

# **The Ownership of Japanese Corporations in the 20<sup>th</sup> Century**

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## **Abstract**

20<sup>th</sup> 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 by the occupational forces after the war and replaced by a strong form of legal protection. This inversion of institutions and legal protection 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 where banks and companies dominated with interlocking shareholdings in the second half of the century. Business coordinators and zaibatsu sustained outside ownership in the first half of the century whereas the dominant institution in the second half of the century, banks, did not. Informal institutional arrangements therefore provide a better explanation than formal investor protection for the evolution of ownership in 20<sup>th</sup> century Japan and hold important lessons for both Japan and other Asian countries in the 21<sup>st</sup> century.

**Key words:** Japan, corporate ownership, insider system, trust, investor protection

**JEL classification:** G32, K22

## **1. Introduction**

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 20<sup>th</sup> 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 UK and US, 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 break-up of the zaibatsu which initially resulted in even higher levels of dispersion of equity ownership. But those levels of dispersion were not sustained and they were gradually replaced by an insider ownership system of cross-shareholding by banks and corporations that dominated post War Japan.

There are three distinguishing characteristics of the evolution of ownership in Japan in the 20<sup>th</sup> century. The first is that the events of post WW2 Japan came as close to an exogenous shock in terms of macro-governance and regulation as could be envisaged. What the US authorities attempted to do through dissolving the zaibatsu and imposing investor protection legislation was to change the structure of Japanese corporate control fundamentally from one that was regarded as contributing to the aggressive military policies. Second, it succeeded in doing this but in a completely different direction from what was expected or intended. The result was that Japan uniquely switched from an outsider to an insider ownership system, while the UK and US remained an outsider and Germany remained an insider ownership system for the entire century. Third, the reason for these unintended consequences was that while the appropriate legal structure was put in place to establish an outsider ownership system, the institutions were not. Japan's regulatory system and ownership landscape failed because it could not provide the institutional support to sustain outside ownership.

This paper examines the striking history of a country in which institutions successfully sustained outside ownership for fifty years in the absence of formal investor protection but were extinguished in the middle of the century and were not re-established in the post War period, despite strong forms of formal investor protection being put in place. The approach that this paper takes 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 the time.

The paper provides the most comprehensive description of corporate share ownership in pre-WW2 Japan based on measures of ownership concentration and insider ownership. While corporate finance in pre-WW2 Japan has been well documented (Okazaki (1999), Hoshi and Kashyap (2001), and Teranishi (2005)), the evolution of ownership in the 20<sup>th</sup> century has not. Exceptions are Morck and Nakamura (2005) in English and Imuta (1976) and Shimura (1969) in Japanese, but all are limited to particular years - 1907 in the case of Imuta, and 1919 and 1936 in the case of Shimura. There is therefore no consistent time series data on ownership for the pre-WW2 era. 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 in the middle of the century, using various proxies for the nature of the institutional arrangements that were prevailing at the time.

There are three 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 and small individual investors. In contrast, insider owners derive private benefits as well as financial returns from their investments. They may reflect the other activities in which they are engaged as corporations or the prospects of succession and inheritance in family firms.<sup>1</sup> The reason why this distinction between insider and outsider ownership is important is that, in general, insiders' private benefits are viewed as being in conflict with the interests of outside shareholders in their financial returns. However, that is not always 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. That leads to the second key component of the analysis and that is institutions of trust.

Outside investors are frequently not well placed to exercise direct control themselves. They may be too dispersed to be able to organize themselves and their investments may be too small to warrant devoting much time or effort to monitoring

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<sup>1</sup> 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.

activities. They rely on others to do this and increasingly in western economies we have associated this with the roles of financial intermediaries and non-executive directors. We document in this paper that there were at least two parties that performed this function during the first half of the 20<sup>th</sup> century in Japan, business coordinators in the first two decades of the century and family firms, zaibatsu, during the third decade. Business coordinators were themselves outside investors whose presence encouraged other less well informed outsiders to participate. Zaibatsu, on the other hand, had considerable private interests (Morck and Nakamura (2005)) and were according to our classification insiders but, as we show, their inside interests promoted rather than undermined outside ownership.

Third, the reason why we maintain that these institutions of trust and the relation between insiders and outsiders are critical to understanding corporate and financial development is that the more commonly held explanation, namely legal protection, is not adequate 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 instruments required to exercise control themselves. It is the law rather than institutions that is conventionally regarded as critical for outside investors (La Porta, Lopez-de-Silanes and Shleifer (1999)).

Japan presents a particularly interesting case in this regard 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 and in the second half of the century strong investor protection was accompanied by an institutional failure to sustain the interests of outside investors. Instead the paper suggests that institutions of trust exercised control on behalf of outside investors in the first half but not in the second half of the century. The concept of an outsider system described in this paper is therefore quite different from the one that is conventionally associated with Anglo-American systems where outsiders exercise control themselves through the powers conferred on them by their legal systems.

This paper suggests an elaboration of the existing history of corporate Japan. For a large part of the 20<sup>th</sup> century, Japan was an outsider not an insider ownership system, although supported for some of the time by insiders, namely business coordinators and the zaibatsu. We show that the insider bank arrangements of post war 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 side payments to favoured

investors through the preferential allocation of shares in the 1970s.<sup>2</sup> It was not an auspicious start to a system that was often associated with conflicts of interest. This state of affairs came about as a consequence of the destruction of the pre-war institutions and an inability of legal regulation to provide a substitute for them.

Not only is Japan in the 20<sup>th</sup> century a remarkably powerful laboratory within which to test alternative determinants of systems of capitalism, it also holds important lessons for the 21<sup>st</sup> century. As Japan once again in this century adopts the characteristics of an outsider ownership system, are the institutions for its successful implementation more favourable than they were 50 years ago? As China and India seek to reform their governance systems, it may not be desirable or feasible for them to import western practices that are incompatible with their institutions.<sup>3</sup> In the conclusion to the paper, we will look forward as well as back.

Section 2 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 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 issues. In particular, there were two periods during which there were substantial new equity issues – the first was in the first decade of the 20<sup>th</sup> century when the newly industrialized companies, such as the cotton spinning firms, came to the stock market for the first time. The second was during the 1930s when there was a boom in IPOs 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 break-up of the zaibatsu, individual share ownership was gradually replaced by corporate and bank holdings and bank finance replaced equity issuance. Investor protection was weak in Japan in the first half of the twentieth century but the American occupation at the end of the 1940's resulted in a substantial strengthening of investor protection, so much so that in the second half of the 20<sup>th</sup> century Japan had one of the strongest formal levels of investor protection of any

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<sup>2</sup> There are other explanations for the emergence of the banks as major shareholders, see for example, Teranishi (1994), Hoshi (1995), Yafeh (1995). These explanations are not necessarily exclusive.

<sup>3</sup> Allen, Carletti and Marquez (2009) and Allen, Carletti and Grinstein (2012) are two recent discussions of the relation between corporate governance and economic performance.

major developed economy. There was therefore a marked shift from weak to strong investor protection from the first to the second half of the 20<sup>th</sup> century.

Section 3 describes the way in which Japan was able to sustain the presence of outside investors in the first half of the 20<sup>th</sup> 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 co-ordinators 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 20<sup>th</sup> century described in Section 2. In the 1930's, zaibatsu performed a similar certification function thereby facilitating the extensive new equity issues that occurred during that decade.

Section 4 examines the post WW2 emergence of insider ownership. It demonstrates how, while there was strong formal legal protection, there was 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 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 so that by then Japan had switched from being an outsider to an insider ownership system.

The insider ownership system collapsed during the 1990s and in this century outside ownership has once again re-emerged. Section 5 concludes by considering the implications of the history of 20<sup>th</sup> century Japan for 21<sup>st</sup> century Asia.

## **2. Equity Ownership, Financing and Regulation**

### **2.1 Equity Ownership**

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 20<sup>th</sup> century. The data were collected from several primary sources for individual firms. Over the period 1900 to 1942 we used data from the financial statements of firms and *Company Year Books (Kabushiki Gaisha Nenka)* to generate samples of the ten largest shareholders. Over the post-war period we obtained lists of the ten largest shareholders in the *Year Book of Listed Firms (Jojo Gaisha Soran)*, *Annual*

*Corporate Reports (Kaisha Nenkan)*, and the *Overview of Firm Keiretsu (Kigyo Keiretsu Soran)* by 1980, and after that we used *JDB electric database*.

From these sources we constructed two samples of firms for the pre-war period. The samples were drawn from the 100 largest manufacturing and mining companies measured by assets in 1918 and 1930 that were still in existence in 1940; data were available on 71 of these firms.<sup>4</sup> The first sample comprises firms incorporated or reincorporated before 1907 and which were still in existence in 1940. There were 50 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 were still in existence 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. 24 of the 50 companies in the 1907 sample were in the textile industry and 10 were in food.<sup>5</sup> 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 concentration at seven points in time during the pre-WW2 period: 1900, 1907, 1914, 1921, 1928, 1933 and 1937.

Table 1 and Figure 1 shows that the mean level of ownership of the top 3 shareholders in 1907 was 27.2% while that for the top 5 shareholders was 33.9%.<sup>6</sup> This remained very stable for the next 30 years until 1937. It compares with estimates of the three largest shareholders for the UK of 36% in 1920, 31% in 1950 (Franks, Mayer and Rossi (2009)) and 36% for the 5 largest shareholders in 1990 (Franks, Mayer and

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<sup>4</sup> 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 was made for the reason that thereafter the government implemented a series of mergers to further the war effort.

<sup>5</sup> The industry distribution of our sample is available from the authors on request.

<sup>6</sup> 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.



Renneboog (2001)). Concentration of ownership is even greater in the US. Holderness (2009) reports that 96% of a representative sample of 375 companies had at least one blockholder with more than 5% of the common stock and those aggregate blockholdings totalled on average 39% of common stock. Ownership was therefore highly dispersed in Japan at the beginning of the 20<sup>th</sup> century by the standards of the UK and US at the same time and even by comparison with the UK more recently.

==Table 1 and Figure 1 about here==

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 3 shareholders in 1921 is 56.3% and the median ownership is 48.1%. The reason for the much higher estimate is that the 1921 sample includes subsidiaries that were spun off from zaibatsu after the First World War and were newly established heavy industry firms in such sectors as iron and steel, engineering and chemicals which in most cases continued to be controlled by their zaibatsu holding company.<sup>7</sup> As a result of initial public offerings by the subsidiaries in the 1930s, the average level of concentration of ownership of the 1921 sample declined markedly in 1933 and 1937. Figure 1 shows the low and relatively stable concentration of ownership of the 1907 sample and the higher but more rapidly declining concentration of ownership of the 1921 sample.

Panel A also shows that in 1900 the mean number of shareholders 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 5000 even when newly incorporated firms are included (Panel C). These figures contrast with an average of 320 in 1910 in the UK (Franks, Mayer and Rossi (2009)) and 25 in Germany over the period 1890 to 1950 (Franks, Mayer and Wagner (2006)).

== 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

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<sup>7</sup> There was just one case of a zaibatsu’s subsidiary going public before the 1930s in the non-financial sector, Mitsubishi Mining.

houses, mutual funds, and foreign investors. Inside owners are families, directors, banks, insurance companies and other companies whose interests extend beyond pure financial performance to 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 approximation to the two classes of shareholders.

Table 2 describes insider and outsider ownership for the pre-war period based on the ten largest shareholder list. At the beginning of the 20<sup>th</sup> century, individuals (family, entrepreneurs and bankers) were the dominant shareholders and the percentage held by insiders accounted for 26.9% on average in the 1907 sample. The largest shareholdings in 47 of the 50 firms in the 1907 sample were the founder or a board member. There were also significant holdings in the hands of “business coordinators” (former entrepreneurs, and equivalent to venture capitalists), who sometimes took seats on the boards of firms. (Note that business coordinator who had seat on the board is categorized as insider, otherwise categorized as insider in Table 2). After the beginning of the First World War, the percentage held by insiders was fairly stable at between 23.5% and 30.3% between 1914 and 1937 and, for tax reasons, the direct holdings of individual board members and founders were replaced by investments via asset management firms. More significantly, there was increasing corporate holdings by corporations and insurance firms. The aggregate percentage shares held by large individual shareholders declined from 14.8% in 1900 to 4.6% in 1937 and outside share ownership was increasingly dominated by a large number of small shareholdings.

Turning to the 1921 sample, with the introduction of the zaibatsu corporate form after World War 1, 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 shareholdings per shareholder (see Panel B of Table 1).

Figure 2 extends the period of the analysis to post WW2 for the combined 1907 and 1921 sample. Of the sample of 68 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.<sup>8</sup> 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 (medians drop from 23% to 6%). Thereafter the share of the top three shareholders increases to a mean of 18% in 1960 and 20% in 1970. For comparison purposes, Figure 2 contrasts the Japanese experience with that of the UK and shows that concentration was low in Japan in comparison with the UK for the entire 20<sup>th</sup> century.

== Figure 2 about here ==

The large decline in ownership concentration resulted from changes in ownership ordered by GHQ (General Head Quarters of Allied Nations) and the newly introduced 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.<sup>9</sup> GHQ insisted that the sale was targeted at the small investor thereby ensuring the shares were sold at a low price.<sup>10</sup> Investors' appetite for the shares was fuelled by hyper-inflation from 1946-1949.

In Table 3, we show the time series of ownership of Japanese firms by type of shareholder during the second half of the 20<sup>th</sup> century.<sup>11</sup> To analyse how the dispersion of ownership changed in the post war period we used a sample of 126 firms drawn from the top 100 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 (Jojo Gaisha Soran)* of the Tokyo Stock Exchange and the *Corporate Finance Data Bank* (CD-ROM) (Development Bank of Japan) after 1982.<sup>12</sup> Panel B combines the top ten shareholder list and the Japanese 10Ks in seven different categories of ownership,

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<sup>8</sup> The remaining 23 firms disappeared through bankruptcy or acquisition prior to the end of our time series.

<sup>9</sup> 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, Holding Company Liquidation Commission, which held the shares temporarily until they were sold. Since the Tokyo Stock Exchange was not open the shares were sold directly to the public with priority being given to employees and local residents where the company operated. No individuals 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)).

<sup>10</sup> Hadley (1970), HCLC (1951) and Miyajima (1994).

<sup>11</sup> We collect more information than that provided by The Tokyo Stock Exchange, which includes all listed companies. Besides not having data prior to 1949, it has less information post WW2 than our data base of 126 companies described below.

<sup>12</sup> This sample was collected because substantially more companies were incorporated and listed from the 1930s onwards. Levels of dispersion - C3 - in the two samples (1907 and 1921 combined in Figure 2 and post war samples in Table 2) are similar. Data are available on request.

including financial institutions, investment trust, non-financial firms, securities houses, foreigners and individuals.<sup>13</sup>

== 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 12.3% compared with 27.6% in 1937. Managerial ownership was almost extinguished and 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.

Outside highly dispersed ownership emerged in the immediate post World War II. The share of outsiders was relatively stable during the late 1950s and the early 1960s, shifting from individual shareholders to investment trusts and mutual funds, which reached a peak of 10.3% in 1962.<sup>14</sup> According to Panel A, outside ownership was 18.0% in 1960, higher than in 1950, and in 1962 the aggregate share held by individuals and investment trust was still nearly 60%.

The jump in inside ownership occurred in the middle of the 1960s. In 1970, inside ownership reported in panel A accounted for 25.7% of large shareholders and outside ownership declined from almost 18.0% in 1960 to only 7.4% in 1970. Inside ownership of all shareholders is estimated in panel B to have been 56.3%, in 1974 mainly attributable to an increasing share of banks and non-financial institutions.

In summary, ownership was dispersed in Japanese listed firms from the beginning of the 20<sup>th</sup> century and by the 1920s became more dispersed even by today's standards. Individuals were the dominant shareholders at the beginning of the 20<sup>th</sup> century but were replaced by financial and non-financial companies during the 1930s. On conventional measures of dispersion, the ownership landscape of Japan was even more dispersed than in the UK both then and even today. Highly dispersed ownership re-emerged after WW2 and

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<sup>13</sup> Since the Japanese 10Ks classified banks, insurance company (insiders) and investment trust (outsiders) in a single category, 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.

<sup>14</sup> According to the Tokyo Stock exchange (equally weighted) the share of investment trusts and mutual fund reached a peak of 12.0% in 1961.

persisted until the middle of the 1960s at which stage it gave way to insider ownership by banks and companies.

## 2.2 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 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 UK and Germany, respectively. By 1908 this had risen to just 108. The listed firms came predominantly from the banking and the electricity sectors and the newly industrialized companies, for example cotton spinning<sup>15</sup>. 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 pre-war Japan, 49% in 1913 compared with 44% in Germany, 109% in the UK and 39% in the US (Rajan and Zingales (2003)). This evidence points to the relatively large average size of companies listed on the Japanese stock markets.

We also collected individual firm data on financing over the period 1914-1942 from *Company Year books (Kabushiki Gaisha Nenkan)* issued by Toyo Keizai Inc. and the *Business Analysis of Japanese Firms (Honpo-Jigyo seiseki bunseki)* issued by Mitsubishi Economic Research Institute, supplemented by annual reports of firms. Table 4 shows the financing of Japanese corporations over the period 1915 to 1980. The pre-war period is subdivided into four periods: 1915 to 1919, 1920 to 1929, 1930 to 1937 and 1938 to 1942. In pre-war periods, the samples are the same as our ownership samples. They include companies (68 firms each year) which were incorporated both prior to 1907 and prior to 1921 and which still existed in 1940. The exception is 1915-19, where the sample consists of companies which were incorporated prior to 1914 and still existed in 1940.

Table 4 records the different sources of finance (internal funds, new equity, new debt which includes commercial note and others, bonds, long- and short-term borrowing).

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<sup>15</sup> Railway companies were also important before 1907 when they were nationalized, see Miwa and Ramseyer (2002a).

Even with this broad definition of debt, Table 4 shows that throughout the period new equity accounted for a high proportion of external sources of finance: 51.7% of external finance came from equity sources in the period 1920 to 1929 and during the 1930s (new equity to total new debt plus equity). Debt finance played only a relatively modest role in the financing of firms.<sup>16</sup> Then, from 1937, new equity was largely replaced by borrowings as a major source of new finance.

== Table 4 about here ==

Table 4 also records the financing of Japanese corporations over the post-war period from 1951-1980. 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. There are three noteworthy points. First, contrary to popular perceptions, new equity continued to play a significant role in Japanese corporate financing until the middle of the 1960s. Second, new equity was largely replaced by banks loans as a major funding source after the middle of the 1960s as insider ownership became prevalent.<sup>17</sup> Third, 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 onwards with a brief exception at the beginning of the 1950s.

In summary, the first half of the 20<sup>th</sup> century was a period of high new equity issues and the second half of the 20<sup>th</sup> century, at least from the 1970s onwards, was a period of low equity issues and large amounts of bank finance. The first half of the 20<sup>th</sup> century therefore combined highly dispersed share ownership, low levels of ownership concentration, initial public offerings, and large amounts of new equity issues – in other words a high level of primary stock market activity. The second half of the 20<sup>th</sup> century in contrast shifted to a system of bank ownership and cross-shareholdings between corporations.

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<sup>16</sup> The trend is approximately the same as other estimates (Hoshi and Kashyap (2001), Miwa and Ramseyer (2002b)).

<sup>17</sup> New equity includes revaluations of assets and therefore slightly overstates the amount of new equity raised by the middle of the 1960s.

### 2.3 Regulation

The Japanese commercial code was modelled on the German commercial code of 1861 during the Meiji Period. Appendix 1 describes the key developments in the regulation of Japanese capital markets for the whole of the twentieth century.<sup>18</sup> 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 instalments on partially paid shares on the grounds that the prospectuses were false.<sup>19</sup> 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.<sup>20</sup> This was in response to perceived pressure from some shareholders with boardroom representation to pay excessive dividends and compensation during a period of deflation and financial stringency. Another factor in the amendment of the commercial law was gradually increasing political pressure which led to anti-capitalist sentiment (Asaki (1999)). A comprehensive wartime law was enacted in 1938, the States Mobilisation Law, which gave the government wide ranging powers to

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<sup>18</sup> A chronology of corporate law and investor protection from 1878 to 1990, and LLSV scores on the minority shareholder protection, creditors' rights, and both private and public enforcement, are available from the authors on request.

<sup>19</sup> This also happened in the UK and US where investors in some railroads refused to pay installments on partly paid shares.

<sup>20</sup> In 1934, Ministry of Trade and Industry published the Accounting Statement Guideline, which contributed to standardized disclosure of information by firms.

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 took the power 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 post-war 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)). Whereas in Germany there was little purging of the business class, in Japan major changes occurred. 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 labour but on his release was given back ownership and control of his company and the company remains largely controlled by the Krupp family today through a foundation.

There were three important ingredients to the reform. First, restrictions on shareholdings were introduced by the enactment of anti-trust 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 modelled on the US Glass Steagall Act. Separation of security and banking businesses was introduced and strict disclosure rules and liability standards imposed on listed firms by the Corporate Accounting Rule. Third, Company Law was substantially amended on the instruction of GHQ and one share-one vote and cumulative voting was introduced. Anti-director rights were also strengthened.

Table 5 and the related Appendix report the measure of the anti-director rights score index described by La Porta, Lopez-de-Silanes, Shleifer and Vishny (LLSV) (1998) in Japan during the 20<sup>th</sup> century. The score ranges from zero (weak anti-director rights) to six (strong anti-director rights). The index for Japan was one from 1900 to 1937 (proxy



voting by mail and the ability of shareholders' to call an extraordinary general meeting of shareholders) 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 1).

== Table 5 about here ==

The table compares the value of these indices for Japan with those of the UK and Germany during the 20<sup>th</sup> century. It shows that the anti-director rights index in Japan was the same low score (just one) as those in both the UK and Germany in the first half of the 20<sup>th</sup> century and the components of the private enforcement index were zero in all three countries. In the second half of the century, the anti-director rights index was almost the same in Japan as in the UK and significantly higher than in Germany while the components of the private enforcement index were higher in Japan than in Germany and about same in the UK. Japan therefore moved from a low to a relatively high investor protection system by the middle of the 20<sup>th</sup> century.

In summary, Japan displayed a low level of investor protection in the first half of the 20<sup>th</sup> 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 equity finance and high dividend distributions to low equity and low dividend distributions.

### **3 Outsider Ownership in the First Half of the Century**

This section describes two key periods in the evolution of corporate ownership in pre-war Japan: the first decade of the 20<sup>th</sup> century and the 1930s. In each it argues that there were substantial developments that altered the landscape of corporate ownership. Associated with the both period there were what we term “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.

### **3.1 Business Co-ordinators in the Early 1900s**

Business co-ordinators played a critical role in the process of issuing shares at the beginning of the 20<sup>th</sup> century and the dispersion of ownership. The co-ordinators (*zaikai-sewanin*) were outside investors (equivalent to venture capitalists) who took a stake in a company and marketed the company to outside shareholders.<sup>21</sup> One of most famous co-ordinators was Eiich Shibusawa, who founded the Dai-Ichi Kokuritsu Bank, and headed the company for forty three years. He participated in the establishment of over five hundred firms and had a board position on forty nine of them (Shimada (2002)). He had many successors who participated in founding firms. They were businessmen who were senior members of business organizations or holders of outside director positions for multiple firms. Due to their business success in the early industrialization, they were highly respected members of society. One of the functions of these co-ordinators 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 as Miwa and Ramseyer (2002b) emphasized. We argue that they overcame the ‘promoter’s problem’ described by Mahoney (1995) and La Porta et al. (2006) because of their reputation, share stakes and membership of the board of directors. For example, in the process of establishing Nisshin Spinning Co., three business co-ordinators were appointed to assist in raising money from investors. Although the new stock was not publicly offered, the stock issue was ten times oversubscribed. As a result, the number of shareholders increased from 917 at the formation of the firm to 1880 in 1911. The business co-ordinator performed a validation function of upholding trust not dissimilar to banks in Germany and local stock markets in the UK.

We carried out a test of the effect of business co-ordinators on the dispersion of ownership of firms in our sample. We identified a business co-ordinator as one who had

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<sup>21</sup> 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.

both a share stake and a board position in the same company as well as in seven other companies. We use data from an appendix of Suzuki, Wada and Kobayakawa (2009) for identifying business coordinators. Using this list we identified in 1907, 78 as business coordinators. We match this list with names of board members and large shareholders in our sample firms.

== Table 6 about here ==

Having identified a list of business co-ordinators we then determined the number of business co-ordinators in the 1907 sample of firms. We calculated this for two years, 1907 and 1914, where we had data on ownership and board structure. The number of firms that had a business co-ordinator was 34 in 1907 and 35 in 1914 out of a total sample of 50 firms. Therefore nearly two thirds of the companies in the 1907 sample had a business co-ordinator. The average number of business co-ordinators in firms that had at least one was 1.72 in 1907 and 1.12 in 1914 and the maximum number was 8 in 1907 and 4 in 1914. In 32 of the 50 firms the business co-ordinator was one of the top ten shareholders in 1907 and in 30 firms in 1914. 39 had a business co-ordinator either as a board member or as one of the top ten shareholders in 1907 and 36 in 1914. The average equity stake held by business co-ordinators was 7.6% in 1907 and 5.3% in 1914. Business co-ordinators with a wide network of board positions were therefore commonly observed amongst large Japanese firms in the early part of the 20<sup>th</sup> 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.<sup>22</sup> The independent variables are dummies signifying whether there is a business co-ordinator 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 ==

The table records that there is a significant negative relation between concentration of ownership and the presence of business co-ordinator in the top ten shareholder list or on

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<sup>22</sup> We use the list of Suzuki, Wada and Kobayakawa (2009) in the year 1898 for identifying business coordinators of firms in 1900, for which there are 23 firms, and in their 1907 list for our firms in 1907 and 1914.

the board of directors or in both. This result holds for both the 1907 and 1914 separately. The implication is that the presence of business co-ordinators was associated with a greater degree of dispersion of share ownership. These results are consistent with business co-ordinators 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.<sup>23</sup>

### **3.2 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 the holding company was publicly held or not. The first were the old zaibatsu, such as Mitsui, Mitsubishi, and Sumitomo where the holding company remained private.<sup>24</sup> 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 used sales of subsidiaries, i.e. 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 procedure used by old zaibatsu firms was to raise capital in the subsidiary firms through rights issues, and then resell 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. It was then sold to the public for 65.0 yen. Ten months after the public offer 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)).

There was a considerable amount of price discrimination in the new issues. In the case of Toyo Reyon, a second tier subsidiary of Mitsui zaibatsu, the company increased its

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<sup>23</sup> This result is consistent with Miwa and Ramseyer (2002a). They show that cotton spinning firms which appointed 'prominent' directors earned higher profits than their competitors.

<sup>24</sup> There is a third type of zaibatsu (family business group), which did not have a holding company at its apex (Miyajima and Kawamoto (2010)). Since they were relatively small and less active in IPOs in this period, we focus on the above two types.

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, and this is the price at which 21,000 shares were sold to the board of directors. 40,100 shares were sold to directors, branch managers and employees of Mitsui Company (the trading company parent of Toyo Reyon) at a 10 yen premium above the face value. Other Mitsui employees bought 11,900 priority shares at a 30 yen premium. The general public and insurance companies bought 257,000 shares also at a 30 yen premium. 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 Nissan whose holding company was stock exchange listed, and which had a typical pyramid 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. 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 a stock market IPO at a substantial premium.<sup>25</sup>

Given the low level of minority shareholder protection, and price discrimination practices under a pyramidal structure, it is surprising that small investors bought zaibatsu-issued stocks in the 1930s. In contrast with much of the existing literature on business groups around the world, Japanese business groups co-existed with active equity market. One reason for that 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

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<sup>25</sup> There was a third class of new issues not involving zaibatsu. During the late 1920s there was a substantial amount of financial distress amongst large corporations. 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 Suzuki related firms. The debt for equity swaps initially caused concentration of ownership to increase. Banks then sold off their holdings of equity to insurance companies and individual shareholders.

performance.<sup>26</sup> Observers at that time criticized firms with dispersed ownership and interlocking outside directors, and recommended small investors invest in *zaibatsu*-related firms (Okazaki (1999), Takahashi (1930)). A second reason for investor's willingness to buy zaibatsu shares would be that government support to zaibatsu affiliated firms, and their low risk supported by mutual insurance within the zaibatsu groups.

Last reason why small investors bought the zaibatsu stock was reputation. There was a common belief among small investors that the old zaibatsu were likely to protect small investors' interests if subsidiary firms got into difficulties so as to preserve their reputation.<sup>27</sup> There are several cases of the zaibatsu holding company or the founding family reducing their share of dividends when the financial state of the firm deteriorated. Mitsubishi Mining, which went public at the beginning of 1920s, earned very 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 to business co-ordinators in promoting the distribution of shares. One important difference was that the business co-ordinator bore a greater resemblance to a trust-based outsider ownership system with dispersed share ownership than the zaibatsu which displayed more of the characteristics of a trust-based insider ownership system 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 the issue of 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 its change from

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<sup>26</sup> Frankel (1999) reports the high and stable performance of new zaibatsu, while Okazaki (2001) shows the relatively strong performance of large ten zaibatsu groups firms. Miyajima and Kawamoto (2010) did not find significant effects for zaibatsu affiliation, while they reported low volatility of performance (ROE) of three established zaibatsu firms compared with non zaibatsu firms.

<sup>27</sup> See Khanna and Yafeh ((2007), p. 340, 347-48). This investment in reputations is similar to what has been reported in Indian family groups, for example Tata, documented by Khanna and Pulpe (2000).

1933 to 1937. The independent variables are leverage, size, and year of incorporation, and proxies for the business co-ordinator and membership of a zaibatsu group. The dummy variable for the business coordinator, BCDM, is one if he took a position as a board member, which was the case in 28 firms in our sample.<sup>28</sup> The dummy variable for the zaibatsu is one, if a firm is a member of a large zaibatsu (Mitsui, Mitsubishi, Sumitomo, Furukawa, and Nissan), which was the case in 22 firms, and zero in 66 firms<sup>29</sup>. 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 in the change in ownership regression in panel A suggesting a greater decline in concentration of zaibatsu firms than 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 1933-1937 (panel B).

== 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 (Equity/Assets), return on equity, size, investment, and dummies for the business co-ordinator 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 the business co-ordinator. The presence of the business co-ordinator has an almost zero effect on new equity finance. 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 2% higher than in other firms and is significant at the 5%

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<sup>28</sup> In order to identify business coordinators, we constructed a list of business coordinators as we did previously using *Meiji-Taisho-Shouwa Jinmeirok*, Tokyo, *Osaka Nagoya and Yokohama*, Nihon Tosho Shupan Senta, and *Nihon Shinshiroku*, Kojunsha, 1936. Board members include chairman, auditors and advisors.

<sup>29</sup> We limited the analysis to these five groups, because our sample did not include subsidiary companies of the rest of other large ten zaibatsu groups.

level. This result holds when we include industry variables (column 2) and other performance measures, namely return on equity (column 3).

While 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 20<sup>th</sup> century – business coordinators and zaibatsu. What marked out 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 then they suffered losses in status as well as 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, with the destruction of the institutional fabric after WW2 that reputational capital was lost and the institutions that took their place were unable to sustain a similar position of trust.

#### **4. Insider 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, the insider ownership system with its large concentrations of bank and corporate ownership prevailed in post WW2 Japanese capital markets.<sup>30</sup> Table 3 shows that insider shareholdings increased rapidly from the early 1950s to 1974 from 21.9% to 56.3% (see Table 3 Panel B), while holdings by individuals declined from about 57.2% to 35.6% over the same period.

This section examines how Japan underwent 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 US securities law, described in Section 3. The regulatory changes failed to prevent serious market abuses by the

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<sup>30</sup> The definition of insider ownership is broader than that of cross shareholdings although there is a close relation between the two, see Sheard (1994) and Berglof and Perotti (1994).



securities industry. This gave rise to a collapse of outside dispersed ownership. The response was not that observed in Continental Europe and elsewhere, where concentrated ownership often by families prevailed.<sup>31</sup> This section records how bank ownership emerged instead and the way in which banks filled the vacuum created by stock markets in financing corporate investment.

Sections 4.1, 4.2 and 4.3 describe stake building by banks in the 1950s, the role of securities houses in the 1960s and the equity issues of the 1970s, and section 4.4 provides more formal tests of an analysis of the emergence of insider ownership.

#### **4.1 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, by the start of the 1950s, Japanese firms were very highly leveraged with an average debt to assets ratio in excess of 60 percent (Ministry of Finance, (1978)). This compares with average leverage ratios of less than 30 percent reported by Rajan and Zingales (2003) in other countries.

Faced with high leverage, limited access to equity markets and a recession that started in 1952, Japanese firms were forced to engage in financial restructurings. These restructurings often involved exchanges of securities e.g. debt for equity swaps rather than repayments of loans with cash. They took place both in formal bankruptcy procedures and in workouts. However, because of lack of information we have only anecdotal evidence of the exchanges of securities in workouts, but we do have more systematic evidence in formal bankruptcies.

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 3 because there were very few constraints on creditors enforcing their rights. Subsequent to the 1922 law, the level of creditor protection was 2 on the LLSV measure. This score decreased to 1 as a result of the post-WW2 reform, when GHQ introduced US style bankruptcy procedures. A Company Reorganization Law, modelled on Chapter X of the 1938 US Bankruptcy code,

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<sup>31</sup> Franks, Mayer and Wagner (2006).

was enacted in 1952. As a result, Japan had five bankruptcy courts.<sup>32</sup> The Corporate Organization Law introduced the equivalent of supra priority financing, an automatic stay, and majority voting rules to overcome holdout problems.

We have details of several cases of private restructuring involving rights issues. For example, Nichia Seiko made a rights issue for 1 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)).<sup>33</sup> Once again, trade creditors were involved in the raising of new equity.

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, while eight securities firms held 33.6%, the largest 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 ended up in 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.<sup>34</sup>

We also have data on thirty of the largest bankruptcies during the period 1953 to 1965, nineteen were found to have involved debt for equity swaps.<sup>35</sup> 8.4% of pre-outstanding debt 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 recapitalisation (median 82.3%), with the result that, banks and other creditors controlled a majority of the equity of the company post restructuring.

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<sup>32</sup> Two of the five were intended for liquidation - Bankruptcy (Hasan) and Special Liquidation (TokubetsuSeisan) - and three were intended for reorganization - Corporate Reorganization (Kaisha Kosei), Corporate Arrangements (Kaisha Seiri), and Composition (Wagi) - Packer and Ryser (1992), and Helwege and Packer (2003).

<sup>33</sup> This case is included in our sample of 126 firms.

<sup>34</sup> Based on *Toyo Keizei* [The Oriental Economist], April 1954.

<sup>35</sup> 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.

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 in 1971. In total, the court process took seven years. The debt for equity swap played a significant role. There were 18 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 restructuring was a debt for equity swap with large creditors. Sun Wave issued 24.5 million new shares to creditors, where 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 US 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.

#### **4.2 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 US by enacting the Securities Transaction Law modelled on the Glass Steagall Act. As a result, banks were prohibited from undertaking underwriting business, while 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 1956 to 1964 and its paid in capital rose by 20 times. Nissan Motors made equity issues in almost every year over the same period and its paid in capital rose by about 27 times.

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. But

equity issuance was so frequent that existing individual shareholders did not have the capital to subscribe to the new shares. The ratio of the total amount of dividends paid to the amount of new equity raised was only 52% in Tokyo Stock Exchange listed firms and 49% in our sample of 126 companies during the period from 1956 to 1962. 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 to them to retail investors. This arrangement was facilitated by the fact that securities houses operated brokerage and dealing businesses as well as fund management.<sup>36</sup> The securities houses engaged in ‘touting’ of 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) in detail). In short, investment trusts were used to manipulate share prices.

Associated with such widespread market manipulation and fraud, investment funds expanded very rapidly. The new trusts established in 1961 were 588 billion yen, which was ten times larger than that of 1956. As a result, there was a large shift of outside ownership from individual shareholders to investment trusts. At the beginning of the 1960s, investment trust (mutual) funds constituted over 10% of the market in 1962 at its peak, which was about the same as the UK and the US. 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 which accounted for 10% of the market 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 (JSJU). JJSC

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<sup>36</sup> The Investment Trust Law required investment trust and trust fund management departments to be organized as independent firms. However, the securities houses continued to be in charge of buying and selling the stocks in which the trust funds were invested. Consequently, ‘the separation was more nominal than real’, (Adams and Hoshii (1972) p. 168)

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 post war sample of 126 companies, the percentage of shares held by price keeping organizations at the end of 1964 was positively and significantly related at the 1% level to the number of companies issuing stock over the period from 1955 to 1964, the market to book ratio in 1964 and the ROA from 1958 to 1964, consistent with evidence that they tended to buy the stocks of fast growing [equity issuing] companies.

When the JJSC and JSHU became sellers after March 1968, 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 where stakes were held, Toyota Motor's insider 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.<sup>37</sup> During a similar period, outside ownership for our sample of companies fell from 62.7% in 1964 to 50.1% in 1969, while insider ownership rose from 32.3% to 40.7%.

In summary, different from often cited myth which insists that cross shareholding the rise is mainly emerged as an anti-takeover 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.

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<sup>37</sup> If we include insurance companies, the percentage rises from 34% to 65% (Toyota), and from 30% to 71% (Nissan) respectively.

### 4.3 New Equity Issues in the 1970s

The increase in insider ownership in the post war 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 1969-1974 and coincided with a significant number of new seasoned equity 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 law amendment made it clear for firms to allot freely their new issued shares to anyone (friendly third parties) in their IPO and new seasoning issues. By way of illustration, Nihon Woolen 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.<sup>38</sup> Abuses involving large discounts to third parties probably insiders resulted in the rules being tightened in 1974.

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 to underwriting in the late 1960s. In 1972, the share of new seasoned offerings over total new equity issues was about 64% compared to 10% in 1960. Since 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 they 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 and without offering pre-emption rights to existing shareholders.

Although there are no official statistics on the volume of these allocations to friendly parties (*oyabike*), it is thought that it was over 50% by 1972 with discounts of

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<sup>38</sup> In the case of Nihon Woollen insider ownership increased from 24.2% in 1969 to 42.8% in 1974, and in Yokohama 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%.

around 15% (Nikami (1990)). Individual shareholders did not have any chance to buy the stocks issued by the securities houses. This practice was criticized in 1972 and the Ministry of Finance required securities houses to reduce the fraction of the allotment to friendly parties (*oyabike*) to less than 50% in December 1972. The Tokyo Stock Exchange finally tightened the regulation on the *oyobike* practice in July 1973 onward but until that point the issuance of equity, its distribution to favoured partners at substantial discounts, to the exclusion of outside investors undermined public confidence in equity investments and further increased the holdings of insiders.

#### **4.4 The Emergence of Insider Ownership**

While it is difficult to determine the increase in insider holdings which 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 a cross sectional regression of 126 firms from 1950-1955, we examine changes in insider ownership and assess whether firms which 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 1 if a firm experienced distress, defined as negative after tax profits during at least one year in the estimation period. There were 30 cases of losses in our sample during the period 1950-55. Leverage is measured by debt divided by total assets with a lag of three years.<sup>39</sup> To capture the impact of post-war 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 approximately 2 percentage point increase in insider shareholdings. There is thus an economically large as well as a statistically significant relation between the leverage of companies and the subsequent emergence of insider ownership. The coefficient for HCLC

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<sup>39</sup> The result is robust to a lag of one year.

suggests that the higher the ownership by HCLC of a particular company, the greater is the increase in insider 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.<sup>40</sup>

== Table 9 about here ==

In Panel B of Table 9 we analyze more formally the role of the two quasi public institutions and new seasoned issues (with price discrimination) in explaining the increase in insider ownership. In the subsequent tests, we use two samples: the 30 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 sub periods 1964-1969 and 1969-1974. In the first sub period, 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 30 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 zaibatsu (Mitsui, Mitsubishi and Sumitomo), is negative and significant in all regressions implying that these firms were more successful in promoting insider ownership before 1955. It has been argued that the Keiretsu, the post war horizontal corporate group, preserved the long term relationships that typified the pre war zaibatsu, and that they were their post war

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<sup>40</sup> According to the same estimation model as panel A, omitting variable HCLC for 1962-67 period, when the Japanese economy encountered an economic downturn, we found that the coefficient of 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.



successors, notwithstanding that the governance structure of the keiretsu was very different from the pre war zaibatsu.<sup>41</sup>

For the sub-period 1964-1969, regressions 4 and 5 (the independent 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 sub period 1969-1974, regressions 6 and 7 (insider 2 is the independent variable) both show that the number of seasoned equity issues is significant at explaining the increase in insider ownership at the 5% level.

In summary this section suggests that the insider ownership system emerged in post WW2 Japan as a response to three phenomena: the first was the financial distress of Japanese firms, which in the absence of more formal bankruptcy mechanisms was resolved through debt for equity swaps; the second was sales of shares by institutions established to stabilize equity prices in the 1960's, 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 often made at advantageous prices to insiders.

## **5. Conclusion and Implications for the 21<sup>st</sup> Century**

The Japanese insider ownership system began to fall apart approximately 30 years after it came into operation at the beginning of the 1970s. Its failure reflected the conflicts that can be created by inside ownership, in this case between the interests of banks as shareholders and creditors. As creditors they should be conservative and risk averse; as shareholders they should seek growth and the option value of equity. That conflict is the reason why most financial systems draw a line between the two while the Japanese financial system permitted significant shareholdings by banks.

This paper suggests that the reason why this state of affairs was allowed to develop was that the alternative institutions for promoting outside ownership failed. The problem was not with the legal framework or enforcement which were both relatively strong in Japan. 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

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<sup>41</sup> See Miyajima (1994) and Miyajima and Kawamoto (2010).

as zaibatsu can be serious in terms of economic performance. The second point is that the creation of new institutions of trust to replace them is complex and not readily achieved by design.

What does this imply for Japan and other countries in the 21<sup>st</sup> century? Having experienced a decade of deleveraging and restructuring, Japan is now beginning to emerge with what looks like an outsider ownership system. 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 58.9% 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 become more outside in relation to the presence of outside investors but it has not in the Anglo-American sense of the dominance of outsider ownership or in terms of the institutions of trust in Japan that characterised the first half of the 20<sup>th</sup> 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 which eroded outsider ownership in Japan in the 1960s and 1970s. The caution about adopting institutional structures or regulatory practices from elsewhere applies equally to other countries that are seeking to reform their corporate governance arrangements, most notably China and India. Institutions of trust take time to establish and are highly country and context specific. Laws and rules that function in one country may be inadequate or inappropriate in another. The Japanese experience is a salutary reminder of how little we know about institutional and legal design and how cautious we should be in making policy recommendations.

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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 reorganization 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 $\leq 10\%$ , 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. <i>Section 160(1) and 161(2) of commercial code 1899.</i> |
| 2     | 1938-1947  | The issue of bearer share is exceptionalized and shares cannot be blocked before meeting (always been in place). <i>Section 227(1) of commercial code 1938.</i>  |
| 3     | 1948-1949  | The proxy solicitation rule is enacted and proxy by mail is allowed. <i>Section 194 of Securities and Exchange Law 1948.</i>   |
| 5(6)  | 1950-1954  | The cumulative voting, derivative suit and appraisal right of minority shareholders are introduced. Whether or not preemptive right will be given to existing shareholders becomes the Necessary Particulars in Articles of Incorporation. <i>Section 256-3 • 256-4, 267, 245-2 • 408-2(1), 166(1) (v) • 347(2) of commercial code 1950.</i>       |
| 5     | 1955-1974  | Whether or not preemptive right will be given to existing shareholders is excluded from the necessary particulars in articles of incorporation. <i>Section 166(1)(v) of commercial code 1955.</i>  |
| 4     | 1975-today | Cumulative voting can be excluded completely by articles of incorporation. <i>Section 256-3(1) of commercial code 1974.</i>  |

**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. <i>Section 5 of Securities and Exchange Law 1948.</i> |
| 0.583 | 1953-1975  | The contents of prospectus is simplified. <i>Section 5 of Securities and Exchange Law 1953.</i>  |
| 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 management, 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 management, 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.  |

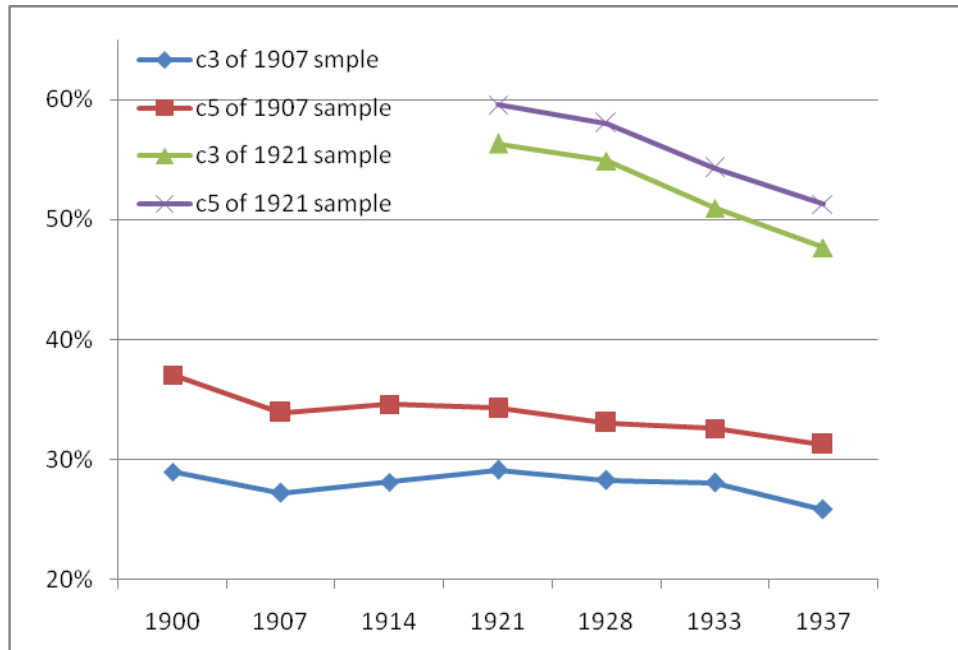
**Panel E – Index of creditor rights over time using La Porta, Lopez-de-Silanes, Shleifer and Vishny's (1998) classification.**

| 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.   |



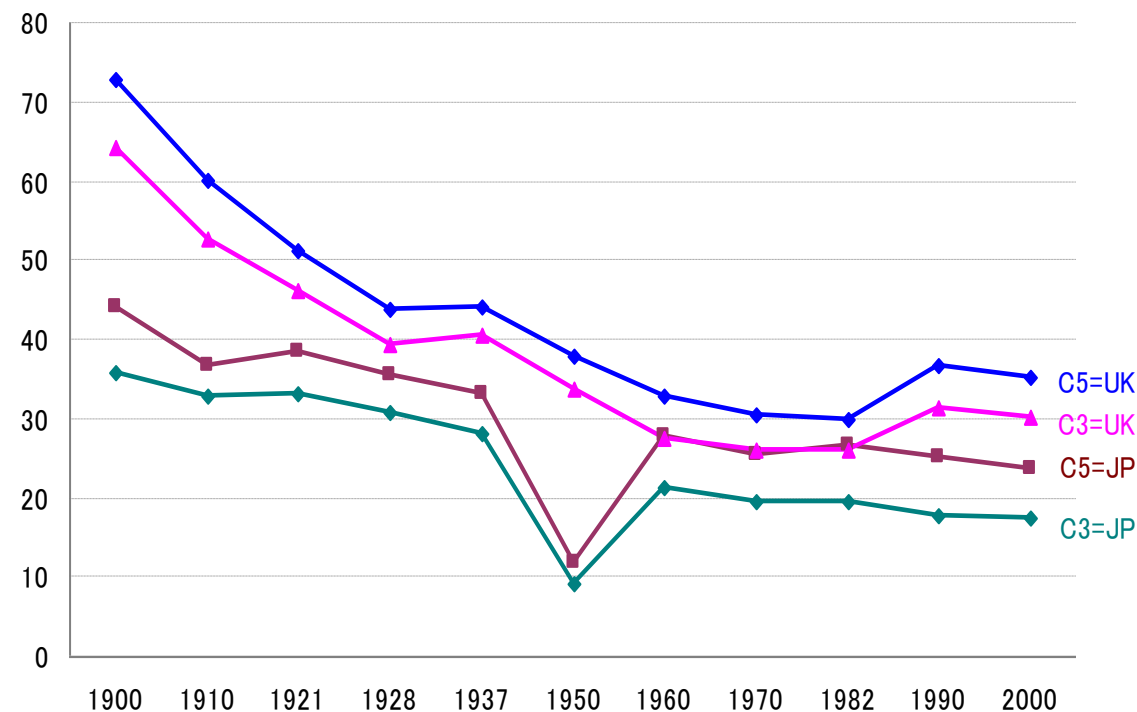
**Figure 1 Trend of Ownership Structure from 1900 to 1937**

This figure shows the trend of ownership in pre-war 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 which are incorporated prior to 1907 and which still existed in 1940. The 1921 sample consists of companies which are incorporated prior to 1921 and which 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 UK and Japan**

This figure shows the trend of ownership in Japan and the UK based upon 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 45 companies which were incorporated prior to 1907 and 1921 and which still existed in 1990. Utilities and financial institutions are excluded from the sample. UK data is based on Franks, Mayer and Rossi (2006). In compiling this figure, the data for the UK 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 UK in 1900, 1910, 1920, 1930 and 1940. For these dates we used data for Japan collected in 1907, 1914, 1921, 1928, and 1937, respectively. Thereafter, the data for the two countries is synchronised.



**Table 1 Number of Shareholders for Various Years from 1900 to 1937, Based Upon the 1907 and 1921 Samples**

The panel reports the number of shareholders for selected years. It is based upon both samples, the 1907 sample (Panel A) which includes companies which are incorporated prior to 1907 and which 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 in either 1918 or 1930. Panel C reports results for the two samples combined. Utilities and financial institutions are excluded from the sample.

**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 |
| Ave. 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 |
| Ave. 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 |
| Ave. no. of shares per shareholder | 2,742 | 2,872 | 2,057 | 1,339 |
| c1                                 | 30.7% | 29.3% | 29.2% | 26.8% |
| c3                                 | 42.4% | 40.8% | 39.2% | 36.1% |
| c5                                 | 46.6% | 44.8% | 43.1% | 40.7% |

**Table 2 Insider and Outsider Ownership**

The Panel reports inside and outside ownership for selected years. It is based upon both samples, the 1907 sample (Panel A) which includes companies which are incorporated prior to 1907 and which 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 classified as founders/their family. Board members include shares held by their families and relatives. Asset management firm is a firm owned by the founder, board member, or their family. Holding companies includes Mitsui, Mitsubishi, Sumitomo, Nissan, Furukawa, Yasuda, Asano, Okura, and Suzuki.

| <b>Panel A: 1907 Sample</b>                                 |                    |       |       |       |       |       |       |       | <b>Panel B: 1921 Sample</b> |       |       |       |
|---|--------------------|-------|-------|-------|-------|-------|-------|-------|-----------------------------|-------|-------|-------|
|   |                    | 1900  | 1907  | 1914  | 1921  | 1928  | 1933  | 1937  | 1921                        | 1928  | 1933  | 1937  |
| N   |                    | 25    | 50    | 49    | 42    | 42    | 41    | 40    | 29                          | 29    | 29    | 28    |
| Founders/board members                                      | <b>A</b>           | 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>B</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  | <b>C</b>           | 0.6%  | 0.3%  | 0.8%  | 6.7%  | 3.8%  | 3.9%  | 3.9%  | 10.7%                       | 11.6% | 9.9%  | 15.0% |
| Banks   | <b>D</b>           | 0.0%  | 0.3%  | 0.1%  | 0.9%  | 1.6%  | 1.6%  | 3.0%  | 3.8%                        | 3.5%  | 1.5%  | 4.1%  |
| Insurance firms   | <b>E</b>           | 0.0%  | 0.0%  | 0.0%  | 0.2%  | 0.4%  | 1.1%  | 5.3%  | 0.2%                        | 1.7%  | 1.3%  | 3.8%  |
| <b>Insider total</b>  | <b>A+B+C+D+E</b>   | 26.9% | 27.9% | 23.5% | 30.3% | 28.1% | 27.3% | 27.6% | 58.8%                       | 56.4% | 54.5% | 52.5% |
| Individual shareholders                                     | <b>F</b>           | 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              | <b>G</b>           | —     | —     | —     | 0.8%  | 0.7%  | 0.7%  | 1.3%  | 0.5%                        | 0.2%  | 0.8%  | 1.1%  |
| Business coordinators                                       | <b>H</b>           | 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 | <b>I</b>           | 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                                  | <b>J</b>           | 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                             | <b>K</b>           | 0.2%  | 0.2%  | 0.3%  | 0.2%  | 0.9%  | 1.2%  | 2.1%  | 0.8%                        | 0.4%  | 0.7%  | 2.1%  |
| <b>Outsider total</b>                                       | <b>F+G+H+J+K-I</b> | 21.9% | 18.6% | 21.2% | 13.6% | 11.4% | 13.0% | 11.6% | 6.9%                        | 6.9%  | 9.1%  | 7.4%  |
| % of all 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 post-war 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 non-financial 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 which are drawn from the top 100 by assets in either 1937 or 1955. Panel A is based on the top ten shareholder list. Panel B combine the top ten shareholder list and the Japanese 10Ks, which show ownership in seven different categories (including financial institutions, investment banks, non-financial firms, and individuals). Because the Japanese 10Ks combines insiders (banks, insurance companies) and outsiders (investment trusts) in a single category, 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. The \* denotes the figure based on the top ten shareholder list, while the \*\* denote that the figure is based on 10Ks.

**Panel A: Based on the Top 10 Large Shareholder List**

|                                 | 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         |
| <b>Insider</b>                  | <b>12.36</b> | <b>17.70</b> | <b>25.72</b> | <b>25.36</b> | <b>23.40</b> | <b>19.58</b> | <b>14.17</b> |
| Founder / board member          | 1.57         | 0.39         | 0.55         | 0.02         | 0.00         | 0.21         | 0.11         |
| ESOP                            | 0.96         | 0.11         | 0.00         | 0.72         | 0.28         | 0.83         | 0.73         |
| Banks                           | 1.86         | 6.30         | 8.00         | 8.41         | 8.58         | 6.12         | 2.85         |
| Corporations                    | 2.70         | 4.71         | 7.44         | 6.43         | 5.44         | 5.78         | 6.44         |
| Insurance company               | 5.27         | 6.20         | 9.73         | 9.78         | 9.11         | 6.64         | 4.16         |
| <b>Outsider</b>                 | <b>11.83</b> | <b>17.98</b> | <b>7.38</b>  | <b>7.76</b>  | <b>10.18</b> | <b>10.55</b> | <b>12.72</b> |
| Investment trust, pension funds | 0.20         | 11.85        | 1.64         | 2.66         | 8.11         | 7.31         | 9.19         |
| Securities houses               | 6.78         | 2.18         | 1.73         | 2.18         | 0.11         | 0.08         | 0.25         |
| Foreigners                      | 2.71         | 2.45         | 3.15         | 2.83         | 1.78         | 2.99         | 3.07         |
| Individuals                     | 0.78         | 0.75         | 0.43         | 0.04         | 0.09         | 0.08         | 0.10         |
| HCLC                            | 0.59         | -            | -            | -            | -            | -            | -            |
| % of all shares identified      | 24.18        | 35.68        | 33.09        | 33.11        | 33.58        | 29.96        | 26.89        |

| <b>Panel B: Insider and Outsider Ownership in the period 1953-2009</b> |                                  |      |      |      |      |      |      |      |      |      |      |      |      |
|--|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
|  |                                  | 1953 | 1955 | 1958 | 1962 | 1964 | 1967 | 1969 | 1974 | 1982 | 1990 | 2000 | 2009 |
|  | N                                | 123  | 125  | 126  | 123  | 121  | 120  | 114  | 114  | 109  | 109  | 109  | 109  |
| **   | Managerial Onwership             | 1.1  | 1.0  | 0.7  | 0.5  | 0.6  | 0.8  | 1.1  | 1.2  | 0.0  | 0.0  | 0.0  | 0.0  |
| *  | Non-Financial Firms              | 7.4  | 7.4  | 11.5 | 11.7 | 11.9 | 12.3 | 16.7 | 20.0 | 20.9 | 21.3 | 17.3 | 16.7 |
|  | Residial of financial institutio | 8.7  | 15.3 | 18.6 | 21.5 | 19.9 | 23.8 | 23.2 | 22.7 | 28.4 | 32.2 | 28.3 | 20.2 |
| **   | 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  |
|  | <b>Insider Ownership 1</b>       | 17.2 | 23.7 | 30.8 | 33.7 | 32.4 | 36.9 | 41.0 | 43.9 | 49.3 | 53.5 | 45.7 | 36.9 |
|  | <b>Insider Ownership 2</b>       | 21.9 | 28.6 | 35.6 | 37.6 | 37.3 | 43.9 | 50.2 | 56.3 | 59.0 | 62.6 | 52.3 | 41.1 |
| *  | Individual Shareholders          | 57.2 | 52.2 | 49.5 | 47.8 | 45.0 | 43.7 | 42.4 | 35.6 | 28.3 | 21.1 | 26.5 | 27.6 |
| **   | 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  | 2.6  |
| *  | 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 |
|  | <b>Outsider Ownership</b>        | 77.1 | 71.4 | 64.5 | 62.4 | 62.8 | 55.9 | 49.7 | 43.6 | 41.1 | 37.4 | 47.7 | 58.9 |

**Table 4. Internal and External Sources of Funds for the Period 1915-1980**

This table shows the sources of new funds for selected periods during 1915-1942, and 1951-1980. For each sub period, we show annual changes, 1000's yen for 1915-1942 and million yen for 1951-1980. All new financing is in book values. New debt in 1915-1942 includes commercial note and others, bonds, long- and short-term borrowing, while the new debt in 1951-80 is the sum of new borrowing and new bonds. New borrowing in 1915-1942 is only long term borrowing, while new borrowing in 1951-1980 is the sum of short- and long term borrowing. In 1915-42, the sample consists of companies which are incorporated prior to 1907 and which still existed in 1940. In 1920-1942, the samples include companies which are incorporated prior to 1921 and which still existed in 1940. Both samples are drawn from the largest 100 listed firms (based on assets in 1918, 1930). Utilities and financial institutions are excluded from the sample. The sample includes 126 firms which are drawn from the top 100 by assets in either 1937 or 1955.

|   |     | 1915-19 | 1920-29 | 1930-37 | 1938-42 |  | 1951-55 | 1956-64 | 1965-73 | 1974-80 |
|---|-----|---------|---------|---------|---------|--|---------|---------|---------|---------|
| No. of observations                                     |     | 205     | 573     | 527     | 292     |  | 596     | 1067    | 895     | 839     |
| No. of firms  |     | 45      | 68      | 68      | 66      |  | 126     | 119     | 112     | 105     |
| <b>% from each source:</b>                              |     |         |         |         |         |  |         |         |         |         |
| Retained earnings                                       |     | 43.2%   | 5.4%    | 26.9%   | 16.5%   |  | 27.1%   | 9.5%    | 14.8%   | 29.0%   |
| New issued equity                                       |     | 27.8%   | 34.1%   | 35.8%   | 23.9%   |  | 25.5%   | 24.0%   | 8.3%    | 9.5%    |
| New debt  |     | 38.1%   | 32.6%   | 30.6%   | 40.7%   |  | 39.7%   | 40.6%   | 47.6%   | 47.2%   |
| New Bonds   |     | 8.4%    | 16.1%   | 3.6%    | 11.3%   |  | 8.8%    | 1.7%    | 3.1%    | 6.1%    |
| New (long term) borrowing                               |     | 1.8%    | 10.6%   | 1.5%    | 8.4%    |  | 36.0%   | 40.0%   | 46.7%   | 45.4%   |
|   |     | 100%    | 100%    | 100%    | 100%    |  | 100%    | 100%    | 100%    | 100%    |
| New equity capital to<br>total new equity and debt<br>% | A/C | 38.6    | 51.7    | 55.8    | 31.4    |  | 34.1    | 31.5    | 9.1     | 10.5    |
|   |     |         |         |         |         |  |         |         |         |         |
|   |     |         |         |         |         |  |         |         |         |         |

**Table 5 LLSV Scores for Japan, UK and Germany**

This table is based upon LLSV (1998 and 2006). The scores for the UK and Germany are based on Franks, Mayer and Rossi (2006) and Franks, Mayer and Wagner (2006). See Appendix 1 for details of legislative changes.

|                             | Japan |       |                        | UK   |       | Germany |       |
|-----------------------------|-------|-------|------------------------|------|-------|---------|-------|
|                             | 1900  | 1990  | Year law/rules changed | 1900 | 1990  | 1900    | 1990  |
| <b>Anti-director rights</b> | 1     | 4     | 1950,1974              | 1    | 5     | 1       | 1     |
| <b>Liabilities standard</b> | 0     | 0.667 | 1948                   | 0    | 0.667 | 0       | 0     |
| <b>Disclosure</b>           | 0     | 0.917 | 1948                   | 0    | 0.833 | 0       | 0.417 |
| <b>Public enforcement</b>   | 0     | 0.658 | 1948                   | 0    | 0.750 | <0.25   | 0.25  |
| <b>Creditor rights</b>      | 3     | 1     | 1952                   | NA   | 4     | NA      | 3     |



**Table 6 Descriptive Statistics for the Business Co-ordinator**

The business co-ordinator is someone who had board positions in seven different firms. We use Suzuki, Wada and Kobayakawa (2009) for identifying business co-ordinators. Using this list we identify 78 people in 1907 as potential business co-ordinators. We match this list with names of board membership and large shareholders in our sample firms to determine business coordinators.

|   | 1907  | 1914 |
|---|-------|------|
| Number of firms   | 50    | 50   |
| Number of firms that had a business co-ordinator as either one of the board member or one of its shareholders | 39    | 36   |
| Number of firms that had a business co-ordinator as a board member  | 34    | 35   |
| Max number of business co-ordinator who is a board member   | 8     | 4    |
| Average number of business co-ordinators per firm   | 1.72  | 1.12 |
| Number of firms that had a business co-ordinator as one of the top ten shareholders                           | 32    | 30   |
| Average size of block held by business co-ordinator   | 7.6%  | 5.3% |
| Number of business co-ordinators who are one of the top ten shareholders                                      | 1.32  | 0.96 |
| Max of business co-ordinator who is one of the top ten shareholders   | 6     | 3    |
| Standard deviation of shareholding of business co-ordinator   | 10.5% | 8.3% |

**Table 7 Results of a Regression Relating the Dispersion of Ownership to the Presence of Business Co-ordinators**

The table provides results for a regression of the presence of a business co-ordinator 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. BCDSH is a dummy variable equal to one if the business co-ordinator is one the large shareholders. Size is the log of number of issued stocks. BCDB is a dummy variable equal to one if the business co-ordinator is one of the board members. BCDSH/B is a dummy variable equal to one if the business co-ordinator is either one of the large shareholders or a board member. The sample includes companies which are incorporated prior to 1907, and still exist in 1940. Samples are drawn from the largest 100 firms based upon assets in 1918 and 1930) subject to data availability. The \*\*\*, \*\*, \* denote 1%, 5% and 10% significance levels, respectively. The t-statistics are included.

**Panel A: Dependent Variable : C5**

|   | (1)               | (2)                 | (3)                 |
|---|-------------------|---------------------|---------------------|
| <b>No. of observations</b>                  | 121               | 121                 | 121                 |
| <b>Size(log of number of issued stocks)</b> | 0.00***<br>(3.69) | 0.00***<br>(2.73)   | 0.00***<br>(2.63)   |
| <b>Year incorporated</b>                    | 0.002<br>(0.85)   | 0.002<br>(0.78)     | 0.003<br>(1.06)     |
| <b>BCDSH</b>                                | -0.067<br>(1.52)  |                     |                     |
| <b>BCDB</b>                                 |                   | -0.142***<br>(2.87) |                     |
| <b>BCDSH/B</b>                              |                   |                     | -0.174***<br>(3.20) |
| <b>Y1907dum</b>                             | -0.018<br>(0.30)  | -0.031<br>(0.51)    | -0.038<br>(0.62)    |
| <b>Y1914dum</b>                             | 0.018<br>(0.26)   | 0.001<br>(0.01)     | -0.02<br>(0.30)     |
| <b>Constant</b>                             | -3.75<br>(0.77)   | -3.312<br>(0.68)    | -4.45<br>(0.95)     |
| <b>R-squared</b>                            | 0.12              | 0.18                | 0.20                |

**Panel B: Dependent Variable: Log of Number of Shareholders**

|  | (1)                | (2)                | (3)                |
|--|--------------------|--------------------|--------------------|
| <b>No. of observations</b>                   | 119                | 119                | 119                |
| <b>Size (log of number of issued stocks)</b> | 0.00***<br>(5.72)  | 0.00***<br>(5.20)  | 0.00***<br>(5.27)  |
| <b>Year incorporated</b>                     | -0.03***<br>(2.77) | -0.03***<br>(2.70) | -0.03***<br>(2.97) |
| <b>BCDSH</b>                                 | 0.407*<br>(1.94)   | -                  | -                  |
| <b>BCDB</b>                                  | -                  | 0.864***<br>(3.56) | -                  |
| <b>BCDSH/B</b>                               | -                  | -                  | 0.832***<br>(3.13) |
| <b>Y1907dum</b>                              | 0.713**<br>(2.16)  | 0.761**<br>(2.39)  | 0.764**<br>(2.40)  |
| <b>Y1914dum</b>                              | 0.805**<br>(2.37)  | 0.883***<br>(2.62) | 0.927***<br>(2.77) |
| <b>Constant</b>                              | 65.57***<br>(2.99) | 63.43***<br>(2.90) | 66.92***<br>(3.18) |
| <b>R-squared</b>                             | 0.47               | 0.52               | 0.51               |

**Table 8 Determinants of Ownership and Financing in the 1930s**

The sample includes 65 firms which were (re)incorporated before 1918 and still exists in 1940. The sample is drawn from the largest 100 listed firms (based on assets in 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 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: LagD/A is debt divided by assets in 1932 at the beginning of the estimation period, Logsize is the log of assets in 1932, Dcap is the new equity as a proportion of total assets, Zaibatsu is a dummy variable which takes the value of 1 if a firm is affiliated to one of the largest 4 zaibatsu and Furukawa, otherwise 0; BCDB is a dummy variable that equals 1 if the business co-ordinator 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 standardised by total assets in t-1. Independent variables include: Lagcap is initial level of equity divided by assets at the beginning of the year, Logsize is the log of assets in 1932, invest is the amount of new investment divided by the size of fixed assets, ROE is return on book equity, Zaibatsu is a dummy variable which takes the value of 1 if a firm is affiliated to one of the largest 5 zaibatsu, otherwise 0. The t-statistics are reported in brackets. The \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% level, respectively.

**Panel A: The Effect of Zaibatsu on Ownership Dispersion in the 1930s.**

|                            | <b>Dependent<br/>Variables: C5<br/>in 1937</b> | <b>Dependent variable:<br/>Change in C5 from 1933 to 1937</b> |                     |                     |
|----------------------------|--|---|---------------------|---------------------|
|                            | (1)  | (2)   | (3)                 | (4)                 |
| <b>LagD/A</b>              | 0.18<br>(0.74)                                 | 0.03<br>(0.30)  | 0.01<br>(0.17)      | 0.11<br>(1.09)      |
| <b>Logsize</b>             | -0.05<br>(1.36)                                | -0.01<br>(0.42)   | 0.01<br>(0.25)      | -0.01<br>(0.27)     |
| <b>Zaibatsu</b>            | 0.21***<br>(2.71)                              | -0.16***<br>(-2.87)   | -0.14***<br>(-3.02) | -0.14***<br>(-2.95) |
| <b>Year incorporated</b>   | 0.004<br>(1.64)                                | -0.004<br>(-2.09)**   | -0.003<br>(-1.30)   | -0.002<br>(-0.87)   |
| <b>Dcap</b>                | -0.12***<br>(-3.03)                            |   |                     | -0.14***<br>(-3.70) |
| <b>BCDB</b>                | 0.08<br>(1.10)                                 | 0.01<br>(0.25)  | 0.00<br>(0.02)      | 0.03<br>(0.54)      |
| <b>Industry Dummy</b>      | YES  | YES   | NO                  | YES                 |
| <b>Constant</b>            | -7.30<br>(1.48)                                | 7.35**<br>(2.09)  | 4.83<br>(1.29)      | 2.91<br>(0.88)      |
| <b>No. of observations</b> | 65   | 65  | 65                  | 65                  |
| <b>R-squared</b>           | 0.60   | 0.31  | 0.21                | 0.43                |

**Panel B. Change in No. of Shareholders**

|                            | Dependent<br>Variables: log of<br>shareholders in 1937 | Dependent variable: Change in log<br>of no of shareholders from 1933 to<br>1937 |                   |                    |
|----------------------------|--|---|-------------------|--------------------|
|                            | (1)  | (2)   | (3)               | (4)                |
| <b>LagD/A</b>              | -1.33**<br>(2.26)                                      | 0.29<br>(0.63)  | 0.43<br>(0.78)    | -0.36<br>(-0.82)   |
| <b>Logsize</b>             | 0.72***<br>(3.49)                                      | 0.10<br>(0.49)  | 0.04<br>(0.21)    | 0.07<br>(0.39)     |
| <b>Zaibatsu</b>            | -0.89**<br>(-2.08)                                     | 1.37**<br>(2.52)  | 0.96**<br>(2.11)  | 1.01**<br>(2.07)   |
| <b>year incorporated</b>   | -0.01<br>(-0.65)                                       | 0.04<br>(1.65)  | 0.03<br>(1.25)    | 0.01<br>(0.71)     |
| <b>Dcap</b>                | 1.12***<br>(2.90)                                      |   |                   | 1.31***<br>(3.93)  |
| <b>BCDB</b>                | -0.19<br>(-0.42)                                       | 0.02<br>(0.03)  | -0.15<br>(0.39)   | -0.14<br>(-0.28)   |
| <b>Industry Dummy</b>      | YES  | YES   | NO                | YES                |
| <b>Constant</b>            | 23.838<br>(0.68)                                       | -66.725<br>(1.65)   | -52.77<br>(-1.23) | -27.925<br>(-0.72) |
| <b>No. of observations</b> | 63   | 63  | 63                | 63                 |
| <b>R-squared</b>           | 0.51   | 0.31  | 0.20              | 0.46               |

**Panel C: The Effect of Zaibatsu on Equity Finance**

|                      | Dependent Variable: New equity capital(1933-1937)/Total assets <sub>t-1</sub> |                     |                     |
|----------------------|---|---------------------|---------------------|
|                      | (1)   | (2)                 | (3)                 |
| <b>Lagcap</b>        | -0.12***<br>(-3.39)   | -0.10***<br>(-3.14) | -0.10***<br>(-2.95) |
| <b>Logsize</b>       | -0.00<br>(-0.03)  | -0.00<br>(-0.30)    | -0.00<br>(-0.38)    |
| <b>Invest</b>        | 0.55***<br>(11.30)  | 0.53***<br>(10.99)  | 0.52***<br>(10.16)  |
| <b>ROE</b>           | -   | -                   | 0.03<br>(0.34)      |
| <b>Zaibatsu</b>      | 0.02**<br>(2.40)  | 0.02**<br>(2.47)    | 0.02**<br>(2.04)    |
| <b>Cordum</b>        | -0.00<br>(-0.18)  | 0.00<br>(0.29)      | 0.00<br>(0.18)      |
| <b>Cons</b>          | 0.08<br>(1.37)  | 0.09<br>(1.55)      | 0.09<br>(1.54)      |
| <b>Year dummy</b>    | NO  | YES                 | YES                 |
| <b>No. of obs.</b>   | 329   | 329                 | 319                 |
| <b>F-stat</b>        | 31.04   | 21.11               | 17.9                |
| <b>R<sup>2</sup></b> | 0.314   | 0.356               | 0.346               |

**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 in 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  $\Delta$  INSIDE from 1950 to 1955. The independent variables are: Log size, based upon assets; as a proxy for leverage, we apply the ratio of debt divided by total assets in 1952; a proxy for financial distress, distress dummy, which is one if after tax profits have been negative in at least one year during the estimation period; a proxy for the impact of post war reform, HCLC, which 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 by increasing insider ownership in the period 1955-1974. The Keiretsu membership dummy is one if a firm were a member of presidents clubs of former large three zaibatsu, Mitsui, Mitsubishi and Sumitomo. Regressions 4-7 report results for all firms with columns 4-5 corresponding to the period 1964-1969 and columns 6-7 to the period 1969-1974. All columns exclude insurance companies from the definition of insider holdings except columns (1), (3), (4) and (6). \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% level, respectively. The t-statistics are in parentheses.

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

|                                  | Dependent Variable: $\Delta$ INSIDE |                      |                    |                      |
|----------------------------------|-------------------------------------|----------------------|--------------------|----------------------|
|                                  | (1)                                 | (2)                  | (3)                | (4)                  |
| <b>Insider ownership in 1950</b> | -0.705***<br>(-8.42)                | -0.705***<br>(-8.49) | -                  | -0.686***<br>(-8.22) |
| <b>Log size</b>                  | -0.015<br>(-0.78)                   | -0.015<br>(-0.78)    | 0.001<br>(0.03)    | -0.033<br>(-1.67)    |
| <b>Distress dummy</b>            | -0.007<br>(-0.13)                   | -                    | -                  | -                    |
| <b>Debt to assets ratio</b>      | 0.201**<br>(2.10)                   | 0.201**<br>(2.11)    | 0.321***<br>(2.64) | 0.178*<br>(1.76)     |
| <b>HCLC</b>                      | 0.149***<br>(3.63)                  | 0.149***<br>(3.65)   | 0.117**<br>(2.24)  | 0.145***<br>(3.16)   |
| <b>Cons</b>                      | 0.242<br>(1.28)                     | 0.241<br>(1.28)      | -0.030<br>(-0.12)  | 0.479**<br>(2.4)     |
| <b>Industry Dummy</b>            | NO                                  | NO                   | NO                 | YES                  |
| <b>No. of observations</b>       | 111                                 | 111                  | 111                | 111                  |
| <b>Adjusted R<sup>2</sup></b>    | 0.44                                | 0.45                 | 0.08               | 0.50                 |

**Panel B: Determinants of insider ownership for 1955-1974 and various sub periods**

|  | Top 30: 1955-1974  |                    |                     | Whole sample: 1964-1969 |                     | Whole sample: 1969-1974 |                      |
|--|--------------------|--------------------|---------------------|-------------------------|---------------------|-------------------------|----------------------|
| <b>Dependent variable:<br/>change in % of insider holdings</b> | (1)                | (2)                | (3)                 | (4)                     | (5)                 | (6)                     | (7)                  |
| <b>Insider ownership in 1955</b>                               |                    |                    | -0.14<br>(-0.86)    |                         |                     |                         |                      |
| <b>No. of share issues</b>                                     | 0.0105**<br>(2.35) | 0.011**<br>(1.82)  | 0.01**<br>(2.25)    | -0.001<br>(-0.1)        | -0.001<br>(-0.2)    | -0.007<br>(-1.18)       | -0.002<br>(-0.33)    |
| <b>Price support institutional ownership</b>                   | 0.632*<br>(1.87)   | 0.585<br>(1.32)    | 0.62*<br>(1.83)     | 0.449*<br>(1.85)        | 0.726***<br>(2.99)  |                         |                      |
| <b>Log size in 1974</b>  | -0.025*<br>(-1.77) | -0.01<br>(-0.55)   | -0.025*<br>(-1.78)  |                         |                     |                         |                      |
| <b>No. of yrs of negative ROA</b>                              | 0.012*<br>(1.72)   | 0.004<br>(0.49)    | 0.011<br>(1.54)     | 0.001<br>(0.07)         | -0.012<br>(-1.61)   | -0.017*<br>(-1.82)      | -0.028***<br>(-2.88) |
| <b>Keiretsu membership dummy</b>                               | -0.091*<br>(-1.95) | -0.011*<br>(-1.88) | -0.095**<br>(-2.02) | -0.05**<br>(-2.43)      | -0.045**<br>(-2.17) | -0.021<br>(-0.95)       | -0.021<br>(-0.92)    |
| <b>Debt to asset ratio</b>                                     |                    |                    |                     | -0.068<br>(-0.88)       | -0.002<br>(-0.03)   | -0.056<br>(-0.89)       | 0.028<br>0.41        |
| <b>Individual ownership</b>                                    |                    |                    |                     | 0.081<br>(0.237)        | 0.15*<br>(1.87)     | 0.346***<br>(4.87)      | 0.317***<br>(4.14)   |
| <b>No. of new seasoned issues</b>                              |                    |                    |                     |                         |                     | 0.041**<br>(2.33)       | 0.039**<br>(2.09)    |
| <b>Foreign ownership</b>                                       |                    |                    |                     | -0.001<br>(-0.67)       | -0.001<br>(-1.41)   | 0.002**<br>(2.11)       | 0.001<br>(0.87)      |
| <b>Cons</b>  | 0.546***<br>(3.40) | 0.46**<br>(2.16)   | 0.58**<br>(3.49)    | 0.059<br>(1.01)         | 0.047<br>(0.79)     | -0.093**<br>(-2.18)     | -0.074*<br>(-1.60)   |
| <b>No. of observations</b>                                     | 30                 | 30                 | 30                  | 106                     | 106                 | 99                      | 99                   |
| <b>Adjusted R<sup>2</sup></b>                                  | 0.264              | 0.128              | 0.256               | 0.08                    | 0.218               | 0.24                    | 0.23                 |