1930s still produced a quarter of all domestic manufactured goods and employed 40 percent of all factory workers (Ramseyer & Rosenbluth, 1995: 136-37). By 1934, the three largest cotton spinning firms in the world were all Japanese: Toyo Boseki (1,372,000 spindles); Dai-Nippon Boseki (1,023,000 spindles); and Kanegafuchi Boseki (generally called Kanebo) (823,000 spindles). The fourth largest was the American Amoskeag Manufacturing firm with 687,000 spindles. The largest British firm was Riverside & Dan River Mills, at 467,000

⁷ For surveys of the Tokugawa legal system, see Ramseyer (1996); Steenstrup (1991).

⁸ Shiho shokumu teisei [Rules Regarding Judicial Functions], Dajokan unnumbered tatsu of Aug. 3, 1872. These institutions did not begin to look recognizeably modern until the late 1880s. Saiban sho kansei [Court Organization], Chokurei No. 40 of 1886, and Saibansho kosei ho [Judicial Organization Act], Law No. 6 of 1890.

⁹ Minji soshō ho [Code of Civil Procedure], Law No. 29 of 1890.

¹⁰ Mimpo [Civil Code], Law No. 89 of 1896, and Law No 9 of 1898.

¹¹ Shōho [Commercial Code], Law No. 32 of 1890; Shōho [Commercial Code], Law No. 48 of 1899.

¹² Instead, eventually the national government sold off all its machines to private operators. See generally Ramseyer & Rosenbluth (1995: 137); Takamura (1971: preface); Nakaoka (1986: 49).

spindles.¹³ Consider the growth in Japanese cotton textile production (sales in constant 1934-36 million yen; Fujino, *et al.*, 1979: 244-45; Shinohara, 1972: 140-45):

	Cotton Spinning	All Textiles	All Manufacturing	Textiles/ Manufacturing
1890	N.A.	300	1,329	23 %
1900	139	509	2,101	24
1910	257	804	2,950	27
1920	440	1,499	5,689	26
1930	617	2,601	9,261	28

Other than Mitsui family's initial interest in Kanebo (more on this in Section III.C.3., below) the major zaibatsu -- those pre-war conglomerate predecessors to the modern keiretsu -- invested almost nothing in this industry. As of about 1930, the Mitsui owned only 6.7 percent of Kanebo, 40-50 percent in four much smaller spinning firms, and under 6 percent in a couple of other small firms. The Mitsubishi held equity interests in only two firms -- both under 3 percent. The Sumitomo and Yasuda had interests in only one each, both under 1 percent. By calculating through these shareholdings to zaibatsu shares in the total spindles in place, we obtain the following estimate of zaibatsu investments in the industry (as of about 1930):¹⁴

	Zaibatsu Spindles	Percentage of Industry total
Mitsui	212,486	3.25 %
Mitsubishi	9,933	0.15
Sumitomo	2,864	0.04
Yasuda	3,677	0.06
Total	22,960	3.50

C. Capital Structure:

Entrepreneurs began forming private cotton spinning firms in earnest soon after the government mills failed. About the earliest private firms that failed, little information survives. About those that succeeded, several points stand out.

1. Early formation. -- Entrepreneurs formed these firms quickly. Indeed, they had already formed most of the firms that would eventually dominate the industry (or their principal predecessors) by 1890. They had formed them, in other words, before any corporate law had taken effect.¹⁵

¹³ Toyo (1934: p. supp. 5). This survey excludes the "trusts" in England which were, as combined operations, larger than the Japanese firms.

¹⁴ Takahashi (1930) where available, and company semi-annual reports where not available.

¹⁵ The information on firm foundings in this paragraph and the next is taken from Fujino, *et al.* (1979: 39-42). The 1925 size information is taken from the Geppo (July 1925). Total spindles are calculated by discounting mule spindles by 1.3.

The Amagasaki boseki and Settsu boseki firms, for example, began in 1889. Eventually, they would comprise the core of the giant Dai-Nippon boseki, in 1925 the largest Japanese spinning firm (at 672,000 spindles; the merger was in 1918). Mie boseki and Osaka boseki began in 1886 and 1882 respectively. Together, they would become Toyo boseki, in 1925 the second largest (660,000 spindles; the merger was in 1914). The third largest (498,000 spindles) Japanese spinning firm in 1925 was Kanebo, incorporated in 1887. Fuji boseki and Tokyo gasu boseki (to become Fuji gasu boseki in 1906; at 416,000 spindles the fourth largest in the industry in 1925) both began in 1896. Kurashiki boseki (216,000 spindles by 1925; seventh largest) started in 1887. And Fukushima boseki (184,000 spindles by 1925; eighth largest) was incorporated in 1892.

Spinning firms were not unusual in incorporating early. As of 1890, government statistics recorded over 5000 firms. The 4000-plus non-bank firms had 224,000 investors and paid-in capital of 90 million yen. Slightly over half were corporations, and the rest were partnerships (Imuta, 1967a: 26-31).

2. Broad ownership. -- Entrepreneurs sold the stock in these spinning firms to a broad array of investors. Typically, they began by selling their stock to community leaders. When Mie began in 1886, for example, it raised its initial capital of 220,000 yen primarily from local investors. With it, it bought 10,000 spindles. By 1889, it increased its stated capital to 700,000 yen, and operated 30,500 spindles (Toyo, 1934: 8-9). When Kurashiki started in 1887, 50 of the 131 initial shareholders (holding 504 of the 1000 shares), all 5 directors, and the CEO were from Kurashiki village. Indeed, all but 3 of the shareholders holding at least 10 shares were from the local Okayama prefecture (the 3 non-locals together held 45 shares; Kurashiki, 1953: 28-29).

When Amagasaki began in 1889, the impetus again came from local businessmen. Among themselves, however, they could not raise the requisite capital. Accordingly, they contacted Osaka businessmen from merchant and money-changing backgrounds for additional funds. The result was an effective joint venture: 400 shares each to 6 Osaka-area investors and 2 Amagasaki-area investors, 350 shares to an Amagasaki investor, 300 shares to 3 men from Osaka and 2 from Amagasaki, and 250 shares to an investor from Amagasaki.¹⁶

[Insert Table 1 about here.]

In most cases, no single shareholder or group of shareholders held a very large interest. Table 1 details the shareholdings in the major firms at the turn of the century. On average, the firms had 331 shareholders. The largest investor held about 8 percent of the stock, the five largest together held 24 percent, and the 10 largest held 33 percent. Only 11 percent of the firms (7 firms) had fewer than 100 shareholders, while 52 percent (32 firms) had 300 shareholders or more. In no firm did the largest shareholder hold 50 percent or more of the stock, and in only 3 firms did he hold 20 percent or more. In 76 percent (47 firms), the largest shareholder held less than 10 percent of the stock. In no firm did the 10 largest shareholders hold 70 percent or more of the stock, and in only 6 did they hold 50 percent or more. By contrast, in 66 percent (39 firms), the 10 largest shareholders together held less than 35 percent of the stock.

Entrepreneurs who met specified conditions could obtain limited liability by application to the local prefectural governor, albeit with some uncertainty (Yo shida, 1998: 11 *et seq.*).

¹⁶ The firm issued 20,000 shares in all, to 387 subscribers. Apparently because of the economic downturn in 1890, 166 of the initial subscribers lost their stock because they failed to make the required investment. Imuta (1968: 182-83).

The average number of shareholders varied by industry during this period. While spinning firms had more shareholders than most, some firms -- most particularly the railroads -- had even more. Take the mean number of shareholders per corporation in different sectors (Imuta, 1976: (57)-(59)):

	Manufac- turing	(Cotton) (Spin'g)	Agri- culture	Transpor- tation	(Rail) (roads)	Commer- cial	Total
1886	35.1	N.A.	188.2	110.5	1598	113.2	65.4
1887	33.8	115.5	190.2	98.5	1550	95.7	61.3
1888	40.5	94.8	148.8	75.7	863	65.1	57.3
1889	27.0	148.9	167.7	92.9	904	61.1	55.2
1890	29.0	120.7	663.2	96.1	939	57.7	56.9
1891	22.0	139.5	200.3	96.1	832	57.2	53.2
1892	22.1	171.5	188.8	103.6	769	56.3	49.4
1893	16.8	136.4	184.0	181.1	714	59.2	40.2
1894	59.0	222.1	144.9	188.9	669	53.1	74.0
1895	63.3	255.4	90.2	163.4	719	45.1	65.8

Within a few years, most of the spinning firms that would become the eventual industry leaders had listed their stock on a national exchange. Indeed, they typically listed their stock with the Tokyo or Osaka Stock Exchanges (both founded in 1878) by the early 1890s, still before Japan had even settled on its eventual corporate law.¹⁷

Firm	Incorporated	Listed
Settsu	1889	1891 (OSE)
Amagasaki	1889	1892 (OSE)
Mie	1886	1888 (OSE), 1889 (TSE)
Osaka	1882	1887 (OSE)
Kanebo	1887	1889 (TSE)
Tokyo gas	1896	1897 (TSE)
Fukushima	1892	1895 (OSE)

More generally, on the eve of Japan's first (1893) corporate law, the Tokyo Stock Exchange had already listed the stock of 62 firms and the Osaka Stock Exchange 35 (Imuta, 1976: (17)-(18)).

3. Heavy equity. -- The spinning firms rarely relied on debt, much less bank debt. Even blue-chip firms like Kanebo sometimes had trouble borrowing from banks. Primarily, they borrowed only short-term, but CEO Sanji Muto claimed that few banks other than the Mitsui would lend Kanebo money at all (Muto, 1934: 153-59).

This lack of bank debt should not surprise, for Japanese banks in the late 19th century seldom lent to firms of any sort. Instead, they lent to individuals, and took security interests directly. In 1896, for instance, nationally chartered private banks in Osaka¹⁸ made 72 percent of their loans to merchants, generally wholesalers. In Tokyo they made 80 percent of their loans to borrowers whom the records catalog as "miscellaneous," much of it apparently to individual aristocrats. In both cities, the banks secured over 70 percent of the loans with stocks or bonds

¹⁷ The information on firm listings in this paragraph is taken from Osaka (1928); Tokyo (1928).

¹⁸ I.e., the kokuritsu ginko, the first category of private banks.

(Imuta, 1967b: 39, 66-67). This does not mean borrowers did not invest in firms -- they probably often did. It means banks did not lend directly to firms, and therefore seldom had the means to monitor corporate governance.

This near-absence of bank debt appears more directly in the balance sheets of the firms themselves. The classic study of Japanese long-term economic statistics divides the principal spinning firms of the period into four groups, roughly on the basis of descending size (or the size of their successor firms). Consider their debt to total assets ratio (total assets in x1000 yen in parentheses) for 3 selected years:¹⁹

Group:	I	II	III	IV
1905	10.9% (50,071)	3.3% (1,988)	N.A.	N.A.
1910	17.1 (102,060)	17.5 (4,430)	N.A.	N.A.
1915	15.1 (138,721)	8.6 (8,106)	4.8 (3,107)	22.1 (488)

Although the firms did borrow some funds, in all size categories they relied primarily on equity finance.

D. Success:

Firms like Toyo boseki and Kanebo did not just come to dominate the industry by steady growth, though they did steadily grow.²⁰ They also came to dominate it by relentlessly acquiring their more inefficiently managed competitors. So much for the notion that Japanese business executives have a cultural aversion to mergers and acquisitions. Even as they built and expanded their own factories, aggressive spinning firm managers strategically bought their rivals.

Take Toyo boseki, formed in 1914 from the merger of Mie boseki and Osakaboseki.²¹ Osaka had been formed in 1882. In 1906 it acquired Kanekin, which had in 1905 acquired Heian, which had in 1900 acquired Fushimi. In 1907, Osaka also acquired Hakuseki, which had in 1902 acquired Uwa. Mie began in 1886. It then bought Owari (1905), Nishinari (1906), Tsushima (1906), Kuwana (1907), Chita (1907), and Shimotsuke (1911). Toyo also acquired Tokai penii in 1919; Hamamatsu in 1920; Ise boshoku in 1923; Nogoya kenbo in 1926; and Osaka godō in 1931 - - which had in turn acquired Tenma in 1900, Chugoku and Meiji in 1902, and Imabari in 1923.

Formed in 1887, Kanebo pursued a similarly aggressive strategy. In 1899, it acquired Kashu, Shibajima, and Jokai. The next year, it acquired Awaji. In 1902, it acquired Hakata kenmen, Nakatsu and Kyushu -- which in turn had acquired Kurume, Miike, and Kumamoto in 1899. In 1907, Kanebo acquired Nippon kenmen, and in 1911 acquired Nankai and Kenshi. Kenshi had acquired Okayama and Bizen in 1907. Okayama had acquired Saidaiji in 1898. In 1913, Kanebo acquired Asahi boshoku; in 1921, Kokka seishi; in 1922, Nippon kenshi; in 1923, Nansei -- and so it went, year after year, even through the war.

¹⁹ Debt is both bank debt and bonds; total assets are the sum of paid-in capital, accumulated reserves, debt, current reserves, and carryforwards. Fujino, *et al.* (1979: 76-77).

²⁰ Merger information is from Fujino, *et al.* (1979: 39); Kanebo (1988); Toyo boseki (1934).

²¹ Under the 1899 Commercial Code, mergers took effect, *inter alia*, only upon a favorable vote among a majority of shareholders and among those shareholders holding a majority of the shares. Commercial Code, §§ 222, 209, or after amendment by law No. 72 of 1938, §§ 408, 343.

Generally, these firms could profitably acquire their competitors because they were better -- because the acquiror managers could more efficiently use the target's capital stock than the target's own managers. To illustrate this point, in Table 2 we compare the profitability of the targets and acquirors. More specifically, we take all acquisitions in the industry between 1903 and 1911 involving firms for which profitability data remains, and calculate the mean semi-annual profits per spindle for acquirors and targets during the three years before the acquisition.²²

Given the porous character of turn-of-the-century accounting practices, one should take the figures skeptically. Kanebo CEO Muto later claimed that Kanebo, Toyo, Dai-Nippon, and Osaka godo ended the World War I boom with 200 million yen in secret off-books profits -- this at a time when according to public accounting statements all 56 firms in the industry together had paid-in capital of only 276 million yen (Muto, 1934: 151; Wada, 1938: 75). Yet of the 14 acquisitions, according to public records in only one case did the target have a higher pre-merger profitability than the acquiror.

In buying up poorly managed firms, industry leaders acquired the crucial British Platt Brothers spindles at a large discount. Settsu bought Daiwa in 1898, for example, for 290,000 yen. By doing so, it acquired 11,520 Platt spindles at a time when a factory with 10,000 new spindles cost about 330,000 yen. In the same year, it bought Hirano with its 39,168 spindles for 400,000 yen. In 1903, it acquired Koriyama's 22,232 Platt spindles for 375,000 yen (Yamaguchi, 1968: 597-98).

[Insert Table 2 about here.]

III. Corporate Governance in Cotton Spinning:

A. Introduction:

Return, now, to the question at the heart of this essay: why did these successful firms find it advantageous to disperse their shareholdings broadly? Given the primitive courts and almost non-existent statutory framework, the logic of the modern corporate governance literature suggests they should have been closely held. They were not. Instead, they were both publicly held and economically successful. How were they able to mitigate the conflicts of interest between shareholders and managers? Why did apparently unmonitored managers create such smoothly running and such eminently profitable firms? How could the entrepreneurs sell shares broadly without a corporate law?

To explore these questions, we first identify the source of the efficiency gains (Section B). We then turn to the ways the firms mitigated the incentive misalignments between managers and shareholders (Section C).

B. Managerial Efficiency in the Spinning Firms:

1. Monopoly gains? -- Consider, initially, why the large firms were so successful. Their gains were not monopoly gains. In 1900, there were over 70 firms in the industry trade association; even in 1925 there were still over 50 (Geppo: relevant years). At that size, any attempt to fix profits was almost bound to fail. More to the point, the firms did not try. Although pricefixing agreements would not have been illegal, the firms never made them.

²² We do not carry the data farther forward because shortly after 1911 (the end of the Meiji period), Japanese firms expanded aggressively into weaving operations. This, of course, makes it hard to construct a simple metric of operating efficiency like profits/spindle.

To be sure, the spinning firms did sometimes agree to idle spindles or to cut back hours. Yet for several reasons the agreements would not have earned monopoly rents. First, the firms never banned investments in new equipment. So long as they could increase production by increasing their investment, they were unlikely to earn monopoly rents -- even had they been only a handful of firms.²³

Second, the agreements involved fewer than all members of the industry. As of 1927, eleven spinning companies controlling 6 percent of the cotton spindles remained outside of these agreements (Nippon kangyo, 1928: 55-8). Third, new entry remained feasible to the end. Although most of the ultimately successful firms were early entrants, not all were. Formed in 1907, by 1910 Nisshin boseki was in the second quintile of firms. By 1930, it was the sixth largest in the country. Other firms continued to form and compete throughout the period (Nisshin, 1969; Geppo, various years).

Last, the cotton market was an international market, and -- big as they were -- Japanese firms faced fierce competitors overseas. Some thread they sold directly in the overseas market. Other thread they sold domestically or wove in vertically integrated loom operations. Eventually, however, much of that woven product went overseas. So long as downstream buyers (here, the Japanese weaving firms) sell their products on competitive markets, any cartel among less than all upstream sellers (a cartel only of Japanese spinners) will not likely to raise prices.

2. Scale economies? -- Neither were their gains scale economies of factory size. In cotton spinning, the scale economies to factory size disappeared at scales far smaller than the largest Japanese firms. With several hundred thousand (and in some cases over a million) spindles, the Japanese firms were much bigger than necessary to capture the scale economies to factory size. According to one 1957 British study, the “technical limit” to spinning mills rose “as we go to finer counts from 9000 to 10,000 m.e. [mule equivalent] spindles for a mill balanced at 10’s counts to 25,000-30,000 spindles for a mill balanced at 30’s counts, and so on.”²⁴ Even in the 1940s, few British mills had more than 150,000 spindles (Robson, 1957: 135). Concluded the same author (*id.*: 137n.1), “the main economies arising from increasing size are reached at about 30,000 spindles and .. above 60,000 spindles, if they exist, they are more than offset presumably by increasing managerial difficulties.”

The one-time president of Toyo²⁵ similarly estimated the minimum efficient scale at 20,000 spindles for 20s count thread, 40,000 spindles for 40s count, and 60,000 spindles for 60s count (Seki, 1954: 203). More specifically, he (*id.*: 204 tab. 10) estimated the indexed cost of production, by factory size (for 20’s count yarn) as:

²³ For details of the mandated restraints, see Ramseyer (1996: 139 tab. 7.2).

²⁴ Robson (1957: 134). The same source calculates a ring spindle as equivalent to 1.5 mule spindles at 20s’s count yarn (*id.*, at 49 n.*). Sandberg (1974: 122, 27), however, describes the 1 ring = 1-1/3 mule conversion ratio as “the accepted practice” of the period. Ring spindles were the newer technology, and required less expertise, but were less suited for the finer (higher count) yarn.

²⁵ Purged by the U.S.-run occupation, Keizo Seki was invited to lecture at the University of Tokyo Economics Department, where he wrote what became one of the classic histories of the Japanese textile industry.

Spindles	Materials	Wages (labor)	Amenities (labor)	Operating Costs	Total
5,000	21.77	104.14	16.92	22.37	165.20
10,000	21.77	73.59	11.95	19.34	126.65
20,000	21.77	57.66	9.35	18.84	107.64
30,000	21.77	51.53	8.37	18.33	100.00
40,000	21.77	49.25	8.00	18.09	97.11
50,000	21.77	47.97	7.79	17.93	95.46
60,000	21.77	47.14	7.66	17.83	94.40

For 20s count yarn (and in the 1920s, Japanese yarn averaged 20-21 count; Sanko, 1925: 21-22), as factory size rose from 10,000 spindles to 30,000, production costs fell 21 percent; as it rose from 30,000 spindles to 60,000, it fell only another 6 percent.

As this discussion should make clear, the successful Japanese firms were already far larger than factory scale economies warranted. And true to these considerations, they did not use new machines to expand their factories. Instead, they kept any firms they acquired as separate factories. Throughout this period, the mean number of ring spindles per factory at the largest firms remained above the minimum efficient scale, but well within range of the smaller firms as well (Abe, 1995):

	1919	1927	1937
Toyo boseki	34,595	41,948	52,366
Kanebo	30,740	37,269	66,795
Dai-Nippon	43,910	54,259	82,185

In short, the acquisitions did not change factory size. They changed factory management.

3. Managerial efficiencies? -- a. Technical expertise. The reason behind the acquisitions and behind the success of the largest firms lay in their managerial talent: the way the largest firms (i) mastered both spinning technology and management practices, (ii) learned how to govern a multi-unit firm, and (iii) now leveraged technological and organizational sophistication over a bigger capital base. Begin with the technological expertise. So crucial was this expertise that top engineers could sometimes command higher pay even than the company president. When Kurashiki began operations, for example, it paid its CEO 15 yen per month, but its two top engineers 18 and 30 yen (Kurashiki, 1953: 36-37).

Cotton textile production involved almost completely foreign technology. Rightly or wrongly, the British firms had believed that they could rely on on-the-job training. Even in 1950, the 51 textile firms in Manchester employed a total of only 74 university graduates (Yonekawa, 1984: 215; 1994: 181). Japanese firms had no such luxury. They needed expertise they did not have. Toward that end, the most successful firms were the firms that aggressively hired university graduates.

Like much in the industry, the practice may have begun at Kanebo.²⁶ For Kanebo, its first years were bad years. As the firm's largest shareholder (this being virtually the only time a zaibatsu had invested heavily in a spinning firm) the Mitsui family stepped in. From the Mitsu

²⁶ Other spinning firms had not entirely ignored educated technicians, of course. See Morikawa (1981: 43).

Bank, it brought Keio University graduate Sanji Muto in 1893. Muto quickly began hiring other university graduates into managerial slots. Initially, he hired them away from his competitors. Soon, he went directly to the schools. By 1914, he was hiring a dozen graduates a year, and had filled virtually all branch manager posts with university graduates (Yonekawa, 1984: 211-12).

The presence of these graduates directly correlated with profitability. As of 1914, the textile firms with at least 20 university graduates were (Yonekawa, 1984: 196-99):

	A. University Graduates	B. Factory Workers	A/B
Kanebo	269	24,323	.0111
Toyo	136	32,441	.0042
Fuji gas	87	10,172	.0042
Osaka godo	61	9,400	.0065
Amagasaki	48	9,525	.0050
Kurashiki	45	3,135	.0143
Settsu	33	10,176	.0032
Naigai	32	2,220	.0144

Recall the firm profitability data used in Table 2. If we regress profits/spindle on total spindles (/1000) and the number of university graduates, we obtain:²⁷

$$\text{Prof/Spin} = 3.659 - .020 * \text{Total_Spind} + .022 * \text{Grads} + e$$

(9.19) (2.29) (2.34)

where the t-statistics are in parenthesis, adjusted R2 = .007, and n=531. In short, firm profitability was positively and significantly correlated with the number of college graduates at the firm.

b. Firm size. For recent graduates, the bigger firms offered the jobs of choice. New graduates faced a nontrivial risk that the firm to which they went would fail. By joining a bigger and more profitable firm, they could minimize that risk. Overwhelmingly, they chose the bigger firms (Yonekawa, 1984: 212).

Technological expertise eventually cascaded into the smaller firms, but only as the graduates moved on the inter-firm managerial market. Toyo adopted modern management practices, for example, only after it hired away a team of managers from Kanebo. When it laid off

²⁷ More precisely, profitability per spindle over 1903-11 is correlated positively with having more university graduates in 1914.

For this estimation, we set the number of university graduates at firms not on Yonekawa's list at 0, where in fact they may have ranged from 0 to 20. If we simply exclude all firms not on Yonekawa's list, we obtain (n=123):

$$\text{Prof/Spin} = 4.587 - .018 * \text{Total_Spind} + .0143 * \text{Grads} + e$$

(7.39) (2.50) (1.94)

Because Toyo resulted from the merger of Mie (a highly successful firm) and Osaka boseki (a failing firm) in 1914, we attribute the Toyo graduates to Mie. For a discussion of the lack of educated personnel at Osaka and the contrast at Mie, see Yonekawa (1994: 180-83).

its own managers, they moved to smaller firms and took those practices with them (Yonekawa, 1992: 617, 683).

All told, about half of the 1900-15 graduates who joined Kanebo soon after school left the firm within 20 years. Generally, they left for higher ranking positions at lesser firms. After improving management there, they often moved to yet other firms, some ex-Kanebo managers working at two, three, or even four other firms during their careers (Yonekawa, 1984: 212; 1992: 692-93). In effect, the larger firms adopted much the same strategy high-prestige law firms use today: hire a large corps of graduates, train them, pick the most promising, and induce the rest to leave.

Kanebo was not the only firm with sophisticated managerial talent. Mie had Kozo Saito, a university engineering graduate who worked at the Osaka mint before moving to textiles and becoming a director-equivalent by age 33. Amagasaki had Kyozo Kikuchi, likewise a university engineering graduate with experience at the Osaka mint. He became a director by age 35. Indeed, he was in such demand that he served simultaneously as chief engineer at Amagasaki, Settsu, and Hirano. Toyoharu Wada graduated from Keio University, and through the course of his career worked at NYK (the Mitsubishi shipping firm), Kanebo, Fuji (as director), and its successor Fuji gasu -- where he became president. Throughout, the firms that came to dominate the industry were generally ones where the early entrepreneurs were lucky or shrewd enough to recruit technologically and organizationally sophisticated men to prominent positions (Morikawa, 1991: 17; 1981: 41, 43, 141).

c. Managerial expertise. The big-firm advantage was not just in engineering -- it was also in management. Not only did Kanebo (most prominently of the large firms) hire university graduates for technological positions, it hired them for management too. As of 1914, most firms used universities only as a source for engineers: of the 7 firms other than Kanebo with at least 20 university graduates, 72 percent had science backgrounds. At Kanebo only 48 percent did (Yonekawa, 1984).

Under Muto, Kanebo self-consciously imported modern management theory. Frederick W. Taylor published his Principles of Scientific Management in 1911 (New York: Harper). By 1912, Muto had announced his own "Principles of Scientific Operations" (Kanebo, 1988: 130-33), and the Taylorite motion studies soon followed (Yonekawa, 1992: 677). According to one 1925 British observer, it was exactly this scientific management that gave Japan its lead over England (Seki, 1954: 117-18):

The big difference between Manchester and Osaka is not so much in the cheap labor or the long hours. It's in the fact that Osaka has realized the value and economies of mass production. I visited one spinning factory in Osaka, and all they do is weave six types of cotton cloth [the major Japanese spinners also ran vertically integrated weaving operations]. Each machine is continuously making the same product, and the workers stick at the same job until they can generate large savings in labor and large economies. If this were an English factory of the same scale, depending on market demand it would probably be set up to make 60 different kinds of cotton cloth.

But Muto went farther. Developing his own "psychological" theories of management, he reasoned that workers worked best if they liked their job and had few personal distractions (Kanebo, 1988: 134-36). Just as Henry Ford cut absenteeism by doubling wages and hiring social workers (Miller, 1992: 67-74), Muto hiked wages and built dormitories, schools, and health clinics. Compare, for example, wages -- the mean Kanebo daily wages (in current sen) with the average

wage among spinning firms in the trade association (the Dai-Nippon Boseki Rengo-kai, generally called the Boren).²⁸

	Boren mean	Kanebo mean	Kanebo premium
1898	14.99	19.60	30.8 percent
1908	24.89	29.00	16.5 percent
1919	80.51	84.10	4.5 percent

Historians sometimes belittle Muto's efforts, just as they sneer at Ford. But in belittling either, they miss the essence of efficiency wages: workers work hardest and most carefully if they earn more than the market-clearing wage, and sometimes that additional productivity more than offsets the wage premium.

Indeed, Kanebo's wage premium relative to other spinning firms eventually faded (as the figures above show), but only because other firms raised their wages too. In 1898, female workers in the spinning firms (most spinning workers were young women recruited from peasant families) earned annual wages that were 1.17 the annual wages female workers earned in the agricultural sector. By 1908 that ratio had risen to 1.90. In 1918 the spinning/agricultural annual-wage ratio fell to 1.57 from the 2.21 it had been in 1914, but by 1920 it was back up to 2.74 (Ramseyer, 1996: 152 tab. 7.8).

To preserve the incentive effects of these efficiency wages, the firms worked hard to commit themselves to a policy of not hiring away blue-collar workers from rival firms. During the earliest years of the industry, the firms used the trade association Boren for just that purpose. Indeed, for precisely that reason Kurashiki waited to join the Boren until after it had hired away the workers it wanted from its rival firms. And lest non-member firms hire away their employees, they worked hard to induce the newer and smaller spinning firms to join the Boren too (Toyo, 1953: 96, 234-35; Kurashiki, 1953: 58).

d. Multi-unit leverage. To exploit the efficiency gains to modern engineering and management, the larger firms learned to master the multi-divisional firm. Even in the west, managers did not tackle multi-unit firms until the railroads arrived with their distinctive challenges (Williamson, 1985: ch. 11). Yet it was primarily by learning to leverage their technological sophistication over multiple factories that the larger Japanese spinning firms could exploit their technological and managerial lead.

This leverage took many forms. At Kanebo, the trained, educated managers centralized such tasks as buying raw materials, allocating raw cotton among factories, making managerial personnel decisions, and selling finished tread. At Toyo, central managers used the data they collected on intra-firm performance to induce factories to compete among themselves (Yonekawa, 1992: 677, 684).

The larger firms also circulated their managers among the factories. Having aggressively acquired less efficiently run factories, they now had to integrate them into the firm and improve both their efficiency and their quality. Toward that end, they regularly moved managers from factory to factory. Even central office managers could spend time supervising work on the shop floor, and firms often rotated factory heads every 2-3 years (Yonekawa, 1992: 677, 684).

²⁸ Data from Ramseyer (1996: 150 tab. 7.6). 1918 data not available.

C. Misaligned Incentives:

1. Constraining managers. -- (a) Introduction. In arguing that firms in transitional economies should rely on concentrated sources of capital, corporate-governance theorists focus on the potential for managerial and shareholder incentives to diverge. Managers can steal or shirk, they note, and only if investors hold large interests in the firm will they have the power or incentives to constrain them. Accordingly (they continue), closely held firms will more tightly monitor their managers; closely held firms will suffer fewer losses from managerial fraud and indolence; and necessarily in competitive markets closely held firms will out-compete their more widely held competitors.

In turn of the century Japan, the most successful firms had hundreds of shareholders. To succeed, these publicly held firms used a variety of devices to help align managerial and investor incentives:

- (i) they tied managerial pay to profits;
- (ii) given a fluid managerial labor market among a limited number of firms, they relied on reputational sanctions;
- (iii) they recruited well-known industrialists and technologically sophisticated professionals onto the board, effectively inducing them to place their own reputations, connections, and expertise behind the firm; and
- (iv) they subjected their major investment decisions to the discipline of the capital market by committing to high dividend payout policies.

Turn now to each.

(b) Profit-sharing. Cotton spinning firms often tied managerial compensation to firm profits. They did this in a variety of ways, but perhaps the most direct was that used by Mie boseki. Mie explicitly provided in its corporate charter that 13 percent of its net profits would go to its officers as compensation, and another 7 percent to its blue-collar workers (Yonekawa, 1994: 198). Other companies included similar provisions in their charter -- Kanebo, for example, and Kurashiki, Amagasaki, and Osaka.²⁹ Indeed, the Boren even included such a provision in its model charter (Okamoto, 1996: 365).

(c) Managerial labor market. Managers worked within a fluid labor market. We noted earlier the way they regularly moved among the larger firms, and moved from larger firms to smaller ones. They did this, moreover, within an industry with a limited number of firms. Given the constrained number of cotton spinning firms (generally 50 to 70), necessarily they worked within a world where reputations travelled quickly. Should they shirk or steal, necessarily they jeopardized their prospects on the lateral market.

(d) Prominent industrialists. Entrepreneurs actively recruited well-known industrialists or technologically sophisticated professionals as shareholders and board members (generally not a full-time job). Eiichi Shibusawa, for example, not only founded Osaka boseki in 1882, but helped raise capital for Mie boseki as well (Takamura, 1971: ch. 1). A national figure, he had earlier founded the Dai-ichi Bank (predecessor to the Dai-ichi Kangyo Bank), and built around himself a financial empire that historians sometimes call the Shibusawa zaibatsu.

²⁹ Kanebo (1988: 985); Okamoto (1996: 323, 357); Kurashiki (1953: app. 11).

Other textile investors were less in the public eye, but no less prominent within the industry. They were experienced businessmen, and if anyone could monitor spinning firm managers they were it. Prominent Amagasaki director Kyozo Kikuchi served on the boards of two other firms; Katsuzo Ukita served as statutory auditor (a senior position mandated by 1899 Commercial Code, § 133) on three firms; Kyohei Magoshi served as auditor for two firms and a director of a third; and so forth. In his study of spinning firm shareholders, Imuta identifies 28 industrialists with significant investments in multiple firms, who often held officer or director posts to boot (Imuta, 1976: 12-13).

These prominent shareholders and board members performed several roles. Most obviously, some provided the imprimatur necessary to attract other investors and corporate officers. The logic loosely resembles the logic de Long (1991) used to explain the role the House of Morgan played in the U.S. By inducing Morgan to place of its partners on its board, a firm could significantly raise its value. In effect, in placing a partner on the board, the House posted its own reputation behind it. We suspect that prominent industrialists played much the same role in Japan.

Particularly during the troublesome early years at the firms, prominent shareholders and board members also provided crucial expertise or access to expertise. Involving as it did radically new production technology, cotton spinning often proved far harder than the firms' first entrepreneurs anticipated. At this point, men like Shibusawa could use their ties to industrialists elsewhere to recruit the talent a firm desperately needed. In Kurashiki, for example, it was a prominent shareholder who located the engineers the company needed when it found (soom after starting operations) that its initial engineers were not up to the job. Similarly, when early in the history of Fuji boseki it found itself adrift it was prominent shareholder Ichizaemon Morimura (of Noritake China) who convinced Tokyo gasu boseki founder Heizaemon Hibiya to restructure the firm.³⁰

Other prominent investors were simply corporate officers who had done well for the firm. Spinning firms paid successful officers and engineers well, and those men often then invested in their firm. Muto, again, bought large amounts of Kanebo stock. Kikuchi, who simultaneously worked as a head engineer at Settsu, Hirano, and Amagasaki, used his salary to buy large shareholdings in each. That they chose to do so, of course, itself provided a quality imprimatur -- for that an insider chooses to invest heavily (and not as part of a balanced portfolio) in his own company is exactly the type of news outside investors like to hear.

(e) Dividends. The firms with widely dispersed investors paid high dividends. By informally (or formally) committing to high dividend policies, they forced themselves to return to the capital market to fund large new projects. In the process, they subjected their major investment decisions to the discipline of the market. For some firms, the commitment was a tradition they worked hard to keep. Late in life, Muto recalled the accounting games Kanebo had played to maintain dividends even when times had been bad (1934: 153). For some firms, the commitment was explicit: Amagasaki, for instance, formally agreed to a dividend payout rate of 70 percent of profits in its charter. Kurashiki likewise included a mandatory payout (provided it had accounting profits) in its charter, and so did the Boren in its model charter (Okamoto, 1991: 357, 365; Kurashiki, 1953: app. 11).

³⁰ Fuji (19xx).

Several years ago, Frank Easterbrook (1984) explained how dividends subject managers to the discipline of the capital market, but his logic applies most strongly to firms with dispersed shareholdings. If a firm is closely held, a team with a majority of stock can intervene directly in management anyway. Such controlling shareholders need not bleed the firm of its extra cash. Because smaller firms are more likely to be closely held, we posit that dividends will be a smaller fraction of income among smaller firms; because listed firms are more likely to have dispersed shareholdings, we posit that dividends will be a larger percentage of profit where the firm is listed on a national stock exchange.

To test these hypotheses, return to the data set we used to create Table 2: measures of profit for the spinning firms, 1903-1911. To this, we add data on dividends paid, and regress firm dividends on firm profits, on a dummy equal to 1 if the firm is listed on either the Tokyo or the Osaka Stock Exchange, and on total spindles. The results confirm both hypotheses: (a) profits held constant, larger firms paid higher dividends than smaller firms, and (b) profits held constant, TSE- and OSE-listed firms paid higher dividends than unlisted firms.

[Insert Table 3 about here.]

2. Constraining shareholders. -- (a) Introduction. When modern observers focus on managerial fraud and indolence in the transitional economies, they miss half of the corporate governance problem: how to constrain dominant shareholders. It was not a half lost on turn-of-the-century Japanese entrepreneurs. Investors can lose money when managers misbehave, but they can also lose money when controlling shareholders misbehave. If managers can steal from the corporate till, so can controlling shareholders. In urging closely held capital structures on Eastern European firms, observers today merely substitute one problem for another (often roughly comparable) problem.

Although Japanese entrepreneurs recognized the value that the right kind of investor could bring (quality imprimatours, access to talent), they also saw the threat that the wrong large-block investors posed -- and structured their governance accordingly. To the right large-block investors, they offered board positions. When unwanted large-block investors sought board positions or tried to intervene in governance, they fought them off.

(b) Kanebo. Again, the best-known example was Kanebo. In the early 1920s, at Muto's urging, the firm amended its charter to require that the company president and representative director have at least five years' experience at Kanebo. By charter, in other words, it expressly banned outside directors from the top two posts.

Behind Muto's move lay the attempt by a team of outside shareholders to intervene.³¹ Early in its history, the Mitsui family had controlled Kanebo (see Table 1). In 1905, it decided to sell its Kanebo stock. Soon, a 30-year-old named Kyugoro Suzuki bought much of what the Mitsui had sold. Once he acquired a quarter and his allies another quarter or so, he turned to corporate policy.

Suzuki wanted to merge several spinning firms into one large firm, and export aggressively to China. When Muto opposed the stock issue necessary to pay for the expansion, Suzuki called a special shareholders' meeting and pushed through his policy. Anticipating this, Muto and all directors and officers preemptorily threatened to resign. As Suzuki could not run Kanebo without experienced personnel, he pleaded with them not to leave. In the end, only Muto left. For unrelated reasons Suzuki soon lost his fortune, however, and his Kanebo stock passed to the

³¹ Accounts of this battle appear in, e.g., Morikawa (1981: 100-01); Kanebo (1988: 103-05).

Yasuda Bank. By 1908 Muto was back as representative director. In 1921 he became president, and promptly initiated the charter amendment to ban outside presidents and representative directors.

Lest readers think the Kanebo charter illustrates how persistently Japanese firms favor employees over shareholders, note that Kanebo returned regularly -- and successfully -- to the capital market for new funds.³² Apparently, to Kanebo investors the risk of intervention by unsophisticated or devious shareholders exceeded the risk of unmonitored officers.

(c) Deviations from one-share-one-vote. If Kanebo's ban on outside corporate leaders was unusual (recall that many firms sought out prominent outside industrialists for top positions), other firms too adopted strategies designed to limit the power of large-stake investors. Most commonly, they installed charter voting rules that slashed the power of lead shareholders. Although the Commercial Code (both the 1893 code, § 204, and the 1899 code, § 162) provided a one-share-one-vote default rule, firms could legally reduce the voting power of the largest shareholders. Many -- particularly during the earliest years -- did just that.

Take the 1887 Hirano boseki charter, typical for its time: for any shareholder, the first 10 shares had one vote each, the next 40 shares had 1/5th of a vote, and any additional shares had 1/10th of a vote. Consequently, if a shareholder had 10 shares he had 10 votes, if he had 50 shares he had 18 votes, if he had 100 shares he had 23 votes, and if he had 1000 shares he had 113 votes. The 1883 Enshu boseki charter gave all shares with more than 5 shares 1/5th of a vote for the additional shares; the 1888 Kurashiki charter specified a graduated scale falling to 1/10th of a vote for all shares beyond 100 (Imuta, 1976: 193-203).

One might have thought prominent shareholders would try to manipulate these rules by placing shares in trust with others. Apparently, they seldom did, for only a very few accounts of such tactics survive. The Jugo Bank distributed its shares in the Nippon R.R. to 45 of its directors and officers prior to the railroad's 1898 special shareholders' meeting, and major shareholders in the Kyushu R.R. are said to have done the same in 1899. Exactly why other major shareholders avoided this tactic is unclear. Certainly, it could generate bad publicity (as the Jugo Bank's tactics did), and it was not unambiguously legal. Whatever the reason, apparently major shareholders rarely used the tactic (Imuta, 1976: 242-43).

Curiously enough (given the discussion of corporate governance in transitional economies), Japanese firms were most likely to limit the power of concentrated investors prior to the first (1893) Commercial Code -- precisely when the legal regime was weakest. Imuta surveyed 271 corporate charters from the late 19th century. Of the 134 pre-1893 charters, only 22 (16.4 percent) used one-share-one-vote rules; of the 137 charters from 1893-1900, a full 89 (65.0 percent) did.³³ For late 19th century entrepreneurs, it seems the problem presented by a weak legal system less involved misbehavior by managers; it more involved misbehavior by controlling shareholders.

D. The Effect of Governance Structures:

³² Note that company records show increases in stated capital (generally, but not necessarily a sign of additional stock issues) for 1922, 1923, 1924, 1934 and 1937 (twice). Kanebo (1953: 995).

³³ Imuta (1976: 206). Possibly, this reflects the fact that the Commercial Code itself reduced the power of majority shareholders by requiring that many corporate charters follow not just a vote of the majority of shares but of a majority of shareholders as well. See note x, supra.

1. Introduction. -- Finally, consider the effect various governance structures had on the efficiency with which a firm operated. To study the issue, we regress operating efficiency on several indices of governance. We focus on two questions: First, were the firms that raised equity capital more broadly less efficient? After all, that seems the hypothesis implied by modern observers of transitional economies. To test this first hypothesis, we examine the effect that the number of shareholders had on the profits/spindle earned by the firm.

Second, were firms able to attract the prominent shareholders that they wanted? Recall that the firms typically adopted two cross-cutting strategies: at the same time that they tried to attract prominent industrialists and professionals to the firm (Sec. III.C.1(d)), they adopted charter rules that limited the power that large-block shareholders could wield (Sec. III.C.2.). The point, of course, is that they wanted -- and wanted to empower -- only the right kind of large-block shareholder.

More specifically, firms wanted shareholders who would monitor the firm, help in crisis, and work hard at building it. They emphatically did not want investors with little value-added (and who might try to use the firm for private gain) to intervene. To test whether the firms with large-block shareholders had the right kind of investor, we regress profits/spindle on measures of shareholder concentration.

2. The variables. -- We define the following variables:

Profit_Spin: Profits per spindle -- semi-annual accounting profits in 1000 yen, divided by the number of spindles at the firm. We convert mule spindles into ring-spindle-equivalents by dividing by 1.3. We start our data in the second half of 1903, when the data became public. Because profits/spindle becomes a misleading measure of firm efficiency once firms invest heavily in vertically integrated weaving operations, we close our data at the end of the Meiji era (the first half of 1911).

Total_Spin: The total number of spindles, calculated as described above.

Total_S/h: The total number of shareholders, taken from Table 1.

Largest_S/h: The percentage of the firm's shares held by the shareholder with the largest interest, taken from Table 1.

Larg5_S/h: The percentage of shares held by the 5 largest shareholders, taken from Table 1.

Grads: The number of university graduates at the firm, as discussed in Section III.B.3., above.

Kanebo: 1 if the firm is Kanebo, 0 otherwise. We include this dummy because Mitsui owned a controlling interest in Kanebo at the outset, but sold it part-way through this period.

[Insert Table 4 about here.]

3. The results. -- We report the coefficients and t-statistics from the regressions in the columns of Table 4. Preliminarily, note two points. First, the coefficient on Total_Spin is negative and significant: operating efficiency was higher at the smaller firms than the larger. Apparently, managers in the first decade of the century still found it hard to coordinate large and far-flung firms. Second, the coefficient on Grads is always positive and sometimes statistically significant: as discussed above, firms with more university graduates were more efficient than others.

Turn, finally, to the effect that governance structures had on efficiency. First, the coefficient on Total_S/h is consistently positive, and significant at the 10 percent level in 3 of the specifications: the firms with more shareholders were more efficient than those with less. Second,

the coefficient on Large_S/h and Larg5_S/h is positive and significant in all specifications:³⁴ the firms with large-block shareholders were more efficient than those without.

Hence the conclusion: firms with more shareholders were more successful, but firms where the largest shareholders owned more stock were also more successful. Recall the data from Table 1: the average spinning firm had 330 shareholders, and the largest shareholder held 8 percent of the stock. Some firms dispersed their stock among perhaps 500-800 shareholders; some firms had a lead shareholder with perhaps 10-20 percent of the stock. Within this world, the firms with more shareholders, and with the more heavily invested lead shareholder did better than the rest. As obviously ambiguous as the implications are, when viewed together with the other strategies the firms adopted we suspect they point to the importance of attracting the right investors. After all, these firms (a) self-consciously tried attract investors who would provide monitoring, technical expertise, or access to help, but simultaneously (b) fought to keep unsolicited large-block shareholders at bay. The combination of (a) and (b) suggests that they believed some but only some large-block investors added value. Table 4, in turn, suggests (obviously does not prove) that the firms with the large-block shareholders had largely found the investors they wanted.

IV. Conclusions:

Observers of modern transitional economies argue that the firms there should raise their capital from a few concentrated sources and rely heavily on intermediated debt finance. And yet -- faced with a similar institutional environment (dysfunctional courts, nascent markets, non-existent statutes), the successful cotton spinning firms in late 19th-century Japan were the firms that in some important ways did the opposite. The successful firms did have prominent investors, but they also relied heavily on equity raised from hundreds of shareholders.

These modern observers reason that in weak legal environments only large-block shareholders and banks will effectively constrain managers. Faced with such an environment, however, the successful cotton spinning firms used banks only for short-term funds and manipulated corporate charters to keep large-block shareholders at bay. They did this for a simple reason: they had other ways to control managers, and needed to protect their firms against intervention by shareholders who either had foolish ideas or would manipulate the firms for private gain. They did not keep all major investors powerless. After all, some investors they actively recruited to the firm -- but the investors they wanted they could and did empower by naming to the board.

Maybe we should not be surprised by all this. Although diversified shareholders need functional laws and courts, so do creditors and majority shareholders. To protect their interests, creditors necessarily need access to the legal system: to demand repayment, to force auctions, to enforce security interests, to acquire title to collateral, and to sell their collateral on the open market.

What is more, banks will have funds to lend only if depositors choose to park their funds with them. For that, banks need a legal system every bit as sophisticated as anything diversified shareholders demand. They are asking investors to deposit their money in a large, opaque organization. In exchange, they are giving investors only a right to demand repayment under specified conditions. Absent a working legal system, few investors will deposit and unless they deposit the banks cannot lend.

³⁴ A regression using the shareholdings of the largest 10 shareholders produces the same effect.

So too controlling shareholders. An investor may own 2/3 of a firm's stock, but if incumbent officers and directors will not call a shareholders' meeting he cannot vote. If the officers and directors rig the vote his shares will not matter. If officers and directors will not leave, a successful vote is so much hot air. And if the officers and directors rob the till on the way out even their eviction is simply hollow. Absent a working legal system, investors become controlling shareholders at their peril.

At the same time, entrepreneurs have other ways to align managerial incentives. They can use profit-sharing compensation schemes, for example. They can rely on the incentives created by the lateral job market. They can recruit to the board well-known industrialists who will post their own reputations behind the firm. And they can commit to high dividend rates that force them to subject their plans to the discipline of the capital market. In late 19th-century Japan, the successful cotton spinning firms did just that.

Entrepreneurs can do all this to align managerial and shareholder incentives, but they must also do what recent observers ignore: protect the firm from corrupt or badly informed controlling shareholders. Toward that end, they often must do what they can to reduce -- not enhance -- the ability of controlling shareholders to intervene. In late 19th-century Japan, the successful cotton spinning firms did that too.

Table 1:
Shareholdings in the Principal Cotton Spinning Firms,
ca. 1898

	Total s/hs	Largest s/h	Largest 5 s/hs	Largest 10 s/hs
Amagasaki (1898)	378	8.7%	25.3%	37.0%
Sadoshima (1898)	116	16.3	40.5	54.1
Awa (1898)	249	4.3	19.3	32.4
Awaji (1898)	285	5.0	16.9	26.5
Ban'yo (1898)	49	12.3	44.4	N.A.
Bizen (1898)	307	N.A.	N.A.	N.A.
Chita (1899)	907	4.0	15.0	27.2
Chugoku (1898)	201	8.4	19.2	27.5
Daiwa (1900)	153	6.3	25.7	41.4
Fuji (1998)	359	4.8	18.2	31.2
Fukushima (1898)	373	4.0	16.2	26.6
Fukuyama (1898)	79	15.3	51.1	67.3
Fushimi (1898)	174	7.3	23.2	37.6
Hakata kenshi (1898)	284	2.5	11.0	19.1
Harima (1900)	226	5.2	15.2	24.0
Heian (1898)	196	5.8	19.1	30.4
Himeji (1898)	53	11.3	42.9	63.3
Hiroshima men (1898)	810	5.8	20.3	31.9
Ichinomiya (1898)	603	2.0	9.4	15.8
Ise (1898)	60	12.5	36.7	N.A.
Kanebo (1898)	459	48.6	56.0	60.8
Kanekin (1898)	530	9.6	32.5	43.6
Kashiwazaki (1895)	50	16.1	51.5	N.A.
Kishiwada (1898)	524	10.0	22.6	32.5
Kofu (1898)	29	6.2	17.1	20.5
Koriyama (1898)	771	3.6	15.7	25.5
Kumamoto (1898)	228	4.2	19.3	35.5
Kurashiki (1898)	233	19.1	32.6	43.1
Kurume (1898)	266	2.9	13.8	25.4
Kuwana (1898)	581	7.0	18.1	27.8
Kyoto (1898)	159	4.8	20.0	31.0
K. menneru (1901)	214	11.9	33.3	46.3
Matsuyama (1898)	496	5.2	17.0	26.7
Meiji (1898)	587	3.6	14.2	22.1
Mie (1898)	744	2.4%	7.9%	11.3%

Table 1 (cont'd):

	Total s/hs	Largest s/h	Largest 5 s/hs	Largest 10 s/hs
Miike (1898)	464	20.6	29.1	36.0
Miyagi (1900)	320	14.5	38.9	47.6
Nippon (1898)	114	2.2	7.7	12.6
N. saishi (1898)	408	4.1	14.5	23.2
N. boshoku (1898)	143	27.2	45.9	53.8
Nagoya (1898)	261	7.5	26.8	40.2
Nakatsu (1898)	219	6.3	14.6	24.6
Noda (1895)	N.A.	9.0	31.2	45.1
Okayama (1900)	402	3.0	12.3	22.0
Osaka (1898)	607	4.2	14.1	22.5
O. nenshi (1898)	68	17.2	35.7	49.3
Owari (1898)	513	4.4	18.5	30.0
Sakai (1898)	352	6.5	20.2	29.3
Sasaoka (1898)	247	5.6	16.7	27.3
Saidaiji (1898)	394	3.6	14.4	22.5
Senshu (1898)	326	5.0	21.0	32.9
Settsu (1898)	373	10.0	34.5	46.2
Shimomura (1898)	246	8.2	28.6	38.2
Shimotsuke (1898)	150	7.5	22.6	34.0
Takaoka (1898)	289	7.2	27.4	40.8
Tamashima (1898)	371	9.5	21.2	28.6
Tenma (1898)	305	5.4	20.1	30.8
Tenma orimono (1898)	360	6.7	23.3	34.9
Tokyo (1898)	210	9.2	36.3	50.3
Tsushima (1898)	319	4.2	18.8	29.0
Uwa (1898)	380	4.4	16.3	24.1
Wakayama (1898)	650	3.9	13.8	20.3
W. shokufu (1898)	323	3.0	11.4	19.4
Mean:	331.4	8.3	23.8	33.2

Note: We give the year of the shareholding data in parentheses.

Source: Calculated from data found in Kazuo Yamaguchi, "Meiji 31 nen zengo boseki gaisha no kabunushi ni tsuite [Regarding Spinning Firm Shareholders at Around 1898]," [**Meiji daigaku**] **Keiei ronshu**, 15(2): 1 (1968).

**Table 2: Acquisitions in the Cotton Spinning Industry,
Profits/Spindle -- 1903-1911**

Acquiror	Prof/Spin	Target	Prof/Spin	Date	Acq-Targ
Osaka B.	4.812	Kanekin	2.532	1906 Sept.	2.280
Kanekin	2.361	Heian	-4.778	1905	7.139
Mie	2.185	Shimotsuke	2.144	1911 Nov.	0.041
Mie	2.765	Owari	1.239	1905 Oct.	1.526
Mie	4.877	Kuwana	4.506	1907 Aug.	0.371
Mie	3.828	Tsushima	1.592	1906	2.236
Mie	4.877	Chita	2.724	1907 Aug.	2.153
Nihon Boseki	3.383	Ichinomiya	2.775	1907 July	0.608
Settsu	4.834	Koriyama	4.745	1907 June	0.089
Kanebo	2.525	Kenshi	-0.161	1911 Mar.	2.686
Sakai	4.174	Awa	3.906	1907 Feb.	0.268
Fukushima	2.957	Kasaoka	1.548	1909 Nov.	1.409
Fukushima	1.811	Harima	2.175	1912 May	-.364
Wakayama Ori.	4.484	Wakayama B.	0.437	1911 Nov.	4.047

Notes: In each case, we give the semi-annual stated profits (yen) per spindle (mule spindles are converted to ring-equivalents at 1.3 mules per ring).

Profits are for the 6 semi-annual accounting periods ending immediately prior to the acquisition.

For Heian, we have data only for calendar 1903. For the Owari-Mie merger, we have data only on the 5 preceding accounting periods; for the Fukushima-Kasaoka and Fukushima-Harima mergers, we lack the data on the last two accounting periods.

Source: Calculated from data found in Dai-Nippon boseki rengo kai, ed., **Menshi boseki jijo sanko sho [Reference Materials on Cotton Spinning]** (Osaka: Dai-Nippon boseki rengo kai, appropriate years); Fujino, Shozaburo, Shiro Fujino & Akira Ono, ed., **Choki keizai tokei: Sen'i kogyo [Long-Term Economic Statistics: The Textile Industry]** (Tokyo: Toyo keizai shimpo sha, 1979).

Table 3: Dividend Payouts in the Cotton Spinning Industry

A. Summary Statistics

.	Min	Mean	Max	.
Dividends	0	99,471.26	876,580	
Profits	-2,486,857	142,564.80	1,559,085	
Listed	0	0.43	1	
Total Spindles	0	48,333.80	377,920	

B. Regression Results

LHS:	Dividends	Dividends	Dividends	.
Profits	0.520 (37.43)	0.390 (24.20)	0.390 (24.23)	
Listed	46790.41 (6.754)		13563.21 (2.06)	
Total Spindles		0.937 (14.00)	0.875 (11.96)	
Constant	-7333.98 (1.68)	-11475.18 (3.21)	-14391.9 (3.73)	
s.e.	69660	60558	60437	
Censoring (x<0, uncen)	(87,444)	(87,444)	(87,444)	
Pseudo R2	0.067	0.077	0.077	
n = 531				

Notes: Because dividends are censored below at 0, the regressions use tobit.

Profits and total spindles are for each firm for each half year from the second half of 1903 to the first half of 1911. Mule spindles are converted into ring-equivalents at 1.3 mules per ring. Listed takes the value of 1 if the firm was listed on either the Tokyo or Osaka Stock Exchange at the time; 0 otherwise.

Source: Calculated from data found in Dai-Nippon boseki rengo kai, ed., **Menshi boseki sanko jijo [Reference Materials on Cotton Spinning]** (Osaka: Dai-Nippon boseki rengo kai, various years); Tokyo kabushiki torihiki sho, ed., **Tokyo kabushiki torihiki sho 50 nen shi [A 50-Year History of the Tokyo Stock Exchange]** (Tokyo: Tokyo kabushiki torihiki sho, 1928); Osaka kabushiki torihiki sho, ed., **Okabu 50 nen shi [A 50-Year History of the Osaka Stock Exchange]** (Osaka: Osaka kabushiki torihikisho, 1928).

Table 4:
Shareholdings and Profitability in the Cotton Spinning Industry

A. Summary Statistics

.	Min	Mean	Max	.
Prof/Spin	-5.04	3.16	37.40	
Total_Spin	1,539	51,546	377,920	
Total_S/h	29	407	907	
Largest_S/h	0.020	0.087	0.486	
Larg5_S/h	0.077	0.223	0.560	
Grads	0	23.7	269	
Kanebo	0	0.045	1	

B. Regression Results

LHS:	Prof/Spin		Prof/Spin		Prof/Spin		Prof/Spin	
Total_Spin	-.0114	(2.19)	-.0121	(2.30)	-.0132	(2.60)	-.0122	(2.39)
Total_S/h	.00168	(1.68)	.00132	(1.32)	.00184	(1.87)	.00193	(1.94)
Largest_S/h	18.850	(4.07)	8.456	(2.48)				
Larg5_S/h					10.528	(4.81)	8.321	(4.12)
Grads	.0114	(1.43)	.00993	(0.25)	.0169	(2.19)	.00406	(0.69)
Kanebo	-7.915	(3.27)			-4.812	(2.53)		
Constant	1.504	(2.36)	2.462	(4.29)	.558	(0.76)	1.053	(1.48)
Adj R2	.05		.03		.07		.06	
n=380								

Note: The regression uses OLS. For variables, see text.

Sources: Dai-Nippon boseki rengo kai, ed., **Menshi boseki jijo san sho [Reference Materials on Cotton Spinning]** (Osaka: Dai-Nippon boseki rengo kai, appropriate years); Kazuo Yamaguchi, "Meiji 31 nen zengo bose gaisha no kabunushi ni tsuite [Regarding Spinning Firm Shareholders at Around 1898]," **[Meiji daigaku] keiei ronshu**, 15(2): 1 (1968); Shin'ich: Yonekawa, "University Graduates in Japanese Enterprises Before the Seco World War," **Business History**, 26: 163 (1984).

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