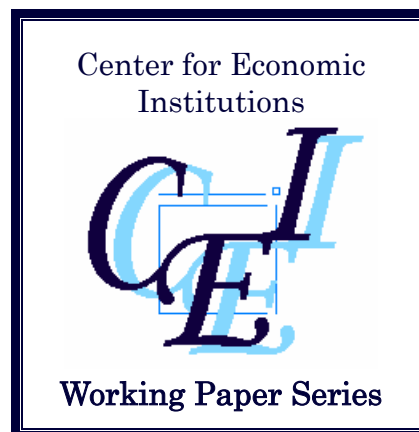


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***Been There, Done That –The History of
Corporate Ownership in Japan***

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Been There, Done That

The History of Corporate Ownership in Japan

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Abstract

Japan's corporate sector has, at different times in recent history, been organized according to every major model. Prior to World War II, wealthy Japanese families locked in their control over large corporations by organizing them into pyramidal groups, called *zaibatsu*, similar to structures currently found in Canada, France, Korea, Italy, and Sweden. In the 1930s, the military government imposed a centrally planned command economy, with private property rights retained as little more than a legal fiction. The American occupation force replaced this with a widely held corporate sector similar to that of the United Kingdom and United States. A bout of takeovers and greenmail ensued. To defend their positions, Japanese top executives placed small numerous blocks of stock with each others' firms, creating dense networks of small intercorporate blocks that summed to majority blocks in each firm. These networks, called *keiretsu*, halted hostile takeovers completely. Although their primary functions were to lock in corporate control rights, both *zaibatsu* and *keiretsu* were probably also rational responses to a variety of institutional failings. Successful *zaibatsu* and *keiretsu* were enthusiastic political rent-seekers, raising the possibility that large corporate groups are better at influencing government than free standing firms. In the case of *keiretsu* especially, this rent seeking probably retarded financial development and created long-term economic problems.

1. Introduction

The history of Japanese corporate ownership is especially interesting because it has changed more radically and more often than in any other major industrial economy. These changes, and the successes and failures associated with them, cast light upon fundamental issues in corporate governance and the economics of institutions.

Historical and contemporary research into corporate ownership in Japan both focus on intercorporate networks. In the last third of the twentieth century, the inter-firm networks of interest were horizontal and vertical *keiretsu* groups of corporations. Horizontal *keiretsu* are inter-industry networks of firms whose small individual equity stakes in each other collectively sum to control blocks. An example is the Mitsui group of companies. Vertical *keiretsu* are similar structures that encompass the suppliers and customers of a single large firm, such as Toyota Motors. In both variants, public shareholders only have access to minority interests, which renders the stock market essentially irrelevant to corporate governance role. Adjunct to the *keiretsu* networks, most Japanese firms have strong ties to their lead lenders, or *main banks*.

However, *keiretsu* are a relatively recent development in Japanese economic history. During the feudal Takagawa period (1603 -1868), Japanese firms were owned entirely by families - or, perhaps more properly, by clans. The Mitsui and Sumitomo family businesses both emerged during this era. In both cases, extensive sets of family rules and traditions determined corporate governance issues.

Following the Meiji Restoration of 1868, the new government promoted rapid industrialization. The Mitsuis, Sumitomos, and other new family businesses like Mitsubishi (run by the Iwasakis) needed capital vastly in excess of their own wealth, and turned to public equity markets. The families organized a new corporation to

raise equity financing for each new venture, and organized them into family controlled pyramidal groups. At the apex of each was a family partnership (later a family corporation), which also served as a holding company to control several public corporations. These, in turn, each controlled other public corporations, which in turn controlled yet other public companies. These inter-firm networks, called *zaibatsu*, were essentially identical to modern Korean *chaebol* and similar pyramidal business groups elsewhere.¹ Despite much research, there seems to be little consensus in the literature regarding the contributions of *zaibatsu* to the rapid development of the prewar period. For example, the powerful *zaibatsu* families may have been more concerned about preserving their wealth and control, and may have been too conservative to undertake high-risk projects in new industries that might have accelerated Japan's modernization. Also, the ability of *zaibatsu* with different structures to survive the depressions of the 1920s and 1930s points to the importance of a bank with a widely diversified loan portfolio.

During World War II, Japan *de facto* nationalized all its major corporations, subordinating them to central planners in a rigid system paralleling in many ways that prevailing in the Soviet Union in the 1920s.² The Temporary Funds Adjustments Law of 1937 created the *Kikakuin*, or Planning Agency, to centralize economic planning and administration. This required boards to obtain government approval before most important corporate decisions, such as changing their articles of incorporation and issuing equity or debt. Further government decrees abolished boards' rights to set

¹ The Chinese characters for *zaibatsu* are pronounced *chaebol* in Korean. One distinction between pre-World War II Japanese *zaibatsu* and contemporary Korean *chaebol* is a stricter adherence to blood kinship in the governance of the latter. Authority based on blood kinship is an important element of Confucianism, which is influential in both Chinese and Korean culture. Japanese Buddhist beliefs allowed more leeway for inept blood kin to be sidelined.

² Central planning in Japan involved rigid central plans, state command and control over all aspects of the economy, and the *de facto* abolition of ownership rights for capital. However, *de jure* private ownership of land was retained, as in communist Poland, as was *de jure* private ownership of *zaibatsu* and many other private-sector corporations.

dividends in 1939 and to appoint managers in 1943, reassigning these powers to *Kikakuin*. The *Kikakuin* consciously imitated many of the planning methods the Soviet Union used for its heavy industrialization in the 1930s.³ This was accomplished amid much condemnation of shareholders (meaning the *zaibatsu* families) for their self-interest, risk aversion, and unpatriotic concern with short term profit. This rhetoric would resurface later as a justification for depriving small shareholders, rather than controlling shareholders, of governance input. The great *zaibatsu* families, of course, protested these charges.

Following the war, Japan was governed by the United States military from 1945 to 1952. General MacArthur, taking the wartime condemnations of the *zaibatsu* families at face value, confiscated their stock in their holding companies, unwound all the intercorporate stakes among *zaibatsu* firms, and sold these shares into the equity market. Consequently, Japan (briefly) was a widely held economy, similar to the United States and United Kingdom, in which most large public companies had no controlling shareholder. A market for corporate control quickly took off, as Japanese firms undertook hostile takeovers of each other, and raiders extracted greenmail from unwilling target firms.

Japanese managers and bankers disliked the job insecurity of the Anglo-American system of corporate governance. Following the end of the US Occupation in 1952, Japanese firms began purchasing white squire positions in each other to head off raiders. The major banks were soon organizing intercorporate equity placements, and the current *keiretsu* system emerged during the 1950s and developed more fully in the 1960s. That system, which has characterized Japanese big business up to the

³ See Okazaki (1994) for details.

present is now under increasing stress. At the beginning of the current century, Japan is once again bracing for major institutional changes.

Throughout all of these changes, the principals of Japan's great businesses actively pursued their own interests, mainly profit and control, with varying degrees of success. In general, they shaped organizational forms to accommodate these objectives, and reconfigured their organizational forms as new legal and other constraints were imposed upon them. This paper examines the emergence and evolution of these different organizational structures as responses changing political and institutional circumstances.

Of course, institutional changes sometimes also reflected the lobbying activity of big business. Consequently, we also discuss the extent to which institutional environments changed in response to business. However, critical points in Japan's business history seem to involve clearly exogenous events that clearly required adaptation by the business sector. The abrupt opening of Japan to world trade and the decision of the Meiji government to embark on a crash program of modernization was one such occasion. The generally negative attitudes of both the Japanese military government and the Allied Occupation Force in the mid 20th century were two others.

There are doubtless many reasons for the rise of the *zaibatsu* and the spontaneous organization of the *keiretsu*. Certainly, economies of scope and scale, reputation, circumventing flawed markets and institutions, and numerous other factors are in play. However, this paper argues that the primary purpose of both the *zaibatsu* and the *keiretsu* was to protect the control rights, first of the great *zaibatsu* families, and later of the professional managers running *keiretsu* firms. While the group structures of both *zaibatsu* and *keiretsu* accomplished this objective to a large extent, the *zaibatsu* families and *keiretsu* managers, especially main bank managers, also

appear to have possessed an advantage in interacting with the political system. This allowed both the *zaibatsu* families and the *keiretsu* managers to become entrenched, and to hold on to corporate governance powers they might better have relinquished.

This paper is organized as follows: Section 2 describes the initial state of ownership of Japan's largest businesses immediately prior to the country's industrialization. Section 3 describes the formation and development of Japan's great *zaibatsu* in the late 19th and early 20th centuries. Section 4 details the culling of Japan's corporate sector that took place in the 1920s and 1930s, as the country endured a spate of depressions. Section 5 describes the imposition of a centrally planned economy by the military in the late 1930s and 1940s. Section 6 describes the US Occupation and the reconstruction of Japan as a widely held economy with Anglo-American corporate governance. Section 7 describes the modification of this system into the present *keiretsu* ownership structures. Section 8 reflects on the economics underlying the *zaibatsu* and *keiretsu*, and attempts to distill lessons from Japan's corporate history. Section 9 concludes.

2. Initial Conditions: The Tokugawa Economy

Japan's first contact with the Western World was in 1542, when a Portuguese trading expedition arrived. At the time, Japan was divided into warring principalities. By 1590, General Hideyoshi Toyotomi had united the country by force. To pacify it, he demanded absolute submission from every part of society. Foreign merchants and missionaries interfered with this submission, so Hideyoshi persecuted and expelled foreigners.⁴

⁴ Japanese *shogun* and warlords are often cited by their first names.

Hideyoshi died in 1598 after a failed invasion of Korea, and his comrade, General Ieyasu Tokugawa, quickly took charge. By 1603, Ieyasu had defeated rival warlords, many backed by foreigners, and was appointed Shogun by the Emperor in Kyoto. He established a government in Edo (renamed Tokyo in 1868 when the Emperor moved there from Kyoto), and his line would govern Japan as Shoguns for the over 250 years. Tokugawa cemented an already rigid hereditary cast system, with *samurai* warriors at the top, peasants in a second tier, craftsmen below them, and merchants in the bottom stratum of society.⁵ Unsurprisingly, this moral inversion resulted in a prolonged economic stagnation, exacerbated by a code of chivalry, called *bushido*, that glorified honor above all else, entrusted all *samurai* with the power of life and death over the lower casts, forbade the higher casts from transacting business, and disparaged the pursuit of wealth as dishonorable. This era, called the *Tokugawa Period* or *Edo Period*, is characterized by a profound reverence for *bushido* and a deep suspicion of Western ideas.

Ieyasu promoted foreign trade and suppressed Christianity, but the third Tokugawa shogun, his grandson Iemitsu, concluded that trade and ideas were inseparable. Consequently, in 1633 he forbade traveling abroad, banned all foreign books, and proclaimed a death sentence of foreigners found outside a small enclave of the port of Nagasaki. Although they permitted some foreign books after 1720, this early anti-globalization backlash by the Tokugawa shoguns continued to hermetically isolate Japan.

Although foreign trade had been prohibited, domestic trade flourished and many merchant families grew wealthy. The Mitsui dynasty was founded by Hachirobei Takatoshi Mitsui (1622-1694), a silk merchant who expanded into other

⁵ Only eta, outcasts with unclean professions were lower.

commodities because of his extensive use of barter transactions. The Sumitomo family appeared to have started in Kyoto and then moved to Osaka in the early Edo period. It grew wealthy by operating a copper mining and smelting business. Both families established complicated House Rules - constitutions governing all aspects of the families' businesses. Power was divided between a Patriarch and a Family Council, which served a quasi-parliamentary function.

For example, the Mitsui family consisted of eleven founding clans, and devised elaborate rules for maintaining a balance of power among those clans. Representatives from these clans participated in management. The Mitsui House Rules prohibited the founding clans from withdrawing their ownership shares and prohibited other branches of the family from gaining ownership rights. Voting power in the Mitsui Family Council passed to the eldest sons of each founding clan, who acted for his clan. Younger sons who wanted to participate in the business could do so as managers and could be given cash for start-up money. Although the Mitsui family was known for adopting competent hired managers, this was done through marriage to a Mitsui daughter.⁶ Additional House Rules governed the disposition of property, marriage, divorce, adoption, and inheritance; and were strictly enforced at Family Councils to avoid intra-family feuds. House Rules forbade any Mitsui from bringing any family dispute to the legal courts, becoming involved in politics publicly, creating debts, and guaranteeing debts. Involvement or investment in any non-family

⁶ Adoptions, like marriages, had to be approved by the Mitsui Family Council. An important example of this is Rizaemon Minomura (1821-1877). Born to an unemployed samurai in Nagano, he migrated to Edo. While working for a merchant, he negotiated with Mitsui. Mitsui hired him in 1866 and ultimately adopted him into the family as head of the Minomura clan, one of the eleven at Mitsui Family Council. (He adopted the Minomura name.) He subsequently held various key positions with Mitsui companies. In 1876 he reorganized the family money exchange operation into the Mitsui Bank and became its president. Rizaemon Minomura later adopted a merchant's son, Risuke Minomura (1843-1901).

business, and serving in public office were proscribed unless the Mitsui Council made an exception.⁷

Each clan's assets were divided into three groups: business assets, common assets, and clan assets. *Common assets* were used to dealing with expenditures for disasters and emergencies, and so served as a sort of insurance fund. Each clan could manage its common assets as it chose, and the principal value of these assets passed from generation to generation. However, accumulated returns did not. When a clan patriarch dies, the Mitsui Family Council met to decide how to distribute these gains among the eleven clans. This was done to preserve the original rankings of the eleven founding clans. *Business assets* were common property of the entire Mitsui family, and the House Rules permitted no division of them among the clans. *Clan assets* were the undisputed property of the individual clans, and could not be redistributed by the Family Council under normal circumstances.

The Sumitomo *zaibatsu* began when the daughter of Masatomo Sumitomo (1585-1652), a wealthy druggist and publisher in Kyoto, married Tomomochi Soga, eldest son of Riemon Soga (1572-1636), who – in turn - was married to the older sister of Masatomo Sumitomo. Riemon Soga struggled to reproduce a new copper smelting method he had learned of from a Western merchant in Osaka, and ultimately succeeded. This method uses lead to extract silver and other impurities from copper ore and increases the efficiency of copper smelting drastically. This technique remained in use in Japan for three centuries - until the end of the 19th century. Soga founded a copper refinery in Kyoto in 1590. Tomomochi adopted the Sumitomo surname and opened a business in Osaka, where he and his father licensed the new copper smelting method to their competitors. This concentrated virtually all of

⁷ See Yasuoka (1984) for details.

Japan's copper smelting in Osaka and earned Tomomochi great respect. Tomomochi marketed his copper products using the trade name "Sumitomo Izumiya." Japan rapidly became one of the largest producers of copper in the world in the Edo period. In 1691 the Sumitomo family began a mining copper at Besshi for the Shogunate.⁸ This mining operation proved extraordinarily lucrative, and financed virtually all subsequent Sumitomo businesses - including textiles, clothing, sugar and medicines. Subsequently one of the Sumitomo clans also began a money exchange firm.

The Sumitomo Family Code was similar to the Mitsui Code in many ways. However, a few differences are worth noting. For instance, the Sumitomo Code provided for its own revision, declaring a consensus of the Council needed to change the Code.⁹ Perhaps more importantly, the Sumitomo Code had no provision governing inheritance or requiring continued family dominance. Nonetheless, family control was preserved. This was probably partly due to two other differences: First, the Sumitomo patriarch led a symbolic existence. He gave formal approval to matters set before him, but the Council actually made all significant decisions. This prevented one clan from dominating, and creating a situation where other clans might want out. Second, all family disputes, even ones within a single Sumitomo clan, had to be referred to the Council. This kept the council aware of discontent within clans at its early stages. It also created a much more centralized management structure than in the Mitsui group. Very detailed reporting of anything extraordinary to the upper ranks was required.¹⁰

Tokugawa rule was slowly weakened by famines, riots, and especially by a growing financial dependence of *samurai* on merchants. For example, both the

⁸ The Besshi copper mine remained in operation until 1973, and produced 700,000 tons of copper during its lifetime.

⁹ See Yasuoka (1984) for details.

¹⁰ See Asajima (1984).

Mitsui and Sumitomo families served the Tokugawa government extensively in all manner of commercial and financial dimensions. Such “corruption” undermined the code of *bushido*, which had legitimized Tokugawa rule. Incompetence and declining morality among the Tokugawa leadership also undermined Edo’s power. From the late 18th century on, the Russians and various other European nations tried to force Japan’s market open. In 1853 and 1854, the American Commodore Perry bombarded Edo until the Tokugawa government agreed to open a limited number of ports to foreign trade.

However, foreign trade remained very limited until the *Meiji Restoration* in 1868. Contemptuous of the Tokugawa’s increasingly craven attitude towards foreigners, a group of *samurai* captured the Emperor and seized power, claiming legitimacy by restoring his rightful rule. In fact, the Imperial family, which had continued to provide titular Emperors in Kyoto throughout the Edo Period, had been symbolic throughout Japanese history, and real power remained with these *samurai* now as well. Nonetheless, this era is called the *Meiji Period*, in honor of the emperor who reigned from 1868 to 1912.

3. Early Industrialization Following the Meiji Restoration

The new Meiji government quickly realized that, to gain freedom from foreign pressure, Japan needed Western technology and therefore Western ideas. They dispatched a cadre of Japan’s brightest students to study abroad and return with descriptions of foreign institutions. The government then launched a two-decade program of modernization, copying what they perceived to be best practice abroad. This period in Japan’s history closely resembles some of the “shock therapy” reforms currently on-going in post-socialist states. In rapid fire, the new government

introduced democracy modeled on the German Diet, compulsory education modeled on the French and German school systems, universities and an army modeled after those of Prussia, and a navy modeled after the British fleet. Religious freedom, social mobility, and land reform quickly undermined both *bushido* and the cast system.

But most importantly, the Meiji government introduced the institutions of capitalism. During its crash program of modernization, Japan adopted a legal system largely based on German civil law. Public bond trading began in the 1870s, and in 1878 the Tokyo and Osaka Stock Exchanges were formed and subjected to regulation under the Stock Exchange Ordinance. Leading merchant families began issuing stock to finance industrialization and the great pyramidal *zaibatsu* groups that came to dominate Japan formed.

A central problem Meiji governments confronted was the distaste of the great mercantile families for pooling their capital with that of outsiders. On the one hand, the government wanted to encourage Japan's existing large businesses to grow, and this required respecting the sensibilities of their principals. On the other hand, the Meiji leaders knew that economic growth would require strangers pooling their capital to catch up with the West. Apparently with government prodding, the Mitsui, the Ono and several other families formed the First National Bank. Yet the Mitsui and Ono could not get along. Dissatisfied, the Mitsui set up their own Mitsui Bank in 1876. Similarly, after the Yasuda and Kawasaki set up the Third National Bank, the Yasuda decided to set up their own Yasuda Bank in 1880.

This tension created apparent inconsistency in the legal codes the Meiji governments adopted. For example, one section of the 1896 civil code stipulates that "joint owners of property can demand for their due shares of the property at any time." Yet the same code guaranteed the special rights of the head of a family to

control family property, including that of sub-families, for the purpose of supporting them in the future.

In the following Sections we will briefly describe the evolution of *zaibatsu* from the Meiji restoration (1868) to WWII and to the post WWII period, and how this tension played out. In the early stages of the development of *zaibatsu* around the Meiji restoration period the behavior of Mitsui and Sumitomo, for example, are of particular interest since they were both established merchant enterprises before the Meiji restoration. During the period of rapid modernization of Japan in the Meiji period newly created Mitsubishi *zaibatsu*, among others, was successful in expanding its control of companies in many industries.

Defining a *Zaibatsu*

Before proceeding further, it is useful to define *zaibatsu*., a term replete with the ambiguity Japanese so admire. Many academics and others, both inside and outside Japan, use the term to refer to all the large business groups in the country prior to World War II. These *zaibatsu* are often contrasted with their postwar counterparts, the *keiretsu* of contemporary Japan. However, beyond that there seems to be no clear-cut unified definition of what a *zaibatsu* actually is. In the literature, many definitions and characteristics of *zaibatsu* have been put forward as fundamental by Japanese and other researchers.

First, there is a general view in the Japanese business and economic history literature that the *zaibatsu* developed in the Taisho period (1912 to 1926) after World War I.¹¹ This seems to be because of the notion in Japan that *zaibatsu* is basically a

¹¹ Historians assign periods corresponding to the reigns of emperors. The Meiji period is from 1868 to 1912, the Taisho period is from 1912 to 1926, and the Showa period is from 1926 to 1989. Note that emperors choose official names upon their ascension. Thus in 1926, Hirohito chose the official name *Showa*, meaning enlightened peace.

political term that came into use as concepts like income distribution and monopoly capital (and Marxism) gained attention in the Taisho period. However, both the Mitsui and Sumitomo groups, which are always listed among the *zaibatsu*, and which played a decisive role in the Meiji era modernization of Japan, had formed long ago under the Tokugawa shoguns. Other major groups, including the Mitsubishi and Yasuda *zaibatsu*, were already important during the Meiji period (1868 to 1912). Yet other *zaibatsu* clearly did form after World War I.

Second, even though *zaibatsu* typically implies family-control, the often-cited list of the ten main *zaibatsu* (Table 1) includes Nissan. As we show below, no family ever controlled Nissan during its entire existence.

[Table 1 about here]

Third, *zaibatsu* were often considered to have substantial monopoly power in many, not just a few, industries. Indeed, the Supreme Commander, Allied Powers (SCAP) used industry market shares to ascertain whether or not a group was a *zaibatsu* and thus to be broken up. Fourth, *zaibatsu* are often thought to have been relatively independent of bank financing. Fifth, *zaibatsu* were business groups with vast land holdings under which lay great mineral wealth. Sixth, a *zaibatsu* was sometimes defined as a group of firms connected with a general trading firm, or *sogo-shosha* (SS), that was important to their operations. Seventh, the term *zaibatsu* is now sometimes extended to cover family controlled groups of public companies in developing economies in general.

Finally, *zaibatsu* had pyramidal structures. A family holding company or partnership controlled a set of directly-owned subsidiaries, which then controlled

other firms, which then controlled yet other firms, and so on. The family usually had an operating decision rule for determining which firms to own directly versus indirectly. Figure 1 illustrates the stylized structure of a pyramidal corporate group.

[Figure 1 about here]

As we show below, the vague definition of *zaibatsu* in the minds of the Japanese and foreign architects of the postwar system may be, at least in part, responsible for the less-than-complete dissolution of the *zaibatsu* after the war.

In this paper we use the term *zaibatsu* to denote any large pyramidal group of publicly traded firms. This distances the term from both origin and control, from contentious issues like monopoly power or land rents, and from difficult to measure concepts like the importance of bank financing or of general trading firms. It also distinguishes the pyramidal *zaibatsu* from the *keiretsu* groups of postwar Japan, whose structure of intercorporate ownership is not pyramidal.

We will use the term *apex firm* to denote the family controlled entity at the top of the pyramid. The firms in which it holds equity stakes, we refer to as *directly controlled subsidiaries*. The firms that are controlled by the apex firm, but whose stock the apex firm does not hold, we call *indirectly controlled subsidiaries*. Note that indirectly controlled subsidiaries can be controlled either by directly controlled subsidiaries or other indirectly controlled subsidiaries. These terms are illustrated in Figure 1.

***Zaibatsu* Formation**

The development of *zaibatsu* (and other firms) was relatively unhindered by government intervention until the 1930s. Few regulations existed in financial markets, yet capital markets provided 87% of the new capital required by Japanese corporations in 1931. Thus Japan had a robust shareholder culture in the early twentieth century despite the absence of well defined shareholder rights. Corporate governance was generally in the hands of controlling shareholders – usually wealthy families. Banks had little or no corporate governance role. Public shareholders were essentially at the mercy of insiders.

The first significant expansions by the main *zaibatsu* families beyond their traditional businesses occurred in connection with the Meiji government's mass privatization program of 1880. The government had used state funds to establish industries it deemed essential to modernization. But in doing so, it had accumulated a huge public debt. To deal with this fiscal problem, the government implemented a mass sell-off of state-owned enterprises in all areas except munitions. Included were factories producing virtually all important manufactured goods - including steel, cement, coal, metals, machines, ships, textiles, etc.

Thus, Mitsui, Mitsubishi, Sumitomo and a few other *zaibatsu* acquired these privatized operations, and thus entered new lines of business. Many historians consider this the 'beginning' of Japan's *zaibatsu*. Although there was no clear cut method of allocating state-owned factories, each of the three main *zaibatsu* ended up with some assets in each key industries: mining, shipbuilding, machinery, textile, and so on.

***Zaibatsu* Expansion and Family Control**

One of the most important corporate governance considerations for business families during this period was preserving full control over their essential business operations while satisfying an ever-growing need for capital. For families that tried to keep their operations closely held, this ever-increasing need for more capital became a serious problem.

Such problems were not entirely new. As families grew in size with each generation, preserving meaningful control for the head of the family had always presented a difficult problem. For example, the Mitsui family had applied an operating rule to distribute ownership within the family in a certain way since the Tokugawa Period. Table 2 shows the ownership shares of the different branches of the Mitsui family in the family business over the more than 200 years since its foundation in 1694. The stakes are remarkably stable through time.

[Table 2 about here]

Nonetheless, the Mitsui patriarch dictated most family business decisions. This divided ownership with an imposed centralized control that largely negated the rights of individual owners grew increasingly difficult to maintain. The problem grew even worse when the Meiji government instituted new laws regarding absolute individual ownership rights. This rule could be relaxed in family firms, so that the head of the household might exercise ownership rights over family properties, including inheritance rights. However, this exemption could not be carried beyond blood kin to relationships between an employer and share owning employees.

This situation presented problems, for important shareholders who were not blood kin had become common. It made sense to reward competent hired managers with a limited ownership stake in the business. And sometimes competent hired managers, rewarded in other ways, grew wealthy enough that letting them buy stock seemed necessary to retain them.

When the Meiji government began establishing the German Civil Code, large family businesses were usually recognized as general partnerships. As more outsiders were brought in to supply capital, and as each new generation created more family, such businesses found the legal status accorded a limited partnership more workable. In 1893, Japan enacted a Commercial Code, prompting many *zaibatsu* holding company partnerships to incorporate. But restructuring an entire family business into a publicly traded joint stock company was resisted. As new laws on ownership became effective, hired managers who had become investors obtained, theoretically at least, a status equal to family members. This was difficult for the great families to accept, and the concept of random members of society buying and selling such a status was intolerable.

Even equity stakes held by competent hired managers and their heirs often proved unbearable, and wealthy business families often went to considerable lengths to repair such perceived errors. For example, the Mitsui Bank, which was founded in 1876, soon had more than four hundred manager- shareholders. When the Mitsu family reorganized it as a general partnership in 1893, it bought up all of these shares. When the Kamoike *zaibatsu* family established the Thirteenth National Bank, forty distant relatives were shareholders. In 1897 the main branch of the family bought out

all of these distant relatives and re-established the bank as the Kamoike Bank, privately owned by the Kamoike patriarch.¹²

This sort of response is perhaps understandable, for successful family businesses operated with a common objective imposed by a core of family values, traditions, and history. Outsiders, even very competent ones, could not share fully in this, and their input would surely appear to the family as interference. Nevertheless, family firms closed to outsiders risked alienating their best managers, or being shut out of the top end of the managerial labor market. Family businesses lacking management skill among blood kin, and unable to hire, it risked degeneration.

Some *zaibatsu*, most notably the Mitsui and Sumitomo, were particularly successful in growing rapidly without outside equity financing. Their success has been attributed to a series of highly competent hired managers, but their connections with important political leaders were certainly at least as important as their raw competence.

The Sumitomo family possessed a lucrative cash cow in the Besshi copper mines they had obtained from the Shogunate, and so could afford to keep more distant from the Meiji government – at least initially. Mitsui, however, needed to earn the Meiji government's gratitude. They accomplished this by providing financial assistance to the cash-starved Meiji restoration forces and the struggling new government in its critical first years. In return, Mitsui was appointed Government Treasury Agent, a duty that provided the family a range of highly valuable opportunities.

To fulfill its treasury duties, Mitsui established a national network of branch offices. These generated substantial cash flows from treasury business, and also

¹² The Kamoike Bank subsequently became the Sanwa Bank, which evolved into the current UFJ Bank.

served as bases for other trading. Business developed so rapidly that the House of Mitsui had to set up the Kokusangata Karihonten, or Temporary Head Office for Domestic Trade, in Tokyo in 1874. Learning of the Meiji government's aim of promoting foreign trade, Mitsui began selling silk yarn and tea to western merchants on a commission basis, and acting as a forwarding agent of imported goods between Tokyo and Yokohama.¹³ Mitsui's trading business, handled by employees steeped in Tokugawa traditions, lost money. In 1876, Mitsui was about to close its trading ventures when Kaoru Inoue (1835-1915), a leading Meiji politician, suddenly decided to return to the government and offered to sell his Senshusha company to Mitsui to raise political funds.¹⁴ Mitsui jumped at this opportunity, for Senshusha came not only with government contracts, but with its top manager, Takashi Masuda, who trained at the largest American merchant house in Japan. Mitsui established Mitsui Bussan (Mitsui & Co.) in July 1876 by merging Senshusha and the Temporary Head Office for Domestic Trade, and appointed Masuda manager.

Mitsui Bussan's first government business was a sales monopoly on high-quality coal from the state-owned Miike mine. Exporting Miike coal on commission to China through Shanghai immediately became highly profitable, and Mitsui Bussan established its first foreign office in Shanghai by the end of 1876. This allowed Mitsui Bussan to acquire skill as an international trader. Since Mitsui Bussan traded coal, like all other items, entirely on commission its capital requirements were minimal. The only financing the House of Mitsui provided was a ¥50,000 overdraft allowance from the Mitsui Bank. In 1877, Mitsui Bussan made ¥200,000 – an enormous fortune

¹³ See Yamamura (1976).

¹⁴ Inoue subsequently served as Minister of Foreign Affairs, the Interior and Finance, and also as a Privy Councilor. Senshusha, established in 1872 by Inoue and others was a moderately successful trading business, mostly due to Inoue's political influence. Its primary business was executing government procurement orders for imported goods for Inoue's powerful political associates. Senshusha imported wool, guns, and fertilizer; and exported rice, tea and silk.

at the time - supplying sixty percent of the military procurements for the Seinan War, a large operation to put down rebellion in Kyushu in 1877.

The Sumitomo and Mitsui were not the only great Takagawa merchant houses. However, they were the only ones that expanded their capital bases as the economy grew, and were clearly the most adept at positioning themselves to assist the government in implementing its economic policies. Other great business families of the Tokugawa era, such as the Kamoike *zaibatsu*, were less nimble and grew too slowly, and thus were gradually eclipsed as Japan grew.

Expanding the capital base by bringing in outsiders held a different danger. For the new investors could seize control, reducing the family to the status of limited partners. For example, both the Shimomura and Ohmura *zaibatsu* brought in outside investors who took control. Even worse from the perspective of the old families, the new controlling shareholders shifted the business out of the (money losing) traditional Japanese clothing business and into department store-based retailing.

And despite their freedom from outside shareholders, the Mitsui still faced legal problem when different branches of the family began exerting their legal rights under the new business law the government was erecting. The eleven distinct branches of Mitsui had submitted to the dictatorial rule of the patriarch in the past. But that submission smarted as new laws delineated rights and as legal rights came to be associated with partnership stakes.

Pyramids as a Solution

Corporate pyramids are an elegant solution to all of these problems, for they can preserve total control in the hands of insiders while permitting access to limitless public capital. To see this, consider a wealthy Japanese family with a fortune of ¥1

billion, invested in the assets of a family business, Choten Corp. The family sees a multitude of profitable business opportunities, and estimates that it could easily and profitably invest many billions of yen. To see how the family can undertake all of these investments by constructing a pyramidal group, and retain control not only of the family business, but of all these new ventures too, return to Figure 1.

First, the family expands Choten Corp by issuing new public shares worth almost ¥1 billion. This is organized so that outside shareholders end up owning fifty percent less one share of the new Choten, which is now worth almost ¥2 billion. This gives the family almost ¥1 billion in cash, yet preserves its complete control of the family business. The latter is because its fifty-percent-plus-one-share stake is sufficient to completely control who is elected to the board of directors. Choten is now set to become the apex firm of the pyramidal group.

Next, the family organizes two new firms, Hitotsu-Ichi Corp. and Hitotsu-Ni Corp.¹⁵ Each of these firms is financed with a ¥500 million equity investment from Choten and a public offering to raise almost ¥500 million by selling outside shareholders fifty percent less one share. Hitotsu-Ichi Corp. and Hitotsu-Ni Corp. now each have ¥1 billion. The family now fully controls three firms, with unconsolidated balance sheets totaling ¥4 billion and ¥3 billion in consolidated assets. The family's control is complete because it fully controls Toshitotta, and Toshitotta's board votes a fifty-percent-plus-one-share stake in both Hitotsu-Ichi Corp. and Hitotsu-Ni Corp., and thus completely control their boards.

To expand further, the family has Hitotsu-Ichi Corp. and Hitotsu-Ni Corp. each organize two new firms. Hitotsu-Ichi organizes Futatsu-Ichi and Futatsu-Ni, financing each with a ¥500 million equity investment and a public offering to raise

¹⁵ In one Japanese counting system, *hitotsu* is one, *futatsu* is two, *mittsu* is three, and *yottsu* is four. In another system, *ichi* is one, *ni* is two, *san* is three, and *yon* is four. The appropriate use of the two systems is a matter of grammar. *Choten* means "apex".

almost ¥500 million by selling outside shareholders fifty percent less one share. Hitotsu-Ni Corp. organizes Futatsu-San and Futatsu-Yon similarly. The family now fully controls seven firms, with unconsolidated values totaling ¥8 billion and ¥5 billion in consolidated assets.

In the next step, Futatsu-Ichi organizes two new companies, Mittsu-Ichi and Mittsu-Ni, as do Futatsu-Ni, Futatsu-San, and Futatsu-Yon. Each of these eight new firms is financed with a ¥500 million equity investment from the Hitotsu level firm organizing it and a public offering that raises almost ¥500 million by selling fifty percent less one share to outside shareholders. The family now fully controls fifteen firms, with unconsolidated balance sheets totaling ¥16 billion and ¥9 billion in consolidated assets.

Each Mittsu level firm can then similarly organize two Yottsu level firms, resulting in a pyramid of thirty-one firms worth ¥32 billion on paper and holding ¥17 billion in consolidated assets. This process can be repeated until the family runs out of attractive investment opportunities.

When constructed this way, a pyramid with n layers contains $2^n - 1$ firms, which have unconsolidated book values totaling 2^n billion yen and consolidated assets worth $\frac{1}{2} \left(3 + \sum_{n=1}^n n \right)$ yen.

Thus, by setting up a five-layer pyramid, the family can raise ¥14 billion in public equity while retaining complete control. Had the family instead simply issued ¥14 billion in additional Choten shares, their stake would have been diluted to one fifteenth or 6.67 percent and they would have lost control.

The elegance and simplicity of this solution surely appealed to the great mercantile families of Japan, for they enthusiastically embraced this model of intercorporate ownership and built the vast prewar *zaibatsu* in this way. Both public

investors and querulous relatives could be tapped for capital *and* excluded from corporate governance.

Of course, variations from this formula were possible. For instance, the controlling families often wished to keep the apex firm of the pyramid closely held. They thus raised the initial money necessary to establish the first tier of subsidiaries from retained earnings. Since the Mitsui and Sumitomo families had both run highly profitable businesses for generations, their accumulated wealth was easily great enough to skip the first step in the above recipe. In contrast, other later groups, such as Nissan, had public shareholders in their apex firms. Also, the use of non-voting or super-voting shares allows much more leverage of the family's initial wealth. Firms at different levels can have real assets and engage in real businesses, as well as serving as holding companies for the stock of firms in lower tiers. Actual pyramids were also much messier than Figure 1, in that different levels of firms sometimes cooperated to control firms in all levels, including higher tiers of the pyramid. Nonetheless, Figure 1 captures the essential logic of a pyramidal group as a method of retaining full control in the hands of a single principal while raising the majority of the group's capital from outside investors.

Figures 2 and 3 illustrate the actual structures of the Mitsui and Sumitomo groups at their greatest extent.

[Figures 2 and 3 about here]

The Big Four *Zaibatsu*

While the Mitsui and Sumitomo *zaibatsu* may be said to have formed in the late 19th century in the sense that the pyramidal groups formed at that time, both enterprises

have their true origins in the Tokugawa period. However, other *zaibatsu* were genuinely new. The two largest of these were the Mitsubishi and Yasuda *zaibatsu*. These four groups were the largest *zaibatsu*, so their development merits close inspection.

The founding of the Tokyo and Osaka Stock Exchanges in 1877 allowed Japanese companies to tap capital from individual investors. Mitsui and Sumitomo both began expanding by constructing pyramids. However, their investments outside their primary lines of business were relatively small, experimental and limited.

Thus, the Mitsui family, having begun as silk merchants, expanded into areas related to clothing manufacture and sale. The family established trading operations in certain other commodities to allow efficient barter transactions for silk and a currency exchange operation to deal with foreign companies. However, the Mitsui did invest significant amounts of capital in other ventures from time to time. During the first 20 years of the Meiji era, the Japanese government publicly funded drives to build strategically important industries, which were then transferred to private owners. Mitsui often cooperated in these drives at the request of the Japanese government, and became favored partners in many such ventures.

Towards the end of the 19th century, the government's financial problems caused it to embark on a mass privatization program, where it sold off all these ventures save its armament factories, postal and telegraph systems, mints and railroads. The magnitude of this mass divestiture was unprecedented. Between 1874 and 1896 alone, twenty six major government projects - including coal, copper, silver and gold mines, cotton and silk spinning mills, shipyards, cement factory, iron works, sugar refinery and glass factory - were transferred to private owners – usually the large *zaibatsu*.

However, with the exceptions of these privatized enterprise, the great zaibatsu remained commerce-based. Only at the end of the 19th century did they embark on their own diversification efforts, and this was often at the prodding of hired managers, not family members. Extensive diversification would wait until after the First World War. A few years may have been necessary before people knowledgeable about the possibilities opened by concepts like limited liability and joint stock companies rose to positions of influence.¹⁶

The mass privatization alluded to above is a key event in the history of the great *zaibatsu*. Economic historians' assessment of this privatization program is mixed. Many *zaibatsu* groups, particularly Mitsui and Mitsubishi, benefited enormously, for their former public enterprises turned out to be their main sources of subsequent growth.

Certainly, the great *zaibatsu* families were virtually the only entities in Japan able to participate extensively in the privatization. The limited number of bidders and financial exigency on the government may have generated bargain prices. Some of these sales were negotiated while others used public auctions. But most of the privatization prices were far lower than the Meiji government's capital outlays in establishing these enterprises.¹⁷ For example, Takashima Coal Mine (government outlay by 1885, ¥393,848) was sold for ¥550,000 yen in 1874 to Shoraisha, owned by Shojiro Goto, who in turn sold it to Mitsubishi's Iwasaki family in 1881. Other examples include the Shinmachi Silk Spinning Mill (set-up cost ¥138,984), sold to Mitsui in 1887 for ¥141,000; the Nagasaki Shipyard (¥1,130,949 yen), sold to Mitsubishi for ¥459,000; Tomioka Filature (¥310,000) was sold to Mitsui in 1893 for ¥121,460; the Sado Gold Mine (¥1,419,244) and the Ikuno Silver Mine (¥1,760,866),

¹⁶ Morikawa (1992), p. 27.

¹⁷ For details, see Kobayashi (1985), pp.64-65.

sold together to Mitsubishi in 1896 for ¥2,560,926; and Kamaishi Iron Works (¥2,376,625), sold to Chobei Tanaka, an iron merchant and supplier for the Japanese army and navy, in 1887 for ¥12,600. Tanaka subsequently sold Kamaishi Iron Works to his company, Kamaishi Mining, in 1924, and then divested it to Nippon Steel.¹⁸ The rarity of exceptions, such as the sale of the Miike Coal Mine (setup cost ¥757,060), sold to Mitsui in 1888 for ¥4,590,439, only accentuates the low privatization prices.

However, many state-owned enterprises were in dismal shape, and although many privatized enterprises encountered serious difficulties, the Japanese government rarely provided direct subsidies. For example, a major earthquake in 1889 destroyed the Kattate shaft of Mitsui's Miike coal mine. Finance Minister Matsukata refused pleas by Mitsui, supported by cabinet members, for subsidies and rescheduling of its payments. Mitsui completed the total payment for the mine by 1902, as per the original purchase agreement. Of course the government did provide generous tariff protection and other indirect assistance to insure the success of the privatized enterprises.

Regardless of the government's conscious intentions at the time of the privatizations, they turned out to be plums. At the time, mining was highly profitable in Japan because of the expense involved in importing. Privatized mining companies, acquired by the Mitsui and Mitsubishi at this time, served as core cash cows until the mid 1950s, when major veins were exhausted. Most *zaibatsu* electric equipment manufacturers also apparently developed by supplying equipment to their affiliated mining companies.

¹⁸ Tanaka and the Kamaishi Mining had a spectacular success in the iron industry, achieving a 72% market share in pig iron by 1900.

The positions of different firms within the *zaibatsu* pyramids were a matter of great concern. Mitsui's primary lines of business at the end of the Edo period were still Japanese clothing and money exchange when the family diversified into banking. When their Japanese clothing business became shaky around 1873, the family restructured the pyramid moving that business to a lower tier and delegating its management to distant relatives of the eleven core clans. In contrast, the Mitsui Bank quickly became profitable after its inception in 1876, and served as the apex firm of the Mitsui *zaibatsu* until 1893.

This example illustrates how the family also moved poor performers deeper into the pyramid from time to time. Again, in 1909, the Mitsui Council restructured the pyramid with a new holding company at the apex, which then controlled the Mitsui Bank, Mitsui Mining and the trading firm Mitsui Bussan. This restructuring was accompanied by a major rearrangement of firms throughout the pyramid, with good performers moving closer to the apex and weak firms moving closer deeper into the pyramid. Thus, in the Mitsui *zaibatsu*, poorly performing firms were concentrated deep in the pyramid, while good performers tended to be in the top level.

Morikawa (1980, pp. 46-57) and others argue that greater direct ownership by the Mitsui family should be taken as indicative of a greater family "concern" for a firm. This interpretation is strained by for the positioning of what were undoubtedly key companies in deep levels of the Mitsui pyramid. For example, the Mitsui partnership held only 5.8% and 5.4%, respectively, of the outstanding shares of Oji Paper and Kanebo as of 1930. Perhaps more importantly, Shibura Engineering Works, the predecessor of Toshiba, was not included in contemporary lists of core Mitsui firms – despite the Mitsui partnership having held stakes ranging from fifty to eighty five percent in Shibaura most of the time from the late 1800s until 1939, when

Shibaura merged with Tokyo Electric to form Tokyo Shibaura (Toshiba) Electric. That this firm, which was clearly of significant national importance, received less attention than many more obscure firms seems untenable. Morikawa (1980) proposes that some Mitsui top managers and partners, though they recognized the importance of Shibaura's operations and products, could not understand it, noting that the Mitsui partnership apparently came close to divesting Shibaura in 1902. However, but strong oppositions from Mitsui Mining and others forestalled this, and Shibaura went public as a Mitsui group company in 1904.

It seems more likely that firms' positions in the zaibatsu pyramids were designed to facilitate tunneling, as described by Morck *et al.* (2000). Self-dealing to concentrate profits in firms owned directly by the Mitsui and losses in firms merely controlled by them readily explains the better apparent performance of firms higher in the pyramids. Certainly, Shibaura's performance in the early 1900s lagged that of other major Mitsui firms. Moreover, Mitsui completed negotiations with General Electric for partnerships and technical licensing in 1904 that left G.E. holding about 25-30 % of Shibaura until 1931.

Records attest that the Mitsui head office regarded the questions of which companies should be placed where in the group pyramid and what stakes each company should hold in other group firms as fundamental. As the structure of the Mitsui *zaibatsu* grew ever more complex from 1912 to 1930, the lower tier of the pyramid were sometimes drastically restructured, but the apex changed little. The Mitsui Bank, Mitsui Bussan, Mitsui Mining and Toshin Warehousing remained direct

subsidiaries of the Mitsui partnership. The only significant change was the addition of the Mitsui Life Insurance and Mitsui Trust Bank as direct subsidiaries after 1912.¹⁹

Table 3 shows that the amounts of other companies' shares held by these three Mitsui firms were already significant by the early 1900s, though Mitsui Bussan's holding was relatively minor compared to the other two Mitsui family firms

[Table 3 about here]

Mitsui's most intensive diversification efforts began with Mitsui Mining's entry into chemical industries in the early 1910s. Mitsui Bussan founded a shipbuilding company in 1917, purchased an iron and steel company in 1924, and established Toyo Rayon to enter the chemical textile business. In fact, this wave of diversification was undertaken exclusively through new subsidiaries of Mitsui Mining, the Mitsui Bank and Mitsui Bussan, or through new subsidiaries of subsidiaries. Table 4 shows the extent of this expansion, and Figure 2 illustrates the structure of the zaibatsu at this point.

[Table 4 about here]

It is again noteworthy that the Mitsui choose to place all their new industrial companies deep in their pyramid, and to have only their mining company, bank, and trading company directly owned by the family holding company.

The Sumitomo pyramid, shown in Figure 3, developed a structure quite similar to that of the Mitsui pyramid. In particular, financial institutions are located

¹⁹ See Tamaki (1976), pp.84 and 86. Fruin (1992, pp.100-102) describes how the Mitsubishi zaibatsu structure was reorganized several times between 1916 and 1926, and argues that this was in response to Mitsubishi's evolving strategic considerations such as economies of scope and scale.

near the apex, and industrial companies tend to be deeper in the pyramid. Direct Sumitomo subsidiaries, like those of Mitsui and Mitsubishi partnerships, included a bank, *sogo shosha* (general trading firm), trust bank, insurance company, mining company and warehousing operation. Relatively few Sumitomo companies had publicly traded shares. The Sumitomo bank went public in 1917, Sumitomo Trust in 1925, and Sumitomo Chemical in 1934, Sumitomo Metal Industrials in 1935, and Sumitomo Electric Wire and Cable Works in 1937. All the other companies had no shareholders outside of Sumitomo until relatively late.

The Yasuda *zaibatsu*, whose structure Figure 4 shows to also follow this pattern, is new compared to Mitsui and Sumitomo. The Yasuda zaibatsu began at the end of the Tokogawa era when Zenjiro Yasuda (1838-1922), the son of a poor samurai in Toyama, moved to Edo and obtained work in a money changing business. In 1863 he began his own business of providing tax-farming services to the Shogunate, which mainly involved overseeing the collection and transport of silver and gold. After the Restoration, he provided the same services to the Meiji government. Yasuda profited from the delay between the collection of taxes and their forwarding to the government. His fortune was greatly magnified when he bought up depreciated Meiji paper money that the government subsequently decided to exchange for gold coin.

Yasuda and Kawasaki established the Third National Bank in 1876, and then Yasuda set up its own Yasuda Bank in 1880. Although the Yasuda Bank's investors consisted of several members of the Yasuda family, it seems likely that Zenjiro provided all its initial ¥200,000 capitalization. Zenjiro needed to use several family members to satisfy the Meiji government's requirement that no single investor could establish a bank.

In 1887 Zenjiro organized his family company, Hozensha, with its initial capital of one million yen designated as the paid-in capital of the Yasuda Bank. Zenjiro assigned half of this to Hozansha, and the other half to ten of his relatives: six Yasuda families given ¥360,000, two branch clans given ¥80,000 and two other relations given ¥60,000. Hozensha's ¥500,000 of stocks were designated the common property of the six Yasuda families. The charter Zenjiro established utterly forbade the transfer of Yasuda Bank, even within the family. No certificates were issued and ownership was recorded in a registration book in Hozensha's safe. Yasuda Bank shareholders also relinquish the right to embark on commercial activities of their own.

After observing the Mitsui organize their general partnership in 1909, Yasuda reorganized Hozensha as a general partnership capitalized at ¥10 million in 1912. The partnership served as a holding company for Yasuda's securities, properties and business operations. By this time, the Yasuda *zaibatsu* already contained seventeen banks and participated in sixteen other business operations. New biological and adopted sons boosted the number of Yasuda family investors from ten to thirteen. In 1919 Yasuda established its House Constitution, freezing the number of Yasuda investors at thirteen. This structure served the House of Yasuda well, for its continued focus on financial services and limited presence in capital-hungry heavy industries allowed it to limit public shareholder participation.²⁰ Table 5 summarizing the industrial diversification of the ten major prewar *zaibatsu* illustrates this focus.

[Table 5 about here]

²⁰ A reorganization as a joint stock company was discussed during World War II, but never implemented.

The Yasuda *zaibatsu*'s orientation towards banking was accelerated by the merger of eleven Yasuda-controlled banks into the Yasuda bank in 1913. The new bank was the largest of all the zaibatsu banks, with a 1913 paid-in capital of ¥150 million – compared to ¥600 thousand, ¥500 thousand, ¥430 thousand, and ¥300 thousand for the Mitsui, Sumitomo, Daiichi, and (Mitsubishi) banks, respectively. The Yasuda bank remained Japan's largest bank, building on its deposit and loan bases that both substantially exceeded half a billion yen, and its reserves of ¥169 million. The Yasuda Bank continued expanding via mergers with other banks, and rapidly developed strong relationships by with the Azano and Mori *zaibatsu*. These ties gave the Yasuda Bank an industrially diversified loan portfolio, but the Yasuda zaibatsu's core businesses remained in the financial sector – encompassing banking, insurance, and other financial services. As Table 5 shows, the House of Yasuda limited its entry into heavy industries even during World War II.

[Figure 4 about here]

The Mitsubishi *zaibatsu* began as Tsukumo Co., which was renamed Mitsukawa Company in 1872 because it had three (*mitsu*) owners - S. Ishikawa (1828-1882), S. Kawada (1836-1896), and K. Nakagawa.²¹ In 1873 Mitsukawa Co was renamed as Mitsubishi Co., which appears to have been a limited partnership between the three original owners and Yataro Iwasaki (1834-1885). After Yataro's death, his son Hisaya (1865-1955) and Hisaya's younger brother Yanosuke (1851-1904) joined the partnership. The Mitsubishi partnership was dissolved around 1891,

²¹ Nakagawa's birth or death dates are unknown. One variant of the number *three* in Japanese is *mitsu*. The precise origin of the Mitsubishi group is a somewhat contentious issue among Japanese historians. See Mishima (1981).

and Hisaya and Yanosuke Iwasaki each invested ¥250 million in 1893 to set up a new limited partnership – also called the Mitsubishi Company.

The Mitsubishi Company's direct subsidiaries included Mitsubishi Shipbuilding and Mitsubishi Mining, which both extensively developed Meiji government projects the *zaibatsu* purchased. Unlike the Mitsui, Sumitomo, and Yasuda charters, the Mitsubishi Charter allowed each of the Iwasaki families to retain their personal income and to start up their own businesses. This flexibility turned out to be a considerable advantage for the Iwasaki family. Individual Iwasaki clans enthusiastically captured business opportunities that Mitsubishi itself could undertake. One such example was the Meiji government's Takashima Coal Mine, which Horaisha bought when it was privatized. Because the mine's operations were subsidized by the government, Mitsubishi companies could not own it directly. However, the Iwasaki *family* was allowed to purchase it from Horaisha when that firm was under financial distress.²² The Takashima Coal Mine and other important Mitsubishi firms like Asahi Glass, Meiji Life Insurance, and Kirin Beer, were officially regarded as separate from the Mitsubishi *zaibatsu*. This was clearly a bureaucratic slight of hand, for these companies had extensive financing and other relationship with formal members of the Mitsubishi *zaibatsu* and were controlled by the Iwasaki family. These firms also all became Mitsubishi *keiretsu* companies after World War II.

The Mitsubishi Company, the *zaibatsu* pyramid's apex, was reorganized as a joint stock company in 1937 and portions of its shares were distributed to Iwasaki relatives and to seven unrelated executives. Apparently, these shareholders were forbidden from transferring their holdings without permissions from the company. In

²² See Yasuoka (1976), p.64) for details.

1940 the Mitsubishi Company increased its paid-in capital from ¥120 million to ¥240 million and the original two Iwasaki families together continued to own 47.5% of the outstanding shares of the company.

Although Mitsubishi, like Mitsui and Sumitomo, remained a family controlled structure, the Iwasaki family also used marriage extensively to bring talented men into the family. Thus, unusually in a family enterprise, marriageable daughters were valued as highly as sons, if not more highly.²³ Another characteristic of Mitsubishi's governance system was that its ownership stakes in its direct subsidiaries, such as the Mitsubishi Bank and the Mitsubishi Corporation, was not as extensive as in the Mitsui and Sumitomo groups. Mitsubishi Company's average ownership share in its direct subsidiaries was around 30%, versus 66% for Mitsui. Similarly Mitsubishi's average ownership share in the direct subsidiaries of Mitsubishi's direct subsidiaries was only 18%, while the figure for Mitsui was 49%. The Mitsubishi zaibatsu was much less averse to using public equity financing, and so was able to expand extensively into capital-intensive industries like machinery, mining, finance, and shipping. This gave the Mitsubishi companies leading market positions in these rising sectors of the economy, yet the Iwasakis retained full control, for their stakes were always sufficient to dominate shareholder meetings.²⁴

Figure 5 illustrates the structure of the Mitsubishi zaibatsu as it later developed.

[Figure 5 about here]

Industrial Zaibatsu

²³ Morikawa (1992), p.53.

²⁴ For details, see Mishima (1981), pp. 340-341.

The Mitsui, Sumitomo, Mitsubishi, and Yasuda zaibatsu are generally ranked as the four major family controlled pyramidal groups of prewar Japan. Three other zaibatsu were also important, but their influence extended along specific product chains and did not include banks or financial firms.

These so-called *industrial zaibatsu* included the Asano group, built by Soichiro Asano (1848-1930) around the Asano Cement Company, the Kawasaki group, built around Kawasaki Shipbuilding Co. by Shozo Kawasaki (1837-1911), and the Furukawa group, built by Ichibei Furukawa (1832-1903) around his Ashio Copper Mines Co.

Widely Held Zaibatsu

In addition to the four major *zaibatsu* and the three industrial zaibatsu listed above, five other pyramidal groups emerged in the early 1900s - Nissan, Nichitsu, Mori, Nisso and Riken. These structures grew with the stock market, which became much more active in the 1900s. Security prices rose quickly between 1917 and 1919, and many individual investors, such as landlords and other property owners, began holding substantial amounts of equity in their portfolios.²⁵ This augmented flow of capital into the market allowed, and perhaps arose from, the construction of pyramids that were financed with public equity throughout.

These new *widely held zaibatsu* differed in that the apex company of the pyramid was widely held. Recall that the Mitsui, Mitsubishi and Sumitomo groups, initially at least, kept their apex firms as partnerships. In contrast, the apex firms of these new *zaibatsu* had stock companies often had significant portions of their shares owned by outside shareholders who were not blood relatives of their founders.

²⁵ Hashimoto (1997), p.101.

In fact, the founders of these groups often held rather small equity stakes in the apex firms. They had little fear of losing control because the founders were often highly skilled engineers whose expertise was essential to critical company operations. The chemistry experts Shitagū Noguchi, Tomonori Nakano, and Nobuteru Mori built the new Nichitsu, Nisso, and Mori *zaibatsu*, respectively. Masatoshi Okochi, an expert in machinery manufacture, built the new Riken *zaibatsu*; while the all around genius Yoshisuke Aikawa built Nissan into one of Japan's major diversified *zaibatsu*, though machinery was more important than other industries, such as metals and chemicals to Nissan.

This technical expertise factor meant that these new *zaibatsu* tended to be concentrated in heavy industry, and chemical industries, and electric power generation. As they grew and diversified, they competed aggressively with established *zaibatsu* companies. Most of these new *zaibatsu*, like the industrial *zaibatsu*, did not control financial institutions and relied heavily on outside finance.

The development of the widely held *zaibatsu* can best be illustrated by following the history of the largest such group – Nissan. The Nissan group was founded by Yoshisuke Aikawa in a rather roundabout way.

By 1919, Hūsanosuke Kuhara (1869-1965) had purchased numerous mines and produced 30% of Japan's domestically mined copper, 40% of its gold, and 50% of its silver. During this rapid expansion, Kuhara had made more than ¥2.4 million from an initial public offering of his Kuhara Mining Company. In the years following the First World War, Japan experienced a series of depressions, and Kuhara Mining was badly hurt. When its subsidiary, Kuhara Trading, failed, Kuhara was forced to retire on a sick leave. He delegated the rebuilding of his company to his brother-in-law, Yoshisuke Aikawa, whose own much smaller firm, Tobata Cast Iron, had

survived the depressions. Aikawa was an engineer who had studied state-of-the-art cast iron manufacturing methods in the U.S. To save Kuhara Mining, he pooled his own money and funds from relatives, managers, and outsiders to inject more than ¥25 million into the company.²⁶

Having dealt successfully with Kuhara Mining's debt crisis, Aikawa joined its board in 1926 and quickly replaced Kuhara as president. To put the firm on a solid long-term financial course, Aikawa needed more capital without loss of control. In December 1928 he therefore capitalized a new publicly traded holding company, Nippon Sangyo (Nissan). Simultaneously he also organized Nippon Mining, into which he merged Kuhara Mining. Since Table 6 shows that Kuhara Mining had many public shareholders, this merger left Nippon Mining publicly held, but controlled through a majority stake by Nissan.

Aikawa understood that Nissan, or any other new *zaibatsu*, would need huge amounts of capital very quickly to achieve economies of scale comparable to those the existing *zaibatsu* could achieve. The capital requirement for developing large heavy and chemical production establishments rapidly was far beyond his family assets, so bringing public shareholders on board was unavoidable. Yet Aikawa wanted to retain control.

It is clear that Aikawa fully understood the efficacy of pyramidal groups for tapping unlimited outside capital while retaining full control. Indeed, Aikawa (1934) presents his vision in a diagram, reproduced as Figure 6, of building a pyramid of publicly traded subsidiaries, subsidiaries of subsidiaries, and so on, to transform public stockholders' capital into his company's capital and give him access to an infinite amount of capital.

²⁶ He was widely expected to fail. Kuhara was compared at the time to Suzuki, described below. That Kuhara ultimately prospered and formed the basis of a new *zaibatsu*, while Suzuki failed and brought down an entire *zaibatsu*, greatly enhanced Aikawa's standing.

Aikawa (1934) recognized that, since the apex firm of his pyramid was widely held, it was his responsibility to make sure the company always make acceptable profits and that its shareholders received a stable payment of dividends.²⁷ Some 70% of Nissan's assets were shares in Nippon Mining, so Nissan was still dangerously exposed to that sector, which remained chronically weak until the Japanese government began accumulating gold in 1932. Using this business upturn period, Aikawa sold Nippon Mining stock and used the funds raised to diversify Nissan's holdings extensively.

Aikawa's main strategy was to purchase promising firms, develop them as fully owned subsidiaries, and then take them public through IPOs. In creating these spun-off firms, or *bunshin kaisha*, Nissan's role in Japan's development has much in common with that of venture capital firms in the United States, as described in e.g. Gompers and Lerner (2002). Of course there were some differences. While US venture capital firms' objective is to sell their start-ups completely to the public to raise funds for the next venture, Nissan always retained a control block, using IPOs to extend the pyramid. This appears to reflect Aikawa's desire to retain a final say in important decisions.

Nissan's partially spun-off subsidiaries tended to prosper, further enriching both Nissan's shareholders and their own. Subsidiaries acquired or spun off their own subsidiaries, and the pyramidal structure expanded. Nissan's own paid-in capital increased from ¥5.25 million in 1933 to ¥198.37 million in 1937. During the same period, its total assets increased from ¥91.08 million to ¥383.10 million and its securities held increased from ¥53.38 million to ¥269.92 million. Table 6 shows Nissan's share price for the period 1930-1937.

²⁷ Though Aikawa (1934) also justifies "management nationalism" as a legitimate reason for having invested in "a few new business lines" which he thought were promising in the future but would currently generate no returns in the near term.

[Table 6 about here]

[Figure 6 about here]

All the while, Nissan itself became ever more widely held. By May 1937, Nissan had 51,804 shareholders, 50,783 of which owned fewer than 500 shares. The fraction of shares Aikawa and his relatives owned continued to fall too. The total stake held by Aikawa and his relatives fell from 19.2% in 1929 to only 4.5% in 1937. By 1937, only four shareholders - including Aikawa - held more than 10,000 Nissan shares.

By this time Nissan was at the apex of a pyramid exceeded in scale only by those of Mitsui and Mitsubishi, as Table 7 shows. The Nissan group included Nippon Mining, Hitachi, Ltd., Hitachi Power, Nissan Motor and many other large manufacturers and utilities.

[Table 7 about here]

Local *Zaibatsu*

There were many locally important business families in Japan at this time, whose operations were limited to specific geographical areas (e.g. prefecture) and usually also specific lines of business. These families accumulated wealth in closely held family firms, and then used this wealth to expand into new businesses, sometimes bringing in other local investors. Mostly, these pyramidal structures remained small, but a few acquired national scope - though they kept their head offices in the original localities. In general, these local *zaibatsu* did not develop into highly industrialized

operations. It is possible that their limited access to capital explains this. Indeed, their dominance in certain regions may explain why industrialization favored some regions over others.

The role of local zaibatsu in regional development remains poorly understood. Important local zaibatsu include the Nakano group, based in Niigata, the Itaya group of Hokkaido, the Ito group based in Nagoya, another Ito group in Hyogo, the Yasukawa group of Fukuoka, the Kaishima group of Fukuoka, and the Katakura of Nagano. Figure 7 describes some of these groups.

[Figure 7 about here]

The Zaibatsu and Independent Companies

Because space constraints, we cannot detail the numerous independent entrepreneurs who began to shape the economy in this era. Among the most important was Sakichi Toyoda, who patented the Toyoda wooden hand loom in 1891, and an innovative automatic loom in 1924. Platt Brothers & Co. of England, a world leader in the loom industry, paid the 1929 equivalent of one million yen for the rights, and Toyoda later used these funds to found Toyota Motors as a spin off from his loom making company, Toyota Jido Shokki. Another important entrepreneur, Kounosuke Matsushita, founded Matsushita Electric Industries in Osaka in 1918 and developed it into one of the world's largest manufacturers of electric and electronic products.

Although such businesses would become important, they were not the dominant players in the prewar Japanese corporate sector. *Zaibatsu* firms accounted for about thirty-five percent of corporate assets in 1946, with the remainder of the sector composed of free-standing firms. Despite their number and collective

economic importance, independent firms were unquestionably less politically influential during this period.

4. Ownership Changes during the Depressions

In the 1920s and early 1930s, Japan endured a series of depressions, culminating in the Great Depression. The Great Kanto Earthquake of 1923 so disrupted the economy that the Roaring Twenties were essentially muted in Japan. Several major zaibatsu collapsed. Studying which zaibatsu failed and which survived is highly instructive

Key factors explaining survival appear to be the existence of a bank in the zaibatsu, its position in the pyramid, and its role in the business dealings of the group. The Mitsubishi, Mitsui, and Sumitomo zaibatsu all had banks very near the apexes of their pyramids. Consequently, their health was a primary concern of the controlling families. Moreover, any tunneling that occurred would tend to increase the assets and income of these banks.

The Mitsubishi, Mitsui, and Sumitomo banks also had well-diversified loan portfolios, with only ten to twenty percent of their outstanding loans extended to other member firms in their own zaibatsu. Moreover, these banks had invested their free cash flows in equity holdings spanning many firms and industries. Indeed, the reticence of the Mitsubishi Bank to make loans to related companies during the depressions forced many Mitsubishi companies, though not the mining and shipbuilding concerns, to issue public shares to obtain capital. The average stake of the Mitsubishi apex partnership in its first tier subsidiaries fell from 83.5% in 1921 to 69.0% in 1928.

Other Japanese *zaibatsu* families used their banks primarily to raise money for their *zaibatsu* firms. These so-called *organ banks* were thus poorly diversified. For

example, 94% of the Nakazawa Bank's loans were to insiders, as were 75% of the Watanabe Bank's loans. Likewise, 75% of the loans held by the Matsukata *zaibatsu's* Jugo Bank were to Matsukata firms. Prior to their collapses in 1927, 72% of the loans of the Suzuki's captive bank, the Taiwan Bank, were to Suzuki companies.

The Rise and Fall of the Suzuki *Zaibatsu*

Many mercantile families from the Tokugawa era participated actively in Japan's foreign trade after the Meiji restoration.²⁸ Even though their family businesses began as specialists in a particular line of products such as silk, copper, clothing, or sugar, they eventually required a general trading firm, or *sogo shosha*, to transact barter business domestically and to handle foreign currency transactions with foreigners. A *sogo shosha* was a general entity that could deal with all types of profit opportunities in both domestic and foreign markets. The first and largest of these general trading companies was Mitsui Bussan.²⁹ It served as the model for many others.

One such imitator was Suzuki Shoten, the Suzuki Merchant Company. The Suzukis began as sugar traders, and organized a *sogo shosha* to handle miscellaneous transactions related to that business. Suzuki Shoten quickly grew to become the second largest *sogo shosha*. Suzuki's rapid expansion took place in two stages.

The first was during Japan's intensive drive to develop its new colony in Taiwan, acquired during the Sino-Japanese War of 1894 to 1895. Taiwan's climate was ideal for sugar cultivation, and the Suzukis were the logical point men to handle Japanese investment in that industry. To transport sugar from Taiwan to Japan, Suzuki needed ships, so it also established a presence in shipping and ship building. During this stage of its development, the apex firm of the *zaibatsu* remained a single

²⁸ The largest of these was Mitsui Bussan. Others include Suzuki, Mitsubishi, Masuda, Abe, Mogi, Takada, Iwai, Ataka and Yuasa.

²⁹ Present Mitsui and Company carries the same company name.

proprietorship run by the family patriarch, who soon became one of Japan's richest merchants.

The second stage occurred in the period immediately after World War I. During a sustained boom from 1914 to 1919, Japan's GNP grew fivefold, and the Suzuki zaibatsu expanded aggressively, creating a large number of firms in many industries. In 1903, the apex firm became a general partnership capitalized at ¥500,000. By 1920, this had increased one hundredfold to ¥50 million yen. Already in 1915, the Suzuki's annual business in foreign trade reached ¥1.54 billion, exceeding that of Mitsui Bussan. By the end of the boom, the Suzuki group looked comparable in many ways to the Mitsui and Mitsubishi *zaibatsu*.

One of Suzuki's critical successes occurred in November 1914, three months after the beginning of the First World War I. Although Japan was mired in a deep recession at the time, Naokichi Kaneko, the manager of Suzuki Shoten, and Seiichi Takahata, the company's London branch manager, concluded that Germany's U-boats would cause ship and commodity prices to rise sharply. Kaneko ordered Takahata to buy everything available, including raw materials aboard any transport ship. Suzuki's purchases of ships, iron, steel, sugar, wheat and other commodities and materials wrought an immediate profit of over ¥100 million yen. This move, more than anything else, made Suzuki a global player in trade.

Takahata was skilful in handling Suzuki dealing with Great Britain and the other allied countries. He became directly involved in the procurement processes of these countries for raw materials, iron and steel products, food supply, ships, and the like. During a period when 50,000 tons of ships were sunk on an average day, Britain suffered a severe shortage of transport ships and was directly in the business of buying ships. At one point, the British government advanced Suzuki an

unprecedented £500,000 deposit towards the purchase of ships. Suzuki was flooded with buy orders for food items from the British and allied governments. Takahata responded, for example, by selling them entire cargos of beans, grain and other food items from Hokkaido together with the ships themselves.

These developments caused Suzuki to enter a long-term relationship with the Taiwan Bank. Suzuki's foreign trade transactions were now so enormous that Japan's only government-authorized foreign exchange bank, Yokohama Shokin Bank,³⁰ was incapable of handling them all, forcing Suzuki to rely on more expensive merchant bankers.³¹ The Japanese government had granted the Taiwan Bank special privileges to deal with foreign exchange as well, and Takahata seized upon this as the solution to Suzuki's foreign exchange bottlenecks. The Taiwan Bank welcomed Suzuki's overtures because its extensive nonperforming loans in China had discouraged other *zaibatsu* companies from doing business with it.

A brief but severe recession followed the November 1918 armistice, and several small *zaibatsu*, including Mogi, Kuhara, Masuda, and Abe, failed. Suzuki survived, and when another boom began in September 1919, Takahata concluded that another vast expansion was warranted. The pace of this global expansion was unprecedented. Suzuki gleaned huge profits involving everything from Java sugar to wheat and soybeans from Siberia, Manchuria and Qingdao. In one transaction, Suzuki shipped 360,000 tons of wheat from Manchuria to Great Britain using 10,000 boxcars of the Manchurian Railway and forty-five 8,000 to 10,000 ton freighters. In 1919 and 1920, Takahata sold fifty shiploads of Java sugar and earned 65M guilders on the 1920 transactions alone.

³⁰ Yokohama Shokin Bank became the Bank of Tokyo after WWII, which more recently merged with the Mitsubishi Bank to form the Bank of Tokyo-Mitsubishi.

³¹ The only other Japanese trading firm which had enough foreign business to warrant using merchant bankers was Mitsui Bussan.

In 1923, Kaneko restructured the Suzuki pyramid. The trade division of Suzuki Shoten became a public joint stock company, the Suzuki Stock Company, or Kabushiki Suzuki, capitalized at ¥80 million and with a paid-in capital of ¥50 million. Suzuki Shoten's remaining operations were reorganized into a holding company, Suzuki General Partnership or Suzuki Gomei, capitalized at ¥50 million. Suzuki General Partnership became the new apex firm, controlling seventy-eight listed stock companies. Of these, ten were in food industries, twenty four in chemicals, four in textiles, two in tobacco, five in mining, five in iron and steel, three in electric machinery, three in electric power, three in railways, two in shipping, two in fishing, two in real estate and warehousing, three in development, two in the banking and trust business, four in insurance, three in commerce, and one in miscellaneous business.

The sixty-five of these that were recognized as integral parts of the Suzuki zaibatsu had a capitalization of ¥560 million. The apex firm employed 3,000 people and the pyramid firms had 25,000 employees in total. Figure 8 illustrates the structure of the Suzuki pyramid at its greatest extent.

[Figure 8 about here]

Kaneko apparently created some of these manufacturing companies out of a sense of nationalism. He shared with many Japanese managers of the era a belief that import substitution would free Japan of its ignominious dependence on foreigners.

The 1923 restructuring caused the Suzuki *zaibatsu* to take on a structure superficially resembling those of the other large *zaibatsu*. A holding company stood at the apex, major Suzuki powerhouse companies filled the first tier of subsidiaries,

their spin-offs filled the second tier, and various acquired companies filled out the lower tiers. Many of these companies continued on with their original names.

[Figure 9 about here]

However, there were two key differences. Both of these differences seem to have played a role in Suzuki's demise.

First, while Suzuki Shoten's trading division was separated from the apex holding company, there was no corresponding separation in personnel. In fact, Figure 9 shows that numerous employees held cross-appointments in Suzuki companies. And though the Suzuki family held control rights, a hired manager, Kaneko, was actually making all the management decisions. Suzuki's rapid expansion of its business activities was not accompanied by an appropriate expansion of its management personnel.

Second, the Suzuki companies had been financed differently. Suzuki companies used debt financing much more extensively than other zaibatsu firms, both to finance expansion and to finance day-to-day business dealings. That debt generally took the form of loans from the Taiwan Bank, the Suzuki group's *de facto* group bank. This seems to have reflected Kaneko's desire to maintain undisputed control throughout the pyramid. Equity financing risked empowering outside shareholders, and might even be bought up by other zaibatsu, jeopardizing Kaneko's absolute control. Debt from sources other than the Taiwan Bank risked interference from outside creditors. This aversion led to a rapid build-up of Suzuki companies' debts to the Taiwan Bank, shown in Table 8, and a similarly rapidly increasing exposure of the Taiwan bank to the Suzuki companies' fortunes.

Soon, the bulk of the Taiwan Bank's loan portfolio was tied up in other Suzuki companies. However, the integration of the Taiwan Bank into the Suzuki group was *via* a "long-term relationship." Kaneko only controlled the Taiwan Bank because of its financial dependence on business with Suzuki companies. And Suzuki's financial position was weakened in the early 1920s because of a costly failed effort to merge two large flour companies, Nisshin and Nihon Flour Companies. Finally, most of Suzuki General Partnership's capital was tied up in Kabushiki Suzuki, the trading company.

The collapse of the Suzuki *zaibatsu* was spectacular.³²

The September 1919 boom that Kaneko gambled on turned out to be short lived. The Japanese economy went into a depression in 1920, and again in 1922. These were followed by the Great Kanto Earthquake depression of 1924, and the Showa finance depression of 1927. The latter two events in particular kept Japan's economy from realizing the growth that seemed likely in 1919 and exposed the weakness of the Suzuki *zaibatsu* and other similar pyramids.

The Great Kanto earthquake of September 1st, 1923 was one of the worst in world history. It destroyed Tokyo, Yokohama and much of the surrounding area, killing 140,000 people either directly, in the ensuing fires, or in mob violence against Koreans in the quake's aftermath. Business offices and records were destroyed, and much of Japan's most economically important modern infrastructure was ruined.

But another effect of the earthquake was purely financial – the Showa depression. The earthquake seriously damaged numerous businesses, many of which had issued bills prior to the quake that they were now unable to pay. This, in turn, created cash flow problems for the banks holding those bills. The government

³² The collapse of Suzuki *zaibatsu* compares in scale with the collapses of Ivar Kreuger's STAB in Sweden in 1932 and that of the Stinnes concerns in Germany in the 1920s.

therefore developed a program under which the Bank of Japan would re-discount bills listing the disaster area as place of payment or listing a merchant with offices in the disaster area as the debtor. These *earthquake bills*, or *tegata*, were to provide a two-year grace period for collection, and this was subsequently twice extended, adding two more years to the grace period. The government promised compensation to the Bank of Japan for any losses sustained because of the program. At the end of 1926, there was a total of more than ¥200 million in unsettled earthquake bills, of which ¥160 million had been re-discounted by the Bank of Japan.³³

Suzuki companies had made more extensive use of debt financing than had Mitsui, Sumitomo, or Mitsubishi companies. The Suzuki group' total debt at the end of 1926 was ¥500 million, of which ¥379 was owed to the Taiwan Bank. Kaneko had accumulated this amount of debt through adept financial maneuvers involving mixing and counterbalancing credit created by the Taiwan Bank, Suzuki firms, other firms and the Bank of Japan. Thus, a disproportionate fraction of these unpaid earthquake bills were related to debts owed by Suzuki companies, and the Suzuki *zaibatsu*'s bank, the Taiwan Bank, accounted for fully 58% of these unpaid promissory notes.³⁴

When the Japanese Diet was debating how to absorb these unpaid promissory notes, Suzuki hired lobbyists to sway votes. The campaign backfired, and Suzuki's financial problems were disclosed by some political leaders. Suzuki companies completely lost their ability to discount their notes. The final law the Diet passed on March 23rd, 1927 was accompanied by the resolution to provide a complete rescue package for Taiwan Bank. On March 24th, the Taiwan Bank announced that it was severing its ties with the Suzuki group entirely. The sudden abandonment of Suzuki companies by the Taiwan Bank forced many of those firms to default on payments

³³ Bank of Japan Report (2001).

³⁴ Both Taiwan and Korea Banks were given special status by the Japanese government.

due the Mitsui Bank and other banks. Angered by the Taiwan Bank's move, the managers of other banks called in their Taiwan Bank loans, putting the Taiwan Bank (once again) on the verge of bankruptcy.

Suzuki collapsed on April 2nd in 1927. On April 13th, the Bank of Japan, despite the above resolution, refused to mount a second rescue of the Taiwan Bank. Cha (2001) argues that a determination by the central bank to end the gold embargo figured large in this decision, but the politics of the situation surely also played a key role. The Upper House of the Japanese Parliament voted down a special provision to rescue Taiwan Bank, arguing that the measure was unconstitutional, and the Japanese cabinet fell on April 17th. The Taiwan Bank closed temporarily on April 18th. This resulted in an immediate financial panic throughout Japan.

The Disposition of the Remains

Although Suzuki went out of business because of its inability to pay its promissory notes, it never actually went into bankruptcy. After it closed, Suzuki moved all its business to another company, Nissho, reorganized as a stock company in 1928.³⁵ The original Suzuki stock company undertook all repayment and restructuring activities, and was dissolved in 1933 after it had paid back all of its debts. During this 6-year restructuring period, no creditors' meeting took place and the Japanese courts never declared Suzuki bankrupt. In their investigations, Suzuki's creditors found no book fudging whatsoever and accepted that the collapse was an honest financial and management failure. They unanimously agreed to settle all remaining accounts

³⁵ Nissho Company continued as a general trading firm, and merged with Iwai Trading Company in 1968 to form the present Nissho Iwai Corporation. Their web-site (<http://www.nisshoiwai.co.jp/ni/e/index2.html>) presents their corporate history involving the Suzuki Shoten.

privately. In this process no overseas clients of Suzuki's were adversely affected either.

Because the failure was purely financial and managerial, the Suzuki pyramid still contained mainly economically viable firms with significant assets. These, realizing Kaneko's worst nightmares, were divided among the other major *zaibatsu* as Suzuki debts were settled. The primary buyers were Mitsui and Mitsubishi, which accumulated all of Suzuki's most promising business production units as well as the Taiwan Bank. This consolidation significantly raised concentration ratios in certain industries. For example, 84% of Taiwan's sugar production was now under the control of three zaibatsu: Mitsui, Mitsubishi and Fujiyama. Intangible assets, notably the exclusive distribution rights that Suzuki owned for many commodities and goods, were transferred to Mitsui Bussan (Mitsui and Co.) and Mitsubishi Shoji (Mitsubishi Corp.), the general trading firms of those groups.

Suzuki had been willing to take risks. The established zaibatsu groups, such as Mitsui, Mitsubishi and Sumitomo, had been much more cautious. After acquiring Suzuki's chemical companies - including plants, patents, engineers and scientists - Mitsui established a major ammonia production facility. Mitsui clearly used research conducted by the former Suzuki companies, whereas Mitsui itself would never have paid for such research - at least without large government subsidies. Thus, although Suzuki ultimately failed, it still probably made a major contribution to Japan's subsequent development.³⁶

³⁶ After the collapse of Suzuki, Kaneko set up a holding company, Taiyo Soda, in 1931, with which he began another business career. He died in Borneo in 1944, while engaged in aluminum processing. Takahata was at his death bed. Kaneko, with help from Nissho developed Taiyo Soda (renamed as Taiyo Sangyo in 1939) into a holding firm controlling twenty five companies, including Kobe Steel Works.

Post Mortem

Kaneko (1928) himself reflected on the collapse of the Suzuki *zaibatsu* and summarized the reasons for its collapse. In Kaneko's opinion, a highly centralized management system imposed on widely disparate firms prevented proper monitoring, and was the most important reason for Suzuki's ruin. Second, Kaneko reflects that Suzuki companies had too much debt capital requiring too high interest payments given the recessionary environment, noting that the "high cost of debt capital subsequently killed us."

Note, however, that the two reasons Kaneko lists correspond precisely to the differences noted above between the structure of the Suzuki pyramid and those of *zaibatsu* that survived, such as Mitsui, Sumitomo, and Mitsubishi. Suzuki's organizational weakness, as pointed out by Kaneko himself, was its overly centralized management. Suzuki's financial weakness stemmed from its extensive use of debt financing from a single bank. Kaneko, quoted by Nissho (1968), explains that: "[t]he profits earned by Suzuki Shoten's hard work should be monopolized by the Suzuki family. I would rather borrow money from banks than pay profits out as dividends." The two reasons were not unrelated, for this statement is often interpreted to mean that Kaneko wanted to maintain Suzuki family control in order to maintain his own control. This left Taiwan Bank's loan portfolio highly concentrated in Suzuki companies – and essentially an organ bank for the group. In contrast, by 1912 most Mitsui companies were already able to grow on retained earnings and equity issues. The Mitsui Bank was not needed as an organ bank, and began lending to companies outside the Mitsui group. Table 9 shows quite stable relationships between deposits and loan balances for the six largest *zaibatsu* banks for the early 1930s.

[Table 9 about here]

A third reason, which Kaneko does not mention, for Suzuki's collapse, is that he expanded the Suzuki group too fast and in the wrong directions. He certainly failed to foresee the chronic weakness of the Japanese economy through the 1920s. Had the 1920s economy in Japan resembled that in the US, Suzuki might well have prospered. However, in retrospect, the more risk-averse strategies of the Mitsui, Mitsubishi and Sumitomo groups proved superior. Moreover, Suzuki missed some of the most profitable new industries of the 1920s, such as electrical machinery. The Suzuki group was vulnerable to a downturn because, unlike Mitsui, Mitsubishi, and Sumitomo, it lacked a reliably highly profitable mining operation to serve as cash cows for the entire groups during downturns. It is also sometimes argued that the lack of mining in its industrial portfolio also prevented Suzuki from entering electrical machinery industries which provided an additional financial cushion for the Mitsui, Mitsubishi and Sumitomo *zaibatsu*.

A fourth reason, which Kaneko also fails to note, is that he was quite ham-fisted at lobbying. An interesting aspect of Kaneko's personality was that he apparently had no interest in personal wealth. He did not benefit personally in any way from his business dealings. He likewise could not comprehend that politicians might value money, and refused to make any payments to bureaucrats or politicians. During the Meiji period, rent-seeking investments seem to have been important aspects of the business strategies of the other *zaibatsu*, and probably played some role in Mitsui and Mitsubishi taking over state mining operations. Tousuke Fukuzawa (1868-1938), a successful entrepreneur and well-known industrialist responsible for much of the development of Japan's electric power industry in the early decades of

the 20th century, argues that this was the biggest reason for Suzuki's collapse, and that Japan should thank Kaneko deeply for not contributing to political corruption.³⁷ A less laudatory interpretation is that Kaneko relished power rather than wealth, and failed to understand that others viewed life differently. In any event, Kaneko's lack of pre-existing political connections certainly hurt him, and his last minute attempts to manipulate the Diet backfired badly.

The Culling of the *Zaibatsu* and Their Banks

Although the fall of the Suzuki zaibatsu was the most spectacular, it was not an isolated event. The 1920s depressions inflicted decisive blows on many other pyramidal groups. The Nakazawa, Watanabe, and Matsusaka *zaibatsu* also collapsed about the same time as the Suzuki zaibatsu.

Like Suzuki, these families preserved control at the cost of using loans from their group banks to finance group companies. Thus, like the Taiwan Bank, the Nakazawa, Watanabe, and Matsusaka banks were organ banks of their *zaibatsu* - heavily dependent on interest payments from their respective group companies. When key non-financial companies in each of these *zaibatsu* encountered financial difficulty, the group bank failed and the rest of the zaibatsu then collapsed.

Moreover, these organ banks were located deep in their pyramids. Consequently, tunneling would have concentrated losses and debts in the banks, with income and assets rising toward the apex firms. In contrast, the banks of the Mitsui, Sumitomo, and Mitsubishi *zaibatsu* were located near the apexes of those pyramidal groups. Consequently, tunneling would have concentrated income and assets in the banks, with losses and debts sinking toward the lower tier firms.

³⁷ Fukuzawa (1930) regards Kaneko more highly than Iwasaki, Mitsubishi zaibatsu's founder.

Noting this pattern, Kato(1957) proposes the so-called *organ bank hypothesis*. This hypothesis holds that certain banks were excessively tightly connected their *zaibatsu* industrial companies, made easy loans to those companies, failed, and caused the Showa financial crisis in 1927. Okazaki and Yokoyama (2001) present empirical evidence supporting this hypothesis.

Since the stability of a country's banking system has positive externalities, there may be a public policy lesson here. Countries whose major banks are parts of pyramidal groups should encourage the positioning of banks near the apexes of those groups.

5. The Centrally Planned Economy under the Military Government

As the economy staggered, an anti-westernization backlash grew. In part, this was a result of Japan's successful adoption of many Western ideas. Japanese, now educated and middle class, chafed at Western arrogance when the Americans and British rejected Japan's proposal for a Racial Equality Clause in the League of Nations Covenant. A revival of conservative and nationalistic feelings renewed interest in *bushido*.

Japan had taken Taiwan from China in 1895, gained a foothold in Manchuria by defeating Russia in 1905, annexed Korea in 1910, and installed the Emperor of China in a puppet government in Manchuria in 1931. These victories amid economic stagnation elevated the prestige of the military and weakened that of the political and business elite.

Emboldened, the military slowly took control over the government by assassinating civilian politicians. Navy and army officers soon held most important

public offices, including that of prime minister. Japan attacked China in 1937, and quickly conquered Hong Kong, Indochina, Singapore, Indonesia and Burma, proclaiming a new *Greater East Asian Co-prosperity Sphere*.

To support the war effort and to further consolidate its power, the military government enacted a series of laws that stripped shareholders of their corporate governance powers. Japan was soon a rigidly centrally planned economy. Although *zaibatsu* families retained titular ownership of control blocks, they had no say in the management of companies and dividends were outlawed so that earnings could be reinvested patriotically. The military government denigrated the families' objections as unpatriotic shareholder fixation on current dividends. Thus, by 1945, Japan had an economy little different from that of Russia in the 1920s.³⁸

The Military Build-Up

By the mid 1930s, Japan was recovering from its prolonged bout of depressions. In part, this was because the yen had depreciated sharply after Japan left of the gold standard, triggering a surge in textile exports.³⁹ This depreciation also gave domestic heavy industry and chemical industry firms an advantage over imports, allowing them to expand rapidly.

In part, the recovery stemmed from Finance Minister Korekiyo Takahashi's adoption of Keynesian policies at the end of 1931, when the government issued deficit covering bonds underwritten by the Bank of Japan that were then sold to city banks. The government spent the proceeds on public works and military industries, which further increased demand for heavy and chemical industry products.

³⁸ See (Okazaki (1945) for details.

³⁹ Japan abandoned the gold standard in September 1917, along with many other countries. After World War I, many other countries promptly returned to the gold standard, but Japan delayed doing so until January 1930. It then abandoned the gold standard again in December 1931. For details, see Ogura (2002).

And in part, the recovery was due to the Manchurian Incident of September 1931, when a bomb of unknown origin ripped through a Japanese-built railway near Shenyang (then known as Mukden). The Japanese Kwantung army (also known as Kantogun) guarding the railway used the incident as a pretext to occupy Southern Manchuria despite the government's direct order to withdraw. The situation required a military build-up that elevated demand for chemicals and heavy industry products.

[Table 10 about here]

Large military spending seemed increasingly linked to economic prosperity in the minds of business leaders, politicians, and ordinary Japanese.

When the Second Sino-Japanese War broke out in 1937, the Japanese government mobilized the economy, emphasizing military-related industries and shifting production away from light industries, such as the textiles. Table 10 illustrates. This rapid change in Japan's industrial structure, in turn, had a major impact on the corporate sector.

The older *zaibatsu* groups - Mitsui, Sumitomo, and Mitsubishi - expanded aggressively into heavy industries and chemicals from the early 1930s on, financing these expansions with equity issues. These operations ended up being their most profitable ones in the 1940s, and account for about thirty percent of the fifty most profitable firms, as shown in Table 11. Thus, while the number of established *zaibatsu* member firms in the top fifty did not change greatly, their industrial composition did.

[Tables 11, 12, and 13 about here]

Until the early 1930s the first-tier subsidiaries of the *zaibatsu* pyramids, except Mitsubishi, were almost wholly owned by members of the *zaibatsu* family and the apex firms collectively, as shown in Table 12. In the 1930s, however, the *zaibatsu* allowed these first-tier subsidiaries to go public. This was because the families saw immense profit opportunities in rapidly growing military-related industries if they moved quickly, as illustrated in Table 13. In fact, superfluous stakes in control chains throughout the established *zaibatsu* pyramids were sold to the public to raise capital for expansion. Thus, the stakes of *zaibatsu* companies in their subsidiaries declined significantly between 1929 and 1943.

[Table 14 about here]

Table 11 shows that the newer *zaibatsu* were also present in these profitable sectors, with eight of their affiliates among the most profitable firms of 1943. Most notably, Japan Industries represents Nissan, Japan Nitrogenous Fertilizer represents Nichitsu, Nippon Soda represents Nisso, Mori Industrial Enterprises represents Mori, and the Physical and Chemical Research Institute represents Riken. Recall that many of these newer *zaibatsu* groups were developed by single entrepreneur chemists or engineers.

State control and other reasons are responsible for the reduction in the number of independents from 29 to 14 among the most profitable firms in Table 11. Of particular note is the change in the composition of 10 largest stockholders of independent enterprises, shown in Table 15. As these firms issued ever more equity to finance expansion, their controlling families' stakes fell. By 1943, family holding

companies' stakes were less than the stakes of corporate investors. Financial institutions dominated; and state controlled banks, such as the Industrial Bank of Japan⁴⁰ became the most significant shareholders in many independent companies.

[Table 15 about here]

Creeping to Serfdom

The military assumed dictatorial powers over the economy in stages. Thus the latter part of the 1930s is called the *creeping war economy*.

This development was possible because the weak economy convinced many in Japan, as elsewhere, that democracy and free market capitalism had failed. Indeed this view was widespread among business leaders themselves. In response to the Suzuki failure, the government organized the Council on Commerce and Industry in 1927. The Council recommended a thorough cartelization of the economy to allow “cooperation” and government educational measures to induce “patriotic economic behavior” by consumers.

The Ottawa Imperial Conference erected tariffs around the British Commonwealth, shutting Japan out of her best markets, and the ensuing breakdown of trade allowed the Council's recommendations to move forward. The 1931 Important

⁴⁰ The Industrial Bank of Japan was created by the Japanese government in 1900 under the Industrial Bank of Japan Act. This act provided the IJB with ¥10 million in government money as initial capital, and granted it the privilege of issuing IBJ long-term bonds (bank debentures) to raise further funds. The IBJ began its investment bank operations in 1902. A 1918 revision of the IBJ Act granted it stock underwriting privileges. Following World War II, the IBJ act was nullified in 1950 and the IBJ became an ordinary bank. Also in 1950, the government passed the Bank Debentures Issuance Act, which allowed ordinary banks to issue long-term bonds to raise capital. In 1952, after the Allied occupation ended, the Japanese government abolished the BDI Act and passed the new Long-term Credit Bank Act. This Act also provided designated long-term credit banks with the privilege of issuing long-term bonds to finance corporate investment. Under this new act, the IBJ became a long-term credit bank and began providing capital to corporations. The Long Term Credit Bank, the Japan Credit Bank, and the Bank of Tokyo also became long-term credit banks under the new LTCB Act. For further details, see e.g. Patrick (1967) and Tamaki (1995). We are grateful to Richard Sylla for pointing this out.

Industries Law sanctioned cartels run by ‘control committees’ of officials, and executives would designate crucial industries in which cartels should regulate production and prices. Cartels could be formed in any industry where at least half of the firms requested it. If two thirds of the firms requested cartelization, the remaining firms could be forced into the cartel. The minister could rescind cartel actions only with the approval of the ‘control committee’.⁴¹ The control committees, of course, would end up staffed by military personnel.

The mood of the times is well captured in the writings of Takahashi (1930), who blames short-sighted shareholders who care only for high dividends and neglect the long term future of the firm. He declares that

“The primary manifestations of ‘the degeneration of firm management’ were the short-sighted attitude towards business management and the inability of management to aim at so-called ‘business prosperity for 100 years’ ... [D]egeneration of company management was largely caused by the ‘high handed and short sighted selfishness of large stockholders’ and the corruption of the board of directors.”⁴²

He also asserts that corrupt inept directors preoccupied with big bonuses and stock manipulation govern Japan’s large companies and that

“It is uncommon to find members of the board of directors who acquired their status and position by virtue of their management ability. A large number of directors get

⁴¹ See Fletcher (1989) for details.

⁴² As quoted by Okazaki (1994), pp. 4 and 5.

their position on the board only because of being large stockholders of the firm or having special relations in government circles.”⁴³

Takahashi thus blames Japan’s economic malaise on corrupt, inept, and entrenched directors placed in charge of large companies by dint of family history or political rent-seeking. The military largely accepted these view, and concluded not only that it should take over the task of corporate governance, but that there would be broad public support for this. They were correct.

Thus followed a creeping nationalization of the banking system and the *zaibatsu*. Ironically, Okazaki (1994) argues that zaibatsu firms were actually the better performers because their dominant shareholders were more likely to entrust governance to professional managers. Thus, they ought to have been less vulnerable to such attacks. This was not the case.

The attack was three-pronged. First, the banking sector was placed under state control. Second, the *zaibatsu* families were isolated and their control rights had to be negated. Third, a full-fledged Soviet-style system was erected. It is still a matter of debate whether this strategy was planned from the beginning, or whether the military government simply acted as opportunities presented themselves.

State control encompassed the banking sector in two ways. First, the government proposed to stabilize the sector by implementing a one-local-bank-per-prefecture policy. Still traumatized by the recent depressions, the bankers gratefully accepted this largesse. This objective was achieved by the end of World War II, reducing the number of banks from 1,402 in 1926 to 377 in 1937 to only 61 in 1945. While this policy did stabilize the banking sector, it also erected an insurmountable

⁴³ As quoted by Okazaki (1994), p. 233.

barrier to entry. Bank financing was now in the hands of a relatively small cadre of people, whom the military government could either control or replace.

At the same time the Japanese government increased the amount of funds supplied by the state-owned long-term credit banks, such as the Industrial Bank of Japan. This made the state a major creditor to many industrial companies. State banks also increasingly took equity positions, explaining the observation in Table 11 that these organizations had become the most significant shareholders in many independent companies.

Thus, when the cabinet decided in November 1938 to regulate loans, the number of banks to be controlled was greatly reduced and their dependence on state power was quite evident to all bankers. Senior Japanese finance personnel were, by now, people with Soviet training.

The military government pried corporate control away from the *zaibatsu* families in two steps. Again, it is not clear that this was fully premeditated, though it might have been.

The first step was the conversion of the apex holding companies from limited partnerships into joint stock companies. This was done through inheritance and dividend income tax reforms in 1937 and 1938 that made partnerships unviable. Dividend income became subject to double taxation – once as corporate income of the partnership and again as personal dividend income of the family. The latter was taxed at an especially high rate.⁴⁴ However, if the holding company was a joint stock company, rather than a partnership, double taxation could be avoided in various

⁴⁴ The partnership was subject to an income tax of between eighteen and twenty-eight percent, depending on the location of business, plus a capital tax. The same income was then subject to a personal income tax with a top marginal rate of sixty-five percent.

ways.⁴⁵ By 1940, the holding companies at the apexes of all Japan's *major* zaibatsu had been transformed from partnerships into joint stock companies.

At this point, Nissan was favored over other *zaibatsu* groups such as Mitsui, Mitsubishi and Sumitomo by the military government because its apex firm, unlike those of the other major zaibatsu, was held by many shareholders.⁴⁶ This favored status led to a drastic change in the organization of the Nissan *zaibatsu* when Nissan was renamed the Manchurian Heavy Industry Company, and recapitalized as a 50-50 joint venture with the Japanese and Manchurian governments. Manchurian Heavy Industry Company was granted a monopoly on all development projects in Manchuria.

The government also acquired controlling interests in a variety of previously independent firms. However, *zaibatsu* firms remained under the control of their family shareholders.

The military government's second step was to cut off the income of the zaibatsu families. The same November 1938 cabinet decision that regulated loans also placed dividends under state regulation. This was justified as a patriotic measure needed to build up Japan's industries through greater retained earnings. Since the apex companies of the *zaibatsu* were now joint stock companies, the zaibatsu families were entirely dependent on dividends for their income. This was now sharply curtailed. Thus, Asajima (1984), noting that the Sumitomo group expanded dramatically from 1937 to 1945 using retained earnings, remarks that "if all the

⁴⁵ For details, see Morikawa (1992), p.213. Corporate income tax was only introduced in Japan in a 1940 reform, which also increased tax burdens across the board. See Shiomi (1957) for general information on these changes. Miyamoto (1984) describes the previous tax regime in detail.

⁴⁶ Reischauer (1988, p.305) writes that "[b]y the 1920s and 1930s there was wide spread condemnation of the *zaibatsu*, particularly by the supporters of the military, as elements of Western decadence in Japanese society, corrupters of the parliamentary system, and money grubbing betrayers of Japan's imperial destiny." The lives of many zaibatsu leaders were threatened. For example, Ikuma Dan (1858-1932), a former civil servant and chairman of Mitsui Gomei (Mitsui Partnership), was assassinated by young naval officers in front of the Mitsui Bank in Tokyo in 1932.

income from dividends is channeled into paid-up capital, the question arises as to what the Sumitomo family relied on for income. This is also unclear at present.”⁴⁷

On September 13, 1940 the State Planning Ministry, the Kikakuin, announced its new Outline of the Establishment of a New Economic System, under which firms were ‘set free from the control of shareholders’ and subjected to a system of quantitative production orders. Thus, the Kikakuin set up full-fledged central planning system, in which it assumed the role of Gosplan.⁴⁸ Under this system, the Kikakuin issued production order to Industry Control Boards, or Toseikai, which in turn issued orders to individual firms. The cabinet explicitly commissioned Kikakuin to investigate and imitate Soviet best practice. In all of this restructuring, firms were seen as consisting of workers and manager/bureaucrats. There was no mention of shareholders in any of these plans, for they were by now entirely irrelevant.

The Kikakuin also took control of the banking system, directing banks to transfer capital to firms in accordance with the central plan. The Mitsubishi apex company began issuing bonds to obtain the needed funds, while the Mitsubishi Bank and Mitsubishi Trust Co. – deviating from their prior practice - began large scale lending to other Mitsubishi companies.

Of course, the same planners who set quantitative targets for output controlled the prices of goods and services throughout the economy. By early 1945 (the war ended in August 1945), the state was setting about ten thousand prices.

By 1942, the economy was in a state of crisis because many firms failed to meet production quotas. Okazaki (1994) writes that the officials at the Kikakuin now realized that firms were still thinking about production in terms of making profits, and were not willing to ‘bear sacrifices’ despite the removal of stockholder influence.

⁴⁷ Asajima (1984), p. 110.

⁴⁸ Gosplan (???????) was the command and control section of the Soviet government. Okazaki (1994) states that Kikakuin was explicitly modeled on Gosplan and staffed by Soviet-trained personnel.

The government responded in two ways. First, the February 1943 Outline of Emergency Measures for Price Controls organized a system whereby the government would raise producer prices through subsidized spending. Thus, market forces were allowed back into the system, though in a very restricted way. Second, the Munitions Corporation Law of 1943 required each company to have one ‘responsible person’ who would be ‘accountable’ for the company achieving its production quota. All workers had an unconditional duty to obey all orders of the responsible person. Thus, tougher corporate governance standards were established.

When the US Occupation Force entered Japan in 1945, they thus came to a country that was virtually as centrally planned as many Eastern European countries were in 1989. While economic historians sometimes write that the *zaibatsu* were dismantled and the banking system was reorganized under the US Occupation, this is not really the full picture. The *zaibatsu* families had already lost control, and the banking system was already changed beyond recognition from its prewar structure. The issue of whether or not to destroy the prewar system was moot. The real question was to rebuild it as it had been or as something different.

6. Macarthur Brings the Widely Held Firm to Japan

General Douglas Macarthur, the Supreme Commander, Allied Powers (SCAP) and Military Governor of Japan under the US Occupation from 1945 to 1952, shared his predecessors’ suspicion of powerful business families, and tried to steer Japan down a moderate socialist road. Although no fan of socialism himself, Macarthur allowed a cadre of New Dealers to direct SCAP policies down leftward paths.⁴⁹ Prominent among these efforts were the reorganization of the banking industry and the

⁴⁹ Dower (2000) describes Macarthur’s orchestration of anti-communist purges, his vast anti-red censorship system, and his distinctly rightwing approach to dealing with unions.

restructuring of former *zaibatsu* member firms as freestanding widely held firms of the sort now prevalent in the United States. Hostile takeovers and greenmail ensued under Japan's brief, but action-packed, adventure in Anglo-American corporate governance.

The Agenda of the Supreme Commander, Allied Powers

Following World War II, the U.S. occupation force in Japan oversaw a full scale revamping of Japan's corporate and financial systems along the lines of the U.S. systems. This revamping, while immensely complicated, has three key elements that relate to the topic at hand.

First, Banks could no longer underwrite securities. Although the U.S. government exerted considerable pressure for a complete ban on bank ownership of non-financial firms' stock, along the lines of U.S. practice, the Allied Forces ultimately decided against this. Banks' share ownership in other companies was limited to a 10% stake. This effectively prevented banks from being situated near the apex of a pyramid.

Second, although the military had stripped the *zaibatsu* families of meaningful ownership of their shares, those shares nonetheless remained on the books. MacArthur ordered the former *zaibatsu* families to disgorge their share holdings in 1950.

Third, senior corporate executives of *zaibatsu* firms were purged.

[Table 16 about here]

The primary reasons the SCAP gave to justify the breakup of the *zaibatsu* had to do with their alleged market power. Thus, the Department of State and the War Department jointly report in 1946 that

“The almost complete zaibatsu control of banks and financial institutions prevented independent businesses from getting needed financing; zaibatsu-controlled distribution systems could cut off the supply of raw materials and supplies needed by independent businesses entirely; similarly, selling independent business’s finished products outside strictly local markets required the cooperation of the zaibatsu trading houses, which largely controlled Japan’s distribution systems; and zaibatsu firms were able to cripple small firms by pirating their key employees and skilled workmen. These practices, and the independents’ respect for not violating *zaibatsu*’s territories, prevented meaningful competition from existing in Japanese markets.”⁵⁰

The SCAP seemed intent on removing barriers to entry for political as well as economic reasons. The revamping it supervised was clearly also intended to democratize the economy and encourage a new cadre of entrepreneurs. Hadley (1970, p.19) writes that

“[t]he aim of the Allied economic deconcentration program was to give all Japanese businessmen the opportunity to engage in the modern sector of the economy, that is, to remove those conditions which preserved this sector for chosen few, those conditions which in fact made it a private collectivism.”

⁵⁰ Report on the *Mission on Japanese Combines, Part I, a report to the U.S. Department of State and the U.S. War Department*, Washington, D.C., 1946, p.14.

Whether *zaibatsu* would have exercised an unhealthy degree of market power in a free-market postwar economy is an academic question, for their market shares had grown substantially in the 1930s and 1940s under the controlled economy. Historically, Japan always had some sectors of the economy in which competition was keen and entry open. However, especially after the demise of the Suzuki *zaibatsu*, the remaining large pyramidal groups came to hold substantial market shares in many key industries, as shown in Table 5. Moreover, the central planners of the military government had little interest in entrants, and preferred directing the affairs of large companies. Dealing with many companies instead of a few simply made the transmission of orders more complicated.

The Incomplete Process of *Zaibatsu* Dissolution

To implement MacArthur's order to "dissolve large industrial and banking combines," the Japanese government established the Holding Company Liquidation Commission (HCLC). The HCLC designated ten combines and 83 holding companies for dissolution. The *zaibatsu* core families and their relatives were ordered to surrender their shares in exchange for ten-year nonnegotiable government bonds. Thus, no property was formally confiscated without compensation. Indeed, the old shareholders initially appeared to be generously compensated for their property. However, the subsequent inflation reduced the value of the government bonds to very little.

The hired-managers of *zaibatsu* companies, many of whom were competent, were purged from their positions by the SCAP. This probably created a serious shortage of able managers to run Japanese corporations that persisted at least through the late 1940s and early 1950s. More extensive purges in *zaibatsu* than in other firms

might explain Yafeh's (1995) finding of poorer accounting performance for former zaibatsu firms in 1953. This could also explain markedly depressed values for these same firms, as reported by Miyajime (1994, Table 10). After the occupation ended in 1952, many purged managers returned in various capacities.

In contrast to the purgings of corporate executives, Noguchi (1998) reports that Japanese bureaucrats were left, to a large extent, untouched. While 21,000 managers were purged from other sectors of Japanese society, only 2,000 bureaucrats, mostly from the Ministry of the Interior, were chucked. Most notably, only nine bureaucrats of the Ministry of Finance were purged. This was important, for the Ministry of Finance worked to alter or circumvent SCAP orders regarding many policy matters, often aggressively. Indeed, Hadley (1970,p.15) remarks on the deep puzzlement the Allied personnel involved in this policy felt at the support business groups, individuals, and Japanese government officials provided for this interference. Overall, the implemented *zaibatsu* dissolution policies left considerable wiggle-room for the Japanese government to permit Japanese business interests to organize new business groups along the lines of former *zaibatsu* groups.

For example, we noted above that several alternative definitions of *zaibatsu* have been advanced by Japanese and foreign observers of the Japanese economy. This was also true of the non-Japanese personnel supervising the postwar revamping of the economy, and this lack of clarity may have been in part responsible for the less than complete implementation of the originally intended dissolution plan. Thus, the HCLC decided not to disassemble the group built around Japan Nitrogenous Fertilizer Company, the Nippon Chisso Hiryo *zaibatsu*, because its founder had died in 1944 and it was therefore not really a *zaibatsu*.⁵¹

⁵¹ Hadley (1970), p 21.

The SCAP had used market share as the primary determinant of whether a *zaibatsu* was in need of dissolution. This had several odd effects. For example, the banking sector, in which no single bank held a clearly dominant market share, was left relatively untouched throughout the occupation; save that banks had to disgorge their shares in non-financial companies. Many pyramidal structures in non-financial sectors also remained in place, and were carried over to the postwar era in the formation of *vertical keiretsu*, also called *capital keiretsu*.

Confronted with a deepening Cold War and rising influence of the Soviet Union in the Pacific, policymakers in Washington deemphasized MacArthur's restructuring plans, and emphasized the need to reconstruct Japan as rapidly as possible to defend the region jointly with the U.S. This shift in the U.S. policy actually became evident when Lidgeway succeeded MacArthur in mid 1950, well before the end of the occupation of Japan in April 1952. The HCLC was thus left to its interpretation of its orders and Japanese corporations became more freely able to reorient their inter-firm relationships and business strategies. when

The Subsequent Stock Market Collapse

The SCAP closed Japan's stock exchanges in September 1945, and reopened them on May 16, 1949. Table 16 shows the *de jure* shareholdings of the Mitsui, Mitsubishi, Sumitomo and Yasuda *zaibatsu* in 1945. These shares were sold into the market, greatly diluting in the equity of many of the companies involved and sharply reducing their share prices. This dilution occurred because the structures of the *zaibatsu* pyramids contained extensive cross holdings, instances where subsidiaries also hold stock in their parent companies or in which subsidiaries hold stock in each other.

[Figure 10 about here]

Figure 10 shows how this occurred. The upper panel shows a pyramidal structure containing cross holdings. The family controlled firm A controls its subsidiary B, but B in turn owns shares in the parent firm A. In the example shown, A and B pay each other dividends, and both count the money as income. Since their assets also include their stakes in each other, both firms show dividends and income of twice what would be the case were they free standing firms. Both firms show two million shares outstanding, though half are cross-holdings.

The lower panel shows what happens after dissolution of the sort implemented in Japan by the HCLC. The shares previously held by the zaibatsu family and the cross holdings are appropriated by the HCLC. The HCLC paid the family, A, and B government bonds as compensation for these shares, but inflation quickly eroded away most of the value of these bonds. For simplicity we therefore assume that no compensation was paid. After the dissolution, the only assets in both firms are their physical assets, and their only incomes are their operating incomes. Yet the number of shares outstanding has not declined proportionately. Consequently, the dividend per share falls – by fifty percent in the example shown – and the market value of the shares falls by the same amount.

Cross-holdings of this sort were commonplace and extensive. For example, 64% and 59% of the outstanding shares of the apex companies of the Mitsui and Mitsubishi *zaibatsu*, respectively, were owned by Mitsui and Mitsubishi affiliates. The holding companies of both the Sumitomo and Yasuda *zaibatsu* were actually entirely owned by their respective *zaibatsu* affiliates. Thus, stock prices plunged as

the dissolution was announced and as the value of the bonds issued as compensation dropped.

Share prices in the immediate postwar period were also depressed because of the extensive damage the war had inflicted on the physical assets of industrial firms. Moreover, to begin rebuilding, firms began issuing new shares, adding these to the former zaibatsu shares flooding the market.

Further depressing prices, the SCAP ordered the government to suspend the promised payments to munitions suppliers to prevent these firms from profiting off their wartime activities. The Corporation Reconstruction and Reorganization Act of 1946 allowed firms bankrupted by the non-payment of wartime indemnities to resume operations as 'special account companies', and also allowed firms' net losses due to official non-payment to be written off.⁵² Average paid-in capital-to-total assets ratios fell to ten percent by 1950.⁵³

[Table 17 about here]

Table 17 shows the numbers of new shares issued, as well as the shares brought to the stock market by the HCLC for sale. The shares HCLC brought to the market amounted to 30% of the newly issued shares in 1948, 17% in 1949, 5.6% in 1950 and 0.3% in 1951.⁵⁴

⁵² Hoshi (1995).

⁵³ Ministry of Finance (1983).

⁵⁴ These shares were placed directly with specific investors, often former company employees, who could then sell them after the stock markets reopened in 1949. For example, Mitsui Bussan, prior to its dissolution, had 7,050 employees. Many of these workers, who lost their jobs after the dissolution, set up new companies to take over their former employers' business. SCAP prohibited any new company from employing more than one hundred workers, not including executives, who formerly worked for either Mitsui Bussan or Mitsubishi Corporation; and prohibited any new company from involving in any way more than one person who was a manager of any rank, consultant or executive of either Mitsui Bussan or Mitsubishi Corporation. Former employees of Mitsui Bussan are thought to

It is clear that the shares freed by the zaibatsu dissolution order were large and had a major impact on the overall stock market. Although non-zaibatsu firms suffered smaller stock price declines because their shares were not diluted, their stocks nonetheless fell as the total amount of equity available to the public rose. Thus, firms like Toshiba and Hitachi had considerable difficulty selling newly issued shares, which the market priced below par.

A number of economic measures were introduced in 1949 to stabilize the Japanese economy. They included fixing the exchange rate and suspending of new loans from the Reconstruction Financing Bank. The latter policy reduced the supply of funds available to Japanese industry, increased interest rates, and induced even more firms to issue equity. This, on top of the other factors listed above, triggered a collapse of the Japanese stock market. Table 18 shows the drop in stock prices from 1949 to 1950. These stock price fluctuations are also evident in price to capital stock ratios and market to book ratios, shown in Table 19.

[Tables 18 and 19 about here]

Over the next few years, firms shied away from further diluting their equity by issuing shares at the prices prevailing. During the period 1950-1954, new issues accounted for less than 20% of Japanese industrial firms' external financing. Short term bank debt was now becoming the main source of corporate financing.

However, at the end of the occupation, Japan was a widely held economy. The number of shareholders rose from 1.7 million in 1945 to 4.2 million in 1950. The

have set up as many as 220 small companies to take over former Mitsui Bussan business while satisfying the legal requirement. The corresponding figure for the Mitsubishi Corporation was 140.

zaibatsu dissolution by SCAP was accompanied by a massive re-distribution of the stocks of Japanese corporations.⁵⁵ The shares transferred from the *zaibatsu* families to the public by the HCLC amounted to over 40% of all corporate assets in Japan. The consequence of this massive transfer of shares was a widely diffused ownership across much of the Japanese corporate sector, with individual shareholders holding 70% of the outstanding shares of typical Japanese corporations in 1949 and 1950.⁵⁶

The New legal Framework for Shareholders

The SCAP also supervised the enactment of new laws that would shape Japan's future business activities.

The Anti-Monopoly Law of 1947 was actually also an anti-pyramid law. It prohibited the establishment of holding companies, 25% or more of whose asset base consists of the stock of other firms; manufacturing firms' owning the stock of other firms; and financial institutions' owning more than 5% of other firms. Subsequently, this law was frequently amended in response to corporate lobbying.

An amendment in 1949 allowed manufacturing firms to own other firms, permitting the formation of vertical (capital) keiretsu, in which large manufacturers partly own other manufacturers. A 1953 amendment increased the limit of banks' ownership of industrial firms from the original 5% to 10%. This 10% limit was reduced to 5% again in 1987. For most practical purposes these limits had never been a barrier for Japanese banks intent upon exercise corporate governance power over their client firms, particularly those under financial distress.

The Securities Trading Act of 1948 was designed to protect small shareholders. An auditor system was also established in 1948, followed by a set of corporate

⁵⁵ Some authors have found some analogy between this historical event and more contemporary privatization of government-owned corporations. See e.g. Yafeh (1995).

⁵⁶ Bisson (1954).

accounting principles in 1950. In 1951, new depreciation rules ended firms' freedom to determine their own depreciation rates and methods. These initiatives were significant, since prewar Japan had no serious shareholder rights, accounting standards, auditing procedure rules, public disclosure rules, or depreciation rules.⁵⁷

The Japanese commercial code was also revised in 1950 to give small shareholders rights to access company books and records and to establish the fiduciary duties of directors to shareholders. However, the government defined a small shareholder as one with at least 5% equity ownership. In subsequent years, Japanese banks intervening in their client firms' management often used this rule.

Anglo-American Corporate Governance

An active market for corporate control developed quickly. Hostile takeover bids became frequent events, and many were launched against former *zaibatsu* firms - including Taisho Marine and Mitsui Real Estate. In response to these pressures, the managers of firms from each former *zaibatsu* began to act as a group - coordinating white knight and white squire defensive arrangements to protect their former affiliated companies from hostile takeovers.

These coordinated actions were possible because top managers had constructed postwar analogs to the Family Councils that had coordinated *zaibatsu* affairs prior to the military government's takeover of the economy. Thus, former Mitsubishi firms' presidents began having regular Friday luncheon meetings in June 1946, immediately after the Mitsubishi Family Council was formally abolished. The Sumitomo group began their Presidents' Council in 1949, and the presidents of the former Mitsui companies formed their Presidents' Club around 1950. Subsequently,

⁵⁷ See Miyajima (2000).

these regular meetings of the presidents of former zaibatsu companies all came to be called Presidents' Clubs.

One well-known example is the hostile takeover of Shirokiya Department Stores. Hideki Yokoi, one of the most well-known corporate raiders in postwar Japan, had grown rich as a merchant dealing with MacArthur's General Headquarters (GHQ) and, allegedly, in the black market created by the prewar price controls. With a huge cash hoard, Yokoi launched takeovers of company after company.

In 1953 he purchased more than 40% of the outstanding shares of the Shirokiya, a department store company.⁵⁸ Yokoi then organized a general stockholders' meeting, at which won control of the board. Shirokiya sued Yokoi, and four days later Yokoi lost control of the company. Yokoi had to ask Keita Goto, then the CEO of Tokyu, for mediation. Writing in 1960, Yokoi reflected on the benefit of his takeover to Shirokiya, noting that

“I sacrificed myself to do the best for Shirokiya which now is in such great shape; without my takeover and the following business intervention by Keita Goto of the Tokyu group, Shirokiya would have been unable to increase its capacity and would have either become a third-rate department store or an office building, closing its 300-year history.”

Yokoi continued launching corporate takeovers over the following two decades. After Shirokiya, he mounted raids on Toa Oil, Daikyo Oil, Imperial Hotels, Tokai Shipping Line, Toyo Sugar, Shibaura Sugar, Taito Sugar, Dainippon Sugar, and many other companies. He died in 1998 at the age of 85.

⁵⁸ Its major property is now a part of the Tokyu department store in Nihonbashi.

A key event in the development of the Anglo-American system in Japan was the raid by Kyujiro Fujinami against Youwa Properties. By 1952 Fujinami, by then a well-known corporate raider, had purchased 250,000 of the 720,000 outstanding shares of Youwa Properties, a company that had managed landholdings and other properties for Mitsubishi group. Fujinami, a former security guard at the Tokyo Stock Exchange, demanded seats on the board of Youwa. The Mitsubishi Bank, together with the companies run by other members of the Mitsubishi Presidents' Council offered to pay greenmail and buy back all the shares Fujinami had acquired at a price of ¥1600 per share, well above the previous market price of ¥240. This coordinated action was necessary because Japanese law prohibited firms from repurchasing their own stock. Youwa thus could not pay its own greenmail. Mitsubishi group firms each bought a small block of shares from Fujinami to avoid contravening the Anti-Monopoly Law of 1947.⁵⁹

This event is thought to have triggered the realization by top executives that corporate raiders could be blocked by establishing sufficiently large crossholding among former zaibatsu firms. The basic insight was that, if each former Mitsubishi *zaibatsu* firm had owned a little stock in every other former Mitsubishi *zaibatsu* firm, the members of the Mitsubishi Presidents Club would collectively vote control blocks in every former Mitsubishi firm. These firms would then all be safe from hostile takeovers, the need to pay greenmail would disappear, and the company presidents would have secure tenure in their jobs.

This is a variant of what, in Anglo-Saxon takeover parlance, is called the *white knight* or *white squire* defense. In the white knight defense, the target of a hostile bid arranges to be taken over instead by a friendly company that will safeguard the

⁵⁹ Subsequently, in 1953 Mitsubishi Estates, Mitsubishi's main land development company, absorbed both Youwa and another Mitsubishi realtor, Kantou Properties.

positions of the target's top executives. In the white squire defense, the target arranges for a friendly company to purchase temporarily a large enough block of target stock to prevent the hostile takeover from succeeding. To these, we can now add the *keiretsu defense*, where a cadre of friendly companies each take a small position in the target such that these positions, taken together, add up to majority control and thus block the hostile takeover.

7. Self-assembling *Keiretsu*

Japan's postwar *keiretsu* formed in two waves. In both waves, defensives against corporate takeovers appear to have been the primary motive. The first wave, discussed above, took place in the 1950s, and involved the assembly of *keiretsu* comprising the former member firms of the old Mitsui, Mitsubishi, and Sumitomo *zaibatsu*. The second wave, in the 1960s, saw the creation of three new horizontal *keiretsu*. The Fuji Bank organized the Fuyo *keiretsu* by orchestrating a network of intercorporate share placements to insulate its client firms' managers from hostile takeovers. Simultaneously, the Sanwa Bank constructed the Sanwa *keiretsu* and the Daiichi Kangyo Bank (DKB) constructed the Dai Ichi Bank *keiretsu*. In both cases, the motive was again to insulate the managers of its client firms from hostile takeovers.

Each *keiretsu* firm has a 'main securities firm' or *kanji geisha*, with which it has a long term relationship. These *kanji geisha* usually hold crossholdings equity certificates in their vaults. Thus, one firm cannot sell its crossholdings in another

without notifying the *kanji geisha*, which then notifies the other firm. Hence there is a credible promise to be a ‘stable shareholder’.⁶⁰

Recent work by Miwa and Ramseyer (2002) contests much of the gushing praise bestowed upon Japan’s *keiretsu* by students of corporate strategy, such as Porter (1990). While we concur that many utopian descriptions based on anecdotal evidence about the alleged socially optimal cooperative behavior of *keiretsu* firms and their stakeholders are highly suspect, we do not agree with the contention of Miwa and Ramseyer that *keiretsu* are fables.⁶¹ Morck and Nakamura (1999) document a clear pattern of repeated bailouts of weak *keiretsu* firms, but not of otherwise similarly troubled independent firms. They also describe the historical construction of *keiretsu* as anti-takeover devices, a topic to which we give considerable weight below. Below, we shall also argue that *keiretsu* were genuinely important as rent-seeking organizations. *Keiretsu* firms - and especially *keiretsu* main banks – were remarkably successful at shaping Japanese institutions to their advantage. Thus, we argue that *keiretsu* are a genuinely important feature of postwar Japan, but their role is primarily to entrench top corporate management and to safeguard a stultifying stability in Japan’s list of leading corporations.

Modern Japanese *keiretsu* can be divided into two genres – horizontal *keiretsu* and vertical *keiretsu*.

Horizontal Keiretsu

As noted above, takeover defense arrangements led to groups, wherein member firms were owned collectively by all the other firms in the group through a multitude of

⁶⁰ See Sheard, Paul. Interlocking Shareholdings and Corporate Governance. In Masahiko Aoki and Ronald Dore, eds. *The Japanese Firm: Sources of Competitive Strength*. Clarendon Press

⁶¹ Note also that Gerlach (1992), Lincoln *et al* (1992, 1996), and other quantitative sociologists typically find that *keiretsu* connections are important in unconditional multivariate data analysis.

small equity stakes. These groups, called horizontal *keiretsu*, re-created for their member firms top managers the freedom from outside shareholder pressure the *zaibatsu* had provided. Moreover, since these new groups of firms lacked a family exercising corporate control through a family holding company, horizontal *keiretsu* also freed top managers from oversight by a controlling shareholder. Thus, member firms of the *keiretsu* of postwar Japan were similar to the widely held firms described by Beale and Means (1932), for their top managers were accountable only to themselves.

But horizontal *keiretsu* took the Berle and Means firm a step further. Because a majority of their companies' stock was in the hands of white squires, or stable investors, the managers of *keiretsu* member firms had no need to fear corporate raiders, proxy contests at shareholder meetings, or institutional investor pressure. They were free to run their firms as they wanted, without regard for share value, or its determinants such as profits and dividends. *Keiretsu* top managers were thus more insulated from shareholder pressure than was possible in even the most widely held firm.

[Figure 11 about here]

The stylized structure of a horizontal *keiretsu* is illustrated in Figure 11. Note that the intercorporate stakes involved are all individually quite small, so that each firm looks superficially like it is widely held. However, only a minority of the stock in each of the companies is left available to public shareholders, and thus to potential raiders.

Moreover, as rules against pyramids were relaxed, the core member firms of each *keiretsu* began establishing new pyramids, with themselves as the apex firm. Thus, horizontal *keiretsu* in contemporary Japan are best thought of as clusters of core

firms, each of which controls its own pyramid of publicly traded subsidiaries in a substructure akin to a prewar widely held *zaibatsu*. It is only the core firms that collectively control a majority of each other's shares through a dense network of individually tiny intercorporate equity blocks.

Vertical *Keiretsu*

A second genre of *keiretsu*, called vertical *keiretsu*, exhibits a more classically pyramidal structure of intercorporate equity holdings. Indeed, some modern vertical *keiretsu* are simply industrial *zaibatsu* that escaped dissolution. These include Shibaura Manufacturing Works (now Toshiba) and Hitachi, Ltd. Shibaura was a second tier member of the Mitsui *zaibatsu* and the most important electric appliances manufacturer in prewar Japan. In 1939, it spun off twelve supplier firms and acquired equity blocks in eight additional companies with which it had close customer-supplier relationships. Toshiba executives often served their boards of eight 8 companies.⁶² Hitachi was an integral part of the Nissan *zaibatsu*. By 1937 Hitachi had set up its own vertically integrated group with nine supplier companies.⁶³ Many of these *Toshiba and Hitachi* suppliers still exist and are now members of their respective vertical *keiretsu*.

However, the ranks of vertical *keiretsu* also contain new groups. These new vertical *keiretsu* arose after World War II in certain manufacturing industries, such as automobiles and electric appliances, where product assembly could be divided into discrete steps, each to be carried out by a separate member firm. Again, takeover defenses through the preemptive placement of blocks of stock with white squires was probably a key motive in their original formation.

⁶² Tamaki (1976, p.154-155) describes Toshiba's relationships with these firms in more detail.

⁶³ See Tamaki (1976), p. 399.

Vertical keiretsu are organized more as pyramids than are horizontal keiretsu. An apex firm holds control blocks of equity a first tier of key suppliers. Each of these suppliers holds control blocks in its suppliers, and those companies can hold control blocks in yet another tier of suppliers.

Despite their similarity to prewar industrial *zaibatsu*, there are some differences that justify a new term for vertical *keiretsu*. Unlike industrial *zaibatsu*, vertical *keiretsu* also feature dense fogs of small intercorporate equity stakes of any number of member firms in each other, much like the patterns observed in horizontal keiretsu. For example, Toyota Motors owns controlling blocks in the range of fifteen to thirty percent in each of its most important parts suppliers. Nonetheless, only a minority of the stock in these suppliers is available to public investors, for holdings by other members of the Toyota keiretsu bring the total stakes of stable shareholders above fifty percent in each case. The Toyoda family controls Toyota Motors itself.⁶⁴ Some of these suppliers are spin-offs from Toyota Motors itself or from an existing *keiretsu* member firm. Others are independent firms that find it advantageous to cement their alliances with the Toyota *keiretsu* by selling a control block to Toyota or a Toyota firm and so joining the Toyota *keiretsu*.

But perhaps a more important difference is that the apex firm in an industrial *zaibatsu* clearly directed activities in all the member firms of the pyramid. In contrast, vertical *keiretsu* firms are alleged only to coordinate decision-making with the firms directly above and directly below them in the pyramid. This decentralized planning is said to be possible because the vertical integration in vertical *keiretsu* is much tighter, with no superfluous firms that are not direct parts of the production chain leading to the final products of the apex firm. Industrial *zaibatsu*, in contrast, often contained

⁶⁴ As discussed above, Toyota Motors was itself spun off from Toyota Jido Shokki, a loom maker.

firms whose activities were disjoint from their main production chains, and even firms in entirely unrelated industries.

Other Firms

In addition, modern Japan still has local *zaibatsu* that survive in various forms, having escaped the notice of the SCAP and the HCLC. In some cases, the same families that controlled these groups prior to the war retain their control blocks in the apex companies. One example is the Ito group of Nagoya, which continues to run Matsuzakaya department stores. Others are the Katakura group of Nagano, whose, Katakura Industries retains an important presence in textiles, the Yasukawa group of Fukuoka, whose Yasuoka Electric remains an important maker of electric appliances, and the Mogi group, based in Chiba prefecture, which controls Kikkoman, the soy sauce maker, and other firms.⁶⁵

Finally, just as there were firms in prewar Japan that were not parts of the great family keiretsu, so there were firms in postwar Japan that are not within any horizontal *keiretsu*. Some have roots in the prewar period. For example, Masatoshi Ito joined his small family clothing business in Tokyo, which had began in 1920, and developed it into Ito Yokado, the largest retail chain in Japan and owner of the Seven Eleven chain. Other essentially independent firms are entirely postwar phenomena. Prominent examples include Honda and Sony.

The members of the President Clubs of the six former zaibatsu based keiretsu groups (Mitsui, Mitsubishi, Sumitomo, Fuyo (formerly Yasuda), Sanwa and Daiichi-Kangyo) provided only 4% of the total employment of all Japanese listed firms in non-finance sectors for the period 1986-1990 but owned in 1990 15% of the total

⁶⁵ See e.g. Fruin (1983).

assets (14% in 1986) and 17% of the total paid-in capital (14% in 1986). Also, in 1990, they owned 26% of the outstanding shares of all listed firms (24% in 1986), provided 37% of corporate debt of all listed firms (39% in 1986) and provided 45% of the directors of the boards of all listed firms throughout the period 1986-1990.⁶⁶

Independent Japanese firms are either private or narrowly held, usually with a founding family as the dominant shareholder. At present, Japan has no large widely held firms in the Anglo-American sense of the term.

Definitional Ambiguities

Like the term *zaibatsu*, the word *keiretsu* is deeply flavored with the characteristic Japanese taste for ambiguity. Deciding which, if any, *keiretsu* a firm belongs to is usually straightforward. However, there are cases where things become somewhat convoluted. For example, in addition to having its own vertical *keiretsu* is also a full-fledged member of the Mitsui *keiretsu*. Toyota's president attends meetings of the Mitsui Presidents Club, and Toyota considers the Mitsui Bank to be its main bank, even though Toyota has no bank debt. Toyota participates in Mitsui-wide activities with other Mitsui firms, such as Toshiba.

If one stretches the definition of a *keiretsu* somewhat, even independent firms like Sony and Honda are revealed to have group ties. Thus, Sony is often listed as a member of a "quasi-Mitsui group", as in Okumura (1976, p.183), because of its ties to historical dealings with its the Mitsui bank. The primary reason that Sony is not explicitly a member of the Mitsui President Club seems to be that each of these horizontal *keiretsu* typically allows only one company from each industry. This exclusivity appears to be a holdover from the SCAP's concerns about high market

⁶⁶ Toyo Keizai (1991).

shares. Since Toshiba is already a member of the Mitsui Presidents Club, there may be no room for Sony. Likewise, Honda has extensive financial ties to the Tokyo-Mitsubishi Bank, but does not belong to Mitsubishi's President Club. Again, since Mitsubishi Motors belongs to the Mitsubishi President Club, there may be no room for Honda. Nevertheless Honda is sometimes listed as a member of a "quasi-Mitsubishi" group, as in Okumura (1976, p.171).

By the end of the 1960s, the widely held firm had disappeared from the Japanese economic landscape. Japan's brief acquaintance with Anglo-American corporate governance was over and its current patterns of corporate ownership were essentially in place.

The Former *Zaibatsu* Banks

As noted above, banks were exempted from the SCAP's dissolution efforts because their market shares were all deemed acceptably low. Nevertheless, the former *zaibatsu* families lost ownership of their *zaibatsu* banks - Teikoku Bank (a merger of the former Mitsui and Daiichi Banks), Mitsubishi Bank, Sumitomo Bank and Yasuda Bank.

The SCAP continued to use the banks much as the military government had – assigning specific banks to "rubber stamp" loans for specific strategically important firms. Thus, firms' 'main banks' in the 1950s tended to be their 'assigned banks' in the 1940s. Banks also gained influence as firms damaged by wartime losses were restructured.⁶⁷ The shareholding culture of prewar Japan faded from collective memory, and banks assumed a leading role in the economy.⁶⁸

⁶⁷ See Hoshi *et al.* (2001) on the postwar continuation of the wartime system and on the banks roles in postwar restructuring.

⁶⁸ See Hoshi and Kashyap (2001).

The continuity of the role of the banks, and their ties to state planners, give rise to what is sometimes called the ‘1940s theory’. This theory, due to Okazaki and Okuno (1993) and Noguchi (1998), proposes that the current managed market economy actually originated in wartime Japan.⁶⁹

Regardless, the SCAP’s attitudes towards long-term financial institutions were generally negative, and banks were not allowed to issue bonds to finance their capital needs. In response to a perceived capital shortage in 1952, the year of the US withdrawal, the government passed the Long Term Credit Law, which permitted a new type of financial institution, the *long-term credit bank*, which could issue bonds, but not take deposits, to finance loans. Other banks, henceforth known as *ordinary banks*, could take deposits to finance loans, but not issue bonds.⁷⁰ In response to this change, three major new long-term credit banks formed: the Industrial Bank of Japan, the Japan Long-Term Credit Bank and the Nippon Credit Bank.⁷¹

Most extant banks, including all the former *zaibatsu* banks, chose to be ordinary banks. This was because they had large established deposit and short-term lending businesses that had generating significant profits before World War II, and looked set to do so again. By remaining ordinary banks, the former *zaibatsu* banks could tap Japan’s high household savings rate and lend the money so raised to large corporations on a year-to-year basis. Despite their formal short-term structure, these loans were actually usually long-term in nature, in that they were rolled over indefinitely.

⁶⁹ See Hamada (1998) for a critique of this view.

⁷⁰ At present, this structure of the Japanese banking system is the subject of considerable debate. There has already been a degree of reform and further reforms would appear likely.

⁷¹ The Industrial Bank of Japan, which practiced investment banking since 1900 under the Industrial Bank of Japan Act, became an ordinary bank in 1950 when the IBJ Act was repealed. The IBJ resumed its special status as an investment bank in 1952 when the new long-term credit bank act was created. For details, see footnote 40.

For the most part, the former *zaibatsu* banks retained, and still retain, their prewar business relationships with their fellow former *zaibatsu* member firms, and are now referred to as the main banks of these client firms. These networks of relationships were critical in the formation of the *keiretsu* in the 1950s and 1960s, for the former *zaibatsu* banks often organized the white squire equity placements that constituted the *keiretsu*.

This regulatory fragmentation of the Japanese banking system meant that main banks sometimes had inadequate capital to accommodate their largest clients borrowing needs. In response, the Bank of Japan permitted syndicated loans.

Under the syndicated bank loan system, a large borrower's main bank took charge of organizing a syndicate of banks that could collectively meet the borrower's financing needs. The main bank apparently was expected to take a lead role in monitoring the borrower, to take charge of correcting any impending problems, and to take a disproportionately large hit in the event of a default.⁷² This pattern continues in recent cases of defaulting firms, where the main bank becomes the "special manager" of a firm under reorganization.

Banks were thought to collect substantial private information about each other and about Japanese firms in general *via* syndicated lending, and to utilize this information to promulgate good corporate governance. However, Morck and Nakamura (2000), while documenting increased banker representation on the boards of troubled client firms, find no evidence consistent with corporate governance improvement. Indeed, Morck *et al.* (2001) argue that banks use their influence on boards primarily to maximize the value of their loan portfolios, and that this can deviate substantially from firm value maximization and from economic efficiency.

⁷²In contrast, Japanese banks did not usually get involved with rescue operations of distressed client firms prior to the early 1950s. Failing firms were simply liquidated. See Miyajima (1999).

Japan's large banks also greatly affected the postwar development of the financial system. Bank lobbying is widely believed to underlie the Japanese government's ongoing and virtually complete suppression of the corporate debt market, which continued until the 1990s. Corporate debt issues were proscribed unless they were fully backed by real property or explicitly approved by the government. Thus, what corporate bonds existed were little more than alienable mortgages. Debentures and other corporate debt securities were outlawed entirely.

The reason the banks took this route is fairly clear. They viewed bonds as competition both for their depositors' money and their client firm's loans. The reason the government accommodated this lobbying is less clear. Early on, the SCAP undertook to promote the stock market, but largely ignored the corporate bond market. This may have reflected the wariness of bond investors hurt by the high postwar inflation. Also, the military government had used the banking system to carry out centrally planned capital allocation, and corporate bonds consequently had played little role in the wartime Japanese economy. Managers were not used to issuing debt. Nonetheless, the continual proscription of corporate debt issues many decades later raises puzzling political economy issues.

It is hard to escape the conclusion that government and the banks were working to preserve market power for the country's major banks. Market power certainly derived from the barriers to competition the prewar and wartime regulators had erected. Banks probably also held an informational advantage that allowed them to exercise a degree of market power over their clients, in the sense of Rajan (1992). Whatever the precise nature of this market power, it corresponds to a period of great stability for the Japanese banking system. From the end of the war to 1997, no major bank failed and there were few bank mergers. While the strong regulatory hand of the

Ministry of Finance may be partially responsible, such stability is certainly also consistent with prolonged bank market power.

Indeed, the two explanations are often intertwined in discussions of postwar Japanese banking. Thus, Hanazaki and Horiuchi (2003) write that

“the primary purpose of the MOF’s administrative guidance was to suppress full-scale competition in each of the compartmentalized financial businesses. ... The government was able to utilize the rents accumulated in the banking sector as a means of dealing with banks in financial distress.. Specifically, regulators relied on the cooperation of private banks in implementing the blanket guarantee, and major banks faithfully bore a disproportionate share of the costs involved. ... “[B]y manipulating regulatory measures the MOF could do favors to those banks that towed the line and penalize those that failed to heed its guidance.”

They argue that the Mitsubishi Bank, for example, got permission to pursue trust banking as a reward for rescuing Nippon Trust. Moreover, the view that banks concentrated the financial value of *keiretsu* within themselves through such practices is consistent with the finding of Caves and Uekusa (1976) that group membership does not benefit industrial firms, and that any benefits must therefore be captured by non-industrial firms – that is banks.

Aoki (1994) argues that rents are necessary to motivate proper monitoring by banks. Hellman, Murdock and Stiglitz (2000) argue that restricting competition is beneficial in that this reduces banks’ incentives to maximize shareholder value by taking excessive risks in near default situation. In contrast, Allen and Gale (2000)

argue that competition is necessary to reveal which managers know what they're doing. Hanazaki and Horiuchi (2000, 2001a) argue that such competition is responsible for the success of independent Japanese manufacturing firms and that its absence explains the weakness of *keiretsu* firms and the failure of its banks.

The international success of Japan's best firms undid this market power. By the 1980s, Japanese multinationals could routinely circumvent these proscriptions by having their foreign subsidiaries issue debt abroad. In response, the government relaxed the rules (somewhat) in the 1990s to allow firms whose financial ratios exceeded predetermined criteria to issue certain debt securities.⁷³ It has been alleged that this partial deregulation allowed Japan's best firms to abandon bank loans and concentrated low quality debt in the banking system.⁷⁴ This argument, while perhaps partially true, does not explain the alacrity with which the more profitable firms abandoned bank loans as a source of capital. That the banks were extracting market power rents in the provision of capital would explain this rush for the exits.

8. The Value of the Corporate Group Structure

Japan's tumultuous corporate history provides some insights into the value of corporate groups under different economic circumstances. Except under the military government, entrepreneurs (and querulous relative) were always free to start brand new firms as well. Since both *zaibatsu* and *keiretsu* formed spontaneously, survived and prospered, they must have had some competitive advantage over new free-standing firms. There are several candidate explanations for this advantage.

⁷³ See Morck *et al.* (2001).

⁷⁴ Aoki and Sheard (1992) and Hoshi *et al.* (1993) show that the most financially sound firms switched to bond financing very quickly. Hellman, Murdock and Stiglitz (2000) argue that this undermined the banking system. Boot and Thakor (2000) and Fraser, Ghon, Rhee, and Shin (2002) both describe the importance of regulatory restraints on competition to relationship banking.

Economies of Scope and Scale

It has been hypothesized that *zaibatsu* and *keiretsu* are Japanese solutions to the problem of obtaining economies of scope and scale without incurring the agency costs to which very large and highly diversified firms can fall prey.⁷⁵ However, we now know these arguments to be incomplete. Morck and Nakamura (1999), among others, show that the presence of a controlling shareholder in a *zaibatsu* is not a delivery from agency problems, but rather the focus of more and different agency problems, such as entrenchment and tunneling. Moreover, a pyramidal structure can induce a separation of ownership from control in lower tier firms that is easily as great as that in typical widely held firms.

Also, the ongoing discussion of the so-called diversification discount casts serious doubt on many of the alleged economies of scale and scope to which large, diversified firms might aspire. The reluctance of the *zaibatsu* to diversify widely in the early decades of the Meiji era attest to their Councils' doubts about these economies. The importance of privatizations and government industrial policies in their subsequent diversification also belies the existence of genuine economies. Finally, the clear importance of anti-takeover defenses in *keiretsu* formation undermines arguments that these structures were designed to achieve such economies.

Efficiency gains from vertical integration in vertical *keiretsu* are perhaps the least implausible such gains in Japanese groups, for these can be related to particular innovations, notably just-in-time inventory management and the like. Such techniques that gave Japanese firms a worldwide reputation for efficiency in the 1980s, and Huson and Nanda (1995) confirm that just-in-time inventory management adds value in US firms in which inventories are a large fraction of assets, but not

⁷⁵ See, for example, Aoki (1988, Ch.6) and Blinder (1991) for a detailed presentation of this view regarding vertical *keiretsu*. See Morck, Shleifer, and Vishny (1990), Lang and Stulz (1994), and many others for evidence of agency problems associated with large, diversified firms.

otherwise. However, little is actually known about the impact of just-in-time methods on the bottom lines of firms in Japan.

Agency costs normally associated with large, diversified firms are allegedly avoided in vertical *keiretsu* because each firm in the vertical *keiretsu* remains a separate company, with its own shareholders, board, and top management only loosely controlled by the firm above it in the pyramid.

However, it is not clear that this harmonious perfection was actually realized. Like horizontal *keiretsu*, vertical *keiretsu* also shield corporate managers from shareholder activism, takeovers, and other checks on managerial freedom of action that are thought to induce economic efficiency in other countries. This became overtly evident in the failed 1989 hostile takeover by T. Boone Pickens of Koito Manufacturing, a first-tier supplier in the Toyota vertical *keiretsu*. Even after he became the largest single shareholder of Koito, Pickens could not put himself on Koito's board. This was because other members of the Toyota *keiretsu* collectively controlled a majority of Koito's shares and acted in concert to block Pickens. Thus, vertical *keiretsu* member firms can plausibly suffer from agency problems associated with entrenched management. They would also appear vulnerable to tunneling, and the findings of Morck and Nakamura (1999) are certainly consistent with this occurring in the major bank-centered *keiretsu*. However, we are unaware of any studies that directly confirm or deny tunneling agency problems in vertical *keiretsu*. And lower tier companies are certainly only of remote interest to the apex firm.

Thus, the premises upon which arguments of these sorts are based are increasingly dubious. The extent of economies of scale and scope in highly diversified entities is now doubted, except perhaps in vertical *keiretsu*, and the alleged freedom of corporate groups from agency problems is entirely debunked.

Institutional Asthenia

Khanna and Palepu (2003), in this volume, discussing the family controlled pyramidal groups of contemporary India, argue that these *zaibatsu*-like groups are better able to survive and prosper in an economy where market transactions costs are very high. They argue that poor institutions greatly elevate such costs in India by allowing widespread deception, fraud, and corruption. Consequently, group firms, which are all controlled by the same principal and consequently have greatly reduced incentives to cheat each other, can do business more efficiently than free-standing firms that depend on markets for capital, managers, labor, suppliers, and customers. It seems plausible that similar conditions might have prevailed in Meiji and Taisho Japan. In a similar vein, even in relatively corruption-free economies, one party to a business transaction often has limited information about relevant factors or about the ability of the other party to fulfill its promises. Such information asymmetries can raise the costs of doing business significantly.

Since *zaibatsu* firms were controlled by a common apex firm, which in turn answered to a Family Council, their managers could share information more readily than those of free-standing firms, and this might give *zaibatsu* firms an edge. Fruin (1992, p.101), for example, stresses such production cost minimizing group-wide coordination strategies. Generalizing such stories, it is plausible that the *zaibatsu* headquarters, receiving information from across a wide range of industries, were better able than free-standing companies to foresee critical events, react appropriately, and develop flexibility strategically – putting shame upon the heads of the government central planners, who seem chronically unable to reproduce this feat. The managers of *keiretsu* member firms, because of their extensive information about each

other, might likewise have been able to do business more efficiently than free-standing firms. Member firms of specific keiretsu might benefit from the overall good reputation of the group, and therefore be perceived as better business partners than free-standing firms. Or shared managerial techniques might give keiretsu firms an edge over other firms.

However, such explanations take a weak institutional environment as given. This seems an untenable assumption over the one hundred and thirty five years surveyed in this paper. Did the *zaibatsu* and *keiretsu* induce or prolong weak institutions to maintain their advantage over free-standing firms? There is little evidence that the *zaibatsu* families acted in this way. They were generally supportive of modernization programs and institutional development such as legal reforms. Moreover, it is quite plausible that Japan's institutions were unavoidably weak as the Meiji government strove to undo the damage of the Tokugawa feudal autarky.

But in postwar Japan, the idea that the *keiretsu* managers had a hand in preserving certain institutional weaknesses becomes more plausible. It seems clear that the intercorporate equity cross holdings that created the *keiretsu* were designed to undermine the market for corporate control and to defeat other corporate governance mechanisms, such as proxy fights and institutional investor activism, that are thought to induce economic efficiency in other economies. The role of the banks, the keystone firms of the great horizontal *keiretsu*, in suppressing the corporate bond market in postwar Japan also seems consistent with the view that weak institutions were a consequence, as well as a cause, of institutional asthenia.

Thus, we are left with the disturbing prospect that weak institutions foster corporate groups, such as *zaibatsu* and *keiretsu*, but that these groups then work to preserve the institutional weaknesses that let them thrive relative to other firms.

A Scarcity of Competence

A different, though closely related hypothesis is that certain qualities of management might have large economies of scale. Khanna and Palepu (2000) also mention that investments in reputation might have large returns to scale. For example, they argue that the Tata family of India invested heavily in acquiring a reputation for fair dealing, sometimes at great financial cost. However, once it established a nation-wide reputation for honesty in an otherwise highly corrupt economy, all manner of firms, banks, and individuals were willing to pay a premium to do business with Tata firms rather than risk being cheated. A variant of this, widely touted as a justification for conglomerate mergers in the United States in the 1960s, is that good management *per se* has increasing returns to scale. A *zaibatsu*, like a conglomerate, allows a single good manager situated at the apex of the pyramid to apply his talent across a large scale and a broad spectrum of businesses, thus making it more valuable to the economy as a whole.

From the Meiji Restoration to the early 20th century, the *zaibatsu* recruited highly qualified personnel, particularly managers and skilled workers. Morikawa (1980, pp.16-19) reports that the Meiji era *zaibatsu* had a grand total of 76 full-time professional directors and top managers - mostly at Mitsui, Mitsubishi and Sumitomo. Of these about 29% were graduates of various Imperial universities or their predecessors, 21% were graduates of Keio Gijuku (the current Keio University) and 7% were graduates of foreign universities. About 60% of these people had been overseas. In Meiji Japan, such people were scarce. They had to be educated in newly created academic and other institutions, which were also few. Indeed, the Mitsui founded Hitotsubashi University primarily to produce trained employees. Morikawa

(1980) argues that this scarcity, and the concentration of talent in the *zaibatsu* groups were a decided advantage.

In postwar Japan, *keiretsu* core firms, promising lifetime employment, again became a preferred career path of bright graduates of Japan's top universities. Employment at the *keiretsu* main banks was especially sought after. This may have made considerable sense in the immediate postwar period, when many senior people in industry were tainted by wartime associations. There was most likely a genuine scarcity of talent. Competent managers could spread their expertise wider by working for *keiretsu* firms. Banks, special repositories of managerial talent, could lend their expertise to *keiretsu* member firms in need to it. Corporate groups could allocate talent to where it was needed, and so make efficient use of scarce governance expertise. Kaplan and Minton (1992) show that bank executives were routinely transferred to the boards of financially troubled client firms later in the postwar period, consistent with the continued importance of such a story.

However, the economies of scale associated with managerial talent are clearly bounded – otherwise central planning would have a better track record. The collapse of the Suzuki *zaibatsu* just prior to the war was clearly due, in a large part at least, to the concentration of corporate control in the hands on one man – Naokichi Kaneko. Kaneko made few mistakes, but a single major misjudgment was enough to destroy the entire *zaibatsu*.

Moreover, it appears that the managers of *keiretsu* firms came to view each other as colleagues to be supported under all circumstances, rather than as potential blunderers to be monitored and, if necessary, reigned in. This understandable, even laudable collegiality is evident in the result of Morck and Nakamura (2000) that the transfer of bankers to corporate boards does not appear to be associated with value

increasing restructuring. Rather, the bankers seem there to supervise friendly bail outs. The absence of negative consequences for poor corporate governance in this system is now widely believed responsible, in part at least, for Japan's economic malaise.

In short, a system designed to make the most of scarce talent ultimately became a mechanism for locking in entrenched, relatively untalented managers.

Financial Intermediation

A third possibility, proposed by Asashima (1987), Okazaki (1999) and others regarding prewar *zaibatsu* and by Hoshi, Kashyap, and Scharfstein (1990a, 1990b, 1991, 1993) in connection with postwar *keiretsu*, is that diversified corporate groups might serve a financing and coinsurance purpose. This argument stresses that external funds are more costly than internal funds. A free-standing undiversified company is subject to the vagaries of cost and demand in a single industry. It might easily have excess cash flows in years when it has no good investment opportunities and insufficient cash flows to fund all the opportunities available in other years.

Membership in a corporate group containing a bank, or a firm that serves as a bank in some capacities, can remedy this. The group bank can transfer excess funds from where they accumulate to where they are most needed. Since the group bank has better information about the investment opportunities available to each firm, it can do this at much lower cost than could outside banks or financial markets.

Hoshi, Kashyap, and Scharfstein (1991) stress that such an information advantage may be especially critical in financially distressed firms, and that this financing role is most important in that it allows group firms to co-insure each other. In this view, *keiretsu* member firms overpay for bank loans so as to build up a reserve

in the group bank that can be used to remedy any financial problems a member firm encounters.

Miyajima (2000) finds little evidence for this internal capital market hypothesis based on his estimation of investment functions for the *zaibatsu* firms in the 1930s. He finds some evidence for the internal capital market hypothesis for postwar keiretsu firms, but only for a limited time period when the Japanese economy enjoyed very high growth. Hoshi (1994) describes the Sumitomo group's rescue of Mazda in the 1973 oil crisis via cheap loans, stock placements with Sumitomo Bank and other Sumitomo companies, and subsidized marketing, shipping, etc. Nakatani (1984) finds that group firms' performance is less variable than that of free-standing firms, Horiuchi *et al.* (1988) argues that such a coinsurance role should be evident in abnormally low interest payments during downturns and abnormally high interest payments during booms, which he does not find. Hirota (1990) finds profit smoothing only for some firms and only in extreme downturns. Hoshi *et al.* (1991) show that group firm investment is less sensitive to cash flow in regressions of investment on cash flow, average q , and controls. Morck and Nakamura (2000) find evidence of large liquidity infusions in troubled *keiretsu* firms, but not in similarly troubled freestanding firms. The problem with much of this evidence is that it is as consistent with bank bailouts of firms run by cronies as with an economically rational coinsurance system.

The shortcomings of this use of groups over the long term are evident if we return to the prewar *zaibatsu*. The Mitsui, Mitsubishi, and Sumitomo banks avoided financing their respective group companies. Asajima (1984) describes how Sumitomo companies had deposits with the head office, which functioned as a merchant bank. The Sumitomo Bank was not used to finance subsidiaries. The

Sumitomo companies relied on retained earnings or transfers from the apex holding company for additional capital until 1924, after which there seems to have been very limited use of debt financing. These banks survived the depressions of the 1920s and 1930s precisely because they had diversified loan portfolios that extended well beyond their *zaibatsu*. In contrast, the Taiwan Bank clearly served the Suzuki *zaibatsu* as a central financial clearing house. This may have induced a sort of moral hazard problem, common to all group insurance schemes, in the management of Suzuki firms. Certainly, when several Suzuki firms simultaneously encountered financial difficulty, the Taiwan Bank's undiversified loan portfolio left it deeply vulnerable. Its attempt to correct these problems by distancing itself from the Suzuki *zaibatsu* proved impossible, and the bank failed, bringing down the House of Suzuki. Indeed, all the *zaibatsu* failures in the interwar period were of groups that used their banks in this fashion – that is, as ‘organ banks’.

The main banks at the centers of the great horizontal *keiretsu* of the postwar period were drafted into the role of “quasi-organ banks” – first by the SCAP and then by the industrial policy makers of postwar Japan. Both regimes pressed the main banks to continue their wartime task of allocating capital to investments the government regarded as strategic, irrespective of their financial soundness. Later, the *keiretsu* main banks took on the task of organizing financing for their group firms. Although syndication of loans meant that the *keiretsu* banks were seldom as undiversified as the Taiwan Bank had been, their main bank roles meant that they were far more exposed to the financial fortunes of other *keiretsu* member firms than had been the case for the Mitsui, Sumitomo, or Mitsubishi banks through most of the prewar period.

The Ministry of Finance seems to have recognized that these duties exposed the banks to substantial risks. Its response was twofold. As noted above, Japan's bank regulations locked in market power for banks. Second, the Ministry of Finance provided a "blanket guarantee" to banks. For example, the state bailed out not just the depositors, but also the bondholders and shareholders of troubled banks, such as the Heiwa Sogo Bank.

Hanazaki and Horiuchi (2000, 2001a) argue that this guarantee induced a grave moral hazard problem into bank governance. The mere presence of a main bank with an insurance role doubtless encouraged moral hazard problems in *keiretsu* client firms. Taken together, these problems certainly contributed to pervasive poor corporate governance. As mutual insurance companies, which are thought to be subject to their own governance problems, bought up the majority of shares in big Japanese banks in the 1990s, Hanazaki and Horiuchi (2000, 2001a) argue that the stage was set for a banking crisis. They also note that this guarantee seems to have been credible in the early 1990s, but became less so later in that decade. This is because they find that bank shares only began moving in response to news about solvency in the mid 1990s. Nonetheless, Bremer and Pettway (2002) report that, although bank stock prices moved significantly in response to news about their financial soundness, this did not affect management policies. This suggests that shareholders in banks began doubting the guarantee before bank managers did.

Thus, Japanese financial history tells us that the use of a group bank as a financial clearing house and provider of financial insurance is unwise. While such a system may provide short-run advantages, it is often not viable in the longer run. The Suzuki *zaibatsu*, and other groups with organ banks, prospered in the short run, but failed when the economy as a whole took a downturn. The horizontal *keiretsu* of the

post war period prospered during Japan's long boom, but are clearly having serious problems riding out the current prolonged downturn.

Moreover, many countries consider the sorts of intercorporate transactions whereby related companies transfer funds to each other at non-market prices to be a corporate governance problem. While Hoshi, Kashyap, and Scharfstein (1991) clearly envision intercorporate financing arrangements at fair prices, once such arrangements become accepted, there are many reasons why corporate insiders might want to use artificial prices instead. This leads to a governance problem that Johnson, La Porta, Lopez-de-Silanes, Shleifer (2000) dub *tunneling*, and which corporate law calls *self-dealing*.

In particular, the fear is that controlling shareholders use such cross-subsidization to transfer assets and income from firms low in the pyramid to firms at or near the apex. This is because the controlling shareholder's real stake is largest in firms near the apex. To see this, return to Figure 1. The controlling family owns a bit more than half of Choten, the apex firm. That means that a bit more than half of any dividend payout or capital gain from Choten accrues to the *zaibatsu* family. Choten owns a bit more than half of each of the two Hitotsu level firms. That means Choten a bit more than half of its dividends and capital gains accrue to Choten, and so a bit more than one quarter of its dividends and capital gains accrue to the family. In general, if a firm is n levels below the apex firm, a fraction $\frac{1}{2^n}$ of the firm's dividends and capital gains accrue to the controlling shareholder of the pyramidal group. The controlling family thus maximizes its own wealth by transferring as much income and wealth as it can from firms deep in the pyramid to firms at or near the apex. Claessens, Djankov, and Lang (2000), Claessens, Djankov, Fan, and Lang

(2002), Faccio and Lang (2001) and many others present empirical evidence consistent with such transfers occurring in European and East Asian pyramids.

We are forced to conclude that corporate groups, while they may serve a coinsurance and capital allocation function, do not glean long term benefits from these activities. Although short term benefits may be evident, the moral hazards and other information and agency problems inherent in these undertakings ultimately undermine the financial health of the group.

Private Benefits of Control

This leads to a fourth possibility, the extraction of private benefits of control. *Ziabatsu* families may have been willing to pay more for controlling blocks of shares because they valued control *per se* more than other shareholders do. This might be because members of these families have utility functions that assign greater weight to power. If the families are not the most able managers, this could depress publicly traded shares while raising the family's private valuation of its shares. Or, private benefits of control might exist because these families are more proficient than other shareholders at using control over corporate assets to enrich themselves.

Likewise, the managers of postwar *keiretsu* firms organized those structures to stymie corporate takeover threats. Had they not garnered utility from their control of great corporations, these actions would have made little sense.⁷⁶

There is considerable evidence for the existence of large private benefits of corporate control. Johnson, Magee, Nagarajan and Newman (1985) show that stock prices rise significantly upon the deaths of the firms' aged CEOs. Morck, Shleifer,

⁷⁶ It is theoretically possible that these managers were blocking takeovers out of beneficence. For example, their goal might have been to protect myopic shareholders from selling at a large premium to the raider because even larger run-ups in their share prices were likely in the future. However, the repeated empirical rejection of shareholder myopia models undermines such arguments.

and Vishny (1988) show that high managerial ownership in certain US firms is associated with depressed public share prices. Barclay and Holderness (1989) show that control blocks trade at higher prices than small transactions. Dyck and Zingales (2003) show that this effect is greater in more corrupt countries. All of these studies are consistent with the existence of large private benefits of control. The finding of Dyck and Zingales (2003) in particular suggests that the size of private benefits is related to corruption, and thus favors the view that these benefits involve the consumption of corporate wealth by the controlling shareholder.

Certainly, the importance of maintaining control evident in the House Charters of the great *zaibatsu* families and in the autobiographical writings of Yoshisuke Aikawa (1934), the founder of the Nissan *zaibatsu*. Morck and Yeung (2003) argue that the extraction of private benefits of control is less dependent on talent than is genuine entrepreneurship, and that leaving one's heirs opportunities to extract such benefits is therefore a preferred way of providing for them.

A fixation on preserving control rights can lead to inefficiently risk averse investment decisions. Thus, Miyajima (2000) reports that firms belonging to the three major *zaibatsu* exhibit greater risk-averse than firms belonging to newer *zaibatsu*. One explanation for this is more extensive private benefits of control for the principals of the established groups.

In short, private benefits of control certainly figured large in the formation of *zaibatsu* and *keiretsu*. This leaves open, however, the question of whether or not other considerations were also important.

Financing Externalities

Much literature contemporaneous with the *zaibatsu* stresses their ability to ignore shareholders. For example, a Meiji era report on the Kyushu Railway deplors that the company was “dominated from the start by the vulgar view that it had to economize on building outlays.” This refers to a conflict described by Ushiba (1899) as between “the stockholders desiring an increase in dividends even to the point of reducing the business, and the directors insisting on expanding the business even if it means cutting dividends” Ericson (1989) describes how a large shareholder, the banker Imamura Seinosuke, tried not only to curtail the railway’s vast expansion plans, but to force it to downsize in response to the economic downturn of 1890.

Ericson (1989) applauds the railway’s “substantial progress (sic) in separating management from ownership” and the professionalism of its president, Sengoku Mitsugu, who owned little stock and could therefore go “on pursuing his positive policies, thrusting aside a second attempt by disgruntled stockholders to interfere with his program in 1902.” But Ericson concedes that such “sophistication” was the exception.

The Kyushu and Sanyo railroads were Mitsubishi companies, and Mitsubishi “differed from most railway owners in its primary concern for indirect benefits of railway investment.” That is, the Mitsubishi railroads were not intended to maximize shareholder value, but to assist other Mitsubishi companies in transporting inputs and outputs.

The foregoing is a somewhat convoluted way of saying that the *zaibatsu* railways were forced to over-expand to reduce the shipping costs of other Mitsubishi companies, in a clear instance of ‘self-dealing’ or “tunneling”. However, this may not have been economically inefficient. Since railways have a public good component, it is possible that shareholder value maximization would lead to a

suboptimal investment. Tunneling by the *zaibatsu* to overbuild might actually improve social welfare, though at the expense of the railways' other shareholders. By 1905, banks and insurance companies had emerged as the major shareholders in most railroads, and such self-sacrifice by railroad shareholders was at an end. The railroads nationalized in 1906 and 1907.

Governments elsewhere certainly took advantage of large corporate groups as preexisting command and control devices for implementing industrial policies. For example, Korea, Malaysia and Sweden appear to have encouraged pyramidal groups so that government officials could influence the corporate sector by dealing directly with a few individuals – the patriarchs in charge of the pyramids. The governments in question seem to have believed, perhaps correctly, that these small group interactions allowed a highly effective transmission of government policies and a better coordination of private and public sector initiatives.

Certainly, the *zaibatsu* were more agile and willing than free standing firms to change direction rapidly in order to accommodate changing government policy objectives. By rapidly expanding one firm with capital from others, the *zaibatsu* could quickly change direction and focus. Their large established capital bases also let them enter new industries quickly. Postwar *keiretsu* were also favored as vehicles through which industrial policy might be implemented.

This agility was clearly beneficial in terms of endearing the *zaibatsu* and *keiretsu* to certain government officials. However, it did not always enrich the groups involved. Certainly, the *zaibatsu* families lost out heavily during the war despite their groups' agility in expanding munitions production. More generally, deviating from value maximizing behavior has costs that should accrue to the disadvantage of the

group over time. This may explain the weakness of the *keiretsu* firms in present day Japan.

Groups and Political Rent Seeking

However, another possibility is that the close relationships corporate groups develop with government generate financial returns that compensate for profits lost while pursuing government objectives. Morck, Yeung, and Stangeland (2000), in discussing pyramidal groups throughout the world, argue that government officials and great mercantile family patriarchs who come to know and trust each other are likely to engage in mutual back-scratching, favors-trading, and other forms of corruption that, while beneficial for the family group of firms, can greatly damage the economy. Fisman (199x), Johnson and Mitton (2001), Morck, Yeung and Stangeland (2000), Rajan and Zingales (2001) and others present empirical evidence consistent with this more skeptical view.

There is considerable evidence that business-government relations in both prewar and postwar Japan were largely organized around rent seeking. . Morikawa (1992, pp.3-4) argues that political entrepreneurship, the use of ties to powerful political figures to obtain government favors, reaped huge returns in the provision of goods and services to the state and to state-owned enterprises in the Meiji period.

The great *zaibatsu* of prewar Japan all obtained a leg up on their competitors due to government favors. The Sumitomo obtained their cash cow copper mines because of their close association with the Tokugawa regime. The Mitsui and Mitsubishi *zaibatsu* obtained cash cow mining operations in barely competitive privatizations by the Meiji government. All three prospered in prewar Japan in part because of their ability to give the government what it wanted when it wanted it. If

the government decided Japan needed to export, the *zaibatsu* could move into export oriented businesses. If the government decided Japan needed technology, the *zaibatsu* could rev up their machinery production. In short, the *zaibatsu* seem to have been able to react to the changing whims of government policy makers with greater nimbleness and forcefulness than other firms could manage.

In postwar Japan, the *keiretsu* firms and their main banks also appear to have been generously subsidized for their enthusiasm about industrial policy programs. Indeed, Beason and Weinstein (1995) show that the greater part of Japan's postwar industrial subsidies went to mining operations, most of which were members of the large horizontal *keiretsu*. In contrast, independent companies like Honda were denied subsidies for deliberately contravening industrial policy plans by, for example, producing automobiles when told not to.

The importance of rent-seeking in post-war Japan is evident in the status accruing to employment in government. This status existed largely because of the attractions of a career path involving *amakudari*: literally, "descent from heaven". *Amakudari* involves an older, high-ranking government official leaving his post to become a senior manager in industry, and was a common path to the board room in postwar Japan. This practice may have made sense in the immediate postwar period, when there was perhaps a serious shortage of talent due to the purging of senior executives who had cooperated with the military government.

However, *amakudari* subsequently devolved into a system of regulator capture, as described by Stigler (1971). This was largely because of the *genkyoku* principle, whereby specific ministries claimed exclusive regulatory power over specific industries. Since civil servants in these ministries were prime candidates for *amakudari*, the ministries rapidly became vocal advocate within government for the

interests of their industries. For example, in the race for industrial promotion of biotechnology, the Ministry of Health wanted to participate in policymaking explicitly on behalf of the pharmaceutical industry, its traditional *amakudari* partners. Since the great *keiretsu* firms both included the most attractive *amakudari* landing spots and were the most enthusiastic about *amakudari*, these groups may have enjoyed an advantage, in the short term at least, due to their better connections with government.

This regulatory capture is now thought to have contributed to Japan's current economic and governance problems.⁷⁷ Bureaucrats uncritically advanced industry agendas, hopeful of *amakudari* opportunities. Corporate executives, former bureaucrats, realized that their talents were in influencing government, rather than overseeing new research and development programs. The result was an unhealthy regulatory morass that came to surround many established industries in Japan, and that is now the subject of much criticism.

9. Conclusions

During Japan's modern history, beginning in 1868, its corporate sector was first organized into great family pyramids, or *zaibatsu*, then subjected to Soviet-style central planning, then reorganized into widely held firms, and finally restructured into *keiretsu* corporate groups. These organizational forms appear to have been responses to changing institutional constraints. By studying the historical origins of these groups and how they prospered or floundered, we can begin to understand which institutional constraints mattered the most and how changing institutional constraints both induced and affected different organizational structures.

⁷⁷ See Horiuchi and Shimizu (2001) for a discussion of the role of *amakudari* in Japan's current economic downturn.

Although the *zaibatsu* are often viewed by Japanese historians as uniquely Japanese constructs, they are not substantially different from family controlled pyramidal groups that the other papers in this volume show dominating the corporate sectors of most other countries at the time. The *zaibatsu* were probably sensible structures for sidestepping Japan's early, and probably poorly functioning markets. By doing business mainly with each other, *zaibatsu* firms could avoid being cheated or otherwise harmed in inefficient and opaque markets for goods, labor, and capital. The postwar *keiretsu*, which actually are a uniquely Japanese phenomenon, may have been, in part at least, a similar response to the chaotic early postwar years.

Shortages of managerial talent in early Meiji Japan and in postwar Japan following MacArthur's purges might also have lent advantages to groups. By allowing good managers to spread themselves across more activities, groups may have been an economically sound response to a genuine scarcity. However, by entrenching insiders, *zaibatsu* families and *keiretsu* managers, these groups ultimately achieved just the opposite. They became barriers to the placing of corporate control rights in the hands of the most able.

Both *zaibatsu* and *keiretsu* were also clearly devices for entrenching the control rights of insiders. *Zaibatsu* were mechanisms whereby great mercantile families or entrepreneurial individuals could direct vast amounts of public investor capital yet retain full control of all the ventures so funded. *Keiretsu* were undeniably formed to stop hostile takeovers raids and secure tenure for the professional managers running postwar Japan's great companies. That insiders sought such entrenchment suggests strongly that they were receiving private benefits of control.

Both *zaibatsu* and *keiretsu* were also clearly more agile and forceful in redirecting their energies to support state industrial objectives than were free standing

firms. By participating enthusiastically in government industrial policies, no matter how wrong-headed, these groups nurtured relations that generated both subsidies and political influence. Such influence was often instrumental in securing lasting advantages over the competition, as when the early *zaibatsu* families obtained tax farming concessions, mines, and government contracts. In the postwar period, *keiretsu* banks and firms also benefited disproportionately from regulatory favoritism and overt subsidies.

Thus, weak institutions, scarce talent, private benefits of control, and the importance of political entrepreneurship all arguably led to the formation and survival of certain corporate group structures. However, we are forced to conclude that other common justifications for corporate groups are at best of second order importance.

One such argument is the view that corporate groups can obtain economies of scope and scale without incurring agency problems. We argue that this view is highly implausible except perhaps for vertical *keiretsu* – though empirical evidence of this is lacking.

Another such argument is that groups can orchestrate intercorporate transfers to outperform financial markets in the task of capital allocation. We argue that, while active capital allocation by a group bank can appear beneficial in the shorter term, the moral hazards and other distortions it induces undermine the group's longer term financial health. Thus, the group banks of the successful *zaibatsu* - Mitsui, Sumitomo, and Mitsubishi – shunned to role of providing an internal capital market. The organ banks of other *zaibatsu* embraced this role and all failed. The *keiretsu* main banks of postwar Japan functioned somewhat like organ banks, and are also ending badly.

Finally, corporate groups themselves clearly affected Japanese institutions.

By lobbying for the suppression of the corporate bond market in postwar Japan, main banks seriously weakened the financial system overall. Thus bank-centered groups, perhaps a response to the weakness of the immediate postwar financial system, became the cause of prolonged financial weakness.

Although *zaibatsu* and *keiretsu* might initially have been devices for extracting economies of scale from scarce talented managers, by entrenching insiders, they ultimately kept talented outsiders out of boardrooms. This certainly affected firm-level performance. But it may have retarded macroeconomic growth as well. Morikawa (1980, 1992) argues that entrenched *zaibatsu* families' risk-aversion and restrictions on external financing to preserve family control retarded prewar Japan's growth. He argues that few projects for Japan's industrialization were initiated by *zaibatsu*. Morck *et al.* (2000) argue that oversight by entrenched bankers may have had a similar effect on *keiretsu* firms.

By engaging in extensive political rent seeking, certain *zaibatsu* obtained a competitive advantage over more classical entrepreneurs who merely innovated and took risks. The collapse of the Suzuki *zaibatsu* because of its lack of connections is one example. Murphy *et al.* (1993) and many others present evidence that pervasive rent-seeking impedes growth. This is because talented individuals are diverted away from genuine entrepreneurship towards more lucrative careers in rent-seeking. It is also because both rent seeking and innovation have increasing returns to scale for individuals and firms. However, rent seeking is a zero or negative sum game, while innovation is a positive sum game. Thus a diversion of talent into ever more lucrative rent seeking diverts ever greater resources into zero or negative sum games, and thus slows growth.

The cooperation of *zaibatsu* and *keiretsu* with industrial policies also led captive regulator problems. Entire ministries were apparently captured by industrial groups through *genkyoku* and *amakudari*. This undermined the state's ability to regulate prudently the economy and the financial system.

Overall, we infer that corporate groups became economically dominant in response to particular institutional constraints. However, they then invested in modifying those constraints to lock in that dominance. These modifications were almost surely not social welfare enhancing. This suggests a dubious value of corporate groups in advanced economies.

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Table 1. Ten Zaibatsu Combines Designated by HCLC for Dissolution

<i>Zaibatsu</i>	<i>Number of subsidiaries in 1937</i>	<i>Number of subsidiaries in 1946</i>	<i>Paid-in capital as % of Japan's 1946 total^a</i>
Mitsui	101	294	9.4
Mitsubishi	73	241	8.3
Sumitomo	34	166	5.2
Yasuda	44	60	1.6
<i>The big four total</i>	252	761	24.5
Nissan	77	179	5.3
Asano	50	59	1.8
Furukawa	19	53	1.5
Okura	51	58	1.0
Nakajima	-	68	0.6
Nomura	-	19	0.5
<i>The other six total</i>	197	439	10.7
<i>Top ten zaibatsu total</i>	449	1200	35.2

Source: HCLC volumes as cited in Hadley (1970), Takahashi and Aoyama (1938, pp. 151-152).

^a Japanese government estimates for Japan's paid-in capital in 1946 are: 32 billion yen (Ministry of Commerce and Industry), 43 billion yen (Ministry of Finance) and 48 billion yen (Bank of Japan). The HCLC used the Ministry of Commerce and Industry estimate without any explanation in deriving these figures.

Table 2. Ownership shares of the Mitsui families

<i>Mitsui family member in 1694</i>	<i>1694 Takatoshi's will^a</i>	<i>1722 Takahira's will^b</i>	<i>1867 – 1873 End of Edo/ Meiji Rest.</i>	<i>1909 Mitsui partnership established^c</i>
Mitsui, Takatoshi's sons				
Oldest son	29(41.5%)	62(28.2%)	62(28.2%)	230(23.0%)
Second oldest son (Takahira)	13(18.6)	30(13.6)	30(13.6)	115(11.5)
Third oldest son	9(12.9)	27(12.3)	27(12.3)	115(11.5)
Fourth oldest son	7.5(10.7)	25(11.4)	25(11.4)	115(11.5)
Sixth oldest son	4.5(6.4)	22.5(10.2)	---	---
Ninth oldest son	1.5(2.1)	22.5(10.2)	22.5(10.2)	115(11.5)
Tenth oldest son (merged with sixth)	1.2(2.1)	---	22.5(10.2)	115(11.5)
Other relatives and wife				
1 Takatoshi's wife	100kanme of silver	---	---	---
2	2(2.9)	8(3.6)	8(3.6)	39(3.9)
3	1.5(2.1)	---	---	---
4	0.8(1.1)	6(2.7)	6(2.7)	39(3.9)
5	---	7(3.2)	7(3.2)	39(3.9)
6	---	---	2.5(1.2)	39(3.9)
7	---	---	3(1.4)	39(3.9)
Remainder	---	10(4.5)	4.5(2.0)	---
Total	70(100%)	220(100%)	220(100%)	1,000(100%)

^a The founder of the Mitsui family enterprise, Hachirobei-Takatoshi Mitsui (1622-1694), began co-ownership of their family business. His 1694 will states that total family business annual profits be divided into 70 units for an annual distribution among his wife and sons.

^b Takahira, the second generation head of the Mitsui family business, revised the profit distribution method in his 1722 will. The will states that total annual profits be divided into 220 units for an annual distribution among the family owners of the business. In this revision the ownership shares of the first and second sons' families were decreased while the ownership shares of other family members and relatives were increased. These revised ownership shares remained unchanged for the following 150 years.

^c After the revision of the Mitsui family constitution was worked out during the first 20 years of the Meiji period, the Mitsui family partnership was created and its ownership shares remained unchanged into the 1940s.

Table 3. Amounts of shares held (paid-in book value, 1000 yen)

Company	Date	Shares held (paid-in book value, ¥1000)
Mitsui Bussan	April 1910	1,699
Mitsui Bank	December 1909	4,893
Mitsui Partnership	January 1910	42,420

Table 4. The Mitsui Zaibatsu Companies in 1930

	Authorized capital (million yen)	Paid-in capital (million yen)	Mitsui Gomei percent stake
Mitsui family holding company			
Mitsui Gomei	300	300	n/a
<i><u>Mitsui's designated subsidiaries</u></i>			
<i>Mitsui Bank</i>	100	60	100
Mitsui Bussan	100	100	100
Mitsui Mining	100	62.5	100
Toshin Warehousing	15	12.5	100
Mitsui Trust	30	7.5	100
Mitsui Life Insurance	2	0.5	100
<i><u>Subsidiaries of Mitsui's designated subsidiaries</u></i>			
<i>Taiheiyo Colliery</i>	11	5.5	
Kamaishi Mining	20	20	
Claude-Process Nitrogen Industries	10	10	
Toyo Cotton Trading	25	15	
Toyo Rayon	10	10	
<i><u>Mitsui's ordinary subsidiaries</u></i>			
<i>Ojo Paper</i>	65.91	48.68	24
Shibaura Engineering Works	20	20	56.4
Hokkaido Colliary & Steamship	70	43.68	19.7 ^a
Nippon Steel Works	30	30	12.5
Dai Nippon Celluloid	10	10	27.9
Kanegahuchi Cotton Spinning	60	28.6	5.3
Onoda Cement	31	21.82	9.6
Denki Kagaku Kogyo	18	17.5	6.9
Mitsukoshi Department Store	15	15	0

Source: Shogyo Koshinsho (1930), Morikawa (1992)

a. Also 20.7% owned by Mitsui Mining.

Table 5. Industrial Diversification of the Ten Major Zaibatsu in 1945, in Millions of Yen.

<i>Zaibatsu</i>	Industry				<i>Zaibatsu</i> Total	<i>Zaibatsu</i> (% of economy)
	Finance	Heavy Industry	Light Industry	Other		
Mitsui	169	2,214	274	404	3,061	9.4
Mitsubishi	160	1,866	73	605	2,704	8.3
Sumitomo	65	1,469	29	102	1,667	5.2
Yasuda	209	119	117	64	510	1.6
Nissan(Aikawa)	5	1,558	103	38	1,703	5.3
Asano	0	419	89	76	594	1.8
Furukawa	4	479	3	4	490	1.5
Okura	6	218	34	56	314	1.0
Nakajima	0	188	24	0.768	213	0.6
Nomura	26	50	27	62	165	0.5
Top ten zaibatsu total	644	8,582	773	1,412	11,420	35.0
Economy total	1,215	17,513	4,600	9,108	32,437	100.0
Top ten zaibatsu (% of economy)	53	49	17	16	35	

Source: Holding Company Liquidation Committee (HCLC), Japanese zaibatsu and its dissolution, as cited in Yasuoka (1976, pp. 34-35).

Table 6. Kuhara Mining Company: the composition of shareholders, 1918-1927

	June 1918	June 1920	May 1927
Total number of outstanding shares	1,500,000	1,500,000	1,500,000
Total number of shareholders	9,761	13,842	14,858
Average number of shares held per shareholder	153.7	108.0	100.9
<i>Shareholders with 5000 or more shares</i>			
Total number of shareholders	31	20	18
Share ownership (%)	67.3	51.4	44.3
Average number of shares held per shareholder	32,566.5	38,550.0	36,916.7
<i>Shareholders with fewer than 500 shares</i>			
Total number of shareholders	9,544	13,649	14,739
Share ownership (%)	28.5	35.8	39.6
Average number of shares held per shareholder	44.7	40.0	40.3
<i>Kuhara family and relatives</i>	45.6%	45.1%	37.3%

Source: Udagawa (1976) in Yasuoka (1976).

Table 7
Rankings of the Top Zaibatsu as of Midyear 1937 by Number of Firms and Paid-in Capital

Zaibatsu	Number of Group Firms	Total Paid-in Capital
1. Mitsui	101	¥1,177,200,000
2. Mitsubishi	73	¥848,204,000
3. Nissan	77	¥473,632,000
4. Sumitomo	34	¥383,800,000
5. Yasuda	44	¥263,866,000
6. Asano	50	¥236,261,000
7. Nichitsu	26	¥197,100,000
8. Mori	20	¥141,996,000
9. Okura	51	¥133,845,000
10. Furukawa	19	¥101,994,000

Source: Yasuoka (1976)

Table 8
Suzuki Trading Company debt to the Bank of Taiwan (yen)

Year	New Debt	Total Debt
1920	---	80,811,300
1921	42,907,587	123,718,887
1922	55,317,426	179,036,313
1923	47,869,445	226,905,758
1924	49,145,662	276,051,420
1925	37,223,293	313,274,713
1926	43,581,754	356,856,470
1927	22,002,099	378,858,569

Source: Fouraker (2001, p.8)

Table 9. Six Largest Zaibatsu Banks' Deposits and Loans, 1931-1937

Date	Deposits (Loans) in million yen					
	<i>Mitsui</i>	<i>Mitsubishi</i>	<i>Daiichi</i>	<i>Sumitomo</i>	<i>Yasuda</i>	<i>Sanwa</i>
June 1931	710 (413)	647 (313)	659 (371)	684 (402)	610 (438)	---
June 1932	620 (441)	616 (344)	648 (394)	679 (423)	607 (460)	---
Dec. 1932	687 (429)	640 (317)	703 (399)	735 (447)	664 (479)	---
June 1933	696 (386)	705 (324)	769 (406)	815 (472)	730 (507)	---
Dec. 1933	715 (409)	661 (274)	787 (418)	798 (461)	740 (511)	1025 (519)
June 1934	759 (366)	696 (259)	816 (409)	827 (426)	800 (519)	1063 (489)
Dec. 1934	748 (383)	722 (265)	852 (422)	872 (466)	807 (548)	1077 (496)
June 1935	759 (380)	752 (265)	868 (432)	886 (471)	818 (571)	1080 (494)
Dec. 1935	796 (451)	730 (294)	913 (448)	952 (522)	832 (578)	1114 (494)
June 1936	824 (437)	805 (341)	940 (450)	970 (543)	891 (616)	1151 (526)
Dec. 1936	856 (518)	810 (370)	972 (545)	1017 (618)	928 (679)	1197 (532)
June 1937	904 (531)	903 (441)	1054 (657)	1093 (691)	1023 (744)	1263 (577)

Source: Mitsubishi Bank (1954), Ogura (2002)

Table 10. Japanese Production Output by Industry, 1929 and 1942 (in 1,000 yen)

Rank	1929		1942	
	Industry	Output	Industry	Output
1	raw silk	795,599	iron and steel	2,626,512
2	cotton yarn	678,466	navy and army arsenals	2,294,100
3	electric power	658,316	aircraft	1,930,400
4	broad cotton fabrics	526,096	guns, bullets and weapons	1,915,242
5	national railways	517,795	national railways	1,441,921
6	Japanese sake	302,120	electric power	1,375,943
7	coal mining	245,762	coal mining	1,077,769
8	private railways	232,254	shipbuilding	858,377
9	military ordinance	208,537	industrial chemicals	785,169
10	state-run steel mills	189,551	special steel	753,170
11	printing	186,304	electrical machinery	633,292
12	wool fabrics	176,896	medicine	630,800
13	steel products	173,833	private railways	560,337
14	sugar	158,125	lumber	551,600
15	flour milling	134,895	pig iron	502,631
16	chemical fertilizers	132,711	raw silk	463,098
17	broad silk fabrics	129,516	metal machine tools	449,442
18	lumber	112,170	coke	421,210
19	non-ferrous metal mining	108,204	cotton yarn	327,520
20	copper	108,166	tools	323,895

Source: Yamazaki (1988, p.13)

Table 11. Group Affiliations of the Fifty Most Firms with Highest Net Profits

	<i>1929</i>	<i>1943</i>	<i>1955</i>	<i>1973</i>	<i>1984</i>
State controlled firms^a	9	20	2	2	3
Firms	5	14			
Banks	4	6			
Foreign controlled firms	0	0	0	1	1
Zaibatsu total	16	25	23	23	19
“Old” zaibatsu total	16	17	-	-	-
Mitsui	7	7	3	4	3
Mitsubishi	5	6	6	7	6
Sumitomo	2	1	2	3	2
Yasuda	1	1	-	-	-
Furukawa	-	1	-	-	-
Asano	1	1	-	-	-
“New” zaibatsu total	-	8	-	-	-
Nissan	-	5	-	-	-
Nichitsu	-	2	-	-	-
Nisso	-	1	-	-	-
Keiretsu total^d	-	-	23	23	19
“Old” keiertsu total	-	-	11	14	11
“New” keiertsu total	-	-	12	9	8
Fuji	-	-	4	5	3
Sanwa	-	-	5	2	3
Daiichi-Kangyo	-	-	3	2	2
Independent	29	14	25	24	27

Source: Yamazaki (1988, p.17)

- a. In 1943 three Manchurian firms are double-counted to be affiliated with both the government and the Nissan Zaibatsu.
- b. Mitsui, Mitsubishi, Sumitomo, Yasuda, Furukawa, and Asano.
- c. Nissan, Nichitsu, and Nisso.
- d. For the post WWII years firms with two keiretsu affiliations, such as Hitachi, Ltd. and Nippon Express, are counted as independent.

Table 12. Number of First-Tier Subsidiaries and Stockholding Ratios (1928)

	Number of first-tier subsidiaries	Stockholding ratio: shares held by family and headquarters (%)	Stockholding ratio: shares held by all members of the same Zaibatsu (%)
Mitsui	6	90.2	90.6
Mitsubishi	10	69.4	77.6
Sumitomo	13	79.1	80.5
Yasuda	12	31.7	48.1
Furukawa	4	72.8	89.4
Asano	6	50.8	---
Okura	20	84.7	92.7

Source: Takahashi (1930), Yamazaki (1988)

Table 13. Shareholding by Large Block Holders

	1919	1936
Number of sample firms	379	477
Holdings by large shareholders		
No. of shareholders (%)	0.59	0.36
No. of outstanding shares (%)	21.0	37.4
Individuals(%)	15.5	5.9
Banks(%)	0.8	2.1
Ins./securities/trust firms(%) ^a	0.5	4.8
Corporations(%)	3.1	20.7 ^b
Average number of shareholders/firm	2,040	3,589
Average number of shares held/shareholder		
12 largest shareholders	4,644	17,434
other	103	95

Source: Shimura (1969), Takeda (***)

^a insurance firms, securities firms, trust banks/firms

^b Holding firms owned 53.8% of these shares owned by corporations.

Table 14. Changes in Zaibatsu Structure, 1929 to 1943**Panel A. First tier subsidiaries ownership structure**

<i>Subsidiary</i>	<i>Number of shareholders of</i>		<i>Combined stake of other zaibatsu companies (%)</i>	
	<i>1929</i>	<i>1943</i>	<i>1929</i>	<i>1943</i>
Mitsui Bussan	31	15,155	100	75.8
Mitsui Mining	26	6912	100	84.8
Mitsubishi Shipbuilding	23	6912	100	40.9
Mitsubishi Shoji	20	5940	100	47.2
Sumitomo Steel	14	7557	100	41.4

Panel B. First tier subsidiaries that experienced mergers

<i>Subsidiary</i>	<i>Number of shareholders of</i>		<i>Combined stake of other zaibatsu companies (%)</i>	
	<i>1929</i>	<i>1943</i>	<i>1929</i>	<i>1943</i>
Oji Paper CO.	6000	23516	25.2	3.5
Toshiba Electric	211	5885	58.4	15.1

Panel C. Average Percentage Ownership of Group Companies by Other Zaibatsu Companies

	1929	1943
Mitsui	51	31.7
Mitsubishi	52.5	35.2
Sumitomo	52.9	32.8
Yasuda	46.4	58.3
Furukawa	65.2	44.5
Asano	19.8	21.5

Source: Yamazaki (1989).

Table 15. Composition of 10 Largest Stockholders of Independent Enterprises: 1929 and 1943

	1929				1943				
	<i>corporations</i>	<i>financial institutions</i>	<i>family holding companies</i>	<i>individuals</i>	<i>corporations</i>	<i>financial institutions</i>	<i>family holding companies</i>	<i>individuals</i>	
Toyo Spinning	3.1%	0.8	1.1	8.0	Toyo Spinning	8.2%	2.8	1.1	3.5
Osaka Godo Spinning	6.2	2.3	1.9	7.1	Spinning (merged)				
Dai Nippon Spinning	5.5	---	1.1	7.0	Dai Nippon Spinning	7.6	1.8	1.0	3.1
Sanjushi Bank	4.6	0.9	2.4	6.9					
Yamaguchi Bank	36.2	1.0	33.3	10.7	Sanwa Bank (merged)	19.2	4.9	14.2	4.7
Kamoike Bank	85.6	---	82.9	13.3					
Dai Nippon Sugar Mfg.	6.9	2.8	2.9	6.0	Dai Nippon Sugar Mfg.	22.1	17.4	4.7	1.6
Dai Nippon Breweries	10.8	2.1	8.7	3.0	dai Nippon Breweries	13.8	10.8	1.2	---
Nippon Oil	9.1	1.9	7.2	7.4	Nippon Oil	9.4	2.9	5.6	9.5
Kobe Steel Works	---	---	---	---	Kobe Steel Works	38.7	27.2	---	---
Kawasaki Shipbuilding	17.0	---	15.9	15.2	Kawasaki Heavy Ind.	29.5	4.2	2.5	---
Osaka Mercantile Steamship	3.1	---	1.5	4.4	Osaka Mercantile Steamship	5.8	1.5	0.4	1.2
Meguro					Meguro				
Kamata Electric Railway	28.1	23.5	4.5	30.4	Kamata Electric Railway	25.5	13.8	2.9	2.2

Source: Yamazaki (1988, p.38)

Table 16. Ownership Structures of Top Four *Zaibatsu* in 1945

	Firms	Shares	Percent Stakes of Zaibatsu Parties			Total
			Family	Apex firm	First tier firms	
Mitsui	1	10,000	63.6	---	0.9	64.5
First tier firms	10	17,979	9.5	53.9	11.9	75.3
Second tier firms	13	9,038	0.0	35.9	17.2	53.1
Mitsubishi	1	4,800	47.8	---	10.8	58.6
First tier firms	11	41,234	1.4	28.9	15.3	47.5
Second tier firms	16	8,053	0.2	18.2	40.3	58.7
Sumitomo	1	600	83.3	---	16.7	100.0
First tier firms	17	34,312	8.4	19.5	16.6	44.5
Second tier firms	6	5,325	0.5	12.7	30.7	43.9
Yasuda	1	300	100.0	---	---	100
First tier firms	20	9,469	3.5	24.3	17.8	45.6
Second tier firms	12	3,860	0.1	16.9	15.3	32.3

Source: HCLC (1950), Ministry of Finance (1982)

Table 17. New Share Issues, 1948-1953

	<i>1948</i>	<i>1949</i>	<i>1950</i>	<i>1951</i>	<i>1952</i>	<i>1953</i>
A Number of new shares issued	50,094	78,718	39,192	83,644	123,336	91,569
B Percent of (A) issued to finance restructuring	30.5	17.0	5.6	0.3	—	---
C No. of shares released by HCLC for <i>zaibatsu</i> dissolution purposes	40,317	39,711	854	996	—	---
D Average price per share	---	128.85	74.00	93.8	124.06	156.05
E Stock return (%)	4.02	4.65	6.61	7.99	8.02	7.96
F Excess return above interest rate	-4.80	-4.96	-2.47	-1.22	-1.03	-0.85

Notes: Figures in (A), (C) and (D) are for 1,000 shares.

Source: Miyajima (1994).

Table 18. Tokyo Stock Exchange Price Index

	1949	1950	1951	1952
Low	98.50 (December)	85.25 (July)	102.20 (January)	167.80 (January)
High	176.88 (September)	114.99 (August)	170.20 (October)	370.56 (December)

Table 19. Price-capital stock and price-equity ratios for Mitsui, Mitsubishi and Sumitomo zaibatsu firms, 1949 - 1953

		<i>1949</i>	<i>1950</i>	<i>1951</i>	<i>1952</i>	<i>1953</i>
Mitsubishi	W/K	1.61	0.46	0.39	0.72	1.00
	W/E	2.43	0.68	0.45	0.75	0.97
Sumitomo	W/K	1.96	0.34	0.35	0.78	0.86
	W/E	3.22	0.34	0.31	0.68	0.77
Mitsui	W/K	0.91	0.27	0.27	0.45	0.57
	W/E	1.71	0.34	0.44	0.75	0.80

Notes: W=average share price; K=fixed capital stock (book value); E=stockholders' equity set equal to [total assets (book value) - total debt (book value)]. The numbers of firms included for Mitsubishi, Sumitomo and Mitsui groups are 15, 8 and 12, respectively.
Source: Miyajima (1994).

Figure 1
A Stylized Representation of a Zaibatsu Control Pyramid

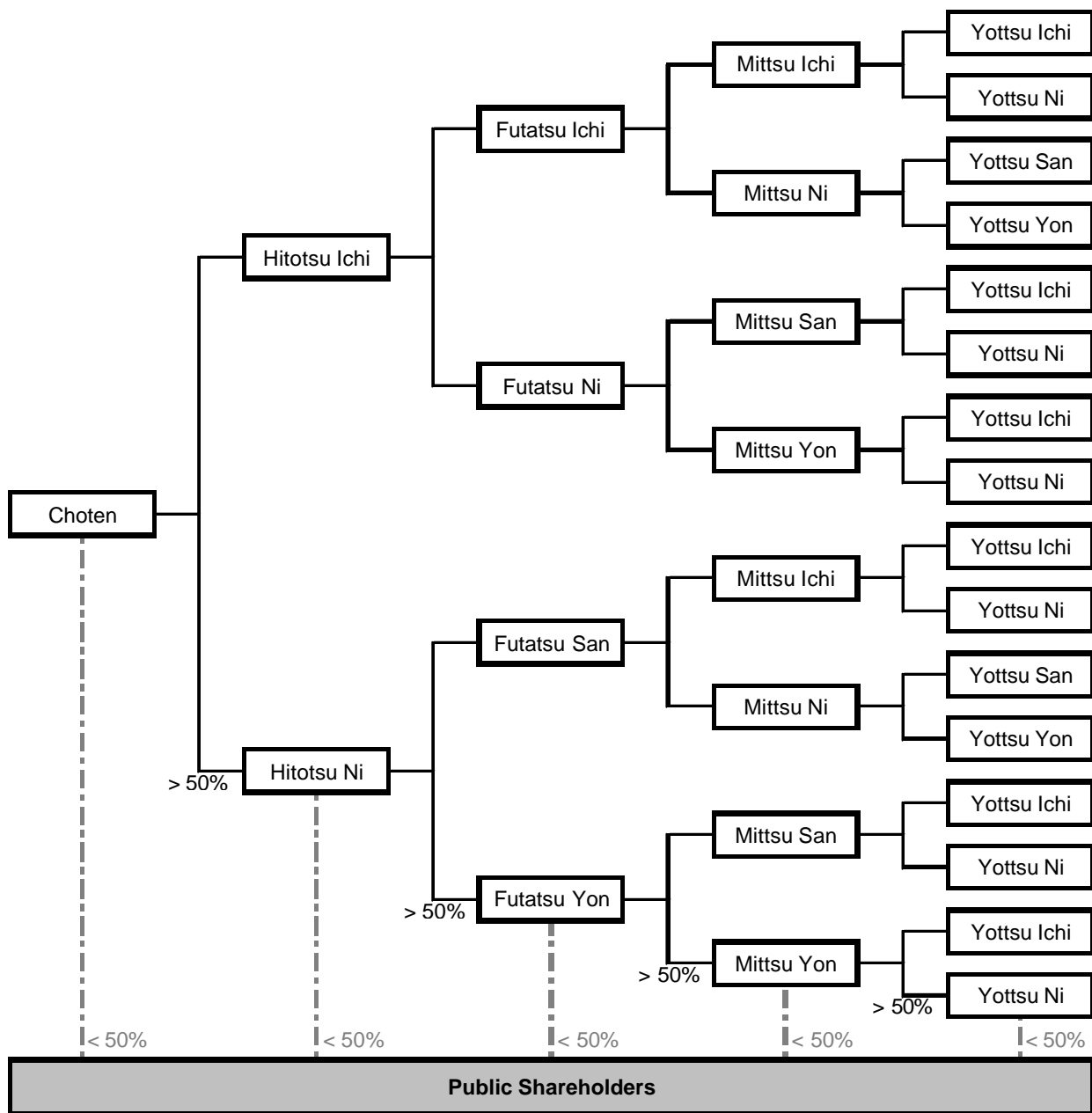


Figure 2.A
Structure of the Mitsui Zaibatsu, 1928

	(Thousands of Yen; %)	Ratio of stockholding by Mitsui line enterprises
Mitsui Bussan	100,000	100.0
Mitsui Life Insurance	500	50.0
Mitsui Bank	60,000	67.5
Mitsui Trust Bank	7,500	47.5
Mitsui Mining	62,500	100.0
Toshin Warehousing	11,500	100.0
Sub-Total	242,000	90.2
Oji Paper Manufacturing	48,683	24.0
Hokkaido Colliery and Steamship	43,674	19.7
Kanagafuchi Cotton Spinning	28,596	5.4
Shibaura Electric Machine Manufacturing	20,000	56.3
Taiwan Sugar Refining	38,100	6.1
Gunze Silk Reeling	11,717	3.9
Electrical Chemical	17,500	6.9
Onoda Cement Manufacturing	18,600	9.9
Mitsukoshi Department Store	11,000	
Tropical Industries	5,525	39.1
Taiwan Colonization and Tea Manufacturing	-	-
Dai Nippon Celluloid Manufacturing	10,000	27.9
Sub-Total	253,395	17.3

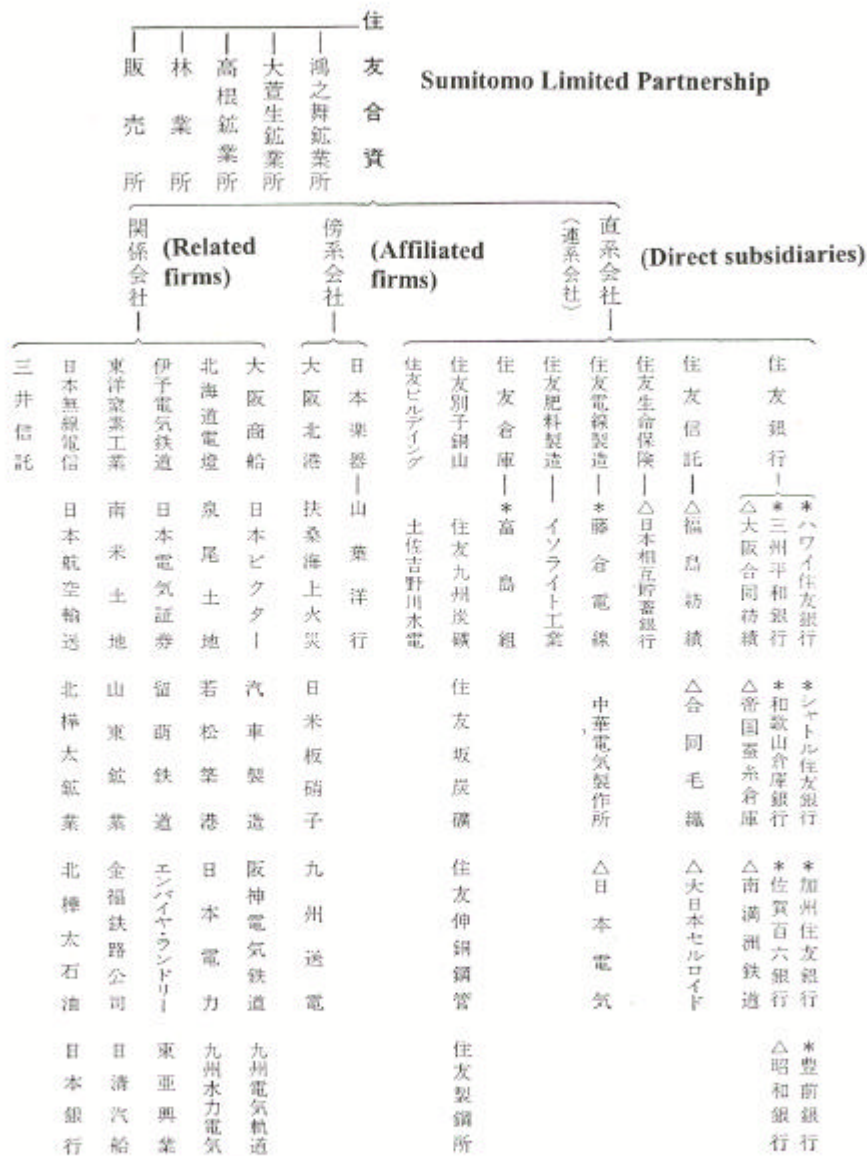
First-rank Subsidiary Companies

Second-rank Subsidiary Companies

Mitsui Gomei (Headquarters)

Source: Takahashi (1930)

Figure 3
Structure of the Sumtomo Zaibatsu, 1930



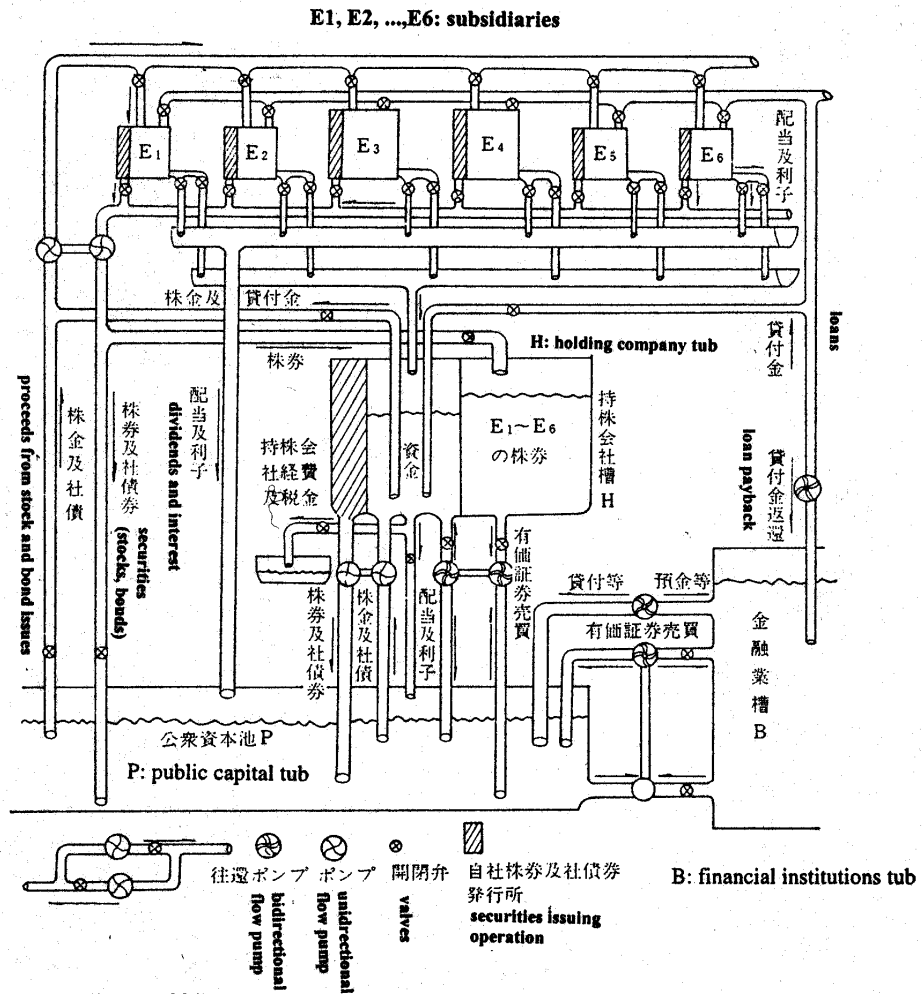
(注) 表中 *印は住友の支配力がほぼ決定的なもの、無印は同じく準支配的なもの、△印は住友の支配力が上の二種以下の関係会社である。

(出所) 高橋龜吉『日本財閥の解剖』161頁。

Notes: Sumitomo Partnership controls the firms with asterisks fully and the firms with no asterisks or triangles predominantly but not fully. Sumitomo Partnership's control is weakest over the firms with triangles.

Source: Takahashi (1930, p.161) and Yasuoka (1976)

Figure 6
Aikawa's Vision for Using Capital Markets for Financing Nippon Sangyo (Nissan)



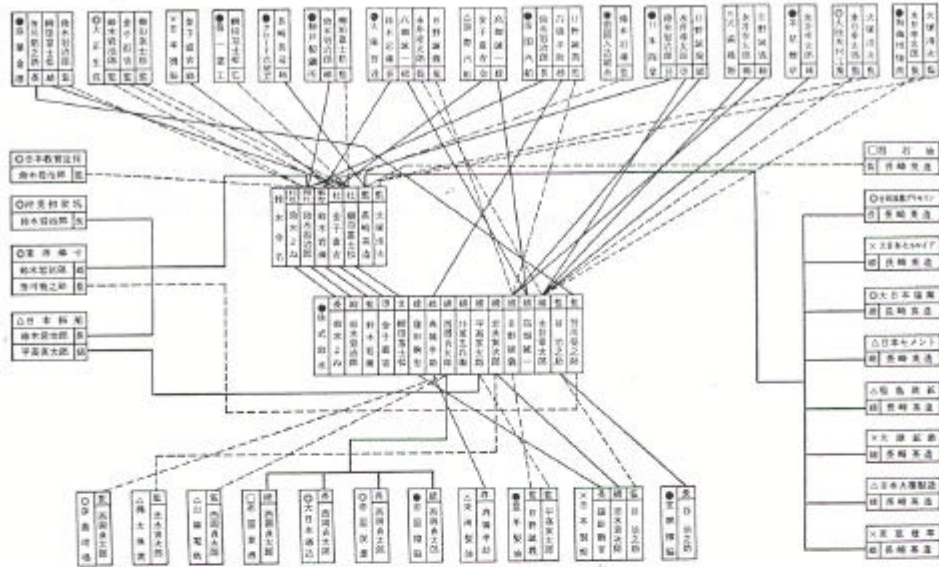
Source: Aikawa (1934)

Figure 7
Representative Local Zaibatsu Families

Name	Location	Holding Co. (capital in 10,000 yen)	Family members/relatives	Business	Where they invested
地方産家 (代表名)	住 所	本 社 (資 本 金)	家 族・同 族	家 業	投 資 先
板谷 宮吉	北海道小樽		宮吉, 順助 (宮吉養子)	醸造 糶穀肥料問屋 板谷商船 北門貯蓄銀行	南洋郵船 北海水力電気 洞爺湖電鉄 樺太銀行
相馬 哲平	北海道函館	相馬合名 (400万円)	哲平, 堅弥 (同長男), 市作 (同長女の夫), 省三 (同次男), 康平 (同次女の子)	相馬商店 (問屋, 金融, 漁業, 鉱業) 相馬銀行	百十三銀行 函館貯蓄銀行
茂木 七左衛門	千葉野田	千秋社 (株)	七左衛門, 高梨兵左衛門 (七左衛門の妹の夫)	醤油醸造	野田醤油 野田商勝銀行 野田運輸
中野 忠太郎 (實一長男)	新潟金津	中野興業 (2,500万円)	忠太郎, 信吾 (實一次男), 幸次 (忠太郎次男), 冬松 (實一次女の夫)	中野興業 (原油採掘販売) 中野産産興業	日本石油 新潟港海倉庫 瀧原鉄道
西脇 濟三郎	新潟小千谷	西脇合名	濟三郎, 健次 (同弟), 新次郎 (同姉の夫)	西脇銀行 西脇商店	小千谷銀行 北越水力電気 三光紡績
片倉 兼太郎 (三代目)	長野諏訪	片倉合名	兼太郎 (二代長男・初代甥), 勝衛 (初代いとこの長男), 武雄 (初代長男), 今井五介 (初代弟) 等21名	片倉製糸 日東紡績 片倉生命 片倉産産 片倉木炭肥料	信州電気 昭和網靴下
鈴木 与平 (六代目)	静岡清水			鈴木商店 (回漕, 米穀肥料・塩・石炭問屋, 運送) 鈴木倉庫	清水銀行 三十五銀行 清水運送 清水食品
中益 半左衛門	愛知半田		半左衛門, 又左衛門, 半六, 良吉, 盛田善平	中益酢店 中益醤油店 中益酒店 中益銀行 中益貯蓄銀行 半田倉庫 敷島屋製粉所	日本麦酒釀泉 知多鉄道
伊藤次郎左衛門	名古屋	伊藤總本店 伊藤産業合名 (1,000万円)	次郎左衛門, 松之助 (同長男), 健次郎 (同次男), 鈴三郎 (同三男)	松阪屋 伊藤銀行 山東煙草 山東薬業 三精商店	愛知銀行 日本貯蓄銀行 中央信託 名古屋製陶 愛知時計電機
辰馬 吉左衛門	兵庫西宮		吉左衛門	辰馬本家酒造 (白鹿醸造元) 辰馬汽船 辰馬海上火災保険 夙川土地	三十四銀行 神戸瓦斯 神戸海上運送火災保険 宇治川土地
八馬 兼介	兵庫西宮	多聞合資 (200万円)	兼介, 安二良 (同弟), 駒雄 (同上)	西宮酒造 多聞興業 八馬汽船	武庫銀行 西宮銀行 神戸海上運送火災保険 兵庫大同信託
伊藤 長次郎	兵庫印南	伊藤社 (資) (170万円)	長次郎, 熊三 (同長男), 勇次郎	酒造業 伊藤土地合名	三十八銀行 神榮生糸 昭和毛糸紡績 山陽中央水電
大原 孫三郎	岡山倉敷		孫三郎	倉敷紡績 倉敷紡織	中国銀行 岡山合同貯蓄銀行 中国信託
安川 敬一郎	福岡戸畑	安川松本合名	敬一郎, 松本健次郎 (敬一郎次男), 安川清三郎 (同三男), 安川第五郎 (同五男)	明治薬業 九州製鋼 明治紡績 安川電機 黒崎薬業	若松薬港 高徳薬業
貝島 太市	福岡直方	貝島合名 (2,000万円)	太市 (太助三男), 栄一 (太助孫・宗家), 健次 (栄一叔父), 栄四郎 (栄一叔父)	貝島薬業 貝島商事 貝島乾溜 貝島木材防腐	中央火災傷害 若松薬港
麻生 太吉	福岡飯塚		太吉, 太七 (同弟), 義之介 (同養子)	麻生商店 嘉穂銀行 嘉穂貯蓄銀行 嘉穂電機	九州水力電気 若松薬港 幸袋工作所

Source: Morikawa (1976) in Yasuoka (1976)

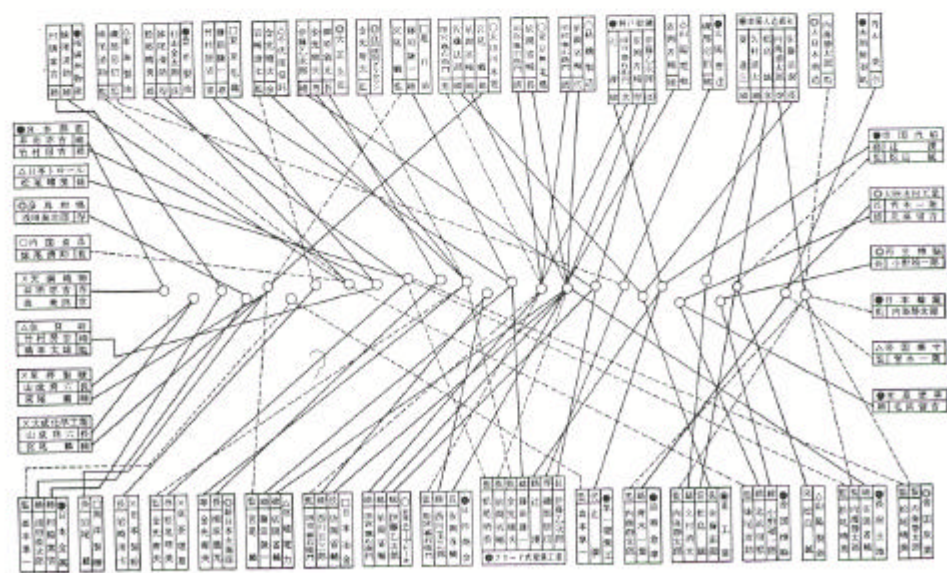
Figure 9A
The Suzuki Zaibatsu: Cross Appointed Board Directors, 1926



(注) 1. 社=社員(代社=代表社員)、理=理事、監=監事(主元は監査役)、会=会長、専=専務、常=常務、代=代表取締役、幹=取締役。
2. 役員のみは大正12年改組当初現在を示す。
3. 日本製粉の統合、図VI・1は大正15下半年社長交替前を示す。交替後は藤=藤田・志水、監=谷となる。

Source: Katsura (1976) in Yasuoka (1976)

Figure 9B
The Suzuki Zaibatsu: Cross Appointed Board Directors, 1926
(Excluding Suzuki Partnership and Suzuki Joint Stock Company)



Source: Katsura (1976) in Yasuoka (1976)

Figure 10
How Cross Holdings Affect the Value of Shares Upon Dissolution

Panel A. Prior to Dissolution

	Apex firm																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Firm A</th></tr> <tr><td>Assets:</td><td>¥100 million Real assets</td></tr> <tr><td></td><td>¥100 million Shares of B</td></tr> <tr><td></td><td style="border-top: 1px solid black;">¥200 million Total</td></tr> <tr><td>Income:</td><td>¥10 million Operating Income</td></tr> <tr><td></td><td>¥10 million Dividends from B</td></tr> <tr><td></td><td style="border-top: 1px solid black;">¥20 million Total</td></tr> <tr><td>Shares:</td><td>¥100 Price per share</td></tr> <tr><td></td><td>¥10 Dividend per share</td></tr> <tr><td></td><td>1 million Zaibatsu family</td></tr> <tr><td></td><td>1 million Subsidiary B</td></tr> <tr><td></td><td style="border-top: 1px solid black;">2 million Total</td></tr> </table>	Firm A		Assets:	¥100 million Real assets		¥100 million Shares of B		¥200 million Total	Income:	¥10 million Operating Income		¥10 million Dividends from B		¥20 million Total	Shares:	¥100 Price per share		¥10 Dividend per share		1 million Zaibatsu family		1 million Subsidiary B		2 million Total	
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	1 million Public shareholders																								
	1 million Parent firm A																								
	2 million Total																								
	Subsidiary also owns shares in apex firm																								

Panel B, After Dissolution

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Firm A</th></tr> <tr><td>Assets:</td><td>¥100 million Real assets</td></tr> <tr><td></td><td style="border-top: 1px solid black;">¥100 million Total</td></tr> <tr><td>Income:</td><td>¥10 million Operating Income</td></tr> <tr><td></td><td style="border-top: 1px solid black;">¥10 million Total</td></tr> <tr><td>Shares:</td><td>¥50 Price per share</td></tr> <tr><td></td><td>¥5 Dividend per share</td></tr> <tr><td></td><td>2 million Public shareholders</td></tr> <tr><td></td><td style="border-top: 1px solid black;">200 million Total</td></tr> </table>	Firm A		Assets:	¥100 million Real assets		¥100 million Total	Income:	¥10 million Operating Income		¥10 million Total	Shares:	¥50 Price per share		¥5 Dividend per share		2 million Public shareholders		200 million Total	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2" style="text-align: center;">Firm B</th></tr> <tr><td>Assets:</td><td>¥100 million Real assets</td></tr> <tr><td></td><td style="border-top: 1px solid black;">¥100 million Total</td></tr> <tr><td>Income:</td><td>¥10 million Operating Income</td></tr> <tr><td></td><td style="border-top: 1px solid black;">¥10 million Total</td></tr> <tr><td>Shares:</td><td>¥50 Price per share</td></tr> <tr><td></td><td>¥5 Dividend per share</td></tr> <tr><td></td><td>2 million Public shareholders</td></tr> <tr><td></td><td style="border-top: 1px solid black;">200 million Total</td></tr> </table>	Firm B		Assets:	¥100 million Real assets		¥100 million Total	Income:	¥10 million Operating Income		¥10 million Total	Shares:	¥50 Price per share		¥5 Dividend per share		2 million Public shareholders		200 million Total
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	2 million Public shareholders																																				
	200 million Total																																				

Figure 11
Post-World War II Circular Ownership Structure: Keiretsu

