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The Ownership of Japanese Corporations in the 20th Century

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Abstract

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Keywords: Japan, corporate ownership, insider system, trust, investor protection

JEL Classifications: G32, K22

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Abstract

Twentieth century Japan provides a remarkable laboratory for examining how an externally imposed institutional and regulatory intervention affects the ownership of corporations. In the first half of the century, Japan had weak legal protection but strong institutional arrangements. The institutions were dismantled after the war and replaced by a strong form of legal protection. This inversion resulted in a switch from Japan being a country in which equity markets flourished and ownership was dispersed in the first half of the century to one in which banks and companies dominated with interlocking shareholdings in the second half of the century. (*JEL* G32, K22), *Key words*: Japan, corporate ownership, insider system, trust, investor protection

We do not typically associate Japan with equity finance and dispersed ownership. But that is precisely the pattern of finance and ownership that prevailed in the first half of the 20th century. Stock markets were active, ownership was widely dispersed in a large segment of the corporate sector, and bank finance was modest. In fact, ownership concentration was lower in Japan than in both the United Kingdom and the United States, then and today.

There were marked changes after the Second World War. The American occupation authorities introduced high formal levels of investor protection and instigated the breakup of the zaibatsu, initially resulting in even higher levels of dispersion of equity ownership and in particular widespread ownership in the hands of individual investors. But although dispersion of ownership remained high thereafter, ownership by individuals did not and was gradually replaced by cross-shareholding by banks and corporations, which dominated postwar Japan.

The events of post-WW2 Japan came as close to an exogenous shock, in terms of macrogovernance and regulation, as could be envisaged. What the U.S. authorities attempted to do through dissolving the zaibatsu and imposing investor protection legislation was to change fundamentally the structure of Japanese corporate control from one that was regarded as contributing to the previous aggressive military policies. They succeeded but in a completely different direction from what had been intended. Instead of moving the ownership and financing of corporations away from dominant families to individual investors as was originally intended, it shifted to banks and corporations. This move was in contrast to the United Kingdom and United States, where equity investors, such as life assurance companies, mutual funds, and pension funds, replaced individual investors, and to Germany, where family ownership persisted. As a result, Japan failed to

switch from a family-dominated system to one based on individual and institutional investors but consolidated insider control in the hands of banks and corporations.

The reason for these unintended consequences was that, whereas the appropriate legal structure was put in place to promote equity ownership by outside investors, the institutions were not. Japan's regulatory system and ownership landscape failed to establish an outsider system of ownership because there was no institutional support to underpin it. This paper examines the striking history of a country in which outside ownership was successfully sustained for fifty years in the absence of formal investor protection but was extinguished in the middle of the century and not re-established in the postwar period, despite strong forms of formal investor protection being put in place.

Our approach in this paper in addressing this history is to examine the development of corporate ownership and equity markets either side of the structural break that occurred in the middle of the century, with a particular focus on the institutions that were in place at that time. This paper provides the most comprehensive description to date of corporate share ownership in pre-WW2 Japan based on measures of ownership concentration and insider ownership. Whereas corporate finance in pre-WW2 Japan has been well documented (Okazaki 1999; Hoshi and Kashyap 2001; Teranishi 2005), the evolution of ownership in the 20th century has not.[1] In this paper, we undertake cross-sectional regressions of individual firm ownership and financing at different stages during the century either side of the structural break, using various proxies for the institutional arrangements that were prevailing at the time.

[1]Exceptions are Morck and Nakamara (2005) in English and Imuta (1976) and Shimura (1969) in Japanese, but all are limited to particular years—the turn of the 20th century in the case of Imuta and 1919 and 1936 in the case of Shimura. There are therefore no consistent time-series data on ownership for the pre-WW2 era.

There are two key components to this analysis. The first is the concept of insider and outsider ownership. By outsider ownership we mean investors whose sole interests are in the financial returns of the companies in which they invest. Examples of these are mutual funds, pension funds, and small individual investors. In contrast, insider owners derive private benefits and financial returns from their investments. Those private benefits may be associated with long-term relationships, intergenerational succession within families, and transactions between parties that are not at arm's length.[2] The distinction between insider and outsider ownership is important because insiders' private benefits are generally viewed as being in conflict with, and at the expense of, outside shareholders and their financial returns. However, that need not be the case and we argue that the degree of convergence or divergence of interests between insiders and outsiders is critical to understanding the evolution of corporate ownership.[3] This leads to the second key component of the analysis - institutions of trust. Institutions of trust are institutional mechanisms that allow outside shareholders with a pure financial interest in the performance of the firm to have confidence that their interests will be upheld by those responsible for the management of the firm.

Outside investors are frequently not well placed to exercise direct control themselves. They may be too dispersed to be able to exert effective discipline over management and their investments may be too small to warrant devoting much time or effort to monitoring activities. They rely on others to do this and increasingly, in Western economies, on financial intermediaries and nonexecutive directors. We document that there were at least two parties that performed this function during the first half of the 20th

[2] Insider ownership often refers to ownership by management. Our definition is broader and includes other shareholders who derive private benefits from their ownership, for example, banks and other corporations.
[3] For a recent analysis of the positive role of private control in conferring public benefits through the creation of "idiosyncratic value," see Hamdani and Ghoshen (2013).

century in Japan, business coordinators in the first two decades of the century and family firms, zaibatsu, during the third decade. Business coordinators were investors whose presence encouraged other less-informed outsiders to participate. Zaibatsu had considerable private interests (Morck and Nakamura 2005) and, according to our classification, they were insiders. However, as we show, their inside interests promoted, rather than undermined, outside ownership.

The reason why these institutions of trust and the relation between insiders and outsiders are critical to understanding corporate and financial development is that the more common explanation, namely, legal protection, is not sufficient on its own. According to the legal viewpoint, in light of their vulnerability to exploitation, outside shareholders are only willing to invest where the law provides them with the ability to exercise control themselves. It is the law, rather than institutions, which is conventionally regarded as critical for outside investors (La Porta, Lopez-de-Silanes, and Shleifer 1999).

Japan presents a particularly interesting case in so far as there was little legal protection for 50 years at the beginning of the century when there were good institutions in place, whereas strong investor protection was accompanied by an institutional failure to sustain the interests of outside investors in the second half. Instead, the paper reveals that institutions of trust exercised control on behalf of outside equity investors in the first half, but not in the second half of the century.

The analysis suggests an elaboration of the existing history of corporate Japan. First, outsider ownership in the first half of the 20th century relied on institutional arrangements equivalent to those that have been documented elsewhere, for example, in the United Kingdom. Second, insider bank arrangements of postwar Japan were not carefully crafted but were the product of corporate collapse, fraud, and misdealing by

securities houses in the late 1950s and the early 1960s and of side payments to favored investors through the preferential allocation of shares in the 1970s.[4] This state of affairs came about as a consequence of the destruction of the prewar institutions and an inability of legal regulation to substitute for them.

Not only is 20th century Japan a remarkably powerful laboratory within which to test alternative determinants of systems of capitalism but it also holds important lessons for the 21st century. As Japan once again in this century tries to reform corporate ownership, the key issue is whether the institutions required to do so are more appropriate today than they were 50 years ago. Correspondingly, as China and India shift from developing to developed country status, they too will need to establish the institutions required for the promotion of their stock markets. If they wish to encourage outside ownership, they will require institutions that are trusted by outside shareholders; otherwise, like Japan, share ownership will remain concentrated in the hands of insiders, even if existing share blocks are successfully dismantled. Thus, the institutional arrangements required to sustain large-scale capital market activity will be critical to the evolution of ownership outside of and in Japan. The second half of 20th century Japan demonstrates that regulation cannot substitute for the establishment of appropriate institutional arrangements.[5]

Section 1 examines patterns of share ownership, equity financing, and regulation in the two halves of the 20th century. In the first half, ownership was highly dispersed, levels of concentration of ownership were low, and the number of shareholders was remarkably

[4] Other explanations for the emergence of the banks as major shareholders are discussed by Hoshi (1995), Miyajima (1994), Yafeh (1995), and Morck and Nakamura (2005).

[5] Allen, Carletti, and Marquez (2009) and Allen, Carletti, and Grinstein (2012) provide two recent discussions of the relation between corporate governance and economic performance.

high, certainly by the standards of developed economies at that time. Furthermore, stock markets were active and there was a large amount of new equity issuance. In particular, there were two periods during which there were substantial new equity issues: the first being the first decade of the 20th century when the newly industrialized companies, such as the cotton spinning firms, came to the stock market for the first time, and the second being during the 1930s when there was a boom in IPOs, and the subsidiaries of the zaibatsu that were incorporated after the First World War were floated on the stock market. In the second half of the century, despite the breakup of the zaibatsu, individual share ownership was gradually replaced by corporate and bank holdings, and bank finance replaced equity issuance. Japanese investor protection was weak during the first half of the twentieth century, but the American occupation at the end of the 1940s resulted in a substantial strengthening of investor protection, so much so that in the second half of the 20th century Japan had one of the strongest formal levels of investor protection of any major developed economy. There was therefore a marked shift from weak to strong investor protection from the first to the second half of the 20th century.

Section 2 describes the way in which Japan was able to sustain the presence of outside investors in the first half of the 20th century in the absence of legal protection. It describes two key periods during the first two and the third decade of the century. In the first period, the presence of business coordinators on corporate boards provided a form of quality assurance that encouraged individual investors to subscribe to the new equity issues at the beginning of the 20th century (described in Section 1). In the 1930s, zaibatsu performed a similar certification function, thereby facilitating the extensive new equity issues that occurred during that decade.

Section 3 examines the post-WW2 emergence of insider ownership. It demonstrates how, while there was strong formal legal protection, there was also widespread abuse by securities houses during the 1950s and the early 1960s and the brief expansion of outside share ownership shortly after the war failed to be sustained. Instead, banks and other corporations took equity stakes in distressed companies in the 1950s, acquired shares from failed investment trusts in the 1960s, and purchased new issues from rapidly growing firms at discounted prices during the 1970s, resulting in a switch from outside to inside ownership. Thus, whereas Japan's stock market remained dispersed using conventional metrics of ownership, a large part of share ownership was concentrated in the hands of insiders, rather than in the hands of outsiders, and, unlike business coordinators and zaibatsu, the banks did not promote outside ownership and new equity issuance.

In this century, outside ownership is once again re-emerging. Section 4 concludes the article by considering the implications of the history of 20th century Japan for policy towards corporate ownership in 21st century Asia.

1. Equity Ownership, Financing, and Regulation

1.1 Data

This section describes equity ownership, financing, and regulation in Japan during the twentieth century. We have collected a unique data set on the ownership of Japanese firms throughout the 20th century. The data were collected from several primary sources for individual firms. We used data for the period 1900–1942 from the financial statements of firms and *Company Year Books* (*Kabushiki-Gaisha Nenkan*) to generate samples of the ten largest shareholders. We obtained lists of the ten largest shareholders for the postwar period from the *Year Book of Listed Firms* (*Jōjō-Gaisha Sōran*), *Annual Corporate*

Reports (*Kaisha Nenkan*), the *Overview of Firm Keiretsu* (*Kigyō Keiretsu Sōran*) for 1980, and the *Corporate Finance Data Bank* (*CD-ROM*) (*Development Bank of Japan*) for the years thereafter.

From these sources, we constructed two samples of firms for the prewar period. The samples were drawn from the 100 largest private and public manufacturing and mining companies measured by size of assets in 1918 or 1930 and still existing in 1940; data were available on 79 of these firms.[6] The first sample comprises firms incorporated or reincorporated before 1907 and still existing in 1940. There were fifty such companies in 1907. The second sample of 29 companies consists of those that were incorporated or reincorporated after 1907 and before 1921 and that still existed in 1940. The second sample was collected because the profile of incorporated companies changed significantly between 1907 and 1921 due to tax reforms. There were very few zaibatsu firms incorporated by 1907; most incorporated firms were in light manufacturing industries with relatively low capital intensity. Twenty-four of the fifty companies in the 1907 sample were in the textile industry, and ten were in the food industry.[7] In comparison, the 1921 sample includes many zaibatsu firms and captures the emergence of the heavy manufacturing industries; after textiles, the largest industries were chemicals (including pharmaceuticals), followed by food, mining, and shipbuilding.

We constructed two measures of ownership concentration: a conventional measure of the cumulative percentage share held by the three and the five largest shareholders and the proportion of shares held by insiders and outsiders. We measured ownership

[6] We use the firm list of Fruin (1992), which is limited to manufacturing firms, supplemented by Nakamura (1976), which includes mining firms, to identify the 100 largest firms in 1918 and 1930. The choice of 1940 reflects the fact that thereafter the government implemented a series of mergers to further the war effort.
[7] The industry distribution of our sample is available from the authors upon request.

concentration at seven points in time during the pre-WW2 period: 1900, 1907, 1914, 1921, 1928, 1933, and 1937.

1.2 Dispersion of ownership

Table 1 and Figure 1 show that the mean level of ownership of the top three shareholders in 1907 was 27.2%, whereas that of the top five shareholders was 33.9%.[8] This remained very stable for the next thirty years until 1937. Japanese measures for the top three shareholders compare with estimates of 36% for the United Kingdom in 1920, 31% in 1950 (Franks, Mayer, and Rossi 2009), and 36% for the five largest shareholders in 1990 (Franks, Mayer, and Renneboog 2001).

Concentration of ownership is even greater in the United States. Holderness (2009) reports that 96% of a representative sample of 375 companies had at least one block holder with more than 5% of the common stock, and those aggregate block holdings totaled, on average, 39% of common stock. To compare our measures of concentration of ownership with those of Holderness, we collected seven years of data on block ownership of Japanese companies at various intervals from 1900 to 1937. For example, in 1907 in 38 cases, or 67% of the sample, there was a shareholder with more than a 5% block, compared with 96% in the United States, according to Holderness. In all other years it remained below U.S. levels. By the standards of the United Kingdom and United States at that time (and even more recently by comparison with the United Kingdom), ownership was therefore highly dispersed in Japan at the beginning of the 20th century.

==Table 1 and Figure 1 about here==

[8] Ownership is measured at the first level of a pyramid; however, most of the sample has only one level of ownership, pyramids not being an important feature of our sample.

C3 of the 1921 sample in Table 1 and Figure 1 shows much higher levels of concentration in the 1921 than in the 1907 sample. The mean level of ownership of the top three shareholders in 1921 is 56.3% compared with 29.1% in the 1907 sample. The reason for the much higher level of concentration is that the 1921 sample includes subsidiaries that were spun off from zaibatsu after the First World War and were newly established in heavy industry firms, such as iron and steel, engineering, and chemicals, which in most cases continued to be controlled by their zaibatsu holding company.[9] As a result of initial public offerings (IPOs) by the subsidiaries in the 1930s, the average level of concentration of ownership of the 1921 sample declined in 1933 and 1937. Figure 1 shows the low and relatively stable concentration of ownership of the 1907 sample and the higher and gently declining concentration of ownership of the 1921 sample.

Panel A also shows that in 1900 the mean number of shareholders per company was already 302. By 1907 this had doubled to 675, and by the beginning of the First World War it stood at over 1,000. In the 1920s and 1930s the average number of shareholders rose to around 5,000, even when newly incorporated firms are included (panel C).[10]

== Table 2 about here==

In Table 2 we describe the profile of shareholders. We partition them into outsiders and insiders. We define outside owners as shareholders whose interests are restricted to the financial performance of their investments; they do not derive "private benefits" that may conflict with financial considerations. Examples of outside owners according to this classification are individuals, financial institutions, including securities houses, mutual funds, and foreign investors. Inside owners are families, directors, banks, insurance

[9] There was just one case of a zaibatsu's subsidiary going public before the 1930s in the nonfinancial sector: Mitsubishi Mining.

[10] These figures contrast with an average of 320 in 1910 in the United Kingdom (Franks, Mayer, and Rossi 2009) and 25 in Germany over the period 1890 to 1950 (Franks, Mayer, and Wagner 2006).

companies, and other companies whose interests extend beyond pure financial performance and are sustained by such considerations as their heirs, employment, and creditors. These classifications are obviously not unqualified in so far as some individuals and foreign investors derive private benefits and regulation might restrict the ability of banks or directors to extract private benefits. Nevertheless, we believe the classifications provide a reasonable description of the two classes of shareholders.

Table 2 describes insider and outsider ownership for the prewar period based on the list of the largest ten shareholders. For the 1907 sample, these shareholders account for 48.9% of all shares outstanding in 1900 and 39.1% in 1937. This is consistent with increasing dispersion of ownership described by the metrics in Table 1. We assume that the remaining shares are relatively dispersed and are largely held by outside shareholders.

For the 1907 sample, the percentage held by insiders among the top ten shareholders was fairly stable at between 23.5% and 30.3% during the period 1900 and 1937. At the beginning of the period, individuals (family, entrepreneurs, and bankers) were the dominant shareholders with the largest shareholdings, in 47 of the 50 firms, being held by the founder or a board member. There were also significant holdings in the hands of "business coordinators" (former entrepreneurs, equivalent to venture capitalists), who sometimes took seats on the boards of firms.[11] By 1937, family holdings had declined very significantly, with increased holdings in the hands of corporations, banks, and insurance firms. The aggregate percentage shares held by large outside shareholders among the top ten declined from 14.8% in 1900 to 4.6% in 1937, reflecting the very large increase in the number of small shareholdings reported in Table 1.

[11] Where the business coordinators had seats on the boards they were categorized as insiders in Table 2; otherwise, they were categorized as outsiders.

Turning to the 1921 sample, with the introduction of the zaibatsu corporate form after World War I, zaibatsu holding companies emerged as significant shareholders at the beginning of the 1920s. There was a gradual shift from individual owners to holding companies, corporations, and institutional ownership, and, as in the 1907 sample, between 1921 and 1937 there was an increasing number of shareholders with decreasing average size of shareholdings (see panel B of Table 1).[12] Figure 2 extends the period of the analysis to post-WW2 for the combined 1907 and 1921 samples. Of the sample of 79 firms from the 1907 and 1921 sample, 45 were still in existence in 1990, and it is this sample that forms the basis of Figure 2.[13] The most striking feature is the marked drop in concentration of ownership in 1950. The share of the top three shareholders falls from a mean of 32% in 1937 to 8% in 1950. Thereafter, the share of the top three shareholders increases to 18% in 1960 and 20% in 1970. For comparison purposes, Figure 2 contrasts the Japanese experience with that of the United Kingdom and shows that concentration was low in Japan in comparison with the United Kingdom for the entire 20th century, although, as we record below, the composition of ownership changed dramatically in the second half of the century.

== Figure 2 about here==

The large decline in ownership concentration resulted from changes in ownership ordered by the General Head Quarters of Allied Nations (GHQ) and the newly introduced

[12] Dispersion of ownership may have been encouraged by liquid stock markets that allowed firms to attract shareholders who had liquidity needs and did not wish to commit to invest for long periods of time. Liquid markets sustained participation by a wider group of investors than would have been feasible in illiquid markets. Data on the turnover of shares on the Tokyo Stock Exchange suggest that although in pre-WW2 Japan turnover was approximately half of that today, it was still appreciable. The combination of institutions of trust, which provided assurance to investors about the quality of their investments, and liquid markets attracted not just long-term outside shareholders but also those with short-term liquidity needs. Liquidity may also have allowed investors to exercise governance in the form of exit alongside voice as suggested by Edmans, Fang, and Wur (2013).

[13] The remaining thirty-four firms disappeared through bankruptcy or acquisition prior to the end of our time series.

legal framework. In 1946 GHQ ordered the Japanese Government to sell a majority of the shares held by the zaibatsu family holding companies to the general public.[14] GHQ insisted that the sale was targeted at the small investor, thereby ensuring the shares were sold at a low price.[15] Investors' appetite for the shares was fueled by hyperinflation from 1946–1949.

Notwithstanding the fact that ownership concentration declined in the postwar period, there was a significant change in the nature of the ownership. In particular, it switched from predominantly holdings by outside individual and institutional investors to insiders in the form of banks and other corporations. This suggests that care needs to be exercised in undertaking cross-country comparisons of ownership concentration. Although it is true that Japan had a lower concentration of ownership than did the United Kingdom throughout most of the 20th century, in the second half this was associated with predominantly insider ownership in Japan, whereas, in the United Kingdom, ownership remained predominantly in the hands of outsiders.

1.3 Composition of shareholders

In Table 3, we show the time series of ownership of Japanese firms by type of shareholder during the second half of the 20th century.[16] To analyze how the dispersion of ownership changed in the postwar period, we used a sample of 126 firms drawn from the top 100

[14] Zaibatsu firms were strictly prohibited from buying shares in related companies. Shares owned by the zaibatsu in subsidiary companies were sold to a state holding company, the Holding Company Liquidation Commission, which held the shares temporarily until they were sold. Because the Tokyo Stock Exchange was not open, the shares were sold directly to the public, with priority given to employees and local residents in the place at which the company operated. No individual could purchase more than 1% of a company's stock, and other restrictions were put in place to limit both the type of owners and concentration of ownership (Hadley 1970; Miyajima 1995).
[15] Hadley (1970), HCLC (1951), and Miyajima (1994).
[16] We collect more information than that provided by the Tokyo Stock Exchange, which includes all listed companies. Besides not having data prior to 1949, the Exchange has less information post-WW2 than our database of 126 companies described below.

companies by assets in each of the two years 1937 and 1955. Panel A is based on the top ten large shareholder list, which is drawn from the *Year Book of Listed Firms* (*Jōjō-Gaisha Sōran*) of the Tokyo Stock Exchange and the *Corporate Finance Data Bank* (CD-ROM) (Development Bank of Japan), after 1982.[17] Panel B combines the top ten shareholder list and the Japanese 10Ks in seven different categories of ownership, including financial institutions, investment trusts, nonfinancial firms, securities houses, foreigners, and individuals.[18]

== Table 3 about here==

One striking feature of Table 3 is the low level of insider ownership and high individual ownership immediately after WW2. According to panel A, inside ownership in 1950 was 12.4% compared with 27.6% in 1937. Managerial ownership was almost extinguished, whereas other corporation and bank share holdings were very low, between 2%–3%. The concentration ratio, C3, was 15%, and the number of shareholders increased three times from its level in 1937. According to panel B, outside ownership was high and mostly held by individuals; it was 57.2% in 1953.

Highly dispersed outside ownership emerged immediately post-World War II. Based on panel A, and the lists of the top ten shareholders, the percentage of large share blocks held by outsiders was relatively stable during the late 1950s and the early 1960s, shifting from individual shareholders to investment trusts and mutual funds and reaching a peak of 10.3% in 1982.[19] In contrast, large insider blocks increased over the same period.

[17] This sample was collected because substantially more companies were incorporated and listed from the 1930s and onward. Levels of dispersion—C3—in the two samples (1907 and 1921 combined in Figure 2 and postwar samples in Table 2) are similar. Data are available upon request.

[18] Because the Japanese 10Ks classified banks, insurance companies (insiders), and investment trusts (outsiders) in a single category called financial institutions, we estimate the maximum bank holding as a residual by subtracting the percentage share held by insurance companies and investment trusts from the percentage held by financial institutions.

[19] According to the Tokyo Stock Exchange the share of investment trusts and mutual funds equally weighted

However, this pattern of block ownership was overshadowed by a huge increase in the number of shareholders in the average company and by their increasing importance in aggregate share ownership. The average number of shareholders per company went up from 17,251 in 1950 to 43,683 in 1960 and 61,410 in 1970 (see panel A). Panel B shows that the aggregate holdings of these outside shareholders accounted for 77.1% of all shares outstanding in 1950, declining to 62.4% in 1962 and to just under 50% by 1969. Conversely, insider ownership increased substantially rising from only 21.9% in 1950 to 50.2% in 1969.

In summary, ownership was dispersed in Japanese-listed firms from the beginning of the 20th century and by the 1920s became more dispersed even by today's standards. Individuals were the dominant shareholders at the beginning of the 20th century but were replaced by financial and nonfinancial companies during the 1930s. On conventional measures of dispersion, the ownership landscape of Japan was even more dispersed than in the United Kingdom, both then and even today. However, these conventional measures mask a more subtle trend in the pattern of ownership, namely, that a capital market may remain highly dispersed, while having high insider ownership. This is very different from the insider systems of Continental Europe, such as France, Germany, or Italy, where insiders are families rather than corporations as in Japan but levels of concentration of ownership are high.

1.4 The pattern of equity financing

In 1900 there were ten stock exchanges in existence, of which the most important were Osaka and Tokyo. Tokyo accounted for more than 50% of brokerage commissions and

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reached a peak of 12.0% in 1961.

Osaka about 30% (Hamao, Hoshi, and Okazaki 2005). In 1905 there were between 40 and 50 companies listed on Japanese stock markets, far below the number cited by Franks, Mayer, and Rossi (2009) and by Franks, Mayer, and Wagner (2006) for the United Kingdom and Germany, respectively. By 1908 this had risen to just 108. The listed firms came predominantly from the banking and electricity sectors and the newly industrialized companies, for example, cotton spinning.[20] By 1918, the number of listed companies had risen to 262, still very much below the levels observed in other industrialized countries. Despite the small number of companies, the size of the Japanese stock market, as measured by the ratio of market capitalization to GDP, was large in prewar Japan, 49% in 1913 compared with 44% in Germany, 109% in the United Kingdom, and 39% in the United States (Rajan and Zingales 2003). This evidence points to the relatively large average size of companies listed on the Japanese stock markets.

We used individual firm financing data from the two sample of firms described in Section 1.1. Table 4 records different sources of finance (internal funds, new equity, and new debt, which includes commercial notes and other, bonds, and long- and short-term borrowings) used over the period 1915 to 1980. Table 4 shows that throughout the prewar period new equity accounted for a high proportion of external sources of finance: 51.7% of external finance came from equity sources both in the period 1920 to 1929 and during the 1930s. Debt finance played only a relatively modest role in the financing of firms.[21] Then, from 1937, new equity was largely replaced by borrowings as a major source of new finance.

== Table 4 about here==

[20] Railway companies were also important before 1907 when they were nationalized. See Miwa and Ramseyer (2002a).

[21] The trend reported here is approximately the same as other estimates (Hoshi and Kashyap 2001; Miwa and Ramseyer 2002a).

Table 4 also records the financing of Japanese corporations over the postwar period from 1951 to 1980. The sample comprises the 126 firms drawn from the top 100 by assets in either 1937 or 1955, referred to above. New debt is the sum of new bank debt and new bond issues. Contrary to popular perceptions, new equity continued to play a significant role in Japanese corporate financing until the middle of the 1960s. From then on, new equity was largely replaced by bank loans as a major funding source as insider ownership became prevalent.[22] New bonds did not play a significant role, due to strict bond issuance regulations, so that firms were dependent on bank borrowing for debt financing. There was therefore a marked switch from external equity to bank borrowings as the primary source of finance for Japanese corporations from the end of the 1930s and onward, with an interlude from 1950 to 1965.

In summary, the first half of the 20th century was a period of high new equity issuance, and the second half of the 20th century, at least from the 1970s and onward, was a period of low equity issuance and large amounts of bank finance. The first half of the 20th century therefore combined highly dispersed share ownership with family ownership, high initial public offerings, and large amounts of new equity issues, namely, a high level of primary stock market activity. The second half of the 20th century in contrast shifted to a system of bank ownership and cross-shareholdings between corporations.

1.5 Regulation

The Japanese commercial code was modeled on the German commercial code of 1861 during the Meiji period. Appendix A describes the key developments in the regulation of

[22] New equity includes revaluations of assets and therefore somewhat overstates the amount of new equity raised by the middle of the 1960s.

Japanese capital markets for the whole of the twentieth century.[23] The first Company Law was enacted in 1890, some twelve years after the formation of the Tokyo Stock Exchange. It was revised in 1899 when freedom of incorporation replaced a system of licensing companies, limited liability was strengthened and protected by law, and restrictions on transfers of shares were eliminated. It was revised again in 1911 to clarify the fiduciary responsibility of directors. The main motivation for the 1911 law was abuse by founders and directors who failed to disclose information in IPOs, many of which went bankrupt. In response, the law strengthened the responsibility of the founders/directors to increase the transparency of the prospectus. The amendment was also a response to the abuse of small shareholders who, when faced with sharp drops in share prices, refused to pay supplementary installments on partially paid shares on the grounds that the prospectuses were false.[24] The statute strengthened small shareholder rights in the face of false prospectuses by founders and promoters and imposed higher duties of care.

After the long depression from the 1920s to 1932 and the upheaval of the military government in the 1930s, a further revision to the commercial code in 1938 increased the liability of directors, enhanced the authority of the general shareholder meetings, and provided protection against hostile takeovers. Disclosure rules were strengthened and minority shareholders were granted rights to appoint inspectors to check company accounts and identify shareholder abuses.[25] This was in response to perceived pressure from some shareholders with boardroom representation to pay excessive dividends during a period of deflation and financial stringency. Another factor in the amendment of the

[23] A chronology of corporate law and investor protection from 1878 to 1990, as well as LLSV scores on the minority shareholder protection, creditors' rights, and both private and public enforcement, are available from the authors upon request.

[24] This also happened in the United Kingdom and United States, where investors in some railroads refused to pay instalments on partly paid shares.

[25] In 1934, Ministry of Trade and Industry published the Accounting Statement Guideline, which contributed to standardized disclosure of information by firms.

commercial law was gradually increasing political pressure, which led to anticapitalist sentiment (Asaki 1999). A comprehensive wartime law was enacted in 1938, the States Mobilization Law, which gave the government wide-ranging powers to restrict payout policies of companies and to encourage internal investment. Other acts were passed, including the Munitions Company Law in 1943, which made it possible for the government to restrict the rights of shareholders; for example, the government assumed the right to appoint directors and introduced legal provisions that allowed them to make decisions for new investments and mergers without seeking permission from shareholders (Okazaki 1999; Hoshi and Kashyap 2001; Miyajima 2004).

The civil law framework was fundamentally changed in the postwar reform. GHQ imposed large changes on capital markets and the ownership of companies (Yafeh 1995). This was markedly different from Germany, where the economic system and corporate governance were largely unaffected by the political upheaval (Carlin 1993; Miyajima 1994). In Germany there was little purging of the business class, but major changes occurred in Japan. Incumbent CEOs and other directors of family and large firms were forced to resign. Ownership of companies was radically changed and largely dispersed as a result of the dismantling of the old zaibatsu and the sale of their shares to employees and households in local communities. Compare this, for example, with the fate of Krupp of Germany. The head of Krupp was sentenced to imprisonment for using slave labor, but on his release, he was given back ownership and control of his company, and the company remains largely controlled by the Krupp family, through a foundation, even today.

There were three important ingredients to the reform. First, restrictions on shareholdings were introduced by the enactment of antitrust laws in 1947. Holding companies were prohibited and shareholdings by banks were restricted to 5% of an

individual company's shares, subsequently raised to 10%, in 1953. Corporate holdings in other companies were prohibited in 1947 and then allowed in 1949. Second, the Security Transaction Law was enacted and modeled on the U.S. Glass Steagall Act. Separation of security and banking businesses was introduced and strict disclosure rules and liability standards were imposed on listed firms by the Corporate Accounting Rule. Third, Company Law was substantially amended on the instruction of GHQ and the "one share/one vote" and cumulative voting were introduced. Antidirector rights were also strengthened.

Table 5 and the related Appendix report the measure of the antidirector rights score index described by La Porta et al. (LLSV) (1998) in Japan during the 20th century. The score ranges from zero (weak antidirector rights) to six (strong antidirector rights). The index for Japan was one from 1900 to 1937 and rose to five from 1950 to 1974 (all of the components of the index, except pre-emption rights). Table 5 also records indices of liability standards and disclosure, which together form a private enforcement index in La Porta, Lopez-de-Silanes, and Shleifer (2006). The index ranges from 0 to 1, and the table records that in the first half of the century the private enforcement index was zero. After the introduction of the new laws, both the liabilities standard and the disclosure index increased from 0 to 0.667 (see Appendix panels B and C).

== Table 5 about here ==

The table compares the value of these indices for Japan with those of the United Kingdom and Germany during the 20th century. It shows that the antidirector rights index in Japan was the same low score (just one) as those in both the United Kingdom and Germany in the first half of the 20th century and the components of the private enforcement index were zero in all three countries. In the second half of the century, the

antidirector rights index was almost the same in Japan as in the United Kingdom and significantly higher than in Germany, whereas the components of the private enforcement index were higher in Japan than in Germany and about the same in the United Kingdom. Japan therefore moved from a low to a relatively high investor protection system by the middle of the 20th century.

In summary, Japan displayed a low level of investor protection in the first half of the 20th century. This was radically changed by GHQ in the second half of the century, and investor protection became high by international standards. The move from a low investor protection to a high investor protection country coincided with the change from a highly dispersed outsider ownership market to an insider (though still dispersed) ownership market, together with a move from high to low equity finance.

2. Outsider Ownership in the First Half of the Century

This section describes two key periods in the evolution of corporate ownership in prewar Japan: the first decade of the 20th century and the 1930s. In each it argues that there were substantial developments that altered the landscape of corporate ownership. Associated with both periods are "institutions of trust." By these we mean institutional mechanisms that allowed outside shareholders with a pure financial interest in the performance of the firm to have confidence that their interests would be upheld by those responsible for the management of the firm.

2.1 Business co-ordinators in the early 1900s

Business coordinators played a critical role in the process of issuing shares at the beginning of the 20th century and the dispersion of ownership. The coordinators (*zaikai*-

sewanin) were outside investors (equivalent to venture capitalists) who took a stake in a company and marketed the company to outside shareholders.[26]

One of most famous coordinators was Ei-ich Shibusawa, who founded the Dai-Ichi Kokuritsu Bank and headed the company for forty-three years. He participated in the establishment of over 500 firms and held a board position on 49 of them (Shimada 2002). One well-known case involving Shibusawa was the cotton-spinning firm Mie-Boseki in the late 19th century. Investors were reluctant to invest in Mie-Boseki in light of an earlier failure of government-sponsored cotton-spinning firms. Shibusawa used his family's money to purchase 9% of Mie-Boseki shares. "Once he placed his money and reputation behind the firm, other investors soon followed" (Miwa and Ramseyer 2002a, 277–78).

Shibusawa had many successors who participated in firms that sought outside finance. They were businessmen who were senior members of business organizations or holders of outside director positions for multiple firms. Their business success in the early industrialization made them highly respected members of society. One of the functions of these coordinators was to monitor newly established firms in the face of a large number of cases of fraud and use their reputational capital to attract smaller investors. Their other functions were to provide general business advice and promote business relations with other firms (Miwa and Ramseyer 2002a). We argue that they overcame the "promoter's problem," as described by Mahoney (1995) and La Porta et al. (2006), because of their reputation, share stakes, and membership of the board of directors.

One example was Nisshin Spinning Co., established in 1907. Three entrepreneurs, Iwasaki Seishichi (a food merchant) and Fukuzawa Tōsuke, and Abe Kōzaburō (sugar

[26] We are not the first to note the importance of business coordinators. Anecdotal evidence on the presence and role of the business coordinator was described by Takahashi (1977), Ishii (1998), Miyamoto (1999), and Shimada (2002). Also, Miwa and Ramseyer (2002b) analyze the role of prominent directors in cotton-spinning firms and their impact on profitability.

merchants), together with Hibiya Heizaemon (the CEO of a large cotton-spinning firm), established a new cotton-spinning company. As a consequence of the recession following the Russo-Japanese War (1904–1905), they asked 76 people to assist in raising money from promoters.[27] Among those promoters were Makoshi Kyohei (CEO of the largest brewery company and holder of seventeen cross-appointments in 1907) and Nezu Kaichirō (CEO of a railway company and holder of thirteen cross-appointments). Hibiya and Abe, who took leading roles in establishing Nisshin-Spinning Co., were established businessmen with several positions on other companies' boards.[28]

The stock of Nisshin was offered privately by promoters, and it was so popular that it was ten times oversubscribed with 917 shareholders and a low concentration level C3 of 9.6% and C5 of 13.1%. When Nisshin began trading on the Tokyo and Yokohama Rice and Stock Exchanges in 1912, the number of shareholder increased to 1880. The business coordinator performed a validation function of upholding trust that was not dissimilar to banks in Germany and local stock markets in the United Kingdom.

We carried out a test of the effect of business coordinators on the dispersion of ownership of firms in our sample. We identified a business coordinator as one who had both a share stake and a board position in the same company, as well as in six other companies. We chose six, following Miwa and Ramseyer (2002b), who used the database of Suzuki, Wada, and Kobayakawa (2009). Their data provided the list of businessmen who had more than six cross-appointments in 1898 and 1907. Using this list, we identified 78 as business coordinators in 1907. We matched this list with names of board members and large shareholders in our sample firms.

[27]Based on *Nishi-Boseki 65 Nen-shi* [*Nishin-spinning 65 years history*], 1972 in Japanese.
[28]Abe and Fukuzawa took seats on six other company boards in addition to participating on the board of Nisshin Spinning. Hibiya was the senior manager of another cotton-spinning firm (Fuji-Gasu Boseki) and was appointed as the senior corporate advisor.

== Table 6 about here==

Having identified a list of names of business coordinators, we then determined their number in the 1907 sample of firms. We did this matching for two years, 1907 and 1914, for which we had data on ownership and board structure. Thirty-four firms that had a business coordinator as a board member in 1907 and 35 had a business coordinator as a board member in 1914 out of a total sample of 50 firms. Therefore, nearly two-thirds of the companies in the 1907 sample had a business coordinator. The average number of business coordinators in firms that had at least one was 1.72 in 1907 and 1.12 in 1914, and the maximum number was eight in 1907 and four in 1914. The business coordinator was one of the top ten shareholders in 32 of the 50 firms in 1907 and in 30 firms in 1914. Thirty-nine had a business coordinator, either as a board member or as one of the top ten shareholders in 1907, and 36 did in 1914. The average equity stake held by business coordinators was 7.6% in 1907 and 5.3% in 1914. Business coordinators with a wide network of board positions were therefore commonly observed among large Japanese firms in the early part of the 20th century, and they held a significant share stake.

Table 7 records the results of a regression of C5 measures of ownership concentration and the log of the number of shareholders in the 1907 sample in the years 1900, 1907, and 1914 combined. There are 121 observations in total.[29] The independent variables are dummies signifying whether there is a business coordinator in the top 10 shareholder list or on the board of directors. The regression includes controls for the number of issued stocks as a proxy for firm size, year of incorporation, industry dummies, and calendar dummies for 1907 and 1914.

== Table 7 about here ==

[29] We use Suzuki, Wada, and Kobayakawa's 1898 list (2009) to identify business coordinators from 1900 and their 1907 list to identify firms from 1907 and 1914.

The table records that there is a negative relationship between concentration of ownership and the presence of a business coordinator in the top ten shareholder list (BCDSH), on the board of directors (BCDB), or in both (BCDSH/B), although the relationship is only significant in two of the three measures. Panel B of Table 7 shows that there is a significant positive relation between number of shareholders and the presence of business coordinators on the board of directors (BCDB) or in both the board of directors and the top ten shareholder list (BCDSH/B); the coefficient for BCDSH is barely significant at the 10% level. This result holds for both the 1907 and 1914 samples separately.[30] The implication is that the presence of business coordinators was associated with a greater degree of dispersion of share ownership.[31] These results are consistent with business coordinators performing an important role, including one of validation and trust, in the new equity issuance process and in the dispersion of ownership of Japanese firms.[32,33]

[30] The coefficients of the business coordinator variables in the 1914 estimation are all significant, whereas those in the 1907 estimation are not all significant but are of the same sign. In general, the significance level of the presence of business coordinator in the top ten shareholder list (BCDSH) is weak. We might conclude that shareholdings alone may not have a sufficient certification effect. The tables with these results are available from the authors upon request.

[31] We checked whether our results are robust to different thresholds for the minimum number of appointments. First, we used eight appointments instead of six, which resulted in a decline in the number of identified business coordinators, from 203 to 74 people. When we substituted a minimum threshold of eight board positions instead of six and reran the regressions in Table 7, the results were virtually identical. In a second robustness check, we divided the appointments between "busy" coordinators, defined as those with more than 16 appointments and the rest with between 6 and 15 appointments. The definition of "busy" coordinators is used by Miwa and Ramseyer (2002b). Again, we found that the results were very similar to those reported in Table 7.

[32] This result is consistent with Miwa and Ramseyer (2002b), who show that cotton-spinning firms that appointed "prominent" directors earned higher profits than did their competitors.

[33] Data are not available on new equity issuance before WW1. Therefore, it was not possible to replicate the new equity issue regressions reported below in Table 8, panel C, on this earlier period. Instead, the increase in the number of issued shares (issued shares in *t*/issued shares in *t*-1) was regressed on the business coordinator dummies reported in Table 7. The increase in the number of issued shares was positively related to the dummy for whether the business coordinator was a large shareholder (BCDSH) and a large shareholder or a director (BCDSH/B), but not a director alone (BCDB).

2.2 Zaibatsu in the 1930s

The second period of substantial equity issuance and ownership dispersion occurred during the 1930s. This was associated with sales of shares in the subsidiaries of zaibatsu, which were family-controlled business groups with pyramidal or hierarchical organizational forms. There were two types of zaibatsu, depending upon whether or not the holding company was publicly held. The first were the old zaibatsu, such as Mitsui, Mitsubishi, and Sumitomo, where the holding company remained private.[34] Their subsidiaries were created as separate legal entities at the time of the First World War. During the 1930s these groups faced constraints on the financing of their investments and sold shares in their subsidiaries, that is, carve-outs, as a way of raising funds. In addition, they were under political pressure from the military government and subject to anti-zaibatsu sentiment from the public to divest some of their activities (Morikawa 1992).

The old zaibatsu firms raised capital in the subsidiary firms through rights issues and then resold the shares to the public. The holding company paid the face value of the stock to the subsidiary and then sold the shares to the public at a higher offer price. For example, shares were created in Mitsubishi Heavy Industry Company in August 1934 with a face value of 50 yen per stock. They were then sold to the public for 65.0 yen. Ten months after the public offering, the market price was 65.9 yen. Insurance companies bought a substantial fraction of the shares; the remainder were sold to private investors, and the number of shareholders increased from 22 to 16,036 (Asajima 1983).

[34] There is a third type of zaibatsu (family business group), which did not have a holding company at its apex (Miyajima and Kawamoto 2010). Because they were relatively small and less active in IPOs in this period, we focus on the two types listed above.

There was a considerable amount of price discrimination in the new issues. In the case of Toyo Rayon, a second-tier subsidiary of Mitsui zaibatsu, the company increased its capital from 10 to 30 million yen in July 1933 by issuing 400,000 new shares, of which 70,000 was by way of a rights issue and 330,000 by way of an initial public offering. The nominal or face value of the shares was 37.5 yen, the price at which 21,000 shares were sold to the board of directors. More than 40,000 shares were sold to directors, branch managers, and employees of Mitsui Company (the trading company parent of Toyo Rayon) at a 10 yen premium above the face value. Other Mitsui employees bought 11,900 priority shares at a 30 yen premium, and the general public and insurance companies bought 257,000 shares at the same price. The market price of the shares was 94.9 yen in January 1935 and averaged 74.1 yen in 1935 (Mitsui Bunko 1994).

The second type of zaibatsu groups included companies such as the Nissan group, whose holding company, Nippon Sangyo (Nissan), was stock-exchange listed and which had a typical pyramidal structure (Udagawa 1984; Morck and Nakamura 2005). The motivation for share issues by these firms was to exploit new business opportunities and to restructure related businesses. The procedure that these firms employed for issuing shares was to sell their holdings in subsidiary companies and to use the proceeds to invest in new activities. For example, Nissan sold shares in Hitachi and Nihon Mining and used the money raised to enter the automobile industry.[35, 36]

[35] There was a third class of new issues not involving zaibatsu. During the late 1920s there was a substantial amount of financial distress among large corporations, sometimes caused by the failure of another corporation or an associated bank. The restructuring of these firms frequently involved swapping debt for equity; for example, there were debt for equity swaps in the Kawasaki Shipbuilding companies and in Suzuki-related firms. The 15th bank swapped its debt for equity in Kawasaki. In the case of Suzuki, the debt for equity swap was not between the Taiwan Bank and the Suzuki Trading Co. but between the Taiwan Bank and the Suzuki-related firms, such as Teijin Co. (artificial silk producer) and Kobe Steel Co. In the case of Teijin, the debt for equity swap of 27 million yen resulted in the Taiwan Bank becoming a very large shareholder with a stake exceeding 50%. Subsequently, the Taiwan bank sold its stake to the public in the 1930s (Miyajima (2004, 211).

Participation of small investors in zaibatsu-issued stock might have been expected to be discouraged by the low level of minority shareholder protection and the potential for price discrimination practices under a pyramidal structure. In contrast with much of the existing literature on business groups around the world, Japanese business groups coexisted with an active equity market. One reason for this is that zaibatsu were regarded as having good monitoring capabilities. In the late 1920s, when some of the firms with dispersed ownership and interlocking directorships faced financial distress, zaibatsu-affiliated firms showed relatively stable performance.[37] Observers at that time criticized firms with dispersed ownership and interlocking outside directors and recommended that small investors invest in zaibatsu-related firms (Okazaki 1999; Takahashi 1930). A second reason investors were willing to buy zaibatsu shares was government support of zaibatsu-affiliated firms based on their low risk within the group structures. [38]

A third reason why small investors bought the zaibatsu stock was reputation. There was a common belief among small investors that, in order to preserve their reputation, the old zaibatsu were likely to protect small investors' interests if subsidiary firms fell into difficulties.[39] There are several cases of the zaibatsu holding company or the founding family accepting a smaller share of dividends when the financial state of the firm deteriorated. Mitsubishi Mining, which went public at the beginning of 1920s, earned very

[36] Nissan also purchased the Nihon Ice Companies, a listed company, using its own shares (Wada 1937). Nissan then separated the firm into a separate legal entity, restructured it, and, after improving profitability, sold it through an IPO at a substantial premium.

[37] Frankl (1999) reports the high and stable performance of new zaibatsu, whereas Okazaki (2001) shows the relatively strong performance of the ten large zaibatsu groups firms. Miyajima and Kawamoto (2010) did not find significant effects of zaibatsu affiliation, although they reported low volatility of performance (ROE) of three established zaibatsu firms compared with nonzaibatsu firms.

[38] Government provided direct subsidies to the iron and steel industry (where Mitsui, Mitsubishi, and Sumitomo subsidiaries were located), to the distaff industry (where Mitsui mining engaged in indigo production), and to the soda ash industry (where Asahi Glass and a Mitsubishi-related firm, engaged in soda-ash production). See Miyajima 2004, chapters 1–3.

[39] See Khanna and Yafeh (2007, 340, 347–48). This investment in reputation is similar to what has been reported in Indian family groups, for example, Tata, documented by Khanna and Pulpe (2000).

low profits and a return of only 3%–4% on equity from 1921 to 1924. In response, Mitsubishi Goshi, which held 58% of Mitsubishi Mining stock, reduced their share of the dividend, while Mitsubishi Mining continued to distribute the same dividend to other shareholders (Miyajima 2004, chapter 5).

The zaibatsu appear to have played a similar role among business coordinators in promoting the distribution of shares. One important difference was that the business coordinator bore a closer resemblance to a trust-based outsider owner with dispersed share ownership than the zaibatsu, which displayed more of the characteristics of trust-based insider ownership with majority ownership of the company and a large dispersed minority ownership. The demand for shares in zaibatsu holding companies may therefore have been a response to a decline in investor demand for shares in other dispersed companies. We test several aspects of the determinants of the ownership structure of zaibatsu and non-zaibatsu firms.

First, we examine whether the zaibatsu affected the level and changes of ownership structure in the boom period. The dependent variable is C5, the aggregate share of the top five shareholders, and the change in C5 from 1933 to 1937. An alternative dependent variable is the log of the number of shareholders in 1937 and the change from 1933 to 1937. The independent variables are leverage, size, year of incorporation, and measures for the business coordinator and membership of a zaibatsu group. The dummy variable for the business coordinators, BCDM, is one if they took positions as board members, which was the case in 28 firms in our sample.[40] The dummy variable for the zaibatsu is one if a firm is a member of a large zaibatsu (Mitsui, Mitsubishi, Sumitomo, Furukawa, and

[40] To identify business coordinators, we constructed a list of business coordinators as we did previously using *Meiji-Taishō-Shōwa Jinmei-roku*, *Tokyo*, *Osaka Nagoya* and *Yokohama*, Nihon Toshyo Shuppan-Senta, 1989, and *Nihon-Shinshi-roku*, Kojunsha, 1936. Board members include chairman, auditors, and advisors.

Nissan), which was the case in 22 firms and was zero in 66 firms.[41] Panel A of Table 8 shows that the level of C5 in zaibatsu firms in 1937 is 21% higher than in non-zaibatsu firms (Column 1), after controlling for size, firm age, and industry characteristics. This suggests higher levels of concentration than in non-zaibatsu firms. However, the zaibatsu dummy is negative for the change in ownership regression in panel A, suggesting a greater decline in concentration of zaibatsu firms than for non-zaibatsu firms over the period 1933–1937. According to Column 2, the decline in ownership concentration in zaibatsu-affiliated firms is 16% higher than in other firms, which is significant at the 1% level. The result is unchanged if we use the number of shareholders between zaibatsu-affiliated and non-zaibatsu firms and their change between 1933 and 1937 (panel B).[42]

== Table 8 about here==

We also examine how the zaibatsu influenced equity financing. The dependent variable is a measure of new equity finance and is estimated as the annual increase in paid-in-capital divided by total assets at the beginning of the firm year for the period 1933–1937. The independent variables include the initial equity ratio, return on equity, size, investment, and dummies for the business coordinator and membership of a zaibatsu group. Table 8, panel C, shows that after controlling for initial capital composition, firm size, and investment, zaibatsu firms are associated with higher levels of new equity finance of affiliated firms than is the business coordinator. The presence of the business coordinator as shareholder (BSDSH) has almost no effect on new equity finance.[43]. The

[41] We limited the analysis to these five groups, because our sample did not include subsidiary companies of the rest of the large ten zaibatsu groups.

[42] We examined whether the relation between dispersion of ownership and the zaibatsu dummy continued to apply when the C5 variable was included as an independent variable. We included the zaibatsu ownership concentration as a C1 variable (because it is highly correlated with the zaibatsu dummy) and the share of the other four largest shareholders as a separate concentration variable, C4. The C1 variable is significantly negative, reaffirming the importance of the zaibatsu in promoting ownership dispersion.

[43] If the business coordinator is classified as both shareholder and director (BSDB or BSDSH/B), then the

annual increase in equity capital, standardized by initial assets, was 4.1% on average. If the firm is affiliated to a zaibatsu, the increase in capital is 3% higher than in other firms and is significant at the 1% level. This result holds when we include year variables (Column 2) and other performance measures, namely, return on equity (Column 3).[44,45]

Although zaibatsu firms were associated with concentrated share ownership, they were also involved in greater share issuance through the sale of shares in their subsidiary firms. The presence of a zaibatsu was important in encouraging small outside shareholders to purchase new issues. They succeeded in doing this because small shareholders viewed their block ownership as a trust mechanism rather than as a minority exploitation vehicle.

In summary, we have argued that there were two types of "institutions of trust" that sustained outside ownership in the first half of the 20th century—business coordinators and zaibatsu. What distinguished these institutions is that they had large amounts of invested capital in the form of personal or corporate reputation. If they failed their outside investors, they suffered losses in status and income, which brought their private interests in line with, rather than at variance with, the financial interests of their investors. Critical then to the operation of these trust mechanisms was the standing and reputation of the individuals that lay behind them. We would argue that this was considerable in the case of business coordinators and zaibatsu. However, the destruction of the institutional fabric after WW2 meant that reputational capital was lost and the institutions that took their place were unable to sustain similar positions of trust.

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business coordinator is significantly negative with respect to equity finance, whereas the zaibatsu dummy is not, a result of the negative correlation of BSDB and BSDSH/B with the zaibatsu dummy (namely, they are substitutes).

[44] The zaibatsu variable retains its significance when industry dummies are included, except for when we omitted one industry dummy, for the electric machines industry (SIC 35, 36), where four firms out of six are zaibatsu-affiliated firms.

[45] When a firm age dummy (based upon the year of incorporation**)** was introduced, as in panels A and B, the result was the same, although the significance of the zaibatsu dummy slightly declined.

3. Inside Ownership in the Second Half of the Century

While dispersed equity ownership and active stock markets were characteristic of the first half of the twentieth century, inside ownership with its large concentrations of bank and corporate ownership prevailed in post-WW2 Japanese capital markets.[46] Table 3 shows that inside shareholdings increased rapidly from the early 1950s to 1974 from 21.9% to 56.3% (see Table 3, panel B), whereas holdings by individuals declined over the same period from about 57.2% to 35.6%.

This section examines the sources of this transition. It describes the dissolution of the zaibatsu by the Allied Occupying forces between 1946 and 1948. This was accompanied by extensive new regulation based on U.S. securities law, described in Section 2. The regulatory changes failed to prevent serious market abuses by the securities industry. This gave rise to a collapse of outside ownership. The response was not like that observed in Continental Europe and elsewhere, where concentrated ownership often by families continued to persist.[47] This section records how, instead of the family ownership model of Continental Europe, bank and corporate ownership emerged instead and the way in which banks filled the vacuum created by stock markets in financing corporate investment.

Sections 3.1, 3.2, and 3.3 describe stake building by banks in the 1950s, the role of securities houses in the 1960s, and the equity issuance of the 1970s, and Section 3.4 provides more formal tests of an analysis of the emergence of insider ownership.

[46] The definition of insider ownership is broader than that of cross-shareholdings, although there is a close relation between the two (see Sheard 1994; Berglof and Perotti 1994).
[47] See Franks, Mayer, and Wagner (2006) for Germany.

3.1 Stake building by banks in the 1950s

The suspension of wartime compensation to companies in the 1940s imposed considerable financial distress on Japanese companies. As a result, after the war, Japanese firms were highly leveraged with an average debt-to-assets ratio in excess of 60% (Ministry of Finance 1978). This compares with average leverage ratios of less than 30% in other countries, reported by Rajan and Zingales (2003).

The Corporate Rehabilitation and Restructuring Act (*Kigyō Saiken Seibi-hō*), hereafter CRRA, played a significant role in the recapitalization of Japanese companies in the immediate postwar period. There were several ways in which the CRRA contributed to new equity issues during the 1950s and 1960s. First, the CRRA promoted the crystallization of high leverage in large Japanese firms (Hoshi 1995; Miyajima 1995), leaving many firms vulnerable to financial failure. This encouraged them to issue new equity and undertake debt-for-equity swaps. For example, Hoshi (1995) describes the equity issues made by Nippon Steel in 1950. It issued six million shares, of which three quarters were made to creditors as part of the swap. Hoshi believes that these swaps formed an important part of the recapitalization of companies in a stock market that often could not meet all of the new equity needs of companies.

Second, despite the hyperinflation, the CRRA did not allow firms to avoid loan losses by revaluing their assets. Thus, by the early 1950s, many firms had substantially undervalued assets, resulting in an excessive level (and overstatement) of leverage on their balance sheet. The Asset Revaluation Act (*Shisan Saihyoka-hō*) in 1950 and the Compulsory Asset Revaluation Act (*Shihon Jujitsu-hō*) in 1954 mitigated the problem (Miyajima 2004) by allowing firms to revalue their assets to current value (equivalent to replacement cost). This resulted in a decrease of leverage and a corresponding increase in

reserves, which provided a source of free distributions to shareholders in the form of bonus issues in the 1950s and early 1960s (*Dakiawase-zōshi*). According to Tokyo Stock Exchange statistics, the proportion of free distributions in total equity issuance was 17.9% from 1950–1955, and 15.6% from 1956–1960 (Ministry of Finance 1978, 608). Table 4 in the paper includes these free distributions, which are estimated from yearly differences of paid-capital. The 31.5% of new equity in Table 4 over the period 1956–1960 comprised 74% new funds and 26% free distributions.

The use of debt for equity swaps went beyond the CRRA. Swaps were undertaken by companies that entered formal bankruptcy, as well as during distressed voluntary restructurings. Although data on the precise contribution of debt for equity swaps are unavailable, we do have some case studies of exchanges in voluntary distressed restructurings, as well as more systematic evidence from bankruptcy reorganizations. [48] For example, Nichia Seikō made a rights issue for one billion yen in 1954 to reduce its level of debt. Most of the individual shareholders did not subscribe to the rights because of concerns about the company's financial condition, and 40% of the issue was not taken up. The underwriters to the issue were Yawata Iron and Steel, a business partner, and Sanwa Bank, the company's main bank. As a result, insider ownership increased from 23.7% in 1953 to 30.7% in 1955 (Baba and Katayama 1955).[49] Once again, trade creditors were involved in the raising of new equity.

[48] Bankruptcy procedures were cumbersome and costly, so much of the capital restructuring occurred in workouts outside of bankruptcy. Bankruptcy procedures originally included in the commercial code were incorporated in the Bankruptcy Law and Conciliation Law in 1922. Before 1922 the LLSV score was three because there were very few constraints on creditors enforcing their rights. Subsequent to the 1922 law, the level of creditor protection was two on the LLSV measure. This score decreased to one as a result of the post-WW2 reform, when GHQ introduced U.S.-style bankruptcy procedures. A Corporate Reorganization Law, modeled on Chapter X of the 1938 U.S. Bankruptcy code, was enacted in 1952. It introduced the equivalent of supra priority financing, an automatic stay, and majority voting rules to overcome holdout problems. (See Appendix panel E.)

[49] This case is included in our sample of 126 firms.

A second case is that of the Oumi-Silk. During the Korean War, the firm expanded its operations through bank loans. It started the 1950s with a leverage ratio of 77% in 1951. Insider ownership was modest, accounting for just 4% of shares outstanding, whereas eight securities firms held 33.6%, the largest stake being 8.8%. After the end of the Korean War, Oumi's sales growth declined, and in the face of financial difficulties, it issued new equity in order to reduce its leverage. Much of the new equity fell into the hands of insiders, when in 1955 it undertook a debt-for-equity swap. As a result, insider ownership rose from an initial 4% to more than 60% thereafter.[50]

We also have data on thirty of the largest bankruptcies for the period from 1953–1965, in which nineteen were found to have involved debt-for-equity swaps.[51] Of the preoutstanding debt, 8.4% was swapped and was accompanied by write-offs of 30.2% of their face value. The swapped equity accounted for 74.7% of equity post-recapitalization (median 82.3%), and, as a result, banks and other creditors controlled a majority of the equity of the company post-restructuring.

One case in the sample is that of the Sun Wave Corporation, listed on the Tokyo, Osaka, and Nagoya stock exchanges. Sun Wave applied for reorganization in December 1964. The plan of reorganization was approved by the court fifteen months later on March 31, 1966, and the company emerged from reorganization in August 1971. In total, the court process took seven years. The debt-for-equity swap played a significant role. There were eighteen large secured creditors, including Sanwa Bank, and another nine banks. The total secured debt outstanding was 4.8 billion yen ($13.3 million). A crucial part of the

[50] Based on *Toyo Keizei* [The Oriental Economist], April 1954.
[51] The thirty distressed companies reorganized through the Corporate Reorganization code between 1953 and 1965 were taken from a sample of 321 companies reported by the Japanese law journal, *Jurist*, from 1967–1968, no. 378–399. They were selected on the basis of being the largest companies by the amount of debt outstanding. We found that of the nineteen firms that engaged in a debt for equity swap with creditors, eleven firms were listed.

restructuring was a debt-for-equity swap with large creditors. Sun Wave issued 24.5 million new shares to creditors, for which each 400,000 yen of debt was exchanged for 1,000 shares in new equity. Nine of the 18 secured creditors refused the swap, and those shares were allocated to three other large creditors (Iwai Industrial Co., Mitsui & Co. Ltd., and Nissin Steel Co.) in exchange for additional debt outstanding. Whereas in the United States it was only banks that engaged in debt for equity swaps, in Japan trade creditors played an important role converting debt into equity.

In summary, the first stage of the emergence of bank ownership resulted from the need to restructure Japanese firms in the 1950s and the first half of the 1960s. As a consequence, both banks and corporations accumulated shares in other corporations as part of the restructuring of distressed and bankrupt corporations.

3.2 Securities houses and investment trusts in the 1960s

Together with zaibatsu dissolution and the introduction of strong investor protection, GHQ attempted to establish new institutions equivalent to investment banks in the United States by enacting the Securities Transaction Law modeled on the Glass Steagall Act. As a result, banks were prohibited from undertaking underwriting business, whereas securities houses were supposed to perform the role of monitoring the quality of firms on behalf of small shareholders. High-growth Japanese companies made frequent issues of equity during the latter part of the 1950s and the early 1960s, prior to the stock market collapse. For example, Toyota Motor made six issues of equity during the nine years between 1955 to 1964 and its paid in capital rose by about 23 times. Nissan Motors made equity issues in almost every year over the same period and its paid in capital rose by 25 times. Initially, these new shares were bought directly by existing shareholders (mainly individual

shareholders) who had pre-emption rights. However, equity issuance was so frequent that individual shareholders could not subscribe for all the shares and the new shares were frequently sold in the secondary market. These shares were then bundled together in investment trusts by securities firms.

After the Tokyo Stock Exchange reopened in 1949, equity issues were mainly made in the form of right issues at par value, which did not require underwriting. To avoid shares being dumped on the market, securities houses offered to buy the shares directly from shareholders. Instead of reselling these shares in the market (as would happen in a normal failed underwriting), the securities houses bundled them into investment trusts, for which they acted as managers and sold them to retail investors. This arrangement was facilitated by the fact that securities houses operated brokerage and dealing businesses, as well as fund management.[52] The securities houses engaged in "touting" stock, as they recommended particular stocks to small investors that their dealing departments had bought in advance. To avoid any negative market impact of these transactions on market prices, they were conducted outside the securities market (this practice was called "*baikai*"). Investment funds and the dealing departments of securities companies often worked together to purchase particular stocks, which they resold to small investors as recommended stocks (see Nikami 1990).

Associated with such widespread market manipulation and fraud, investment funds expanded very rapidly. The new trusts established in 1961 were valued at 588 billion yen, which was ten times larger than their value in 1956. As a result, there was a large shift of

[52] The big four securities firms decided to reorganize their investment trust departments and their trust fund management departments as independent firms. However, the securities houses continued to be in charge of buying and selling the stocks in which their trust funds were invested. Consequently, although "the new system went into effect on April, 1960, the separation was more nominal than real." (Adams and Hoshii 1972, 168)

outside ownership from individual shareholders to investment trusts. At the beginning of the 1960s, investment trust funds constituted over 10% of the market at its peak, which was about the same as in the United Kingdom and the United States. However, this rapid expansion was followed by a collapse. Subscriptions to investment trusts decreased and withdrawals increased. The manipulation resulted in large discounts on investment trust shares and a general collapse in the market. Within the space of five years, investment trusts had virtually disappeared by 1967.

In 1964 and 1965, financial institutions set up two organizations, the Japan Joint Securities Company (JJSC) and the Japan Securities Holding Union (JSHU). JJSC purchased shares in the open market to stabilize the equity market, and JSHU, with the help of funds supplied by the Bank of Japan, acquired stocks from investment trusts and securities companies. By 1965 these two institutions had purchased 5% of the equity of all listed companies (Miyajima, Haramura, and Enami 2003) and held, on average, 5.8% of the ordinary shares of our sample of companies (maximum stake of 15.6% and minimum 0.01%).

What is less well known is that stocks of high-growth firms with frequent issues of equity were more likely to be held by the two quasi-public institutions. For instance, the two quasi-public institutions held 9.4% of Nissan and 8.3% of Toyota, respectively, which had made frequent issues of new equity. Based on our postwar sample of 126 companies, the percentage of shares held by price supporting organizations at the end of 1964 was positively and significantly related to the number of companies issuing stock over the period from 1955 to 1964 and other measures of growth, including the market-to-book ratio and return on assets, consistent with evidence that they tended to buy the stocks of fast-growing (equity issuing) companies.

Having completed its stabilization function in the middle of the 1960s, the two institutions offloaded the stocks that they had acquired. To avoid downward pressure on prices, they frequently sold stock to related parties. A large proportion was purchased by banks and other Japanese companies, creating the cross-holdings that were to be used to protect companies against hostile control changes arising from the opening of the Japanese stock markets to foreign investors. These two organizations sold 37.2% of their shares to insiders, and if insurance companies are included, the proportion rises to 52.2%. In two cases in which stakes were held, Toyota Motor's inside ownership increased from 31.8% in 1964 to 61.6% in 1969, and that of Nissan Motor increased from 27.9% in 1964 to 60.8% in 1969.[53] During a similar period, outside ownership for our sample of companies fell from 62.7% in 1964 to 50.1% in 1969, whereas inside ownership rose from 32.3% to 40.7%.

In summary, the evidence contradicts the view that cross-shareholding mainly emerged as an antitakeover defence device. The rise of outsider type institutions, such as the investment trusts, created extensive market manipulation and fraud that contributed to the collapse of outside ownership, the transfer of shares to two quasi-public institutions, and their sale in turn to banks and other insiders.

3.3 New equity issues in the early 1970s

The increase in insider ownership in the postwar period cannot be explained solely by debt for equity swaps of distressed firms and the sale of shares by the two quasi-public institutions. A third channel by which insider ownership was established occurred in the period 1969–1973 and coincided with a significant number of new seasoned equity

[53] If we include insurance companies, the percentage rises from 34% to 65% (Toyota) and from 30% to 71% (Nissan), respectively.

offerings through the placement of shares. This practice was supported by rule changes that permitted Japanese companies to sell shares at a discount to third-party shareholders without offering pre-emption rights to existing shareholders in 1966. This legal amendment allowed firms to allot their new issued shares to friendly third parties in new seasoned issues. By way of illustration, Nihon Woollen Co. made a large new seasoned offering of stock in 1972 at a discount of 19.8%. Yokohama Rubber Co. issued shares in 1973 combining a rights issue with a placement of shares at a discount rate of 9.7%. In both cases these share issues were associated with large increases in insider ownership.[54] Abuses involving large discounts to third parties, probably insiders, resulted in the rules being tightened in 1973.

The market manipulations and fraud in the 1960s described in the previous section led to a collapse in confidence in investment trusts. Securities houses therefore refocused their business away from investment management and to underwriting in the late 1960s. In 1972, the share of new seasoned offerings over total new equity issues was about 64%, compared with 10% in 1960. Because new seasoned offerings require underwriting, securities houses took this opportunity to play an intermediate role between small investors and firms. However, rather than make rights issues these firms allocated new equity to friendly third parties at a substantial discount. This practice called "*oyabike*" was a form of private placement and was endorsed by a Company Law amendment in 1966 that permitted Japanese companies to issue shares to third parties (i.e., private placements) without resolutions at general shareholder meetings or without offering pre-emption rights to existing shareholders. This practice reflected concerns about the acquisition of shares by

[54] In the case of Nihon Woollen, insider ownership increased from 24.2% in 1969 to 42.8% in 1974, and in the case of Yokahama Rubber it increased from 32.4% to 44.8% over the same period. In the latter case, there was a foreign shareholder with a stake of 33.4%.

foreign competitors following market liberalization. It allowed firms to sell shares to friendly investors, rather than to outsiders, and to raise more capital than would have been possible through rights issues.

Although there are no official statistics on the volume of these allocations to friendly parties (*oyabike*), it is thought to account for over 50% by 1972, with discounts of around 15% (Nikami 1990). Small shareholders did not have any opportunity to buy the stocks issued by the securities houses. Companies that engaged in this practice include Ajinomoto Corporation, Kawasaki Steel, Komatsu Ltd., and Kubota Corporation. In each case, the firms were particularly vulnerable to threats of foreign takeovers because insiders held less than a majority of their shares and they operated in international markets.

The *oyabike* practice was criticized in 1972, and the Ministry of Finance required securities houses to reduce the fraction of the allotment to friendly parties to less than 50% in December 1972. The Tokyo Stock Exchange finally tightened the regulation on the *oyabike* practice in July 1973, but until that point, the issuance of equity, its distribution to preferred shareholders at substantial discounts and to the exclusion of outside investors was widely practiced; this undermined public confidence in equity markets and further encouraged increased holdings by insiders.

3.4 The emergence of inside ownership

Although it is difficult to determine the increase in inside holdings that in aggregate came from debt-for-equity swaps, we can provide evidence on how leverage in one period is related to the subsequent growth in insider ownership when a firm is in distress. In panel A of Table 9, using cross-sectional regressions of 126 firms from 1950–1955, we examine changes in insider ownership and assess whether firms that had large increases in insider

ownership in one year had high leverage in prior periods. The dependent variable is the change in insider holdings, which includes shares held by board members, banks, and other corporations. In another specification we include insurance companies as insiders (Table 3). The independent variables are size measured by total assets and a financial distress dummy, which takes the value of one if a firm experienced distress, defined as negative after tax profits during at least one year in the estimation period. There were thirty cases of losses in our sample for the period from 1950–1955. Leverage is measured by debt divided by total assets with a lag of three years.[55] To capture the impact of postwar reforms, the percentage of shares held by the Holding Company Liquidation Committee (HCLC) was included; this was set up in 1946 to sell the shares of former zaibatsu companies.

The regression results reported in the table show a significant positive relationship between leverage and changes in insider ownership; the coefficient on leverage is significant at the 5% level. A ten-percentage-point increase in leverage is associated with an approximate two-percentage-point increase in inside shareholdings. There is thus an economically large and statistically significant relation between the leverage of companies and the subsequent emergence of inside ownership. The coefficient for HCLC suggests that the higher the ownership by HCLC of a particular company, the greater the inside ownership, implying that the sale of former zaibatsu companies is more likely to have resulted in purchases of shares by insiders than in non-zaibatsu companies.[56]

== Table 9 about here ==

[55] The result is robust to a lag of one year.

[56] According to the same estimation model as panel A, omitting variable HCLC for the 1962–1967 period, when the Japanese economy encountered an economic downturn, we found that the coefficient of the financial distress dummy is positive and significant at the 5% level, suggesting that experiencing financial distress is associated with a 4% to 5% increase in insider ownership.

In panel B of Table 9, we analyze more formally the role of the two quasipublic institutions responsible for share purchases and the price discrimination in new seasoned issues to explain the increase in insider ownership. In the subsequent tests, we use two samples: the thirty companies with the largest increase in insider ownership over the twenty-year period and the whole sample. In the panel we report regression results for the period 1955–1974 and for two subperiods 1964–1969 and 1969–1974. In the first subperiod, as reported earlier, two price support institutions were established to purchase a substantial proportion of shares in Japanese equities to counter dramatic falls in market prices. There is evidence that a large proportion of the shares purchased in our sample of companies were subsequently sold to insiders between 1965 and 1968. The second period, 1969–1974, was selected because of rules changes on new seasoned issues described above.

Regressions 1–3 report results for the thirty companies. The coefficient on the number of share issues is positive and significant at the 5% level, suggesting that the larger the number of share issues the greater the increase in insider holdings. Companies with substantial share issues include Nissan and Toyota, which were fast-growing companies at a time when the Japanese economy was already growing at 10% per annum. Ownership by the price support institutions is significant in two out of three regressions and suggests that the higher their ownership of shares in our sample of companies, the greater the (subsequent) increase in insider ownership. The keiretsu membership dummy, which is one if a firm was a member of the presidents' club of the three large former zaibatsu (Mitsui, Mitsubishi, and Sumitomo), is negative and significant in all regressions, reflecting the high level of insider ownership that prevailed in keiretsu at the start of the period and the low growth that therefore occurred thereafter. It has been argued that the

keiretsu, the postwar horizontal corporate group, preserved the long-term relationships that typified the prewar zaibatsu, and that they were their postwar successors, notwithstanding that their governance structure was very different from the prewar zaibatsu.[57]

For the subperiod 1964–1969, regressions 4 and 5 (the dependent variable is insider 2, which includes the share stakes held by insurance companies) report that ownership by the price support institutions was statistically significant in both regressions at the 1% and 10% level, respectively. For the subperiod 1969–1974, regressions 6 and 7 (insider 2 is the dependent variable) both show that the number of seasoned equity issues is significant at explaining the increase in insider ownership at the 5% level.

We examine the proposition that banks acted as delegated monitors by performing similar analyses for banks in the post-WW2 periods as those described for business coordinators and zaibatsu in the first half of the 20th century (see Sections 2.1 and 2.2; Tables 7 and 8). We used three different dependent variables: the number of shareholders, concentration of ownership (C5) in 1960, 1970, and 1980, and the annualized average of equity issuance from 1959 to 1962 and from 1968 to 1971. These three dependent variables are regressed on the percentage of shares of the company held by banks. In the first and second regressions, independent variables include size, firm leverage, and an industry dummy. In the third regression, capital expenditures, return on equity, and the equity over assets at the beginning of year are added. In none of the periods was there any evidence of a relation between concentration of ownership or equity issuance and bank ownership. There was some evidence that the number of shareholders in 1960 and 1970 was negatively related to bank ownership, consistent with the observation in Table 3, panel B, of increasing insider and decreasing outsider ownership through the 1950s, 1960s,

[57] See Miyajima (1994) and Miyajima and Kawamoto (2010).

and 1970s. In marked contrast to business coordinators and zaibatsu, there is no support for the proposition that banks acted as delegated monitors by promoting either ownership dispersion or new equity issuance.[58]

We also examined the role of main banks in promoting ownership dispersion. Following Gibson (1995) and others, we used three criteria for identifying main banks: (1) whether the bank is named first in the list of transaction banks in the *Seasonal Company Year Book* by Tōyōkeizai Shipō-sha, (2) whether the banks was the largest provider of short-term loans, and (3) whether the bank was the largest shareholder, excluding trust banks. We ran two regressions: one using main banks that satisfied criteria one and two and another in which they satisfied all three criteria. We found that there was no significant positive relation between increasing dispersion of ownership, equity finance, and the presence of a main bank; in some cases, the effect was the opposite, in particular where there was high bank borrowing in the 1960s, namely, a main bank presence was positively related to levels and changes in concentration, further reinforcing the view that banks did not encourage greater dispersion of ownership.[59]

In summary this section suggests that insider ownership emerged in post-WW2 Japan as a response to three phenomena: the first was the financial distress of Japanese firms, often resolved through debt-for-equity swaps, the second was sales of shares by institutions established to stabilize equity prices in the 1960s, much of which was taken up by insiders rather than by existing shareholders and involved fast-growing companies that had previously made frequent share issues, and the third was seasoned equity offerings

[58] We also perform regressions of the change of C5 from 1950 to 1960, from 1960 to 1970, and from 1970 to1982 on bank ownership in 1958, 1967, and 1974, respectively, using the control variables of size, leverage, the average size of new equity issuance as a proportion of total assets for the sample period, and C5 at the beginning of sample period. None of the results, except those for the 1970s, are significant. The sign of bank ownership is negative in the 1970s but is not significant. The tables with these results are available from the authors upon request.

[59] These results are available upon request.

often made at advantageous prices to connected parties. Unlike business coordinators and zaibatsu in the first half of the century, banks do not appear to have acted as delegated monitors in the second half of the century.

4. Conclusion and Implications for the 21st Century

The Japanese insider ownership system began to fall apart approximately twenty years after it came into operation at the beginning of the 1970s.

This paper suggests that the insider system emerged in the first place because the alternative institutions for promoting outside ownership failed. The problem was not with the legal framework, which was relatively strong in Japan. Instead, the failure was due to the absence of institutional reputational capital in equity markets equivalent to that embedded in the business coordinators and zaibatsu earlier in the century. The first point that this brings out is that the destruction of institutions, such as zaibatsu, can be serious in terms of economic performance. The second point is that the creation of new institutions of trust to replace previous institutions is complex and not readily achieved by design.

What does this imply for Japan and other countries in the 21st century? Having experienced a decade of deleveraging and restructuring, Japan is now beginning to emerge with what looks like outside ownership. Some of the past hostility to the emergence of a market for corporate control appears to remain, but there is one important difference from the experience of the 1960s and that is the acceptance of foreign ownership. Much of the shareholding in Japan today comes via foreign financial institutions alongside the emergence of some indigenous institutions. Panel B of Table 3 shows that outsider ownership has risen from 37.4% in 1990 to 55.9% in 2009, and foreign investors' share has risen from 6.1% in 1990 to 19.5% in 2009. Foreign institutions have the advantage

over domestic ones in that they are not so readily subject to domestic capture and influence but might not be as committed to Japanese investment and growth as the domestic institutions of the past. Panel A of Table 3 shows that despite the growth of foreign investors they have not acquired the largest shareholdings: the most significant shareholders remain domestic corporations, insurance companies, investment trusts, and pension funds.

Japan has therefore more outside investors but neither behaves like an outsider system in the Anglo-American sense nor has the institutions of trust that characterized Japan in the first half of the 20th century. The recent case of Olympus is an illustration of the conflicts that this halfway house can create between the two parties and the potential vulnerability of the system to the problems that eroded outside ownership in Japan in the 1960s and 1970s.

The breakdown of trust in post-WW2 Japan has wider implications for economies outside of Japan and for the development of institutions of trust. As described in Mayer (2013), commitment and trust have fundamental implications for patterns of corporate finance and investment around the world. In the absence of adequate contractual protection, the terms on which different parties can trade with each other and the costs of employment and finance are dependent on the ability of parties to commit to each other. This article has referred at several points to how countries develop a variety of institutional mechanisms for coping with this and how these arrangements vary over time and by location.

The main lesson to be learned from Japan is one of caution in seeking to import institutional structures or regulatory practices from elsewhere. Institutions of trust take time to establish and embed in local arrangements. They are highly country- and context-

specific, and laws and rules that function in one country may be inadequate or inappropriate in another. This is particularly relevant to emerging markets that are currently seeking to reform their corporate governance arrangements, most notably China and India. The Japanese experience should be a reminder to us of how little we know about institutional and legal design and how cautious we should be in making policy recommendations about it.

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Appendix 1: Key Development in the regulation of Japanese capital markets.

Panel A of the table reports the evolution over time of the anti–director rights index defined by La Porta, Lopez–de–Silanes, Shleifer and Vishny (1998). "The index is formed by adding 1 when: (1) the country allows shareholders to mail their proxy vote to the firm; (2) shareholders are not required to deposit their shares prior to the General Shareholders' Meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minorities mechanism is in place; (5) the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting is less than or equal to 10 percent (the sample median); or (6) shareholders have preemptive rights that can only be waived by a shareholders' vote. The index ranges from 0 to 6." (LLSV (1998) page 1123).

Panels B, C and D report the evolution of the new La Porta, Lopez-de-Silanes and Shleifer (2004) indices of disclosure requirements, liability standards and public enforcement. These indices combine information on whether prospectuses had to be issued, whether specific categories of information had to be disclosed in the prospectus (i.e. director compensation, share ownership, inside ownership, irregular contracts, transactions between related parties), liability standards (for the issuer and directors, distributors and accountants), and public enforcement (the characteristics of the supervisors of the securities markets, their investigative powers and sanctions).

Panel E of the table reports the evolution over time of the creditor rights index defined by La Porta, Lopez–de–Silanes, Shleifer and Vishny (1998). "The index is formed by adding 1 when: (1) the reoganization procedure does not impose automatic stay on the asset of the firm filing the reorganization petition; (2) secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm; (3) the reorganization procedure imposes restrictions, such as creditors' consent , to file for reorganization; (4) an official appointed by the court, or by the creditors, is responsible for the operation of the business during reorganization, or the debtor does not keep the administration of its property pending the resolution of the reorganization process. The index ranges from 0 to 4." (LLSV (1998) page 1124).

Panel A – Index of anti–director rights over time using La Porta, Lopez-de-Silanes, Shleifer and Vishny's (1998) classification.

Score	Period	Description of anti director rights provisions.
1	1899-1937	The percentage of share capital to call an extraordinary shareholders' meeting <= 10%, a bearer share is introduced and commercial code requires that the holders of bear shares deposit their shares to the company before shareholders' meeting to exercise their voting rights. *Section 160(1) and 161(2) of commercial code 1899.*
2	1938-1947	The issue of bearer share is exceptionalized and shares cannnot be blocked before meeting (always been in place). *Section 227(1) of commercial code 1938 .*
3	1948-1949	The proxy solicitation rule is enacted and proxy by mail is allowed. *Section 194 of Securities and Exchange Law 1948 .*
5(6)	1950-1954	The cumulative voting, derivative suit and appraisal right of minotiry shareholders are introduced. Whether or not preemptive right will be given to existing shareholders bocomes the Necessary Particulars in Articles of Incorporation. *Section 256-3 □256-4, 267, 245-2 □408-2(1), 166(1) □□ □□347(2) of commercial code 1950 .*
5	1955-1974	Whether or not preemptive right will be given to existing shareholders is excluded from the necessary particulars in articles of incorporation. *Section 166(1)(□) of commercial code 1955 .*
4	1975-today	Cumulative voting can be excluded completely by articles of incorporation. *Section 256-3(1) of commercial code 1974 .*

Panel B – Index of disclosure requirements over time using La Porta, Lopez-de-Silanes and Shleifer (2006) classification.

Score	Period	Description of anti director rights provisions.
0.000	1899-1947	A prospectus is not required by commercial code, by the Tokyo Stock Exchange or Provisional Stock Exchanges. There is no Securities and Exchange Law. Shares can be traded and capital can be raised informally (i.e. without a prospectus).
0.667	1948-1952	A prospectus is required by Section 13 of Securities and Exchange Law 1948. In the prospectus, the issuer has to disclose the aggregate compensation of all directors and key officers, the name and ownership stake of each shareholder who, directly and indirectly, controls 10% or more of the Issuer's voting securities, inside ownership of each director and key officer, the name of officers who borrowed more than 20yen from the company and the amount of the debt. *Section 5 of Securities and Exchange Law 1948.*
0.583	1953-1975	The contents of prospectus is simplified. *Section 5 of Securities and Exchange Law 1953.*
0.750	1976-1980	Regulation of consolidated statement is enacted and related party transaction is disclosed.
0.917	1981-today	Commercial code is amended and irregular contract is disclosed.

Panel C – Index of liability standards over time using La Porta, Lopez-de-Silanes and Shleifer's (2004) classification.

Score	Period	Description of anti director rights provisions.
0.000	1899-1947	
0.667	1948-1952	Section 18 of Securities and Exchange law made manegement, distributor and accountant of the company liable for untrue statement in a prospectus when investors faithfully rely on the description of the prospectus. They are not liable when they prove that they are not negligent for untrue statement.
0.443	1953-1970	Section 18 of Securities and Exchange Law is amended and the liability standard of the management , distributor and accountant of the company are loosened.
0.667	1971-today	Section 18 and 21 of Securities and Exchange law is amended again and the manegement, distributor and accountant of the company are liable for false statement in a prospectus when investors faithfully rely on the statement. They are not liable when they prove that they are not negligent for untrue statement.

Panel D – Index of public enforcement over time using La Porta, Lopez-de-Silanes and Shleifer's (2004) classification.

Score	Period	Description of anti director rights provisions.
0	1899-1947	No public enforcement body exists.
0.708	1948-1951	Securities and Exchange Commission is established.
0.208	1952-1991	Securities and Exchange Commission is abolished. Financial frauds handed by the police fraud department.
0.658	1992-today	Securities and Exchange Surveillance Commission is established.

Panel E – Index of creditor rights over time using La Porta, Lopez-de-Silanes, Shleifer and Vishny's (1998) classification.

Score	Period	Description of anti director rights provisions.
3	1899-1921	Bankruptcy Law is enacted in 1893. There is no automatic stay. Secured creditors are ranked first. Bankruptcy proceedings are initiated by trustees appointed by bankruptcy court. Debtor can file for bankruptcy proceedings without consent of creditors.
2	1922-1952	Composition law is enacted and management can stay during the bankruptcy proceedings.
1	1952-today	Corporate Reorganization Law is enacted and the execution of securities rights can be stopped by court's order.

Figure 1. Trend of ownership structure from 1900 to 1937

This figure shows the trend of ownership in prewar Japan based upon the percentage of shares held by the largest three (C3) and largest five shareholders (C5) in a sample of companies. The 1907 sample includes companies that were incorporated prior to 1907 and that still existed in 1940. The 1921 sample consists of companies that were incorporated prior to 1921 and that still existed in 1940. Both samples are drawn from the top 100 firms based on assets in either 1918 or 1930. Utilities and financial institutions are excluded from the sample.

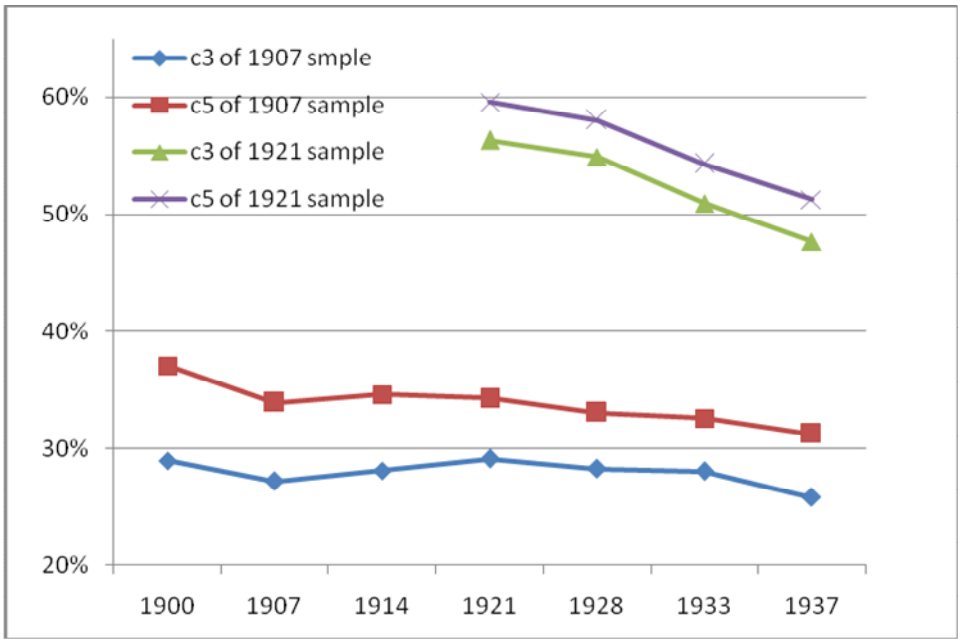

Figure 2. A comparison of the time series of ownership in the United Kingdom and Japan

This figure shows the trend of ownership in Japan and the United Kingdom based on the percentage of shares held by the largest three (C3) and largest five shareholders (C5) in a sample of companies. In Japan, the sample consists of forty-five companies that were either incorporated prior to 1907 or 1921 and that still existed in 1990. Utilities and financial institutions are excluded from the sample. U.K. data are based on Franks, Mayer, and Rossi (2006). In compiling this figure, the data for the United Kingdom and Japan are not always collected in exactly the same years. As a result, we use the nearest data points for the two countries. For example, we have data for the United Kingdom in 1900, 1910, 1920, 1930, and 1940. Data for Japan were collected in 1907, 1914, 1921, 1928, and 1937, respectively. Thereafter, the data for the two countries are synchronized.

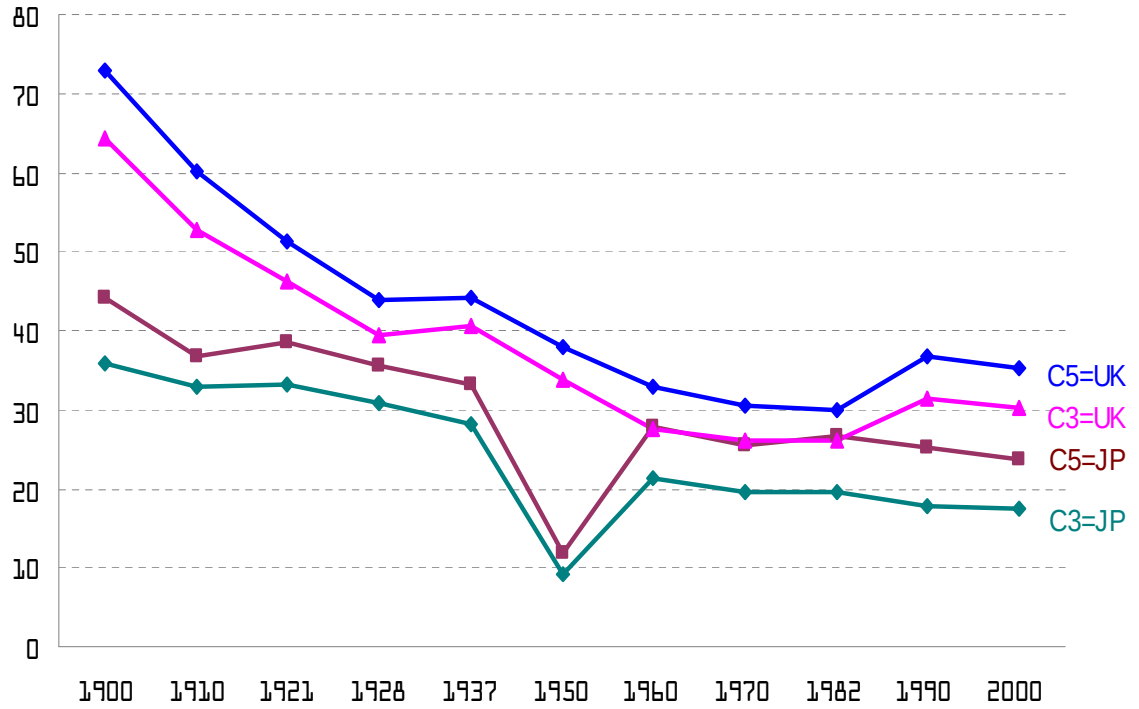

Table 1. Number of shareholders for various years from 1900 to 1937, based on the 1907 and 1921 samples

This table reports the number of shareholders for selected years. It is based upon both samples, the 1907 sample (panel A), which includes companies that were incorporated prior to 1907 and that still existed in 1940, and the 1921 sample (panel B), which includes companies incorporated prior to 1921. Both samples are drawn from the top 100 firms based on assets from either 1918 or 1930. Panel C reports results for the two samples combined. Utilities and financial institutions are excluded from the sample. C1, C3, and C5 are the largest shareholder, the three largest shareholders, and the five largest shareholders, respectively.

Panel A: 1907 sample

	1900	1907	1914	1921	1928	1933	1937
N	23	50	50	42	42	41	41
No. of shareholders	302	675	1,060	3,893	5,769	5,932	6,682
Avg. no. of shares per shareholder	173	198	235	351	279	261	263
C1	18.8%	14.4	16.5	18.2	17.7	17.8	15.3
C3	29.0%	27.2	28.1	29.1	28.2	28.1	25.9
C5	37.0%	33.9	34.6	34.3	33.1	32.6	31.3
C1(median)	10.0%	10.0	10.2	11.3	9.5	9.9	8.2
C3(median)	19.7%	19.7	20.3	20.0	17.2	16.5	16.5
C5(median)	26.4%	26.7	27.1	25.8	20.4	21.5	23.3

Panel B: 1921 sample

N				29	29	29	28
No. of shareholders				2,399	2,735	3,973	4,881
Avg. no. of shares per shareholder				6,204	6,627	4,596	2,874
C1				43.9%	42.4	41.2	39.7
C3				56.3%	54.9	51.0	47.7
C5				59.6%	58.0	54.3	51.3
C1(median)				36.5%	28.1	27.9	28.0
C3(median)				48.1%	47.2	35.8	43.5
C5(median)				55.4%	52.6	40.2	48.1

Panel C: Combined

N				71	71	70	69
No. of shareholders				3,282	4,530	5,120	5,941
Avg. no. of shares per shareholder				2,742	2,872	2,057	1,339
C1				28.7%	27.8	27.5	25.3
C3				40.2%	40.8	39.2	36.1
C5				44.6%	44.8	43.1	40.7
C1(median)				21.6%	17.1	17.3	16.4
C3(median)				31.5%	29.5	24.5	27.6
C5(median)				37.8%	33.5	29.3	33.5

Table 2. Insider and outsider ownership based upon lists of the top ten shareholders

This table reports inside and outside ownership for selected years. It is based upon both samples, the 1907 sample (panel A), which includes companies that were incorporated prior to 1907 and that still existed in 1940, and the 1921 sample (panel B), which includes companies incorporated prior to 1921. Founders and their families who did not have board positions are placed in the category founders/their family. The category "board members" includes shares held by their immediate families and other relatives. Asset management firm is classified as an insider holding if it is owned by the founder, board member, or their family. Holding companies include Mitsui, Mitsubishi, Sumitomo, Nissan, Furukawa, Yasuda, Asano, Okura, and Suzuki.

		Panel A: 1907 sample							**Panel B: 1921 sample**			
		1900	1907	1914	1921	1928	1933	1937	1921	1928	1933	1937
No. of firms		25	50	49	42	42	41	40	29	29	29	28
Founders/board members:	**A**	26.3%	25.5	19.3	16.4	15.7	11.7	9.2	21.7	16.7	15.2	10.7
Founders/their family		8.0%	2.8	1.2	0.8	1.5	0.0	0.0	7.0	5.8	4.4	1.9
board members		18.4%	22.7	18.1	6.0	5.1	4.4	3.5	5.6	3.7	4.5	3.6
Asset management firm of founder, board member		.	.	.	9.7	9.1	7.3	5.7	9.1	7.2	6.3	5.2
Holding company	**B**	0.0%	1.8	3.3	6.1	6.6	8.9	6.2	22.4	22.9	26.6	18.8
Other corporations	**C**	0.6%	0.3	0.8	6.7	3.8	3.9	3.9	10.7	11.6	9.9	15.0
Banks	**D**	0.0%	0.3	0.1	0.9	1.6	1.6	3.0	3.8	3.5	1.5	4.1
Insurance firms	**E**	0.0%	0.0	0.0	0.2	0.4	1.1	5.3	0.2	1.7	1.3	3.8
Insider total	**A+B+C+D+E**	26.9%	27.9	23.5	30.3	28.1	27.3	27.6	58.8	56.4	54.5	52.5
Individual shareholders	**F**	14.8%	12.8	15.5	7.8	7.0	7.8	4.6	4.7	4.8	5.4	3.2
Asset management firm of outsider shareholders	**G**	.	.	.	0.8	0.7	0.7	1.3	0.5	0.2	0.8	1.1
Business coordinators	**H**	11.5%	7.6	5.3	2.0	2.2	2.9	2.0	3.0	2.7	2.9	1.4
of which % share of person who took a position on the board	**I**	7.7%	5.8	4.3	1.8	1.6	1.5	1.2	2.5	1.5	1.0	0.9
Foreign individual/company	**J**	3.0%	3.8	4.4	4.5	2.1	1.9	2.7	0.4	0.4	0.3	0.5
Trust bank and securities firms	**K**	0.2%	0.2	0.3	0.2	0.9	1.2	2.1	0.8	0.4	0.7	2.1
Outsider total	**F+G+H+J+K-I**	21.9%	18.6	21.2	13.6	11.4	13.0	11.6	6.9	6.9	9.1	7.4
% of outstanding shares identified		48.9%	46.5	44.7	43.9	39.5	40.3	39.1	65.8	63.3	63.6	59.9

Table 3. Trends in inside and outside ownership in the postwar period, 1950–2009

"Inside ownership" is defined as the percentage of shares held by the board of directors, employers' shareholding organization (ESOP), banks, insurance companies, and other nonfinancial institutions. "Outside ownership" is the percentage share held by institutional investors (investment trusts), securities houses, foreigners, and individuals. HCLC is the holding company liquidation committee. The sample includes 126 firms that are drawn from the top 100 by assets in either 1937 or 1955. Panel A is based on the top ten shareholder list. C1, C3, and C5 are the largest, three largest, and five largest shareholders, respectively. Panel B combines the top ten shareholder list and the shareholders listed in Japanese 10Ks, which show ownership in seven different categories (including financial institutions, investment banks, nonfinancial firms, and individuals). Because the Japanese 10Ks combine insiders (banks and insurance companies) and outsiders (investment trusts) in a single category, described as financial institutions, we estimate the maximum bank shareholding as residuals by subtracting the percentage share held by insurance companies and investment trusts in the large shareholder list from the percentage held by financial institutions in 10Ks. * denotes the figure based on the top ten shareholder list, whereas ** denotes that the figure is based on all shareholders listed in the 10Ks.

Panel A: Based on the list of the top 10 largest shareholders

	1950	1960	1970	1982	1990	2000	2009
No. of firms	119	118	108	109	109	109	109
No. of shareholders	17,251	43,683	61,410	45,959	65,598	63,936	47,065
C1	9.2%	10.1	9.4	10.3	9.5	10.2	11.7
C3	15.0%	20.6	18.7	20.7	19.5	19.5	21.2
C5	18.7%	27.5	24.5	27.6	26.8	26.0	26.9
Insiders	12.4	17.7	25.7	25.4	23.4	19.6	14.2
Founder/board member	1.6%	0.4	0.6	0.0	0.0	0.2	0.1
ESOP	1.0%	0.1	0.0	0.7	0.3	0.8	0.7
Banks	1.9%	6.3	8.0	8.4	8.6	6.1	2.9
Corporations	2.7%	4.7	7.4	6.4	5.4	5.8	6.4
Insurance company	5.3%	6.2	9.7	9.8	9.1	6.6	4.2
Outsiders	11.8%	18.0	7.4	7.8	10.2	10.6	12.7
Investment trust, pension funds	0.2%	11.9	1.6	2.7	8.1	7.3	9.2
Securities houses	6.8%	2.2	1.7	2.2	0.1	0.1	0.3
Foreigners	2.7%	2.5	3.2	2.8	1.8	3.0	3.1
Individuals	0.8%	0.8	0.4	0.0	0.1	0.1	0.1
HCLC	0.6%	–	–	–	–	–	–
% of outstanding shares identified	24.2%	35.7	33.1	33.1	33.6	30.0	26.9

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Panel B: Insider and Outsider Ownership in the period 1953-2009 (%)

	1953	1955	1958	1962	1964	1967	1969	1974	1982	1990	2000	2009
N	123	125	126	123	121	120	114	114	109.0	109.0	109.0	109.0
** Managerial ownership	1.1%	1.0	0.7	0.5	0.6	0.8	1.1	1.2	0.0	0.0	0.0	0.0
* Nonfinancial firms	7.4%	7.4	11.5	11.7	11.9	12.3	16.7	20.0	20.9	21.3	17.3	17.8
Residual of financial institutions	8.7%	15.3	18.6	21.5	19.9	23.8	23.2	22.7	28.4	32.2	28.3	21.7
** Insurance companies	4.7%	4.9	4.8	3.9	4.9	7.0	9.2	12.4	9.8	9.1	6.6	4.2
Insider ownership 1	17.2%	23.7	30.8	33.7	32.4	36.9	41.0	43.9	49.2	53.5	45.7	39.5
Insider ownership 2	21.9%	28.6	35.6	37.6	37.3	43.9	50.2	56.3	59.0	62.6	52.4	43.7
* Individual shareholders	57.2%	52.2	49.5	47.8	45.0	43.7	42.4	35.6	28.3	21.1	27.3	25.2
** Investment trusts	9.5%	8.4	9.2	10.3	8.4	2.2	1.4	2.4	2.7	8.1	7.3	9.2
* Securities houses	7.7%	8.2	4.1	2.3	6.5	7.2	1.7	2.0	3.2	2.1	0.9	2.1
* Foreigners	2.7%	2.6	1.7	2.0	2.9	2.8	4.2	3.6	7.0	6.1	13.0	19.5
Outsider ownership	77.1%	71.4	64.5	62.4	62.8	55.9	49.7	43.6	41.1	37.4	48.5	55.9

Table 4. Internal and external sources of funds for the period 1915–1980

This table shows the sources of new funds for selected periods from 1915–1942 and 1951–1980. For each subperiod, we show annual compositions. All new financing is in book values. New debt in 1915–1942 includes commercial notes, bonds, and long- and short-term borrowing, whereas the new debt from 1951–1980 is the sum of new borrowing and new bonds. New borrowing from 1915–1942 is only long-term borrowing, whereas new borrowing from 1951–1980 is the sum of short- and long-term borrowing. From 1915–1942, the sample consists of companies that were incorporated prior to 1907 and that still existed in 1940. From 1920–1942, the samples include companies that were incorporated prior to 1921 and that still existed in 1940. Both samples are drawn from the largest 100 listed firms (based on assets in 1918 and 1930). Utilities and financial institutions are excluded from the sample. The sample includes 126 firms that are drawn from the top 100 by assets from either 1937 or 1955.

	1915–1919	1920–1929	1930–1937	1938–1942	1951–1955	1956–1964	1965–1973	1974–1980
No. of observations	205	573	527	292	596	1,067	895	839
No. of firms	45	68	68	66	126	119	112	105
% from each source:								
Retained earnings	43.2	5.4	26.9	16.5	27.1	9.5	14.8	29.0
Total external finance	56.8	94.6	73.1	83.5	72.9	90.5	85.2	71.0
New issued equity	21.9	48.9	40.8	26.2	24.9	28.5	7.7	7.4
New debt	34.9	45.7	32.3	57.3	48.0	62.0	77.5	63.6
New bonds	5.2	18.2	2.7	10.7	7.0	1.6	2.8	4.6
New (long-term) borrowing	1.1	11.2	1.1	7.7	41.0	60.4	74.7	59.0
New equity capital to total new equity and debt %	38.6	51.7	55.8	31.4	34.1	31.5	9.1	10.5

Table 5. LLSV scores for Japan, the United Kingdom, and Germany

This table is based upon LLSV (1998 and 2006). The scores for the United Kingdom and Germany are based on Franks, Mayer, and Rossi (2006) and Franks, Mayer, and Wagner (2006). See Appendix A for details of legislative changes.

	Japan			United Kingdom		Germany	
	1900	1990	Year law/rules changed	1900	1990	1900	1990
Antidirector rights	1	4	1950,1974	1	5	1	1
Liabilities standard	0	0.667	1948	0	0.667	0	0
Disclosure	0	0.917	1948	0	0.833	0	0.417
Public enforcement	0	0.658	1948	0	0.750	<0.25	0.25
Creditor rights	3	1	1952	n/a	4	n/a	3

Table 6. Descriptive statistics for the business coordinator

The business coordinator is an individual who had board positions in six different firms. We use Suzuki, Wada, and Kobayakawa (2009) to identify business coordinators. Using this list we identify 203 people in 1907 as business coordinators. We match this list with names of board members and large shareholders in our sample of firms to determine business coordinators and the size of their shareholdings.

	1907	1914
Number of firms	50	50
Number of firms that had a business coordinator as either a board member or one of its shareholders	39	36
Number of firms that had a business coordinator as a board member	34	35
Maximum number of business coordinators who are on the same board members	8	4
Average number of business coordinators per firm	1.72	1.12
Number of firms that had a business coordinator as one of the top ten shareholders	32	30
Average size of block held by business coordinator	7.6%	5.3%
Standard deviation of shareholding of business coordinator	10.5%	8.3%
Number of business coordinators who are one of the top ten shareholders	1.32	0.96
Maximum number of business coordinators who are one of the top ten shareholders (query)	6	3

Table 7. Results of a regression relating the dispersion of ownership to the presence of business coordinators

This table provides results for a regression measuring the impact of a business coordinator on the dispersion of ownership. The dependent variable is the aggregated shares of the top five shareholders in panel A and the log of the number of shareholders in panel B in 1900, 1907, and 1914. Size is the log of number of issued stocks. BCDSH is a dummy variable equal to one if the business coordinator is one of the large shareholders. BCDB is a dummy variable equal to one if the business coordinator is one of the board members. BCDSH/B is a dummy variable equal to one if the business coordinator is either one of the large shareholders or a board member. The sample includes companies that were incorporated prior to 1907 and that still existed in 1940. Samples are drawn from the largest 100 firms based upon assets in 1918 and 1930, subject to data availability. ***, **, and * denote 1%, 5%, and 10% significance levels, respectively. *t*-statistics are included.

Panel A: Dependent variable : C5

	(1)	(2)	(3)
No. of observations	121	121	121
Size(log of number of issued stocks)	0.00***	0.00***	0.00***
	(3.69)	(2.73)	(2.63)
Year incorporated	0.002	0.002	0.003
	(0.85)	(0.78)	(1.06)
BCDSH	-0.07		
	(-1.52)		
BCDB		-0.14***	
		(-2.87)	
BCDSH/B			-0.17***
			(-3.20)
Y1907dum	-0.02	-0.03	-0.04
	(-0.30)	(-0.51)	(-0.62)
Y1914dum	0.02	0.00	-0.02
	(0.26)	(0.01)	(0.30)
Constant	-3.75	-3.312	-4.45
	(-0.77)	(-0.68)	(-0.95)
Adjusted R^2	0.12	0.18	0.20

Panel B: Dependent variable: Log of number of shareholders

	(1)	(2)	(3)
No. of observations	119	119	119
Size (log of number of issued stocks)	0.00***	0.00***	0.00***
	(5.72)	(5.20)	(5.27)
Year incorporated	-0.03***	-0.03***	-0.03***
	(-2.77)	(-2.70)	(-2.97)
BCDSH	0.41*	-	-
	(1.94)		
BCDB	-	0.86***	-
		(3.56)	
BCDSH/B	-	-	0.83***
			(3.13)
1907dum	0.71**	0.76**	0.76**
	(2.16)	(2.39)	(2.40)
Y1914dum	0.81**	0.88***	0.93***
	(2.37)	(2.62)	(2.77)
Constant	65.57***	63.43***	66.92***
	(2.99)	(2.90)	(3.18)
Adjusted R^2	0.47	0.52	0.51

Table 8. Determinants of ownership and financing in the 1930s

The sample includes 65 firms that were (re)incorporated before 1918 and that still existed in 1940. The sample is drawn from the largest 100 listed firms (based on assets from 1918 and 1930), subject to data availability. Utilities and financial institutions are excluded from the sample. Panel A provides the results of a regression of a measure of concentration on the presence of a company-affiliated Zaibatsu. The dependent variable is C5 in 1937 in Column 1, and the change in C5 between 1933 and 1937 is in Columns 2 to 4. Panel B uses the change in the log of the number of shareholders between 1933 and 1937 as the dependent variable. Independent variables include Lag D/A as debt divided by assets in 1932 at the beginning of the estimation period, Log size as the log of assets in 1932, Dcap as the new equity as a proportion of total assets, Zaibatsu as a dummy variable that takes the value of one if a firm is affiliated to one of the largest four zaibatsu and Furukawa and zero otherwise, and BCDB is a dummy variable that equals one if the business coordinator had a position on the board. Panel C provides regression results for measures of new equity raised regressed on the presence of a zaibatsu in our sample. The dependent variable is annual new equity raised standardized by total assets in previous year. Independent variables include Lagcap as the initial level of equity divided by assets at the beginning of the year, Logsize as the log of assets in 1932, Invest as the amount of new investment divided by the size of total assets, ROE as return on book equity, and Zaibatsu as a dummy variable that takes the value of one if a firm is affiliated to one of the largest five zaibatsu and zero otherwise. BCDSH is a dummy variable equal to one if the business coordinator is one of the large shareholders. *t*-statistics are reported in brackets. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Panel A: The effect of zaibatsu on ownership dispersion in the 1930s

	Dependent variables: C5 in 1937	**Dependent variable: Change in C5 from 1933 to 1937**		
	(1)	(2)	(3)	(4)
Lag D/A	0.18	0.03	0.01	0.11
	(0.74)	(0.30)	(0.17)	(1.09)
Log size	-0.05	-0.01	0.01	-0.01
	(-1.36)	(-0.42)	(0.25)	(-0.27)
Zaibatsu	0.21***	-0.16***	-0.14***	-0.14***
	(2.71)	(-2.87)	(-3.02)	(-2.95)
Year incorporated	0.004	-0.004	-0.003	-0.002
	(1.64)	(-2.09)**	(-1.30)	(-0.87)
Dcap	-0.12***			-0.14***
	(-3.03)			(-3.70)
BCDB	0.08	0.01	0.00	0.03
	(1.10)	(0.25)	(0.02)	(0.54)
Industry dummy	yes	yes	no	yes
constant	-7.30	7.35**	4.83	2.91
	(1.48)	(2.09)	(1.29)	(0.88)
No. of observations	65	65	65	65
Adjusted R^2	0.60	0.31	0.21	0.43

Panel B: Change in no. of shareholders

	Dependent variables: log of shareholders in 1937	Dependent variable: Change in log of no. of shareholders from 1933 to 1937		
	(1)	(2)	(3)	(4)
Lag D/A	-1.33**	0.29	0.43	-0.36
	(2.26)	(0.63)	(0.78)	(-0.82)
Logsize	0.72***	0.10	0.04	0.07
	(3.49)	(0.49)	(0.21)	(0.39)
Zaibatsu	-0.89**	1.37**	0.96**	1.01**
	(-2.08)	(2.52)	(2.11)	(2.07)
Year incorporated	-0.01	0.04	0.03	0.01
	(-0.65)	(1.65)	(1.25)	(0.71)
Dcap	1.12***			1.31***
	(2.90)			(3.93)
BCDB	-0.19	0.02	-0.15	-0.14
	(-0.42)	(0.03)	(-0.39)	(-0.28)
Industry dummy	yes	yes	no	yes
constant	23.84	-66.73	-52.77	-27.93
	(0.68)	(1.65)	(-1.23)	(-0.72)
No. of observations	63	63	63	63
Adjusted R^2	0.51	0.31	0.20	0.46

Panel C: The effect of zaibatsu on equity finance

Dependent variable: New equity capital(1933–1937)/Totalassets$_{t-1}$

	(1)	(2)	(3)
Lagcap	-0.06	-0.05	-0.04
	(-1.57)	(-1.25)	(-1.08)
Logsize	0.00	0.00	0.00
	(0.66)	(0.38)	(0.32)
Invest	0.64***	0.59***	0.58***
	(4.80)	(4.78)	(4.43)
ROE	-	-	-0.01
			(-0.13)
Zaibatsu	0.03***	0.03**	0.03**
	(2.61)	(2.55)	(2.15)
BCDSH	0.01	0.01	0.01
	(1.14)	(1.04)	(0.93)
Constant	-0.02	0.05	0.02
	(-0.02)	(0.78)	(0.26)
Year dummy	no	yes	yes
No. of obs.	323	323	314
Adjusted R^2	0.23	0.29	0.28

Table 9. The determinants of insider ownership

This table analyzes the determinants of insider ownership for the sample of 126 firms, drawn from the largest listed firms by assets from 1937 or 1955. In panel A the dependent variable is the change in the aggregate percentage shares held by incumbent board members, banks, and other firms, described as ΔINSIDE from 1950 to 1955. The independent variable is Logsize, based upon assets; as a proxy for leverage, we use the ratio of debt divided by total assets in 1952; a proxy for financial distress, distress dummy, is one if after tax profits have been negative in at least one year during the estimation period; a proxy for the impact of postwar reform, HCLC, represents the proportion of shares held by the Holding Company Liquidation Committee in individual firms designated as being zaibatsu related. Panel B reports regression results on insider ownership. Regressions 1–3 report results for the top 30 companies for changes in insider ownership in the period 1955–1974. The Keiretsu membership dummy is one if a firm was a member of the Presidents' Clubs of former large three zaibatsu firms, Mitsui, Mitsubishi, and Sumitomo. Regressions 4–7 report results for all firms with Columns 4 and 5 corresponding to the period 1964–1969 and Columns 6 and 7 to the period 1969–1974. All columns exclude insurance companies from the definition of insider holdings, except Columns (1), (3), (4), and (6). ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively. *t*-statistics are in parentheses.

Panel A: Leverage and insider ownership (1950 to 1955)

	Dependent variable: ΔINSIDE							
	(1)		(2)		(3)		(4)	
Insider ownership in 1950	-0.705	***	-0.705	***	-		-0.686	***
	(-8.42)		(-8.49)				(-8.22)	
Log size	-0.015		-0.015		0.001		-0.033	
	(-0.78)		(-0.78	)	(0.03)		(-1.67)	
Distress dummy	-0.007		–		–		–	
	(-0.13)							
Debt-to-assets ratio	0.201	**	0.201	**	0.321	***	0.178	*
	(2.10)		(2.11)		(2.64)		(1.76)	
HCLC	0.149	***	0.149	***	0.117	**	0.145	***
	(3.63)		(3.65)		(2.24)		(3.16)	
Constant	0.242		0.241		-0.030		0.479	**
	(1.28)		(1.28)		(-0.12)		(2.4)	
Industry dummy	no		no		no		yes	
No. of observations	111		111		111		111	
Adjusted R^2	0.44		0.45		0.08		0.50	

Panel B: Determinants of insider ownership for 1955–1974 and various subperiods

	Top 30: 1955–1974			Whole sample: 1964–1969		Whole sample: 1969–1974	
Dependent variable: Change in % of insider holdings	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Insider ownership in 1955			-0.140				
			(-0.86)				
No. of share issues	0.011**	0.011**	0.01**	-0.001	-0.001	-0.007	-0.002
	(2.35)	(1.82)	(2.25)	(-0.1)	(-0.2)	(-1.18)	(-0.33)
Price support institutional ownership	0.632*	0.585	0.62*	0.449*	0.726***		
	(1.87)	(1.32)	(1.83)	(1.85)	(2.99)		
Log size in 1974	-0.025*	-0.01	-0.025*				
	(-1.77)	(-0.55)	(-1.78)				
No. of yr. of negative ROA	0.012*	0.004	0.011	0.001	-0.012	-0.017*	-0.028***
	(1.72)	(0.49)	(1.54)	(0.07)	(-1.61)	(-1.82)	‘(-2.88)
Keiretsu membership dummy	-0.091*	-0.011*	-0.095**	-0.05**	-0.045**	-0.021	-0.021
	(-1.95)	(-1.88)	(-2.02)	(-2.43)	(-2.17)	(-0.95)	(-0.92)
Debt-to-asset ratio				-0.068	-0.002	-0.056	0.028
				(-0.88)	(-0.03)	(-0.89)	0.41
Individual ownership				0.081	0.15*	0.346***	0.317***
				(0.237)	(1.87)	(4.87)	(4.14)
No. of new seasoned issues						0.041**	0.039**
						(2.33)	(2.09)
Foreign ownership				-0.001	-0.001	0.002**	0.001
				(-0.67)	(-1.41)	(2.11)	(0.87)
Constant	0.546***	0.46**	0.58**	0.059	0.047	-0.093**	-0.074*
	(3.40)	(2.16)	(3.49)	(1.01)	(0.79)	(-2.18)	(-1.60)
No. of observations	30	30	30	106	106	99	99
Adjusted R^2	0.264	0.128	0.256	0.08	0.218	0.24	0.23

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