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Equity Markets and Institutions: The case of Japan

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Abstract

Corporate ownership and financing in Japan in the 20th century are striking. In the first half of the 20th century equity markets were active in raising more than 50% of the external financing of Japanese companies. Ownership was dispersed both by the standards of other developed economies at the time and even by those of the UK and US today. In the second half of the 20th century, bank finance dominated external finance and interlocking shareholdings by banks and companies became widespread. The change from equity to bank finance and from an outsider system of public equity markets to an insider system in the middle of the 20th century coincided precisely with a marked increase in investor protection. Informal institutional arrangements rather than formal investor protection explain the existence of equity in the first half of the century - business co-ordinators in the early 20th century and *zaibatsu* later. Insider ownership in the form of bank ownership and cross-shareholdings emerged in the second half of the century as a response to the failure of minority shareholder protection, the needs of Japanese institutions to raise new equity for fast growing firms, and for the financial restructuring of failing firms.

Key words: Japan, corporate ownership, equity, investor protection, institutions
JEL classification: G32, K22

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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 20th century. Stock markets were active, ownership was widely dispersed in a large segment of the corporate sector, and bank finance was modest.[1]

Why was this? One body of literature emphasizes the significance of investor protection in the development of financial markets. This is not a persuasive explanation as investor protection was weak throughout the first half of the 20th century. Another explanation is that equity finance was associated with large shareholders who could exert significant control. However, as noted above, ownership was in many cases dispersed rather than concentrated.

The prevalence of equity did not rely on either formal systems of investor protection or the dominance of large shareholders. Instead it depended on the emergence of certain institutional arrangements that encouraged the participation of small investors. In the UK, Franks, Mayer and Rossi (2008) associate these institutional arrangements with local stock markets that encouraged firms to sustain reputations and trust with local investors. In Germany, Franks, Mayer and Wagner (2006) attribute trust mechanisms with banks that held shares as custodians on behalf of individual investors. In Japan, there were no custodian banks and there were only two main stock markets in Tokyo and Osaka.

Instead, two types of institutions or trust mechanisms were of particular significance. The first was business coordinators. These were prominent individuals who sat on the boards of companies and lent them a degree of credibility in financial markets that they would not otherwise have been able to command. They were particularly important in the first part of the 20th century in the funding of the newly industrialized companies. The second type of institutions was zaibatsu or family-controlled groups which facilitated the issuance of equity by companies in the 1930s. Both these institutions encouraged the participation of small investors in new equity issues.

All this was changed by the Second World War and the American occupation. The American occupation authorities introduced high levels of investor protection and instigated the break up of the zaibatsu which resulted in high levels of dispersion of equity

[1] The active equity markets of Japan has been documented by Rajan and Zingales (2003) and Hoshi and Kashyap (2001). However, the dispersed nature of Japanese ownership in the pre-war has not been documented.

ownership. Despite this, the outside equity structure of ownership was gradually replaced by an insider system of cross-shareholdings and bank as well as corporate equity stakes with which Japan is associated today.[2] Regulatory changes, particularly minority investor protection, might have been expected to have had exactly the opposite effect in so far as they resulted in a marked strengthening of shareholder rights.

How did this happen? There are two explanations. The first is financial distress caused by high levels of leverage. The very high leverage of the post war period and the consequent debt overhang made issuance of equity on stock markets more expensive and encouraged de-leveraging through debt for equity swaps. This was particularly important during the early 1950's and the middle of the 1960's. The second explanation is the financing requirements of fast growing firms. There was a class of firms that issued large amounts of new equity on a regular basis frequently in the form of rights issues before 1965 and new seasoned offerings in the early 1970s. Much of the new equity ended up in the hands of banks and corporate insiders. Similarly, new seasoned offerings were sold to banks and corporations. Both contributed to the shift from outsider to insider ownership. Bank ownership of corporate equity in turn encouraged a move from equity to debt finance as banks sought to benefit from their ownership stakes. Strengthening of investor protection may have encouraged more equity finance but the institutions that were potential buyers of such equity were insider institutions rather than outsider institutions. In contrast, in the U.K. and U.S. such shares ended up in the hands of insurance companies, pension funds and mutual funds. Thus, in Japan insiders filled the financing gap whereas in the U.K. and U.S. outsiders did.

The significance of equity markets in the first half of the 20th century and their subsequent decline in the second is attributable to institutional rather than regulatory factors. The evolution of Japanese capital markets could not have been the intended objective of the regulators responsible for the new securities and anti-trust laws which placed a cap on individual bank ownership of equities, proscribed against dual voting structures, and placed restrictions on private placements of shares. Instead, we argue that the evolution of ownership and governance of Japanese firms was a response to the

[2] In the last decade there has been considerable erosion of insider ownership with corporations dissolving their cross holdings (see Miyajima and Kuroki, 2007).

financing needs of corporations, and was in large part facilitated by private institutional arrangements.

Section 2 examines patterns of ownership 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 and even by those of dispersed ownership markets, such as the UK and US, today. 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. While share blocks were limited in size and ownership remained dispersed by conventional measures, large coalitions of shareholders, frequently in the form of cross-shareholdings emerged amongst companies and banks to control a substantial fraction of shares.

Section 3 describes the financing of companies. We observe that in the first half of the century, 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 20th 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 the subsidiaries of the zaibatsu that were incorporated after the First World War were floated on to the stock market. Another striking feature of the first half of the century was the high level of dividend distributions. In the second half of the century, debt finance played a more important role and dividend distributions declined appreciably.

Section 4 documents developments of the legal system in Japan from the end of the 19th century. It records that as in the UK and Germany investor protection was weak in the first half of the twentieth century. There is some evidence of a legal response to abuses of minority investors that occurred in the first and third decades of the century but investor protection remained modest. In contrast, the American occupation at the end of the 1940's resulted in a substantial strengthening of investor protection so much so that for the second half of the 20th century Japan had one of the strongest formal levels of investor protection of any major developed economy. There was therefore a marked shift from weak to strong investor protection from the first to the second half of the 20th century.

Weak investor protection in the first half of the 20th century coincided with active stock markets, a large amount of equity issuance, high dividend distributions and dispersed ownership. Strong investor protection in the second half of the 20th century was associated with bank finance, low levels of dividend distributions and an insider system of ownership which co-existed with relatively dispersed levels of ownership using conventional measures. The evolution of financial markets and ownership in Japan provides a rather different landscape to the one predicted by the law and finance literature.

Section 5 describes the institutional alternatives to legal protection. We argue that the presence of co-ordinators on corporate boards provided a form of quality assurance that encouraged individual investors to subscribe to new equity issues at the beginning of the 20th century. In the 1930's zaibatsu performed a similar certification function. The former might be described as a trust-based outsider mechanism and the latter as a trust-based insider mechanism. This was made all the more important by the high level of dividend distributions that increased the need for firms to return more frequently to the stock market.

Section 6 examines the post WW2 emergence of the insider system. It shows evidence that banks took equity stakes in companies with high leverage and in financial distress. This was particularly true during the 1950's and the middle of the 1960s. Bank ownership in addition emerged in fast growing companies whose shares were purchased directly by insiders and indirectly from quasi public corporations active during the stock market crash of the mid 1960ses.

Section 7 concludes the paper.

2. Ownership

We have collected a unique data set on the ownership of Japanese firms throughout the 20th century. The data were collected from several primary sources for individual firms. 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 and classified each shareholder as a commercial company, financial institution or individual. We constructed ownership measures at seven points in time during the pre-WW2 period: 1900, 1907, 1914, 1921, 1928, 1933 and 1937. From 1950 to 1974, we obtained lists of the ten largest shareholders in *Year Book of Listed Firms* (*Jojo*

Gaisha Soran), *Annual Corporate Reports* (*Kaisha Nenkan)*, and *Overview of Firm Keiretsu* (*Kigyo Keiretsu Soran)*. We measured the percentage of shares held by (a) banks, (b) trust banks (investment trusts), (c) life and casualty insurance companies, (d) non-financial corporations, (e) foreign investors and (f) individuals.

From these sources we constructed two samples of firms for the pre-war period. The first is a sample of firms incorporated or reincorporated before 1907 and still in existence in 1940. There were 38 such companies. The second sample is 30 companies that were incorporated or reincorporated before 1921 and continued to exist by 1940. The second sample was collected because the profile of incorporated companies changed significantly between 1907 and 1921. Both samples are drawn from the 100 largest manufacturing and mining companies measured by assets in 1918 and 1930 that were still in existence in 1940 and where data were available.[3] The 1907 sample includes few zaibatsu firms since they were not incorporated at that stage. The firms are mainly in light manufacturing industries which were of relatively low capital intensity. 13 of the 38 companies in the 1907 sample were in the textile industry and 8 were in food.[4] The 1921 sample includes many more zaibatsu firms and more from the heavy manufacturing industries. Chemicals (including pharmaceuticals) were the second most common industry behind textiles followed by food, mining and shipbuilding. We constructed measures of ownership concentration and means, medians for the top 3 and 5 shareholders.[5]

Figure 1 shows that the mean level of ownership of the top 3 shareholders in 1907 was 29% and the median was 20%. This remained very stable for the next 30 years until 1937. This compares with estimates of the three largest shareholders for the UK of 35.9% in 1920, 31.0% in 1950 (Franks, Mayer and Rossi (2008)) and 36.4% for the 5 largest shareholders in 1990 (Franks, Mayer and Renneboog (2001)). Ownership was therefore highly dispersed in Japan at the beginning of the 20th century by the standards of the UK later in the century and even by comparison with the UK more recently.

==Figure 1 about here==

C3 of the 1921 sample in 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

[3] To identify the 100 largest firms in 1918 and 1930 we use the firm list of Fruin (1992), which is limited to manufacturing firms, supplemented by Nakamura (1976), which includes mining firms.
[4] The industry distribution of our sample is available from the authors on request.
[5] The ownership is at the first level; however, most of the sample has only one level of ownership; pyramids are not important in our sample.

in 1921 is 57% and the median ownership is 49%. 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 newly established heavy industry such as iron and steel, engineering and chemicals. In most cases the former subsidiaries continued to be controlled by the zaibatsu holding company.[6] As we discuss below, during the 1930's many of the zaibatsu subsidiaries were floated on the stock market and hence the average level of concentration of ownership of the 1921 sample declines 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.

The most striking evidence on dispersion of ownership comes from Table 1 which reports the number of shareholders for two samples of companies combined, 1907 and 1921. The Panel shows that in 1900 the mean number of shareholders was already 325. By 1907 this had doubled to 550 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. These figures contrast with an average of 320 in 1910 in the UK (Franks, Mayer and Rossi (2008)) and 25 in Germany over the period 1890 to 1950 (Franks, Mayer and Wagner (2006)).

== Table 1 about here==

In addition, we break down ownership into two categories of shareholders – individual and corporate/institutions. Individual shareholders are in turn broken down into owner-manager, large shareholders and zaibatsu family. Corporate/institutional shareholders are disaggregated into holding companies (i.e. the corporate form of zaibatsu family firms), non-financial corporations, banks, other financial institutions and other shareholders.

At the beginning of the 20th century individuals (family, entrepreneurs and bankers) are the dominant shareholders accounting for the largest shareholding in 34 out of 38 of the 1907 sample. However, with the introduction of the zaibatsu corporate form after World War 1, zaibatsu holding companies emerge as significant shareholders at the beginning of the 1920s. Following the flotation of companies during the 1930s, financial

[6] There was just one case of a zaibatsu's subsidiary going public before the 1930s in the non-financial sector, Mitsubishi Mining.

institutions (mainly insurance companies, see Shimura 1969) and corporations acquired substantial shareholdings in some firms. The presence of corporate shareholdings is particularly evident in the 1921 sample.

Figure 2 extends the period of the analysis to post WW2 for the combined 1907 and 1921 sample. That sample is composed of 45 firms drawn from both the 1907 and 1921 samples which continued to exist in 1990.[7] The most striking feature is the marked drop in concentration of ownership in 1950. The share of the top three shareholders drops 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 20th 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.[8] GHQ insisted that the sale was targeted at the small investor thereby ensuring the shares were sold at a low price. Investors' appetite for the shares was fuelled by hyper-inflation from 1946-1949. The result was that by 1949, 69.1% of shares in all listed firms (equally weighted) were directly held by individual investors and only 10.0% by financial institutions and 5.6% by non-financial firms (see Figure 3).

Sales of shares to individual investors significantly increased dispersion of ownership. The median size of the top 3 shareholders C3 in listed companies fell from 32.2% in 1937 to only 8.3% in 1950. The 1950 levels of concentration were actually lower than those in the UK, where the top 3 shareholders held 33.8%, including both insiders and outsiders, and where 9.3% were held by outsiders only (see Figure 2). This increase

[7] The remaining 23 firms disappeared through bankruptcy or acquisition prior to the end of our time series.

[8] Zaibatsu firms were strictly prohibited from buying shares in related companies. Shares held 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 an individual's 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).

in dispersion in Japanese stock markets occurred when investor protection, in the form of minority protection rules, was significantly increased.

We show in Figure 3 the time series of ownership structure of Japanese firms through the latter half of 20th century by type of shareholder.[9] The striking feature is the marked drop in shares held by individuals and the increasing share of financial institutions. The 60% share held by individuals declined to less than 50% in the early 1950s, whereas the share held by financial institutions increased from 10% to 20%, although not shown separately in Figure 3. Another jump occurred in the middle of the 1960s. In 1962, the aggregate share held by individuals and investment trusts was still around 55%, however, both dropped dramatically again by the late 1960s. A more detailed breakdown of the ownership structure is given in Table 2. Here 'inside ownership' is defined as the percentage share held by boards of directors, banks, and other corporations (insider ownership 1). An alternative definition of insider ownership (insider ownership 2) includes insurance companies, with the latter holding less than 5% of equities before 1965 and then rising to 12% by 1974. The category 'outside ownership' is defined as the percentage share held by institutional investors, foreign investors and individuals but excludes managerial ownership. Table 2 is based upon a sample of 126 firms drawn from the top 100 companies by assets in 1937 or 1955. The data is based upon 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).[10]

Looking at the largest listed firms, outside ownership decreased from 78.2% in 1953 to 62.4% in 1962, and to 44.9% in 1974. In spite of introducing a strong minority shareholder protection model in 1950, there was a major shift from outside- to inside ownership in post war Japan.

== Figure 3 and Table 2 about here==

In summary, ownership was dispersed in Japanese listed firms from the beginning of the 20th century and by the 1920s became extremely dispersed even by today's standards. Individuals were the dominant shareholders at the beginning of the 20th century but were replaced by financial and non-financial companies during the 1930s. On conventional

[9] In Figure 3, we use data from the Tokyo Stock Exchange, which consists of all listed companies. These data are only available for the period after 1949 and is less detailed than our data base of 126 companies.

[10] This new sample was collected because substantially more companies were incorporated and listed from the 1930s onwards. A comparison of levels of dispersion i.e. C3 in the two samples (1907 and 1921 combined in Figure 2 and post war samples described in Table 2) are similar. Data are available on request.

measures of dispersion the ownership landscape of Japan was even more dispersed than in the UK. However, the profile of ownership is very different: banks and companies (insiders) dominated the Japanese landscape, whereas individual and mutual funds (outsiders) were dominant in the UK.

3. Equity Finance

In this section we show that the Japanese stock markets were relatively active in the first half of the century as described by Rajan and Zingales (2003) and Hoshi and Kashyap (2001). 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 (2008) 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[11]. 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 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 3 shows the financing of Japanese corporations over the period 1915 to 1980. The pre-war period is subdivided into four periods: 1915 to 1920, 1921 to 1929, 1930 to 1937 and 1938 to 1942. In 1915-19, the sample consists of companies which were incorporated prior to 1907 and which still existed in 1940. In other pre-war periods, the

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

samples include companies which were incorporated both prior to 1907 and prior to 1921 and which still existed in 1940. The extension to 1921 data reflects that between 1907-1921 heavier manufacturing companies were incorporated compared with those incorporated pre-1907, for example, engineering companies.

Table 3 records the different sources of finance (internal funds, new equity, new debt which includes commercial note and others, bonds, long- and short-term borrowing). Even with this broad definition of debt, Table 3 shows that throughout the period new equity accounted for a high proportion of external sources of finance: more than half of external finance came from equity sources in the period 1920 to 1929 and during the 1930s. Of this total, the majority was associated with new equity issues. Debt finance played only a relatively modest role in the financing of firms.[12] Then, from 1937, new equity was largely replaced by borrowings as a major source of new finance.

== Table 3 about here==

Table 3 also records the financing of Japanese corporation over the post-war period from 1951-1980. The sample includes 126 firms which are drawn from the top 100 by assets in either 1937 or 1955. New debt is the sum of new bank debt and new bond issues. New equity is found to play a modest role by the middle of 1960s and was largely replaced by banks loans as a major funding source after middle of 1960s.[13] There was therefore a marked switch from external equity to borrowings as the primary source of finance for Japanese corporations from the end of the 1930s onwards.

Table 4 shows the average level of dividends as a proportion of earnings over the period from 1915 until 1942 and from 1956 to 1980. It shows that the payout ratio was in excess of 60% for most of the pre-war period. The sensitivity of dividends to profit (marginal payout ratio) is also over 0.6 in the 1920s and 1930s. The implication is that while listed Japanese firms were able to raise substantial amounts of finance in the form of new equity issues during the first half of the 20th century they were also distributing a high proportion of their earnings to shareholders in the form of dividends. In many instances companies raised their dividends in the same year that they issued new equity.

[12] The trend is approximately the same as other estimates (Hoshi and Kashyap 2001, Miwa and Ramseyer 2002b).

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

Table 4 also shows that the payout ratio declined in the latter half of the century as the dominance of ownership shifted from outsider to insider ownership. The payout ratio is over 62% in 1960 but fell to less than 40% in the 1970s. The marginal payout ratio which was over 0.6 around 1960 also fell to less than 0.2.

== Table 4 about here==

In summary, the first half of the 20th century was a period of high new equity issues and high dividend distributions, and the second half of the 20th century, at least from the 1970s onwards, was a period of low equity issues and low dividend distributions.

4. The Evolution of the Japanese Legal System

4.1 Investor protection

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 entire twentieth century.[14] 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.[15] 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 1920's to 1932 and the upheaval of the military government in the 1930s, a further revision to the commercial code in 1938 increased the

[14] 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.

[15] This also happened in the UK and US where investors in some railroads refused to pay installments on partly paid shares.

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.[16] 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 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 as well introducing 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 resigned. Ownership of companies was radically changed and largely dispersed as a result of the dismantling of the old zaibatsu. 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

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

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 standard imposed on listed firms by the Corporate Accounting Rule. Third, the Company Law was substantially amended on the instruction of GHQ to introduce one share-one vote and cumulative voting. Anti- director rights were 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 20th century. The score ranges from zero (weak anti-director rights) to six (strong anti-director rights). The index was one from 1900 to 1937 (proxy voting by mail and the ability of shareholders' to call an extraordinary general meeting of shareholders) and 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.

== Table 5 about here ==

The anti-director rights index increased from 2 to 5 in 1950 in response to the revision to the Company Law and the Securities Exchange Law initiated by GHQ. The liabilities standard increased from 0 to 0.667 and the disclosure index increased from 0 to 0.667, at around the same time. (see Appendix 1) The table contrasts the value of these indices in Japan with those of the UK and Germany during the 20th 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 20th century and the components of the private enforcement index were low at 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 the about same in the UK. Japan therefore moved from a low to a relatively high investor protection system in the middle of the 20th century.

In summary, Japan displayed a low level of investor protection in the first half of the 20th century. This was radically changed by GHQ in the second half of the century, and investor protection was 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 distribution to low equity and low dividend distribution.

4.2 Creditor Protection

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, was enacted in 1952 (see Appendix 1)

As a result, Japan had five bankruptcy courts.[17] Two of the five were intended for liquidation, Bankruptcy (Hasan) and Special Liquidation (Tokubetsu Seisan), and three were intended for reorganization, Corporate Reorganization (Kaisha Kosei), Corporate Arrangements (Kaisha Seiri), and Composition (Wagi). The Corporate Organization Law introduced the equivalent of supra priority financing, an automatic stay, and majority voting rules to overcome holdout problems.

However, there were some unattractive features of Corporate Reorganization. First, the court appointed a trustee so there was no provision for the debtor to remain in control, unlike in Chapter 11 of the 1978 Act in the US. Second, again unlike the US, the court only accepted a case after extensive screening. This involved the bankruptcy judge examining documents and interviewing the debtor and major creditors to ensure that a going concern was feasible (see Helwege and Packer (2001)). This screening process could take 3-6 months. In addition, the procedure itself was lengthy, and three quarters of the cases took more than 5 years from approval of the plan to conclusion (see Packer and Ryser (1992)). Employees were given special consideration both in the formation of the plan and in the seniority of their claims.[18]

[17] Much of this description is taken from Packer and Ryser (1992), and Helwege and Packer (2001).
[18] Japan also has very formal out of court procedures, the most important of which is the 'Suspension of Bank Transactions' which occurs when a borrower has dishonoured two promissory notes. This is followed by a freeze on lender transactions.

The result was that there was considerable aversion to the use of formal bankruptcy procedures because they were cumbersome and lengthy. In addition, Japanese culture regarded bankruptcy as the corporate equivalent to capital punishment.[19] The number of listed firms that used formal bankruptcy procedure (corporate reorganization) during 1965-73 was 21, and decreased to 14 during 1974-1982, when most of firms faced financial distress due to the oil crisis. Looking at the period of the late 1960s to the middle 1980s, Sheard (1994) found that only 5 large firms went into official bankruptcy procedures while 37 completed reorganizations out of court. The weakness of bankruptcy law in Japan encouraged reorganizations outside of formal bankruptcy procedures.

5. Trust Mechanisms in pre-Second World War Japan

5.1 The First Decade of the 20th Century – The Role of the Business Co-ordinator

Business co-ordinators played a critical role in the process of issuing shares at the beginning of the 20th century. 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.[20] 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. Their other functions were to provide general business advice and promote business relations with other firms (Miyajima and Omi 2006). We argue they overcame the 'promoter's problem' described by Mahoney (1995) and La Porta et al. (2006) because of their reputation and their share stakes and participation on the board of directors.

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[19] This description is taken from Packer and Ryser (1992), although they use this expression with reference to one procedure only, 'Suspension of Bank transactions'.

[20] 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.

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 establishment 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 both a share stake and a board position in the same company as well as in seven other companies. As an alternative measure, we identified the co-ordinator as someone who was a deputy or vice deputy of the Chamber of Commerce in Osaka or Tokyo. We collected data on business co-ordinators in Japan in 1911 and 1928 using a *Teikoku Ginko Kaisha Yoroku.*, Who's Who of Japanese banks and firms. Table 6 records that in 1911 there were 72 individuals who held board positions in at least seven companies and 38 people who held either the position of deputy or vice-deputy of a chamber of commerce (in six large cities) or, one who held a position on a stock and commodity exchange with a board position in more than five companies.[21] In total we identified 104 people who were business co-ordinators, allowing for 6 cases of overlap between the two groups. In 1928 there were 587 people who held board positions in at least seven companies and 65 who were deputy or vice-deputy of a business trade association.

== 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 18 in 1907 and 19 in 1914 out of a total sample of 38 firms. Therefore nearly half 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 1.74 in 1914 and the maximum number was 5 in 1907 and 4 in 1914. In 16 of the 31 firms the business co-ordinator was one of the top ten shareholders in 1907 and in 20 firms in 1914. 13 had a business co-ordinator as both a board member and one

[21] This threshold assumes that someone who held a position on a stock and commodity exchange was likely to have more information and command more trust.

of the top ten shareholders in 1907 and 17 in 1914. The average equity stake held by business co-ordinators was 9.04% in 1907 and 8.51% 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 20th century and they held a significant share stake.

Table 7 records the results of a regression of C3 measures of ownership concentration in the 1907 sample in the years 1907 and 1914 combined. There are 76 observations in total. 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 and for the two positions combined. The regression includes controls for the size of the firm, industry dummies and a 1914 dummy.

== 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 the board of directors or in both. 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 in the new equity issuance process and in the dispersion of ownership of Japanese firms.[22]

5.2 The Zaibatsu in the 1930's

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 by pyramidical or hierarchical organizational form. 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.[23] 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

[22] 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.

[23] There is a third type of zaibatsu, which did not have a holding company at its apex, where the parent company was controlled by subsidiary firms, (Miyajima and Kawamoto 2009). Since they were relatively small and less active in IPOs in this period, we mainly focus on the above two types.

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 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 1983, 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.[24]

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. One reason is that zaibatsu were regarded as having good monitoring capabilities. In the late 1920s when some of the firms with dispersed ownership and interlocking directorships faced financial distress, zaibatsu-affiliated firms showed relatively stable performance.[25] 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 is one of 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, in order to preserve their reputation.[26] There are several cases of the zaibatsu holding company or the founding family declining their share of the dividends, when the financial state of the firm deteriorated. Mitsubishi Mining, which went public at the beginning of 1920s, earned very low profits and showed a 3-4% return on equity from 1921 to 1924. Mitsubishi Goshi held 58% of Mitsubishi Mining stock and declined 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. It may be argued that one important difference is that the business co-ordinator shared more of the characteristics of a trust-based outsider system, through the greater dispersion of share ownership, whereas the zaibatsu shared more of the characteristics of a trust-based insider system through their majority

[24] 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.

[25] Miyajima and Kawamoto (2009) reported the low variance of performance of three established zaibatsu relative to standalone firms. 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 et al. (2007) did not find significant effects on zaibatsu affiliation, while size of zaibatsu firms is positively associated with performance and leverage is negatively associated with performance.

[26] 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).

ownership of the company, albeit with a large dispersed minority ownership. The appetite 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 corporate governance role performed by zaibatsu.

First, we examine the issue of whether zaibatsu affected the level and changes of ownership structure in the boom period. The dependent variable is C3, the aggregate share of the top three shareholders, and the change in C3 from 1928 to 1937, while the independent variables are profit measured by ROE, size, and proxies for the business co-ordinator and a member of a zaibatsu group. The dummy variable, Cordum is one if a business co-ordinator took a position as a board member, and is observed in 28 firms in our sample. 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 is the case in 22 firms and is zero in the case of 66 firms[27]. Panel A of Table 8 shows that the level of C3 in zaibatsu firms in 1937 is 21% higher than in non-zaibatsu firms (column 1), after controlling for size 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. That is, there is a greater decline in concentration of zaibatsu firms than non zaibatsu firms over the period 1928-1937. According to column 2, the decline in ownership concentration in zaibatsu-affiliated firms is 13% higher than in other firms, which is significant at the 1% level.

== Table 8 about here==

We also examine how the zaibatsu influenced equity financing. The dependent variable is a measure for 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 are profit measured by ROE, size, investment, and dummies for the business co-ordinator and membership of a zaibatsu group. Table 8, panel B 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

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

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% level. This result holds when we include industry variables (column 2) and other performance measures, ROE (column 3).

In summary, 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 may have been important in encouraging small outside shareholders to purchase new issues. They may have done so because small shareholders viewed their block ownership as a trust mechanism rather than as a minority exploitation vehicle.

6. The Emergence of the Insider System

While dispersed equity ownership and active stock markets were characteristic of the first half of the twentieth century, the insider system with its large concentrations of bank and corporate ownership was the prevailing feature of post WW2 Japanese capital markets.[28] Figure 3 and Table 2 show that insider shareholdings increased rapidly from the early 1950s to 1974 from 13% to 43% (see Table 2) while holdings by individuals declined from about 50% to 37% over the same period. .

This section examines how Japan underwent this transition. It argues that corporate financing was critical to this process and that it occurred in three distinct phases. The first was in the 1950s when failing Japanese companies were subject to large-scale restructurings. The second was in the middle of the 1960s when a programme of stabilizing ownership of rapidly growing firms was undertaken in the face of a collapse of Japanese stock markets. The final phase was in the 1970s when rapidly growing firms raised substantial amounts of new equity.

Banks played a critical role in all three phases because of their holdings of substantial amounts of defaulting debt and the absence of alternative equity investing institutions. The destruction of the zaibatsu by the Allied Occupying forces had extinguished the pre-war institutional vehicle for raising external equity described in the previous section leaving banks to take on the role of acting as providers of equity as well

[28] 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).

as debt finance. As a consequence, banks emerged as dominant owners of corporate Japan in the post WW2 period. Sections 6.1 to 6.3 describe the three periods and Section 6.4 provides an analysis of the emergence of insider ownership.

6.1 Corporate Restructurings in the 1950s

The suspension of wartime compensation to companies 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 (albeit for a different year).

It was expected that higher levels of shareholder investor protection introduced by the Allied Occupation in the late 1940s would allow Japanese companies to re-establish their equity base by issuing new equity. However, this did not occur: as Table 3 shows, there was actually a marked fall in new issues in the post war period- compared with pre-war Japan.[29] 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. Since, as described in Section 4, bankruptcy procedures were cumbersome and costly, much of the capital restructuring occurred in workouts outside of bankruptcy.

One case that illustrates this restructuring is Nichia Seiko which made a right issue for 1 billion yen in 1954 to improve its capital structure. 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).[30]

A second case is Oumi Silk Company. During the Korean War, the firm expanded its operations through bank loans. It started the decade 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 Korean War had

[29] The numbers reported for new equity capital of the post war period in Table 3 are biased upwards, since some changes in paid capital are included that were merely changes in the nominal value of share capital. We estimate that this source could account for about 10% of the figures reported.
[30] This case is included in our sample of 126 firms.

ended, Oumi’s sales growth declined, and in the face of financial difficulties it had to reduce its leverage and issue additional capital. In 1955 it undertook a debt for equity swap which resulted in a rapid increase in insider ownership from an initial 4% to more than 60% thereafter.[31]

We examined the importance of debt for equity swaps further in a sample of the thirty largest bankruptcies; nineteen were found to have involved debt for equity swaps.[32] The amount of debt swapped as a proportion of pre-outstanding debt averaged 8.4% (median 10.4%). In addition, large writeoffs of debt accompanied the swap; the average writeoff was 30.2% of the face value of the debt outstanding (median 24.3%). The swapped equity accounted for 74.7% of outstanding 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.

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 therefore 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.

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[31] Based on *Toyo Keizei* [The Oriental Economist], April 1954.

[32] The thirty distressed companies reorganized through the Corporate Reorganization code between 1953 and 1965. They 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.

6.2 Stock Market Stabilization Programmes in the 1960s

The second source of insider holdings was the support programme associated with the collapse in stock market prices between 1962 and 1965. In 1964 and 1965, financial institutions set up two companies, the Japan Cooperative Securities Company (JCSC) and the Japan Security Holding Union (JSHU) to purchase shares in Japanese companies to stabilize equity markets. By 1965 these two institutions had purchased 5% of the equity of all listed companies (Miyajima, Haramua and Enami 2003) and held on average 5.8% of the ordinary shares of our sample of companies (maximum 15.6% and minimum 0.01%).

A significant proportion of the stocks purchased were in high growth Japanese companies that had made frequent issues of equity during the latter part of the 1950s and the first half of the 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 capital rose by 20 times. Nissan Motors made equity issues in almost every year during the same period and its paid in capital rose about 27 times[33]. The two quasi public institutions held 9.4% of Nissan and 8.3% of Toyota.

When the JCSC and JSHU became sellers after March 1968, a large proportion was purchased by banks and companies, in part reflecting the wish by those companies to protect themselves 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; if insurance companies are included the proportion rises to 52.2% (JCSC, 1977, JSHU, 1972). In two cases where stakes were held, Toyota Automobile's insider ownership increased from 31.8% in 1964 to 61.6% in 1969, and that of Nissan increased from 27.9% in 1964 to 60.8% in 1969.[34] 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%.

[33] High growth firms with frequent issues of equity are more likely to be held by the two quasi public institutions. Based on our sample, the percentage share held by price keeping organization at the end of 1964 is positively and significantly related at the 1% level to the number of companies issuing stock for the period 1955-1964, the market to book ratio in 1964 and the average ROA from 1958 to 1964.

[34] If we include insurance companies, the percentage rises from 34.1.8% to 65.4% (Toyota), and .from 29.7% to 70.7% (Nissan) respectively.

6.3 New Equity Issues in the 1970s

The increase in insider ownership in the post war period cannot be explained solely by debt equity swaps of distressed firms and the sale of shares by the two quasi public institutions. A third channel for increasing insider ownership, 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. 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 coincided with large increases in insider ownership.[35] Because of abuses, involving large discounts to third parties probably insiders, these rules were tightened in 1974.

6.4 Analysis of 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 the relation of the growth of insider ownership to measures of leverage and financial distress. In Panel A of Table 9 we record the relation for the period 1950-1955, when a large shift occurred from outsider to insider ownership. Using our sample of 126 firms, we examine changes in insider ownership in a cross-sectional regression and assess whether firms which had large increases in insider ownership in one period 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 in our definition of insider holdings. The independent variables are size measured by total assets and a financial distress dummy, which is one 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.[36] To

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

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

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 statistically significant relation between the leverage of companies and the subsequent emergence of insider ownership. The coefficient for HCLC 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. [37]

== 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 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

[37] 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 at the 5% significant level, suggesting that experiencing financial distress is associated with a roughly 4 to 5% increase in insider ownership.

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 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 successors, notwithstanding that the governance structure of the keiretsu was very different from the pre war zaibatsu.[38]

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 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 informal 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.

The implication is that corporate financing of both distress and growth were the origins of the insider system. The question that this raises is why did banks rather than other institutions supply the required equity finance? One answer is that the institutions such as life insurance, mutual funds and pension funds which emerged as major holders of corporate equity in post war UK and US did not take on that role in in Japan. One reason is that these institutions were so much larger in the UK than in Japan (see Dobbins, Lowes

[38] See Miyajima (1994) and Miyajima and Kawamoto (2009).

and Pass 1981).[39] A second possibility is that Japanese bank regulation, while limiting the maximum size of bank equity holdings to 10% and later 5%, was more lenient about the duration of equity holdings than in other countries. A third possibility is that banks used their corporate equity holdings to exploit lending and other commercial opportunities. The evidence on the process of formation of the insider system reported here suggests that these alternative motives warrant further analysis.

7. Conclusion

This paper has argued that the evolution of ownership and capital markets in Japan is more closely associated with informal institutional arrangements and trust mechanisms than formal systems of regulation. The dispersal of ownership in the first half of the twentieth century and the active use of stock markets to fund corporations were associated with two institutional methods for upholding relations of trust between investors and firms – the business coordinators and then the zaibatsu. We argue that the business co-ordinator shared more of the characteristics of a trust-based outsider system, through the greater dispersion of share ownership, whereas the zaibatsu shared more of the characteristics of a trust-based insider system through their majority ownership of the company, albeit with a large dispersed minority ownership.

With the dissolution of the zaibatsu around WW2, external equity finance ceased to provide the primary form of external financing in the post war period, despite attempts to promote it through the strengthening of investor protection. Instead, banks and other corporations were involved in the informal restructuring of distressed companies and became equity holders through debt for equity swaps. Subsequently, they purchased additional equity stakes from two quasi-public institutions charged with stabilizing equity markets in the late 1960's, and new seasoned equity of fast growing firms in the early 1970s.

The implication of the Japanese experience is that the emergence of financial markets and the ownership of corporations may be dictated by the institutional conditions that prevail at different points in time and the ability of those institutions to promote conditions of trust between investors and firms. If governments intervene to extinguish

[39] Between 1957 and 1970 the share of equities owned by insurance companies, pension funds and mutual funds and investment trusts rose from 17.7% to 29.7%.This compares with about 12.3% in Japan in 1969.

institutions of trust, as they did through the dissolution of the zaibatsu then insider rather than outsider systems of ownership may emerge to fill the vacuum created by the reduced participation of outside shareholders.

The case of Japan suggests that these institutional developments may be a more powerful explanation of the evolution of financial systems than legal frameworks and origins. Of course, one country does not prove a rule but the evidence that is beginning to emerge from other cases, such as the UK and Germany, potentially points to a more general proposition regarding the relation of institutions to capital market evolution.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Figure 1. Trend of Ownership Structure from 1900 to 1937

This figure shows the trend of ownership in pre-war Japan based upon the percentage of shares held by 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.

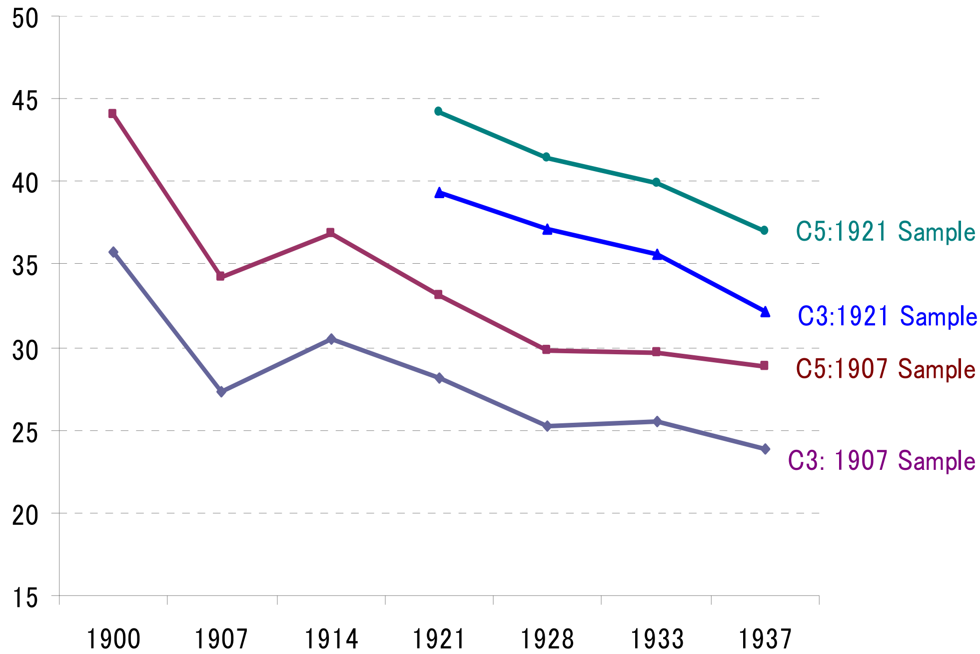

Table 1. Number of shareholders for various years from 1900 to 1937, based upon the 1907 and 1921 samples

The Panel reports the number of shareholders for selected years. It is based upon both samples, the 1907 sample which includes companies which are incorporated prior to 1907 and which still existed in 2000, and the 1921 sample, which includes companies incorporated prior to 1921. 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.

	Mean	Min.	Max.	Median	No. Obs.
1900	325	7	752	258	12
1907	550	23	2,416	362	38
1914	1,012	23	5,791	395	45
1921	3,065	8	14,595	1,489	66
1928	4,588	9	22,695	2,676	66
1933	4,880	10	23,453	2,592	66
1937	5,543	15	20,146	3,283	66

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 largest three (C3) and largest five shareholders (C5) in a sample of companies. In Japan, the sample consists of companies which are incorporated prior to 1921 and which still existed in 2000, sample number is 45 except 1907. 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.

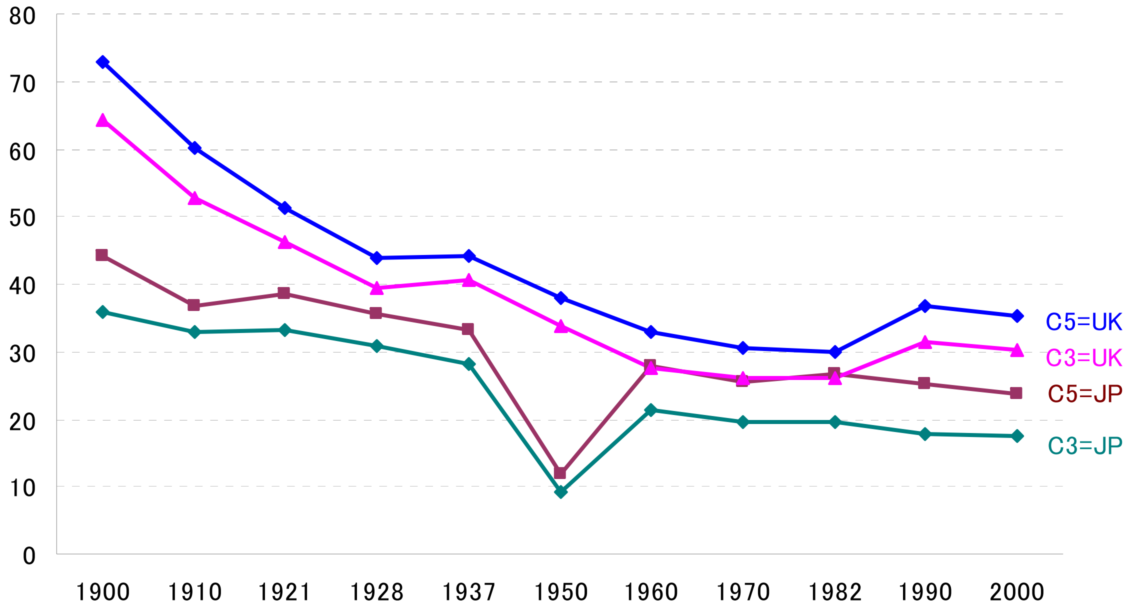

Figure 3. The Time Series of Ownership in the period 1945 to 2007

The table shows the time series of ownership for various categories of shareholders in a sample of Japanese companies. Insiders include banks, corporations and insurance companies. The sample includes all firms listed on the Tokyo Stock Exchange and ranges from about 500 in 1949 to 2000 in 2003. (Source: Tokyo Stock Exchange, *Shoken Yoran.*)

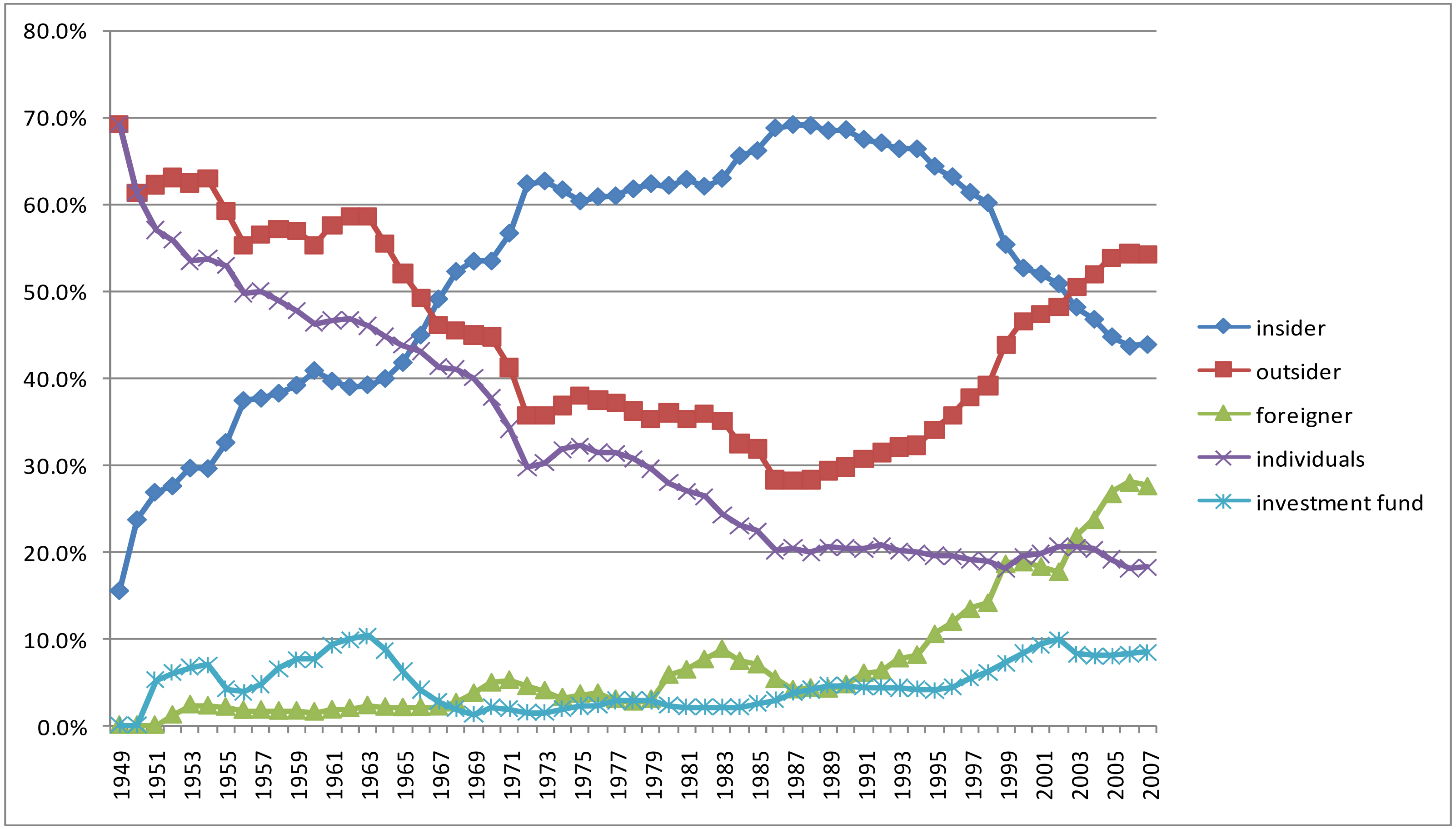

Table 2. Trends in Inside and Outside Ownership in the period 1953-1974

`Inside ownership' is defined as the percentage of shares held by the board of directors, banks, and other non-financial institutions. 'Outside ownership' is the percentage share held by institutional investors (investment trusts) and individuals.[] The data is drawn from Japanese 10Ks, which show ownership in seven different categories (including financial institutions, investment banks, non financial firms, and individuals), as well as the largest ten shareholders. Because insiders and outsiders are sometimes combined in a single category, we have used both ownership in different categories as well as the list of the ten largest shareholders to estimate insider and outsider ownership. The inside ownership1 (ownership 2) is calculated by combining a + c + h – f – g (a + c + h – f), while outside ownership is calculated by combining b + d + e + f - h. Rows f - h are based on top ten shareholder list. Row c in 1958 and 1962 includes shares held by foreign corporations. The sample includes 126 firms which are drawn from the top 100 by assets in either 1937 or 1955.

		1950	1953	1955	1958	1962	1964	1967	1969	1974
	Insider Ownership 1	13.0	17.1	23.7	31.0	33.7	32.3	37.1	40.7	42.7
	Insider Ownership 2	NA	21.8	28.6	35.8	37.6	37.3	44.1	49.9	55.1
	Outsider Ownership	87.0	78.2	71.4	64.2	62.4	62.7	55.9	50.1	44.9
a	**Financial Institutions**	7.0	22.9	28.6	32.6	35.7	33.2	33.0	33.8	37.5
b	**Securities Houses**	9.5	7.7	8.2	4.1	2.3	6.5	7.2	1.7	2.0
c	**Non-Financial Firms**	6.0	7.4	7.4	11.5	11.7	11.9	12.3	16.7	20.0
d	**Foreigners**	NA	NA	2.6	NA	NA	2.9	2.8	4.2	3.6
e	**Individual Shareholders**	NA	NA	53.2	51.6	49.8	45.6	44.5	43.5	37.0
f	**Investment Trusts**	NA	9.5	8.4	9.2	10.3	8.4	2.2	1.4	3.5
g	**Insurance Companies**	NA	4.7	4.9	4.8	3.9	4.9	7.0	9.2	12.4
h	**Managerial Ownership**	NA	1.1	1.0	0.7	0.5	0.6	0.8	1.1	1.2

Source: TSE, *Jojokaisha Soran*, Daiamond, *Kaisha Yoran*, Nikkei, *Kaishanenkan*

Table 3. 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
Retained earnings		1,994	132	1,149	4,981		337	528	1,519	3,795
New issued equity	**A**	1,012	1,188	1,741	7,911		310	1,583	796	973
New debt	**B**	1,612	1,109	1,377	17,312		598	3,440	7,973	8,331
New Bonds		242	442	116	3,226		87	86	283	603
New (long term) borrowing		49	273	48	2,316		511	3,354	7,690	7,728
Total external finance	**C=A+B**	2,624	2,296	3,119	25,223		908	5,023	8,769	9,305
New equity capital to total new equity and debt %	**A/C**	38.6	51.7	55.8	31.4		34.1	31.5	9.1	10.5

Table 4. Trends in Dividend Payout Ratio and Regression of Dividends on After Tax Profit

The table provides a time series of dividend payout ratios for the sample, and the results of a regression of dividends on profits with controls for industry and calendar year. Payout ratio is the ratio of dividends divided by after tax profit. The estimation for the regression of a firm's dividend on its profit is reported as a marginal payout ratio. Firms with negative profits are excluded from the estimation. In the 1915-19 estimation, the sample consists of companies which are incorporated prior to 1907 and which still existed in 2000. In other pre-war years, the sample is a combination of the 1907 and 1921 samples. Both samples are drawn from the largest 100 listed firms (based on assets in 1907, 1918, 1930) subject to data availability. In the post war estimation, the sample includes 126 firms, which are taken from the largest firms by assets either in 1937 or 1955. Utilities and financial institutions are excluded from the sample.

			Marginal payout ratio	
	No. Obs.	**Payout ratio**	**Coefficient**	**R^2**
1915-1919	201	52.6	0.436	0.864
1920-1929	481	72.8	0.689	0.940
1930-1937	429	64.7	0.624	0.922
1938-1942	277	59.9	0.572	0.882
1956-1964	1030	62.1	0.616	0.865
1965-1972	821	54.8	0.338	0.701
1973-1980	742	39.9	0.195	0.693

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).

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

Table 6. Descriptive Statistics for the Business Co-ordinator

The business co-ordinator is defined as one who had board positions in seven different firms or one who held the position of a stock and commodity exchange with a board position in more than five firms. We further add one who was deputy or vice chair of business trade association (Tokyo Chamber of Commerce, etc) [Hideaki- why 5?] We use *Teikoku Ginko Kaisha Yoroku* (*Who's Who* of Japanese banks and firms) for identifying the business co-ordinator. Using the latter publication, we identify 104 individuals in 1911 and 600 individuals in 1928, as a potential business co-ordinator, and using our sample firms we matched the names with board membership and/or large shareholder in any of our sample firms.

	1911	**1928**
Number of business co-ordinators	104	600
Number holding board positions in more than seven firms	72	587
Number holding board positions in more than nine firms	32	295
Number who were a deputy or vice deputy of business trade association	38	65

	1907	**1914**
Number of firms	38	38
Number of firms that had a business co-ordinator as a board member	18	19
Max. number of business co-ordinators for a firm in our sample	5	4
Average number of business co-ordinators per firm	1.72	1.74
Number of firms that had a business co-ordinator as one of the top ten shareholders	16	20
Average size of block held by business co-ordinator	9.04%	8.51%
Max. shareholding of business co-ordinators for a single firm	13.98%	44.81%
Min. shareholding of business co-ordinators for a single firm	3.30%	1.04%
Median shareholding of business co-ordinators for a single firm	6.60%	5.75%
Number of firms that had a business co-ordinator both as a board member and one of the largest 10 shareholders	13	17

Table 7. Results of a regression relating the dispersion of ownership to the presence of Business Co-ordinator

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 three shareholders in 1907 and 1914. **Size** is the log of number of issued stocks. **S-cordum** is one, if a co-ordinator is one of the top ten shareholders. **B-cordum** is one if at least one co-ordinator has a position on the board of directors. **S&B cordum** is one if a co-ordinator is both one of the top 10 shareholders, and has a position on the board of directors. **Aristocracydummy** is one if a member of the aristocracy is among the top 10 shareholders, and has a position on the board of directors. Year dummy for 1914 is also included. The sample includes companies which are incorporated prior to 1907, and still exist in 2000. 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.

	Dependent variable: C3			
	(1)	(2)	(3)	(4)
Size	-0.029	-0.031	-0.033	-0.034
	-1.34	-1.47	-1.61	-1.66
1914dummy	0.038	0.028	0.038	0.044
	0.98	0.72	0.98	1.11
S_Cordum	-0.106			
	-2.31**			
B_Cordum		-0.100		
		-2.24**		
S&B Cordum			-0.108	-0.112
			-2.53**	-2.59**
Aristocracy dummy				-0.061
				-0.71
Constant	0.636	0.668	0.672	0.685
	2.86***	3.05***	3.14***	3.17***
Industry dummy	YES	YES	YES	YES
Adjusted R^2	0.43	0.43	0.44	0.43
No. Obs.	76	76	76	76

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

Panel A: The Effect of Zaibatsu on Ownership Dispersion in the 1930s.
The sample includes 66 firms which are (re)incorporated before 1918 and are still in existence today. 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. The table provides the results of a regression of a measure of dispersion on the presence of a company-affiliated Zaibatsu. The dependent variable is C3 which is the aggregate ownership of top 3 shareholders. Independent variables include: LagDA is debt divided by assets in 1932 at the beginning of the estimation period, Lagsize 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; Cordum is a dummy variable that equals 1 if the business co-ordinator took a position on the board, otherwise zero. The ***, **, * denote 1%, 5% and 10% significance levels, respectively. The t-statistics are included.

	Dependent variable: C3 in 1937	**Dependent variable: Change in C3 from 1928 to 1937**	
	(1)	(2)	(3)
LagDA	0.119	0.017	0.026
	0.85	0.22	0.24
Lagsize	-0.068	-0.021	-0.008
	-2.59*	-1.06	-0.36
Dcap	--	--	-0.124***
			-3.49
Zaibatsu	0.210	-0.130	-0.149
	3.37***	-3.27***	-3.20***
Cordum	0.093	0.097	0.098
	1.79*	2.58**	2.53**
Cons	0.822	0.189	0.020
	2.87***	0.87	0.09
Industry dummy	YES	NO	YES
No. Obs.	66	66	65
F-stat	6.32	6.23	3.49
R^2	0.515	0.243	0.352

Panel B: The Effect of Zaibatsu on Equity Finance

The panel 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, Lagsize 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; Cordum is a dummy variable that equals 1 if the business co-ordinator took a position on the board, otherwise zero. The t-statistics are also reported. The ***, **, * denote significance at the 1%, 5% and 10% level, respectively. The t-statistics are in lower low.

Dep. Var.:	**New equity capital (1933-1937)/total assets_t-1**		
	(1)	(2)	(3)
Lagcap	-0.12	-0.10	-0.10
	-3.39***	-3.14***	-2.95***
Lagsize	-0.00	-0.00	-0.00
	-0.03	-0.30	-0.38
Invest	0.55	0.53	0.52
	11.30***	10.99***	10.16***
ROE	-	-	0.03
			0.34
Zaibatsu	0.02	0.02	0.02
	2.40**	2.47**	2.04**
Cordum	-0.00	0.00	0.00
	-0.18	0.29	0.18
Cons	0.08	0.09	0.09
	1.37	1.55	1.54
Year dummy	NO	YES	YES
No. Obs.	329	329	319
F-stat	31.04	21.11	17.9
R^2	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 ⊿**INSIDE** from 1950 to 1955. The independent variables are: **ln** 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. ***, **, * denote significance at the 1%, 5% and 10% level, respectively. The t-statistics are in parentheses.

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).

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

	Dependent Variable: ⊿INSIDE			
	(1)	(2)	(3)	(4)
Insider ownership in t-1	-0.705***	-0.705***	-	-0.686***
	(-8.42)	(-8.49)		(-8.22)
Ln size	-0.015	-0.015	0.001	-0.033
	(-0.78)	(-0.78)	(0.03)	(-1.67)
Distress dummy	-0.007	-	-	-
	(-0.13)			
Debt to assets ratio	0.201**	0.201**	0.321***	0.178*
	(2.10)	(2.11)	(2.64)	(1.76)
HCLC	0.149***	0.149***	0.117**	0.145***
	(3.63)	(3.65)	(2.24)	(3.16)
_cons	0.242	0.241	-0.030	0.479**
	(1.28)	(1.28)	(-0.12)	(2.4)
Industry Dummy	NO	NO	NO	YES
No of Observation	111	111	111	111
Adjusted R^2	0.44	0.45	0.08	0.50

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

	Top 30: 1955-1974			Whole sample: 1964-1969		Whole sample: 1969-1974	
Dependent variable: change in % of insider holdings	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Insider ownership in 1955			-0.14				
			(-0.86)				
No. of share issues	0.0105**	0.011**	0.01**	-0.001	-0.001	-0.007	-0.002
	(2.35)	(1.82)	(2.25)	(-0.1)	(-0.2)	(-1.18)	(-0.33)
Price support institutional ownership	0.632*	0.585	0.62*	0.449*	0.726***		
	(1.87)	(1.32)	(1.83)	(1.85)	(2.99)		
lnassets 1974	-0.025*	-0.01	-0.025*				
	(-1.77)	(-0.55)	(-1.78)				
# of yrs of negative ROA	0.012*	0.004	0.011	0.0005	-0.012	-0.017*	-0.028***
	(1.72)	(0.49)	(1.54)	(0.07)	(-1.61)	(-1.82)	-2.88
Keiretsu membership dummy	-0.091*	-0.011*	-0.095**	-0.05**	-0.045**	-0.021	-0.021
	(-1.95)	(-1.88)	(-2.02)	(-2.43)	(-2.17)	(-0.95)	(-0.92)
Leverage (Debt:asset ratio)				-0.068	-0.002	-0.056	0.028
				(-0.88)	(-0.03)	(-0.89)	0.41
Individual ownership				0.081	0.15*	0.346***	0.317***
				(0.237)	(1.87)	(4.87)	(4.14)
# of new seasoned issues						0.041**	0.039**
						(2.33)	(2.09)
Foreign ownership				-0.0006	-0.0012	0.002**	0.001
				(-0.67)	(-1.41)	(2.11)	(0.87)
Cons	0.546	0.46	0.58	0.059	0.047	-0.093**	-0.074*
	(3.4)	(2.16)	(3.49)	(1)	(0.79)	(-2.18)	(-1.6)
No of Observation	30	30	30	106	106	99	99
Adjusted R^2	0.264	0.128	0.256	0.08	0.218	0.24	0.23