Chapter 1. Introduction

> Mathematics is the study of analogies between analogies. All science is. Scientists want to show that things that don't look alike are really the same. That is one of their innermost Freudian motivations. In fact, that is what we mean by understanding.[1]
>
> Gian-Carlo Rota

Japan is different from the West,[2] or so we are often told. However, thanks to the tide of multiculturalism, being different is no longer considered being inferior to the West, and now there is a stable demand for the study, both academic and practical, of Japanese economy. Dun & Bradstreet (Morrison et al. 1997) gives us many useful tips on cultural difference for U.S. executives.

1. Education, however, is the seminal event in the lives of most... citizens. [Their] schools are rigorous, assigning so much homework that children have little time for either mischief or other activities.

2. [This country] remains a patriarchal country. Women's rights have come late to [this country]; it wasn't until 1923 that women acquired the right to open their own mail! Sexual harassment has been illegal only since 1992.

3. Social factors are as important as religion towards regulating [their] behavior. There is a great desire for order and control.

4. [They] are sticklers for titles. Try to address people by their full, correct title, no matter how extraordinarily long that title may seem to foreigners.

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[1] Rota (1997, p. 214).

[2] Despite the pervasive and uncritical use of the word, it is unclear what "the West" (or " western") means, no less "the East." See Lewis and Wigen (1997) for the critical assessment of the West/something else binarism. However, the United States seems to be included in the category with unanimous consensus.

5. [T]hey also exhibit a large degree of conformity of behavior. From its clockwork punctuality to its clean-swept streets, [this country] would not run so smoothly unless most of its citizens agreed on proper behavior.

6. [They] generally avoid confrontation. They must reach a consensus with all parties before agreeing to a deal.

7. [They] believe that they have developed a fair and beneficent society, and exert strong social pressures on their citizens to conform [their] patterns of behavior.

8. Age and seniority are important in [this country]. Avoid sending a young executive alone to [this country]; he or she will not be taken seriously. Expect to defer to the elderly.

9. [They] seem to apologize often, even over seemingly inconsequential events or for things over which they have no control.

Do they sound Japanese? No; items 1 and 2 are about France, 3 and 4 about Germany, 5 about the Netherlands, 6 about Sweden, 7 and 8 about Switzerland, and 9 about the United Kingdom.[3] The moral is that every nation is different from others. They are different from us simply means we are different from them. What is to be asked is how and to what degree *we* are different.

The following analysis is not so broad, however. I concentrate on difference between Japan and the United States with respect to how large publicly held companies are run. Specifically, I focus on functioning of Japanese corporate groups. The widely held picture of Japanese corporate groups could be outlined as follows:

There is a small number - say, six - of corporate groups (kigyo shudan). Mitsui, Mitsubishi, and Sumitomo are the representative. Member firms of each group form a tight organization and take concerted action, as if each member is a division of the whole. A large bank is at the

[3] By almost any definition, these countries constitute the core of the "West." Words which show identity such as "German" are changed into general words as bracketed.

> core of each group and has a close ‘main bank’ relationship with the other members. Those corporate groups dominate the Japanese economy.[4]

Corporate groups are often regarded as bank-centered *keiretesu*[5] because banks are alleged to occupy the central role in corporate groups. It is widely held that:

> In Japan, trade relationships are long-term and exclusive; therefore it is hard to begin business with new partners or to enter new markets. Foreign firms feel this constraint strongly.[6]

Therefore, the bank-centered corporate group is supposed to constitute the wall that closes Japanese economy to the outsiders. This wall is complemented by the central government, the Ministry of International Trade and Industry (MITI) in particular, who guide and intervene in industries at will. The whole structure has been labeled Japan, Inc.

I compare these “stylized facts” with data. I draw a big picture of Japanese corporate groups in Chapter 2. I critically examine this widely held perception in Chapters 3, 4, 5, and 6 using the Mitsubishi group as a specific example: group loans and main bank in Chapter 3, group cross shareholdings in Chapter 4, top management in Chapter 5, and group transactions in Chapter 6. Chapter 7 is a summary statement on Japanese corporate groups.

In light of these findings as well as others, Chapters 8 and 9 examine broader issues which are relevant to Japanese as well as other advanced economies: why do professional mangers exist and who disciplines these managers?

In Chapter 10 (and Appendix 2), I digress a little by examining why the corporate group dominance view is so popular among researchers on both sides of the Pacific.

Chapter 11 presents conclusions of the work.[7]

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[4] Miwa (1996, p. 11). However, what he does in this magnificent work is to debunk this “misconception.” What I want to do here, as readers will soon realize, is to follow suit.

[5] In this analysis, I use *keiretsu* for a specific relation distinct from corporate groups. See Chapter 6 for detail.

[6] Miwa (1996, p. 15).

[7] In Appendix 3 I clarify my research methods in some detail.

Chapter 2. What are corporate groups?

It is important to distinguish *kigyo shudan* and *kigyo gurupu*, although both are called corporate groups in general. The former is what we analyze here; they consist of companies in different industries and the relation among group members is claimed to be more horizontal than vertical, though the city bank is often claimed to occupy a dominant position. Also, *kigyo shudan* is conceptually different from grouping under the main bank relation. The main bank relation is between a bank and a borrower only and the relation among borrowers under the same main bank is beyond the scope of the main bank argument, but a topic dealt with in the corporate group argument.

There are many definitions on the membership of *kigyo shudan*. Some researchers use various measures such as shareholdings and bank loans for grouping. However, what such an exercise is doing is to define closely connected companies as closely connected companies![8] In order to avoid circularity, we need some exogenous indices to define the group membership. Fortunately, some leading companies form *shachokai*, presidents' meeting, which is held regularly[9] and seems to signify an at least certain friendly relation, though it is improbable that a two-hour lunch cum lecture[10] is anything more than a social gathering for presidents from diverse industries chatting in a friendly atmosphere.[11] Among them, Mitsubishi, Mitsui, Sumitomo, Fuji,[12] Daiichi Kangyo (DKB) and Sanwa groups are called the big six *kigyo shudan*.

These six *kigyo shudan* are divided into two distinct categories, however. Mitsubishi, Mitsui and Sumitomo are called ex-*zaibatsu* groups and member companies used to belong to the respective *zaibatsu* groups until they were dissolved by the U.S. occupation

[8] Ito and Hoshi (1992, p. 75) point out this circularity.
[9] Usually once a month.
[10] By academics, journalists etc.
[11] Miwa (1996, pp. 11-12). Also, it is said that attendance is not always high.
[12] This group is generally called Fuyo group in Japan. But, in order to clarify the alleged centrality of Fuji Bank, I refer to it as the Fuji group throughout. Other financial institutions in this group use Yasuda in their corporate names because these financial institutions including Yasuda (Fuji) Bank formed the Yasuda financial *zaibatsu* before the war.

forces. Because the word *zaibatsu* is liberally used for different meanings,[13] it is necessary to define it explicitly for further analysis. In the *zaibatsu* system, which was not unlike the trust in the United States early in this century, the holding company closely held by a particular family controlled companies in *different* industries through shareholdings, though many member companies were held publicly and the holding company often had only minority shares.[14] Among many *zaibatsu*, only the Mitsubishi, Mitsui and Sumitomo *zaibatsu* satisfy this definition. Therefore, such *zaibatsu* as the Yasuda, Nomura and Kawasaki are excluded from *my* definition of *zaibatsu* because they were family-controlled big business concerns concentrated in *specific* industries. On the other hand, Fuji, DKB and Sanwa are called bank-centered groups and they have formed groups through the main bank relation with the respective city banks since the end of the war.

Although both types of corporate groups are often lumped together among non-Japanese scholars, it is unanimously agreed among Japanese scholars that the ex-*zaibatsu* groups are more cohesive than the bank-centered groups. For example, bank-centered groups include many rival companies in the *same* industries. Also, cross shareholdings between non-financial companies in bank-centered groups are much more limited than in ex-*zaibatsu* groups. The relation among bank-centered group companies is rather indistinguishable from the main bank relation. Moreover, these three bank-centered groups are also indistinguishable from such bank-centered groups as the Tokai[15] and Daiwa groups except for their size. Although the respective city banks were the six largest banks in the

[13] Any family-controlled big business tends to be called *zaibatsu*. Therefore, we often encounter the expression such as the Ford *zaibatsu* and Mellon *zaibatsu*. See Hashimoto et al. (1992), Shimotani (1993), Morikawa (1996) and Kikkawa (1996) for the state-of-the-art analysis of *zaibatsu*.

[14] Actually, in the early 1930s, the control of member companies by the *zaibatsu* headquarters has already become loosened. See Chapter 8 for more detailed discussion. Also, such companies as Tokio Marine, Asahi Glass and Nippon Yusen in the Mitsubishi group did not belong to the *zaibatsu* formally, though the *zaibatsu* headquarters held substantial shares. Rather, the Mitsubishi *zaibatsu* had rival companies such as Mitsubishi Marine and Mitsubishi Kisen. In addition, Toyota, which is often claimed to belong to the Mitsui group, was unrelated to the Mitsui *zaibatsu*, though it used to borrow from Mitsui (now Sakura) Bank, and is an observer of the Mitsui *shachokai* now. The following facts attest to Toyota's weak, if any, relation with the Mitsui group: Tokai Bank and Sanwa Bank hold the same share (4.9 percent) of Toyota as Sakura Bank does; Toyota's stock transfer agent is Toyo Trust, Sanwa's trust bank; Nippon Yusen, a Mitsubishi carrier, transports more Toyota cars for export than Mitsui OSK Line; and the main bank of Toyota Tsusho, Toyota's trading company, is Tokai Bank (Toyota itself is loan free).

[15] Before the merger with Taiyo Kobe Bank, the size of Mitsui Bank was comparable to that of Tokai Bank. The Tokai group seems to be unfairly neglected by researchers.

1930s,[16] there does not seem to exist any convincing reason why scholars and practitioners focus their attention on the six groups today. However, whether the number of corporate groups is six or more, if there is any substance in corporate groups, it should surely be found in the three ex-*zaibatsu* groups.

What is *kigyo gurupu*? *Kigyo gurupu* is an economically integrated unit consisting of legally separated companies. Typically, one core company exists and coordinates the decision making among group companies that include its subsidiaries and affiliated companies.[17] The activities of the group are summarized with consolidated financial statements[18] if the core company is listed on stock exchanges. The group of this kind is not in any sense uniquely Japanese. For example, what we call General Motors consists of not only GM as a single legal entity but also hundreds of subsidiaries worldwide. In that sense, there are the Mitsubishi Heavy Industries group, Toyota group, NEC group etc. If any uniqueness exists, it should be not in *kigyo gurupu* but in *kigyo shudan*.[19] However, in a sense, *kigyo shudan* is not entirely unique either. If *kigyo shudan* companies were tightly controlled through fund allocation as often claimed, it could be regarded as a conglomerate that is not an unknown business form in the United States. Though the diversity may be unheard of in the United States (from beer to nuclear reactor), the size is relatively modest as described below.

The relation between *kigyo shudan* and *kigyo gurupu* can be depicted in Figure 1. For example, Mitsubishi Corporation, a Mitsubishi *sogo-shosha* (trading company), is both a member of the Mitsubishi group (*kigyo shudan*) and the core company of the Mitsubishi Corporation group (*kigyo gurupu*). In order to distinguish two entirely different concepts, Shimotani (1993, pp. 132-133) proposes we should set aside corporate group for *kigyo gurupu* and use corporate complex for *kigyo shudan*. Although it is a sensible idea worth listening to, nevertheless I use corporate group for *kigyo shudan* because I believe there is little confusion for readers in this analysis. If there is any need to distinguish in the following analysis, I will use *kigyo shudan* and *kigyo gurupu* for clarification.

[16] Before the inception of Sanwa Bank in 1933, the other banks were called the big five banks.
[17] See Chapter 4 for a precise definition.
[18] Member companies with a less than 20 percent shareholding are not included.
[19] Shimotani (1993) also emphasizes this distinction.

In the following analysis of corporate groups, I focus on the Mitsubishi group.[20] Because the Mitsubishi group is said to be the most integrated group even among the ex-*zaibatsu* groups and actually the only group which is free from dual membership (all other five groups have at least one member which belongs to another group.), we expect to find the strongest ties within this group. In other words, should we not find such ties within the Mitsubishi group, we would have reasons to doubt the substantive content of the corporate group concept. Although the dual membership at the Mitsui and Sumitomo groups is due to inter-group mergers, that at the three bank-centered groups is not limited to mergers. For example, Hitachi belongs to all three bank-centered groups. This fact casts doubt on the alleged exclusiveness of groups, three bank-centered ones in particular.

Before starting a detailed analysis, I want to give readers a big picture on how large these corporate groups are. It is claimed that corporate groups dominate the Japanese economy. However, as Miwa (1994b, p. 97; 1996, p. 12) points out, even the combined share of the six corporate groups is not particularly large. For example, in 1996, the six corporate groups account for 3.6 percent of employment, 11.2 percent of gross assets, and 12.6 percent of sales of all Japanese companies.[21] The Mitsubishi group's figures are respectively 0.5 percent, 1.8 percent and 2.0 percent. Some argue that figures would be much larger if subsidiaries were included. Fortunately, the Japanese Fair Trade Commission (FTC)[22] published the report that includes data on subsidiaries (FTC 1994). According to the report, in 1993, the six corporate group companies and its subsidiaries explain

[20] The list of member companies is in Appendix 1. Throughout the analysis, financial data are as of March 31, 1996, and personnel data as of June 30, 1996 based on *Yukashoken hokokusho soran* (Ministry of Finance, 1996) and/or Toyo Keizai Shimpo-sha (1996c, 1997a) unless otherwise stated. The latter is based on the former and some original sources, and I put priority on the former if figures are different. As for personnel data concerning non-Mitsubishi companies and governmental agencies, I use Toyo Keizai Shimpo-sha (1996a, 1996b). Mitsubishi Bank merged with the Bank of Tokyo on April 1, 1996, and was renamed as the Bank of Tokyo Mitsubishi. However, the analysis here is based on the pre-merger data except for personnel ones and I use the older name, Mitsubishi Bank, throughout. Also, I exclude two closely held companies, Mitsubishi Aluminum and Mitsubishi Research Institute from most of the analysis due to unavailability of data.

[21] In 1930, the share of the three *zaibatsu*, Mitsubishi, Sumitomo and Mitsui, in the stated capital was 14.0 percent (Hashimoto 1992, p. 130). If we add Yasuda, the figure was 14.5 percent. These figures are not consistent with the view that the three *zaibatsu* dominated the prewar Japanese economy.

[22] This organization is equivalent to the U.S. Federal Trade Commission. Actually, the Japanese FTC was enacted through the Anti-Monopoly Act established by the U.S. occupation forces.

16.7 percent of gross assets and 18.4 percent of sales.[23] The Mitsubishi group's figures are 2.6 percent and 2.7 percent. For a comparison, take some U.S. examples.[24] First, General Motors: the number of U.S. employees excluding subsidiaries is about 300,000 in 1997, which exceeds that of the entire Mitsubishi group companies; the amount of sales is 164 billion dollars in 1996, which is about 20 trillion yen,[25] two thirds of the all non-financial Mitsubishi companies, and exceeds by 5 trillion yen if Mitsubishi Corporation is excluded. Second, the number of employees in Wal-Mart is about 700,000 in 1997, which is equal to that of Mitsubishi, Mitsui and Sumitomo group companies combined,[26] and the sales is 105 billion dollars in 1996, which is about 13 trillion yen and little less than that of all Mitsubishi non-financial companies but Mitsubishi Corporation. Even if each Japanese group were tightly knit, its combined influence would be comparable to *one* giant U.S. company (*kigyo gurupu*).

[23] No data for employment.
[24] The data are from *The Wall Street Journal*, August 28, 1997. The size of U.S. economy is roughly twice as large as that of Japanese economy.
[25] $1 = 120 yen.
[26] This comparison may be inaccurate because the number of Wal-Mart employees can be on a consolidated basis.

Chapter 3. Group loans and main bank

The most conspicuous characteristic of the Japanese financial system is that each institution is severely restricted to a specific domain of financial service.[27] In Japan and the United States, unlike continental European countries, the law does not permit universal banking. The Japanese Securities and Exchanges Law was enacted during the U.S. occupation era, and heavily influenced by the U.S. Act itself. Article 65 prohibits banks from engaging in securities business, though more and more exceptions have been made recently. Because of this clause, brokerage houses such as Nomura Securities have become as powerful as banks in spite of their prewar insignificance.

Another shared characteristic with the U.S. system is that there are many small deposit-taking institutions. In 1995, apart from 150 banks, there are more than 3,000 small institutions, whose combined deposit amounts to 239 trillion yen and roughly equal to the deposit of all 11 city banks.[28] If we exclude the super giant postal savings (211 trillion yen), the entire amount of fund in Japan is about 1,142 trillion yen, and the combined share of 11 city banks, 3 long-term banks and 7 trust banks,[29] which are often claimed to be the core of the Japanese main bank system, is only 40 percent. In other words, the majority of funds are in the hands of small institutions. In addition, those larger institutions concentrate, or rather are forced to do, their lending in Tokyo and Osaka areas where most of their branches exist. The Ministry of Finance (MOF) uses its legal authority[30] to severely restrict the opening of a new branch in non-Tokyo/Osaka areas in order to "protect" regional banks. It implies that city banks cannot offer service to employees of group companies living outside Tokyo and Osaka areas.[31] Therefore, 129 regional banks and other small deposit-taking institutions are dominant in other areas. As a general rule those

[27] Now the entire system is under the complete overhaul, but I focus on the current practice as of 1997.
[28] These data are from Keizai Koho Center (1996). Due to the merger of Mitsubishi Bank and the Bank of Tokyo, there are ten city banks at the end of 1997. Also, Hokkaido Takushoku Bank got bankrupt in 1997 and will cease to exist soon.
[29] There are another *17 shintaku kogaisha*, trust bank subsidiaries in 1997.
[30] Article 8 of the Banking Law requires the MOF's approval for opening new branches.
[31] It is often claim that group companies require their employees to open an account at a branch of the main bank. However, in many cases, a necessary condition, the existence of a branch, is not satisfied.

regional banks in turn are restricted to have branches in one prefecture.[32] This prefecture by prefecture segmentation of the market is not unlike the restriction of interstate banking in the United States.

Although the Japanese financial system is closer to the U.S. system than usually believed, there is a marked difference. In Japan, banks are not only barred from securities business, but also long-term and short-term deposits are segregated among banks.[33] The long-term credit banks[34] and trust banks[35] specialize in the former and city banks[36] and regional banks in the latter. In a sense, the segmentation of banking in Japan is more rigid than that in the United States. The separation has been relaxed recently, but its influence on the banking industry has not yet disappeared substantially. For example, 86 percent of the time deposit of Mitsubishi Bank, one of the city banks, is short-term with less than one year to maturity. This restriction on the deposit side affects the lending by city banks as discussed later, though there is no restriction on the term of lending.

Insurance companies are also very important in Japan. As banks are partitioned by the type of deposits, they are divided between life and property insurance companies.[37] Because, considering the size[38] and influence on the economy, life insurance companies are much more important than property ones, I focus on the former. The distinctive characteristic of life insurance companies is that larger ones are mutual, not limited, companies. Therefore, by definition, *inter*locking shareholdings of such companies is impossible,

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[32] There are 47 prefectures in Japan. The governors are elected directly as in the United States and their relative size of expenditure to that of the central government is comparable to those in such federal states as the United States and Germany. The recent conflict between the central government and the Okinawa prefectural government concerning U.S. bases shows the relative strength and independence of prefectures in Japan.

[33] It is called *chotan-bunri*, long/short separation.

[34] They are allowed to issue long-term bonds with a fixed interest.

[35] Although they are called trust banks, trust business has been peripheral to them until recently, and their main product has been *kashitsuke-shintaku* trust, which is actually a long-term deposit with a variable interest backed by the deposit insurance and used for long-term lending. *Kashitsuke* means lending. Miwa (1994a) is a very detailed and critical account of this peculiar practice.

[36] Although the Bank of Tokyo was classified as a city bank, it specialized in foreign transaction with relatively few domestic branches and was allowed to issue long-term bonds. The bank was also considered a favorite of the MOF whose retired officials often became its president and/or chairman. Toyoo Gyohten, a former vice-minister for international affairs of the MOF, is a well-known example.

[37] Recently life and property insurance companies have been allowed to set up a subsidiary engaged in the other business.

[38] Nippon Life, the (world's) largest life insurer, is eight times as large as Tokio Marine, the largest property insurer in terms of gross assets.

though unilateral holding is possible. They specialize in long-term lending as discussed below. Also the two largest insurance companies, Nippon Life and Daiichi Life[39] are independent in the sense that they distance themselves from any corporate group. It is true that Nippon Life is claimed to be a member of the Sanwa group because the former belongs to the Sanwa *shachokai* and Nippon Life is the largest shareholder of Sanwa Bank (4.5 percent), but, in the Japanese business world, even those who assert the importance of corporate groups do not claim Nippon Life is under any influence of Sanwa Bank, or vice versa. On the other hand, Daido Life, a much smaller life insurer, is said to be close to Sanwa Bank.[40] Nippon Life holds a more than 4 percent share of the Industrial Bank of Japan (IBJ), Sumitomo Bank and the Bank of Tokyo (before merger) among others.[41] The fact that Nippon Life's only director from a bank is not from Sanwa Bank but the IBJ confirms the relationship between Nippon Life and Sanwa Bank is weak at best.

As for securities companies, the Big Four, Nomura, Daiwa,[42] Nikko and Yamaichi[43] Securities, are dominant and they are not affiliated with any corporate group, though Nomura and Daiwa Bank[44] have some ties due to historical backgrounds and Nikko is said to be close to the Mitsubishi group. However, there is no exchange of directors between the Big Four brokerage houses and leading banks.

Keeping the above background information in mind, let's look at the lending pattern in the Mitsubishi group. Tables 1, 2 and 3 show the shares of long-term, short-term and total loans by lenders, respectively. As for long-term loan (Table 1), 21[45] non-financial companies borrow only 21.3 percent of their loans from group financial institutions[46] including 6.8 percent from Mitsubishi Bank, 4.9 percent from Mitsubishi Trust,

[39] No relation with Daiichi Kangyo Bank (DKB).
[40] One of Daido Life's managing directors is from Sanwa Bank. Daido Life also maintains a close business tie with AIG.
[41] Nippon Life is also the largest shareholder of Sakura Bank, a Mitsui city bank, with 3.4 percent.
[42] Not related to Daiwa Bank.
[43] Yamaichi got bankrupt in 1998, leaving the Big Three security companies. Yamaichi was said to be close to Fuji Bank. However, Fuji simply let it sink refusing any substantial commitment, although Fuji claimed that it would do as much as possible to help until the final stage. This is a telling example that talk is cheap.
[44] At the time of this writing, there are persistent rumors that Sumitomo Bank may take over Daiwa Bank.
[45] There are 22 non-financial companies, but Asahi Glass is a loan free company like Toyota and Matsushita.
[46] Mitsubishi financial institutions are: Mitsubishi Bank, Mitsubishi Trust, Meiji Life and Tokio Marine. If we include Nippon Trust and the Bank of Tokyo, the figure is 23.9 percent. Nippon Trust has become a subsidiary of Mitsubishi Bank due to financial difficulties in 1994 though not considered a Mitsubishi com-

and 9.3 percent from Meiji Life. On the other hand, they borrow 78.7 percent from non-Mitsubishi institutions including 12.4 percent from Export-Import Bank, 7.6 percent from Japan Development Bank, 6.2 percent from Nippon Life, 5.8 percent from IBJ and 4.6 percent from Sumitomo Life.

As for short-term loan (Table 2), group affiliation seems to matter a little, but not much. 20[47] companies borrow 26.5 percent[48] from Mitsubishi institutions including 17.8 percent from Mitsubishi Bank and 8.2 percent from Mitsubishi Trust. On the other hand, they borrow 73.5 percent from non-Mitsubishi institutions including 6.3 percent from DKB, 4.9 percent from Sakura Bank, 4.5 percent from Norin Chukin and 4.2 percent from Tokai Bank. In total (Table 3), 21 companies borrow 23.5 percent[49] from Mitsubishi institutions including 10.7 percent from Mitsubishi Bank, 6.1 percent from Mitsubishi Trust and 6.2 percent from Meiji Life. On the other hand, they borrow 76.5 percent from non-Mitsubishi institutions including 8.1 percent from Export-Import Bank, 4.9 percent from Japan Development Bank, and 4.1 percent each from IBJ and Nippon Life.

What is clearly seen from these data are: Mitsubishi companies are not particularly dependent on Mitsubishi financial institutions; they diversify the sources of funding extensively; they quite naturally borrow long-term loan from long-term oriented institutions such as long-term credit banks, trust banks, life insurance companies and governmental agencies, and short-term one from short-term oriented ones such as city banks regardless of the group affiliation. From the data above, it is likely that there is no bank control of non-financial companies, and rather that financial institutions fiercely compete with each other for lending across the group boundaries.

It is a "stylized fact" that main banks control Japanese industries as delegated monitors under implicit contract. The main bank research is burgeoning and there are many interesting ideas, but I can safely recommend Aoki and Patrick (1994) as a collection of state-of-the-art works in English.[50] On the other hand, some researchers are skep-

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pany nor a member of *shachokai*. The Bank of Tokyo merged with Mitsubishi Bank in April 1996. Whether we include both of them or not, the overall picture does not change.

[47] Nippon Yusen does not separately disclose long- and short-term loans.

[48] 31.2 percent if Nippon Trust and the Bank of Tokyo are included.

[49] 26.5 percent if Nippon Trust and the Bank of Tokyo are included.

[50] Also, Horiuchi (1989) and Prowse (1996) are nice summaries.

tical of the main bank story, though the number is still limited. Among them, Miwa (1990, 1991a, 1996) is the most iconoclastic and entirely denies the main bank story.[51] Arguments on the main bank story are often confusing largely because what the main bank means is not clear, but the bottom line seems to be as follows: the main bank (1) lends (much) more than any other banks[52]; (2) keeps watch on the management of the borrower intensively as a delegated monitor; (3) help the borrower as much as possible in financial distress; (4) maintains the relation almost indefinitely. Although (2) and (3) are not directly observable, we can check (1) and (4). I take being the stable largest lender as a *necessary* condition for being a main bank. Although, some researchers claim the main bank is not necessarily the largest lender, such a flexible definition of main bank would make the argument too fuzzy and too difficult to operationalize.

Before discussing the Mitsubishi case, I want to mention another point usually left unexplained: why there is no main bank contract at all. As Ramseyer (1994a) points out, considering the amount of money at stake, cost for contracting seems relatively insignificant. Pervasive use of collateral in loan agreement defies usual cultural explanations against legal contract. It seems simpler to infer non-existence of the alleged main bank relation from non-existence of contract rather than constructing complicated models to "prove" the existence of an "implicit" contract.

The overall picture, the fact that Mitsubishi Bank's share in long-term lending is only 6.8 percent[53] and that in total lending 10.7 percent[54] in particular, casts strong doubt on the main bank literature because even companies of the allegedly most tightly knit group do not rely much on the main bank. The FTC (1994) reports the largest lender's average loan share of all listed companies is 27.4 percent in 1993. Therefore, Mitsubishi companies are less dependent on the main bank (Mitsubishi Bank). [55] It may be argued

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[51] Other important works are Ramseyer (1990, 1991, 1993, 1994a) and Odagiri (1992a, 1992b). Quite predictably, authors except Ramseyer in Aoki and Patrick (1994) ignore Miwa's work. On the other hand, Shikano (1994), one of the best works in Japanese, sincerely tries to respond to Miwa's criticism.
[52] Governmental agencies and life insurers are not usually regarded as main banks even if they lend more than any bank.
[53] 10.3 percent if we exclude Mitsubishi Corporation, which is the largest borrower.
[54] 14.2 percent without Mitsubishi Corporation.
[55] Among non-governmental banks, Mitsubishi Bank is the top lender for 19 out of 21 Mitsubishi companies. As for the remaining two, Mitsubishi Construction and Nippon Yusen, Mitsubishi Trust is the largest lender for the former and IBJ for the latter, though Mitsubishi Bank is the close second in both cases.

that the relatively large loan amount of Mitsubishi companies explains the smaller share of the main bank, although it is not clear why the main bank reduces its share when the size of loan increases. Rather, it is not consistent with the assertion that main banks help borrowers in need. Whatever reason is behind, the elasticity of the main bank (Mitsubishi Bank) lending to the total amount borrowed is less than one (0.75) for 21 Mitsubishi companies (Figure 2). The regression results[56] are as follows:

$$\ln(\text{Loan from Mitsubishi Bank}) = -0.73 + 0.75 \cdot \ln(\text{Total Loan}).$$

Standard error of the coefficient[57] = 0.06 and $R^2 = 0.88$.

Then,

$$\text{Loan from Mitsubishi Bank/ Total Loan} = 0.48 \cdot (\text{Total Loan})^{-0.25}.$$

In 1996, the weighted average loan amount of all listed companies excluding loan free ones[58] is 63 billion yen. If a hypothetical Mitsubishi company with this loan amount were to exist, the share of Mitsubishi Bank would be 17 percent, which is smaller than 27.4 percent. It means Mitsubishi group companies are *less* dependent on the main bank (Mitsubishi Bank) on average even if we take the size into account. Also, the similar elasticity (0.80)[59] obtains with the loan amount of Mitsubishi Bank, Mitsubishi Trust and Meiji Life combined (Figure 3). Again, it shows that the bigger a group company becomes, the less dependent the company is on group financial institutions.

The relatively low dependence on Mitsubishi Bank is *not* a recent phenomenon. Table 4 shows the degree of dependence was not very high (less than one third) even in the 1950s and 1960s, the alleged heyday of the main bank control.

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[56] There is no marked difference between the results with and without Mitsubishi Corporation, by far the largest borrower. Therefore, I only report the results including the company.

[57] I follow the sensible but ignored advice of Goldberger (1991): "In presenting the results of an empirical study, a correct practice is to report the regression coefficients b_j along with their standard errors σ_{bj}. This gives readers the information they need to construct a confidence interval for each regression coefficient, and to test a hypothesis about any one of them. It is common practice to report the regression coefficients along with their '*t*-ratios' or '*t*-statistics,' the $u_j = b_j / \sigma_{bj}$, and to say, if u_j is large, that b_j is 'significant,' meaning 'significantly different from zero.' This common practice is not a good one, because it encourages readers to consider only 'zero null hypothesis' $\beta_j = 0$, which are not necessarily the interesting ones."

[58] 12.9 percent of listed non-financial companies are bank loan free.

[59] Standard error is 0.06.

As for stability of relationships, the main bank story does not fare well as shown in Table 5.[60] Between 1973 and 1983 in which the main bank relation was thought to be stronger than today, 30 percent of Japan's largest companies[61] changed the main bank (the largest lender).[62] As Miwa (1996, p. 260) points out, "The stability suggested by these figures is similar to that of our relationship with barbers or dentists." There is no marked difference between group companies (70 percent) and non-group companies (66 percent). It is noteworthy that 15 percent of bank-centered group companies maintain the main bank relation with banks *outside the group*. If we focus on city banks, often claimed *the* main banks, the figure is mere 41 percent, though much higher for group companies (55 percent).[63] Because of the long/short deposit separation, city banks and trust banks may play complementary roles. If we add the number of change[64] between a city bank and a trust bank to that of no change, the figure for ex-*zaibatsu* group companies increases substantially from 68 percent to 87 percent,[65] but not much for bank-centered ones (71 percent to 73 percent) as well as non-group ones (66 percent to 72 percent). Accordingly, there is no complementary relation between a city bank and a trust bank except among ex-*zaibatsu* group companies. These results show: if any stable main bank relation exists, it is only among ex-*zaibatsu* group; bank-centered groups do not have much substance.

Once we unshackle ourselves from the conventional wisdom on Japanese economy, the picture is not surprising at all. Considering the concentration on short-term deposits, city banks are not expected to offer much long-term lending,[66] which is vital for any company. In 1993, the city banks lent 54.9 percent of the total loan in long-term (more than one year), while the same figure was only 29.3 percent in 1975.[67] On the other hand, there is a reverse tendency in the lending of the long-term credit banks; their long-

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[60] The data are from Miwa (1990, pp. 148-149). Other studies summarized in Okazaki (1992, p. 321) confirm Miwa's results.
[61] Companies listed on the first tier section of the Tokyo Stock Exchange.
[62] Because being the largest lender is a (minimal) *necessary* condition, some (many?) companies may not maintain any main bank relation at all.
[63] 65 percent for Mitsubishi companies.
[64] This change is not necessarily between the same group banks, though it actually is among ex-*zaibatsu* group companies (Miwa 1996, p. 261)
[65] 83 percent if we exclude banks other than group ones.
[66] The necessity of duration matching was more pressing until the 1980s than today due to the lack of swap markets, though liquidity itself is not an issue for such large lenders.
[67] The Data are from Kuroda (1995, p. 298).

term lending dropped to 72.0 percent in 1993 from 92.5 percent in 1975. It is clear that the long/short separation in deposit still exerts influence, though the difference have narrowed.[68] Moreover, the near complete separation until the 1970s casts strong doubt on the main bank control even in the heyday of main banks. Another interesting fact that only 41.4 percent of Mitsubishi Bank's loan for group companies is long-term questions the importance of the main bank.[69]

However, it may be argued that a 23.2 percent share is substantial and others lend because the main bank monitors group companies. First, 23.2 percent is a combined figure of all group financial institutions. This view implicitly assumes that one of them, perhaps Mitsubishi Bank, dictates to other Mitsubishi group financial institutions where and how much to lend. However, no convincing evidence has ever been offered to support this premise.[70] As shown in Chapter 5, there is no current or former Mitsubishi Bank executive on the boards of other Mitsubishi financial institutions except Nippon Trust, which is a far smaller non-member subsidiary.[71] Mitsubishi Bank has no more than 5 percent of any company's stock except Nippon Trust. By definition, no one controls Meiji Life because it is a mutual company.[72] Also, if Mitsubishi Trust were under the control of Mitsubishi Bank, why would the latter need to acquire Nippon Trust at all? It is not limited to the Mitsubishi group. All other city banks have set up trust banks as subsidiaries when they were allowed to do so, and now fiercely compete with group trust banks.[73]

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[68] The development of swap transaction has facilitated the change.

[69] Some argue that part of loans classified as short-term are actually long-term because they are renewed automatically. It may be so. However, why does the main bank use such an unnecessary formality if renewal is really automatic? It is all the more perplexing considering the fact that Mitsubishi Bank lends 67 billion yen without collateral to JR East, a non-Mitsubishi railroad company, an amount greater than it lends to any Mitsubishi company as a long-term loan.

[70] There are countless anecdotes. But, many of them go the other way. It is said that the relation between Mitsubishi Bank and Mitsubishi Trust is not cordial, if put mildly. The relation between Sumitomo Bank and Sumitomo Trust is believed to be particularly adverse. The recent scandal discussed in Chapter 4 confirms the strikingly cynical relation between Sanwa Bank and Toyo Trust. In general, it seems that city bankers take patronizing attitudes toward trust banks and insurance companies.

[71] Though the chairman of Mitsubishi Bank is a part-time auditor of Tokio Marine, he cannot exert any substantial influence considering the nature of the job discussed in Chapter 5. In any case, Tokio Marine lends less than 10 billion yen to the entire Mitsubishi companies.

[72] Theoretically, each policy holder is an "owner," though.

[73] The recent reorganization of Yasuda Trust by Fuji bank does not contradict my claim. Fuji Bank has just mercilessly taken over Yasuda Trust, whose key directors have been forced to retire, i.e. fired.

Even if other Mitsubishi financial institutions were under Mitsubishi Bank's control, remaining 76 percent of funds are still borrowed from non-Mitsubishi financial institutions. If the main bank must incur the cost for obtaining superior information, how could the main bank mitigate the free-riding problem? If the main bank has superior information, how could it clear the suspicion of other institutions that the main bank would renege in financial distress? Indeed, it is observed that: lenders are suspicious each other, in particular, of the behavior of big lenders[74]; lenders are very sensitive to the (decreasing) change of their shares in lending; and contrary to the usual claim of the main bank view, lenders do not share information each other.[75]

It is claimed that banks honor their special obligations as main banks to maintain reputation. However, what would a bank lose if it lost reputation? If other banks continued to monitor a borrower with additional cost, that "bad boy' bank could free ride. This bank would not lose clients because many borrowers prefer this detached lender to nosy main banks, possibly with a lower rate due to the reduction of monitoring cost and/or to the submission of collateral.

It should be always optimal for the main bank to lend the whole amount in order to solve problems inherent in the existence of other lenders, caused by information asymmetries, though the following problem still remains. Money is a highly generic product, which implies there are many potential lenders to offer the same product with competitive conditions. This is all the more so for a short-term loan, which is the main product of city banks. Therefore, it is difficult for lenders to exercise discretionary powers against the will of borrowers and get more information than other potential and actual lenders receive. Hold-up problem cannot be an issue unless borrowers receive preferential treatment such as the lower than competitive interest.[76] But if it were, how could the main

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[74] Actually some leading banks have established a notorious reputation by their aggressive behavior among the Japanese business community.

[75] At least they claim not to do so. They may collude to lie. However, if they do, they have to risk litigation because sharing information is breach of contract even if it is *not* written in the contract format. Actually there are several relevant court cases. The safest way to avoid potential litigation is simple: each lender requires the same information from the borrower.

[76] Many Japanese proponents of the bank control view argued this way in the 1960s and 1970s. However, Miwa (1996, ch. 5) criticizes this view pointing out logical inconsistency and scant, if any, evidence. This view was usually advocated with the assertion that banks exploit small companies. On the other hand, recent

bank recoup its costs? Fee business cannot be a candidate because borrowers need it regardless of the main bank relation, and there is no reason for borrowers to pay higher fees.[77] This relation contrasts with the situation in manufacturing companies. Between assemblers and suppliers, highly specific investment often occurs and there exists the danger of opportunism.

Some scholars argue that if the main bank were to lend the whole amount needed for group companies, it would be too large for the bank to swallow. However, this argument cannot convince accountants. The amount lent and borrowed are always identical as a whole. If there are six corporate groups and each has financial institutions of comparable size, it is possible for group financial institutions to satisfy the entire need of group companies. If this endeavor is claimed to be too risky, this argument again is not consistent with the usual claim that the main bank plays a supervising and dominant role in financial difficulties, i.e. taking all risks concerning group companies. If they help in emergency, why don't they always lend the whole amount needed possibly with tighter controls and thus avoid any agency problem with other lenders?[78] This policy would not increase the risk of the lender's portfolio because the lender of last resort may bear the entire risk anyway.[79]

In Japan, collateral is generally required for loans, especially for long-term loans.[80] This practice suggests that Japanese business relies heavily on explicit legal contracts.[81] Therefore, the lack of main bank contract may be simply due to the non-existence of such a relation as discussed above. In any case, Mitsubishi companies are not exceptions and Mitsubishi financial institutions often require group companies to offer collateral. For example, Mitsubishi Corporation, a flagship and blue chip Mitsubishi company, is required by Mitsubishi Bank to offer collateral, though Nippon Life and other non-group financial institutions as well as Meiji Life lend *more* than Mitsubishi Bank without

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researchers argue main banks require higher interest rates to compensate for the cost of information production. Whatever the interest rate is, some scholars give us arguments consistent with the main bank view.

[77] Ramseyer (1994a, p.247).

[78] Stiglitz (1994, p. 78) points out this "paradox," and resorts to peer monitoring to solve it.

[79] Ramseyer (1994a, pp. 244-245).

[80] Ramseyer (1991, pp. 101-102).

[81] This is not a recent phenomenon. Japanese banks routinely relied on collateral even before the war (Ramseyer 1991, pp. 103-104).

requiring collateral. In the case of Nippon Yusen, all Japanese institutions require collateral, though four foreign banks lend without it. As for Mitsubishi Logistics, Mitsubishi Bank and Meiji Life require collateral, though Mitsubishi Trust does not. As for Mitsubishi Kakoki, Mitsubishi Bank is the only bank that requires collateral for short-term loans,[82] although the Bank of Yokohama lends *more* without collateral.[83] After all, I am unable to identify any rule or pattern on when collateral is required from these data. The fact that often Mitsubishi institutions require collateral from group companies while others do not is not consistent with the main bank theory. It might be argued that because the main bank takes the entire risk, the other lenders do not need collateral. However, if the main bank takes the risk, why does it require collateral? Secured claim is given priority over unsecured one. Then, why do the other lenders expose themselves to such an avoidable risk?

Aside from theoretical difficulties, the data show that the whole amount needed is not big at all relative to the size of lenders. Twenty-one Mitsubishi companies borrow a total of 4,432 billion yen and Mitsubishi Bank lends 474 billion yen to them. However, Mitsubishi Bank alone lends 31,314 billion yen in total, not counting its other investments. It means Mitsubishi Bank lends only 1.5 percent of its total loan amount to group companies. The similar figures for Mitsubishi Trust, Meiji Life and Tokio Marine are 2.0 percent, 4.5 percent and 0.7 percent respectively. Considering that 24[84] Mitsubishi non-financial group companies explain 1.8 percent of the sales and 2.0 percent of the gross assets in Japan, Mitsubishi financial institutions cannot be said to concentrate their lending on group companies.[85] Even if Mitsubishi Bank alone met the borrowing needs of all group companies, it would still be 14 percent of the bank's entire loan portfolio. This percentage does not seem to be particularly risky considering the diversity and high credit rating of those 21 companies. If Mitsubishi Trust, Meiji Life and Tokio Marine shared the entire borrowings of the group companies with Mitsubishi Bank on a proportionate basis,

[82] Because the company procures long-term fund through bond issue, the amount of long-term loan is negligible.
[83] In return, I suppose, Mitsubishi Kakoki holds more shares of the Bank of Yokohama than those of Mitsubishi Bank.
[84] Two unlisted companies are included.
[85] Meiji Life's higher share is mainly due to the fact that its lending is concentrated on large companies.

less than 10 percent of the bank's entire loan would be sufficient to satisfy the entire demand of Mitsubishi companies.[86]

This diversification of portfolio by Mitsubishi Bank is not a recent phenomenon, though the degree of concentration used to be higher in the past than today. Mitsubishi Bank lent 10.3 percent of the total loan to group companies on average between 1953 and 1960,[87] which is, however, not much different from the IBJ's 9 percent concentration on 15 companies (most of them are considered non-group independent companies) in 1996. On the other hand, the figure was still lower 7.9 percent between 1932 and 1936.[88] As Hashimoto (1992, p. 117) points out, neither Mitsubishi, Mitsui nor Sumitomo Bank depended on intra-*zaibatsu* transactions even in prewar years.[89]

Also, there exists an interesting fact on borrowing: a relatively straightforward regularity among 28 biggest lenders to 21 Mitsubishi group companies. If the rank of lenders is plotted against the log of the loan amount, the plotted line is close to a straight line (Figure 4). Regression results are as follows:

$$\text{Rank} = 50.53 - 8.28 \cdot \ln(\text{Loan}).$$

Standard error of the coefficient = 0.24 and $R^2 = 0.98$.

This relation implies the ratio of amounts of two adjacent ranked lenders is constant. In this case, the value is 1.13. The ratio of the top to the second lender is similar to, say, the ratio of the 14th to the 15th lenders. This relation could happen should the borrower procure a certain share of the total amount need from the first lender, the same share of the remaining amount from the second and so on. The shares among lenders should be:

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[86] Because Article 13 of the Banking Law sets the maximum amount of loan to any single company, Mitsubishi Bank may not offer the whole amount required by Mitsubishi Corporation and a few others. However, because Mitsubishi Bank lends far below the legal maximum to group companies, the bank can increase loan substantially without violating the legal constraints.

[87] Kikkawa (1992, pp. 268-269). Still this figure was higher than either Mitsui or Sumitomo Bank. Their figures were respectively 4.3 percent and 4.8 percent.

[88] The prewar data are from Sawai (1992, pp. 180-181). Mitsubishi's figure was higher than that of either Mitsui or Sumitomo.

[89] It is true that the dependence substantially increased during the war under the total mobilization, but the picture based on this exceptional era is hardly representative.

$x, (1 - x)\cdot x, (1 - x)^2\cdot x,...$[90] And the total is unity as expected. However, less than unit elasticity of Mitsubishi Bank's lending to group companies suggests borrowers diversify the source by increasing the number of lenders when they increase a loan amount. Also, in this diversified borrowing strategy, the borrower can maintain the current loan amount easily even if it stops borrowing from the largest lender/main bank: what it has to do is to keep a slightly more (1.13 times) credit line than actually needed.

In addition to bank loan, bond issue is an important debt instrument. Indeed, the total outstanding straight bond of 22 non-financial Mitsubishi companies are 2,016 billion yen and that of convertible bond are 891 billion yen, totaling 2,906 billion yen. This amount slightly exceeds the total long-term loan (2,876 billion yen). Regulations have not allowed banks to underwrite domestic bond issues[91] with few exceptions, though relaxed recently. Also, in the Euromarket, which issuers prefer to the domestic market because of lighter regulation and lower cost, the MOF regulates the operation of the subsidiaries of banks to the advantage of security companies.[92] Therefore, the Big Four, Nomura in particular, are dominant in the bond market. This fact again weakens the argument for the main bank control.

Also, inter-company credit is important. Twenty-two Mitsubishi companies "borrow" 757 billion yen with promissory notes and 4,853 billion yen on accounts payable from their business partners. We should keep in mind that financing is not monopolized by financial institutions.[93] If financing through financial institutions are regulated against the market force, inter-company credit is expected to partly offset the (negative) effects of the regulation. Indeed, when loan financing was tighter during the 1960s[94], inter-company credit, promissory notes in particular, played a more important role than it does today. It makes economic sense for business partners to be more willing to lend because they are expected to know more about the risk and viability of their partners than bankers who are

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[90] x is 12 percent if $1/(1-x) = 1.13$.
[91] But, through collateral management, banks shared rent with underwriting security companies until borrowers fled to the Euromarket in the 1980s (Ramseyer 1994a, pp. 237-241).
[92] This administrative guidance is the notorious *sankyoku shido*, three-bureau directive. It has been relaxed recently, and will be abolished soon.
[93] Miwa (1993a, p. 118).
[94] Credit rationing a la Stiglitz. See Stiglitz and Weiss (1981).

essentially amateurs in their knowledge of conditions prevailing in the industry of the borrowers.

The data above imply that group financial institutions, including the main bank, do not want to commit to specific borrowers even if they are group companies, and group companies can freely shop in the competitive market[95] for loans. Noisy lenders are likely to be avoided. An arm's length relationship between borrowers and lenders is more sustainable.

Many empirical studies have tested various main bank hypotheses. But so far, none has yielded conclusive evidence.[96] In particular, since Horiuchi and Fukuda (1987) and Horiuchi et al. (1988) showed that main banks neither share the risk of borrowers nor try to offset the variability of financial position, the main bank-as-an-insurer hypothesis has lost favor among Japanese scholars.[97]

A more basic question is whether banks have the ability to monitor the performance of either group or non-group companies. Since the "bubble" economy[98] burst in the early 1990s, it has been argued that lax bank control is a major reason.[99] However, the after-effects of the "bubble" economy have been felt more by financial institutions and industries closely tied to them (such as housing loan, construction and real estate), and not by manufacturing companies. If banks cannot discipline themselves and the industries in which they are supposed to have expertise, why should we assume that banks can effectively monitor industries far from their expertise? First of all, if bankers could enhance the performance of a company with which they have no expertise, would they want to lend to this company whose "professional" managers are by definition inferior to bankers

[95] This claim does not contradict the strict regulation of the financial markets. Even if rules are restrictive, banks can compete fiercely within the rules, particularly in unregulated domains. Finding a new customer is one of these areas.
[96] For example, such leading advocates as Okazaki and Horiuchi (1992) and Ito and Hoshi (1992) admit they cannot find confirming results. Even the sign of coefficient in their estimated equations, the weakest type of test, is often "wrong."
[97] Shikano(1994, p. 178). However, he claims the statistical *in*significance may result because financial difficulties in which risk sharing function is actually implemented rarely occur.
[98] As Miwa (1991c, ch. 5) points out, it is not clear what "bubble" economy means. But, I abide by this terminology as a label for the late 1980s.
[99] Morikawa (1996) claims executives with postwar egalitarian education lack self-discipline unlike those with prewar elitist one. Professor Morikawa, of course, belongs to the pre-war educated noblesse oblige.

in their own field?[100] Those who emphasize the importance of the main bank seem to assume the management is an automaton once money is provided. Although it might be true in less sophisticated economies, the management required for modern big business in industrialized economies such as Japan and the United States hardly fits this image. The recent financial fiasco in Japan can be interpreted as being totally orthogonal to the main bank story: once banks lost the self-disciplined manufacturing companies as their main customers, they had no expertise to distinguish good borrowers from bad ones, and made enough bad loans to find themselves near insolvent. The false confidence, nurtured by the main bank story, might have aggravated the lending spree in the late 1980s.[101]

Do banks actually help companies in financial distress? If they do, business failures should be less frequent in Japan than in the United States. Although definitional differences may be substantial enough to make comparison problematic, there are some comparative data,[102] from which I construct two data series for both Japan and the United States: the liabilities to GDP ratio and the number of bankruptcies. The Japanese data consist of cases with more than 10 million yen liabilities. On the other hand, as for the U.S. data, the number of failure consists of cases with more than 100,000 dollars but the amount of liabilities includes all smaller cases. The results are summarized in Figures 5 and 6. Although the coverage may be less than comprehensive in either country, it seems that more Japanese companies fail than U.S. ones.[103] In a word, the bankruptcy data do not support the main bank story. It may be argued that main banks only rescue large companies. However, it is not clear why banks do not help smaller companies; monitoring smaller companies seems easier than monitoring larger ones.[104] Moreover, do Japanese banks help large companies in financial distress more often than U.S. banks do?

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[100] Ramseyer (1993, p. 208).
[101] To their credit, the notoriously conservative Mitsubishi financial institutions are the least affected and the Bank of Tokyo Mitsubishi is now considered the strongest bank in Japan.
[102] Bank of Japan (1997) and Dun & Bradstreet (1996). Although the Japanese data are published in the publication of the Bank of Japan, they are actually collected by Tokyo Shoko Research, a private research company.
[103] This conclusion is consistent with Ramseyer (1991, pp. 109-111).
[104] Ramseyer (1994a, p. 246).

As Odagiri (1992a, p. 35) points out, Mintz and Schwartz (1985, pp. 77-80) count 42 bank intervention[105] cases in the United States in the five-year period (1977-81) mainly from *Business Week*, while Sheard (1989) identifies 27 cases in Japan in the ten-year period (1975-84) from *Nihon Keizai Shimbun*. "[I]t appears very difficult indeed to conclude that bank intervention is rare in the USA but common in Japan."[106] The bottom line is: "We know only that both Japanese and American banks rescue a few large troubled firms, and jettison most." (Ramseyer 1994a, p. 251) Using the sample of listed companies in deficit for three consecutive years, Miwa (1996, p. 116) finds " The bank with the largest share of loans, the core bank, appears not to support borrowers as strongly as do other banks, but instead draws back from business with firms that fall into distress." This behavior of the main bank is consistent with the claim that lenders are suspicious of the main bank's change of loan share as a sign of exploiting inside information to the main bank's advantage. Even Shikano (1994, p. 196), one of the leading advocates of the main bank view, admits that main banks do not behave as a representative of lenders except for their ex-*zaibatsu* groups companies, and consequently other banks have to monitor main banks. In other words, Shikano's claim is a rather modest one: the alleged main bank relation is limited to ex-*zaibatsu* group companies (less than 5 percent of all listed companies) and such a relation does not exist outside them. The difference between Miwa and Shikano seems more apparent than real.

Even the rare cases of rescue by banks may not be benevolent. Banks may corner borrowers in the shadow of the formal bankruptcy procedure under the Corporate Reorganization Law,[107] under which the management will lose almost all control of the company under the strict supervision of a court-appointed receiver. In alleged bank rescue operations banks simply play the role of a de facto receiver. The story of Ramseyer (1991, p. 114) may be closer to the truth than the conventional wisdom:

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[105] Sending bankers to ailing companies, forcing managerial changes, etc.

[106] Shikano (1994, p. 195) claims the equitable subordination theory prevents U.S. banks from committing to borrowers in financial distress. However, the legal scheme only changes the risk/return schedule. Therefore, if it pays, U.S. banks are expected to intervene. Indeed, they do as Mintz and Schwartz (1985) show. Moreover, Japanese courts take a similar stand on the pre-bankruptcy intervention (Takeuchi 1990).

[107] The law was introduced under the direct influence of the U.S. bankruptcy law after the war. Large lenders have a right to file the case (Article 30 Section 2) and this right is not an empty threat. Between 1978

> They might also be cases of implicit foreclosure: the bank's officers simply could be taking over the debtor firm as a carpetbagging army of occupation. They can manage the firm precisely because of the bank's legal rights on default. Using its legal rights to seize collateral and call short-term notes, the bank can reshape the firm to its own advantage... Creditor vigilance may masquerade as benevolence toward debtors in distress.

The fact that "rescue" operations are usually passive in the sense that banks only intervene when no other related parties take initiative, as pointed out by Shikano (1994, pp. 229-230), is consistent with the de facto bankruptcy procedure story.

From the evidence and argument above, the conclusion seems rather simple: the Japanese main bank does nothing special but making money with some monitoring and expertise as U.S. banks do as discussed in Stiglitz (1985), no more and no less.[108] In other words, this alleged special feature of Japanese economy, the main bank, may not exist at all.

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and 1987, 39 reorganization plans with more than 10 billion yen liabilities were rectified by courts (Shimojima 1990, pp. 512-513).

[108] As Royama (1992) points out, if the main bank mechanism has efficiency advantage, the question is not why it exists in Japan but why it does not exist in the United States. Anyway, Hall (1996) shows "even main bank firms, which are thought to be the most shielded from short-run fluctuations, appear to respond similarly to U.S. firms" (p. 21) during periods of financial distress.

Chapter 4. Group cross shareholdings

Before examining the actual shareholding pattern, I want to clarify some confusion concerning the effect of cross shareholdings on the stock price and the alleged irrationality of the Japanese stock market. Although it is widely claimed that interlocking shareholdings affect the stock price, a careful analysis shows that it should be neutral under the perfect (equilibrium) market.[109] The share interlocking is the same as the share buy-back in its effect on the stock price. It is clear that the share buy-back is neutral for the stock price if bought at the current market price because it does not matter who buys shares. The share interlocking can be considered the exchange of treasury stock. If exchanged at the market prices, it should not affect the stock prices. The value of exchanged shares is not necessarily the same for both parties. The balance can be settled by cash transfer.

In order to clarify the (no) effect of interlocking on the stock price, I will consider concrete examples. Suppose there are two companies, A and B. Both companies are debt-free. A's net assets are 100 dollars and B's 300 dollars. Because we assume the market is continually at an equilibrium, these net assets are the present value of the future cashflow discounted at the relevant risk-adjusted capital cost. A's outstanding shares are 100 and B's 200. Then, A's stock price, P_{A0}, is 1 dollar per share and B's, P_{B0}, 1.5 dollar per share.

Case 1: New issue without any cash transfer at the market prices.

Suppose A issues 30 shares to B and B issues 20 shares to A without any cash transaction in order to get interlocked. Then, the new prices are the solutions of the following equations (balance sheets: the left side is assets and the right side equity):

$$100 + 20 \cdot P_{B1} = 130 \cdot P_{A1} \text{ and } 300 + 30 \cdot P_{A1} = 220 \cdot P_{B1}.$$

The answers are $P_{A1} = 1$ and $P_{B1} = 1.5$, which are the same as before interlocking.

Case 2: New issue with some cash transfer at the market prices.

[109] The explanation here is owed to Kobayashi (1990).

Suppose A issues 20 shares and B also 20 shares to exchange, and A pays 10 dollars to B to compensate the difference of the market value. Then, the relevant equations are:

$$90 + 20 \cdot P_{B1} = 120 \cdot P_{A1} \text{ and } 300 + 20 \cdot P_{A1} = 220 \cdot P_{B1}.$$

The answers are again $P_{A1} = 1$ and $P_{B1} = 1.5$, which are the same as before interlocking.

Case 3: Acquiring shares from the stock market.

Suppose A buys 20 shares of B's stock and B 40 shares of A's stock from the market. Then, the relevant equations are:

$$70 + 20 \cdot P_{B1} = 100 \cdot P_{A1} \text{ and } 260 + 40 \cdot P_{A1} = 200 \cdot P_{B1}.$$

The answers are $P_{A1} = 1$ and $P_{B1} = 1.5$, which are the same as before interlocking.

Case 4: New issue without any cash transfer at a non-market prices.

Suppose A issues 20 shares and B also 20 shares to exchange, but without any cash transfer different from Case 2. Then, the relevant equations are:

$$100 + 20 \cdot P_{B1} = 120 \cdot P_{A1} \text{ and } 300 + 20 \cdot P_{A1} = 220 \cdot P_{B1}.$$

The answers are $P_{A1} = 14/13$ and $P_{B1} = 19/13$, which are *not* the same as before interlocking. However, not interlocking per se but asset transfer due to the unequal exchange transforms the prices. Because the value of 20 shares of B' stock is worth more than that of A's stock, A's shareholders receive a windfall gain and B's ones incur the loss. Please note that the gain of A's original shareholders is 100/13 (1/13 per share), while the loss of B's ones is also 100/13 (1/26 per share). Neither net gain nor loss emerges on the whole. Stock option issued at lower than the market price should do the same thing. Interlocking per se is not a culprit for the price change as stock option priced at the market value is neutral for the stock price[110].

Kobayashi (1990) examines several variations more thoroughly and points out that interlocking increases the total market value of the market, but not the stock price of each company. For example, In Case 1, the market value increases by 60 dollars from 400 to 460 dollars. As mentioned above, the share interlocking is a variation of the share buy-

[110] Because we assume the perfect market, no agency problem exists.

back, which decreases the market value but not the stock price. Considering the strict regulation of the share buy-back in Japan, interlocking can be regarded as a substitute induced by the regulation.[111] However, it is often claimed that there is one important difference: the share interlocking enables the management to exercise voting rights, while voting rights are denied for treasury stocks.[112]

Another point worth mentioning is that interlocking increases the price to earning ratio (PER) unless the dividend payout ratio is 100 percent. The formula to convert the nominal PER to the adjusted PER (APER) is[113]:

$$\text{APER} = \frac{1 - \text{(interlocking ratio)}}{1 - \text{(dividned payout ratio)} \cdot \text{(interlocking ratio)}} \cdot \text{PER}.$$

For example, in Case 1, suppose the capital cost is 10 percent for both A and B, dividend payment is zero and cash inflow equals earnings. Then, before interlocking, the PERs are:

$$\text{APER(A)} = \text{PER(A)} = 1 \Big/ \frac{100 \cdot 0.1}{100} = 10 \text{ and } \text{APER(B)} = \text{PER(B)} = 1.5 \Big/ \frac{300 \cdot 0.1}{200} = 10.$$

After interlocking, the nominal PERs are increased:

$$\text{PER}'\text{(A)} = 1 \Big/ \frac{100 \cdot 0.1}{130} = 13 \text{ and } \text{PER}'\text{(B)} = 1.5 \Big/ \frac{300 \cdot 0.1}{220} = 11.$$

But, the APERs are the same as before interlocking:

$$\text{APER}'\text{(A)} = (1 - \frac{30}{130}) \cdot 13 = 10 \text{ and } \text{APER}'\text{(B)} = (1 - \frac{20}{220}) \cdot 11 = 10.$$

It is well known that the PERs of Japanese companies are higher than those of U.S. companies, and many claim it is a symptom of the inefficiency of the Japanese market. However, if the Japanese market is *efficient*, the PERs of Japanese companies should be higher than those of U.S. companies because the Japanese market is more interlocked than the U.S. one. At least qualitatively, a higher PER is not a sign of inefficiency. If the

[111] The recent revision of the Commercial Code has somewhat relaxed the regulation for treasury stock.
[112] This claim assumes interlocking partners support the incumbent management unconditionally, which is open to question.
[113] See Kobayashi (1990) for derivation.

dividend payout and interlocking ratios are, say, 0.3 and 0.5 respectively, which figures seem to be close to the actual figures in Japan, we have to multiply the nominal PER by 0.6 to obtain the APER.

Of course, interlocking may affect the price if the market is not perfect. It is not surprising that the price falls when interlocked partners sell shares in the market because it is rational to believe that interlocked partners have superior information than other investors and their selling strongly signals the price is too high. However, if the market is not perfect, anything can affect the price. Therefore, singling out interlocking, the effect of which is essentially the same as the share buy-back widely practiced in the United States, as a culprit of the alleged inefficiency of the Japanese stock market is unwarranted.

Funaoka (1990) actually estimates the APERs for about five hundred companies[114] listed on the Tokyo Stock Exchange between 1966 and 1988. In 1988, the Nikkei 225 Index was over 30,000, while the figure is around 15,000 at the end of 1997, which is close to the 1986 figure. Figure 7 shows the APER and PER for the sample and the PER for the S&P 500 companies. Except for the 1988 figure, the Japanese APER is roughly around ten and comparable to the U.S. PER. Moreover, if unrealized capital gain due to land holding is taken into account, the 1988 Japanese fully adjusted PER is 12.3.[115] Once cross shareholdings and unrealized capital gain due to land holding are taken into account in line with the market efficiency assumption,[116] the Japanese stock price is not high at all compared to the U.S. stock price even in the "bubble" era. It is true that the land price then seems too high from today's point of view, but it is not directly related to the question whether the *stock* market be efficient or not.[117] Funaoka (1990) also traces the time

[114] The sample is chosen from companies listed on the first tier of the Tokyo Stock Exchange ending their fiscal year in March. The number of sample varies from 357 in 1975 to 653 in 1988.

[115] However, Funaoka (1990, p. 55) warns this land holding adjusted figure may be wide of the mark.

[116] I do not claim this assumption is valid. Rather, my point is that the Japanese stock market is no less consistent with the assumption than the U.S. market.

[117] Although the alleged irrationality of the Japanese land price is not related to the stock market efficiency, we should not be Monday quarterbacks in explaining the volatile land price. As Coase (1973, pp. 104-105) points out, "the correctness of the decision cannot be determined by subsequent events. If a businessman undertakes to do something which entails certain risks, he considers that the change of gain is worth the risks he runs, and whether ultimately he succeeds or fails has no relevance to this preference." Rational expectations do not mean expectations are always realized. However, we often forget this simple fact. For example, Nishimura (1990) claims the land price up to 1985 is explainable by the fundamental value but the price after 1986 is not because we would have to assume the rent in Tokyo should increase by 13 percent if the price reflected the fundamental value. Many researchers use this example as a definitive piece of evi-

series back to 1926 and finds that the PER was the yardstick for investment in the entire period except for the turbulent years between the 1930s and the 1950s when the PER was far lower, i.e., a very high risk premium was required, although it is often claimed that the dividend yield was the yardstick before the war.[118] It is not a coincidence that the per capita income recovered the prewar level in 1955 and the high risk premium was required for these stagnant and lost twenty years until then.

There is another interesting aspect to interlocking: if the share interlocking is widely practiced as in Japan, holding any particular share becomes essentially holding a portfolio of the interlocked shares.[119] Suppose *n* companies hold shares of one another as well as outside investors do. In order to simplify the argument, I also assume that every company finances its assets only with stock. Then, *i*th company's balance sheet becomes:

$$x_i + \sum_{j=1}^{n} r_{ij} s_j = s_i .$$

x_i : real assets of ith company.

r_{ij} : jth company's shares held by ith company divided by s_i .

s_i : total outstanding shares of ith company.

Then, $\mathbf{x} + \mathbf{Rs} = \mathbf{s}$ (1).

$$\mathbf{x}' = (x_1, x_2, \ldots, x_n). \quad \mathbf{R} = \begin{pmatrix} r_{11} & . & r_{1n} \\ . & . & . \\ r_{n1} & . & r_{nn} \end{pmatrix}. \quad \mathbf{s}' = (s_1, s_2, \ldots, s_n).$$

From (1),

dence for the land price "bubble." Ex post, such a high estimate of the annual increase seems ridiculous. But is it foolish ex ante? Citing the case of Yataro Nishiyama, legendary president of Kawasaki Steel, who decided to invest in a huge steel plant in the 1950s and was mocked by the then governor of BOJ saying such a plant would soon be covered with weeds, Otani (1996, p. 230) argues: "Entrepreneurs such as Mr. Nishiyama who have accomplished a great deal in the process of economic development as well as those who failed in business are those who dared to do what most people considered absurd. Both those who predicted that the plant would be covered with weeds and those who easily dismiss the 13 percent increase as irrational do not understand the creativity of the capitalist economy at all." (My translation)

[118] Funaoka (1990, p. 37) shows the correlation between the bank lending rate and the reciprocal of PER is 0.84, while that between the bank rate and the dividend yield is 0.16 between 1926 and 1933.

[119] The relation between share interlocking and input-output analysis was first pointed out by Futatsugi (1976) in Japanese and Ellerman (1991) in English independently. Ito and Hoshi (1992) try to capture the cohesiveness of group by adjusting the degree of interlocking. But it is not clear why a 25 percent/25 per-

$$\mathbf{x} = (\mathbf{I} - \mathbf{R})\mathbf{s},$$
$$\mathbf{s} = (\mathbf{I} - \mathbf{R})^{-1}\mathbf{x}.$$
$$\text{Let } (\mathbf{I} - \mathbf{R})^{-1} = \mathbf{M} = \begin{pmatrix} m_{11} & . & m_{1n} \\ . & . & . \\ m_{n1} & . & m_{nn} \end{pmatrix}.$$

Then, an increase of *i*th net real assets, Δx_i, leads to an increase of share prices:

$$\Delta\mathbf{s} = \mathbf{M}\begin{pmatrix} 0 \\ . \\ \Delta x_i \\ . \\ 0 \end{pmatrix} = \Delta x_i \begin{pmatrix} m_{1i} \\ . \\ m_{ii} \\ . \\ m_{ni} \end{pmatrix}.$$

Therefore, an increase (decrease) of net assets of one company leads to an increase (decrease) of all stock prices of interlocked companies.[120]

Then, keeping the above theoretical and empirical claims in mind, I describe a few institutional characteristics of the Japanese stock market.

First, as widely known, unlike the United States, banks are allowed to hold stocks in Japan, though holding companies was not allowed until 1997.[121] Actually, Japanese companies including financial institutions hold shares of each other extensively (Figures 8 and 9). However, the Anti-monopoly Act, which was introduced in the occupation era, restricts a bank's shareholding of any company to a maximum of 5 percent (10 percent until 1977) and an insurer's to a maximum of 10 percent.[122] Therefore, it is impossible for financial institutions to control non-financial companies through their own shareholding. With the very limited access to securities business by banks, this holding regulation makes the Japanese financial system more like the U.S. system than the German system in which banks can and do hold controlling shares of non-financial companies.[123] Actu-

cent holding is more cohesive than a 50 percent/0 percent holding. Also, they seem to believe share interlocking increases the stock price.

[120] If a company short sells shares of another company, the stock price of the former moves in the other direction of that of the latter.

[121] No bank holding company exists at the end of 1997.

[122] Article 11, Section 1 of the Anti-monopoly Act. Aside from holding on trust accounts, exceptions were rarely admitted before the 1997 revision.

[123] However, it is an open question whether the shareholding alone is sufficient for control.

ally the Japanese stock market is more substantial than continental European markets, and closer to Anglo-American markets at least in terms of size.

Second, as briefly mentioned in Chapter 3, major life insurance companies are not limited but mutual companies. Also, insurance policies are a popular means of investing in Japan. Actually, Japanese stand out among rich nations in their partiality to life insurance policies with about 4,000-dollar per capita premium in 1995.[124] Therefore, those mutual life insurance companies can be regarded as super large and diversified mutual funds. For example, Meiji Life, a Mitsubishi life insurance company, holds more than 1 percent of all publicly traded stocks. Nippon Life, the largest one, holds an average of 3 percent of every listed company's stock,[125] and is the largest shareholder of 94 companies, the second largest of 104 companies, the third largest of 86 companies and one of the top ten holders of 915 companies.[126] 11.2 percent of the entire stock is in the hands of those insurance companies, and two largest independent insurers, Nippon Life and Daiichi Life, hold about half of it in 1996.

Third, many subsidiaries and affiliated companies are listed in Japan. A company is regarded as an affiliated company[127] if another company: holds 20 to 50 percent of the stock of the former; and can exert material influence through personnel, finance, technology, transaction, etc. Unless the latter company shows evidence to the contrary, the shareholding criterion mechanically applies.[128] Therefore, unlike a subsidiary, the relation with an affiliated company ranges from a de facto division to a totally independent entity as a decision unit.[129] Also, the Commercial Code denies the voting right of a company for another company if the latter holds more than 25 percent of the stock of the former.[130] For example, if A holds 30 percent of B's stock, B loses its voting right on the holding of A's stock.

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[124] *The Economist*, September 12, 1997.
[125] 2,280 out of 2,291 companies in 1996.
[126] Nippon Life (1997).
[127] *Kanren-kaisha*. Article 8, Section 4 of the MOF Ordinance on Financial Statements. This ordinance is mandated by the Securities and Exchange Law, and does not belong to administrative guidance. I set aside a related company, which is also used as a translation for this category, for *kankei-kaisha*, another category.
[128] This clause is, of course, an outright copy of APB 18.
[129] In some cases, even the relation with subsidiaries, publicly held ones in particular, is fairly loose. See Miwa (1996, p. 138-139) for the case of Toshiba and Toshiba Machine.
[130] Article 241, Section 3.

What is going on in the Mitsubishi group? If there are concentrated cross shareholdings among group companies, we should expect to find them in this group.[131] Table 6 shows the stockholding of 25 publicly held Mitsubishi companies by major shareholders. Meiji Life, a Mitsubishi life insurance company, is the largest holder with 5.0 percent. The second largest holder is Mitsubishi Trust with 3.9 percent, the third Mitsubishi Bank with 3.7 percent, Tokio Marine, Mitsubishi Heavy Industries, Nippon Life and Sumitomo Life with more than 2 percent, and Mitsubishi Corporation, Asahi Glass, Daiichi Life, Taiyo Life, Mitsui Trust, Toyo Trust, DKB and Employee Funds with more than 1 percent. Moreover, these figures for non-Mitsubishi companies are underestimates due to data availability; the shareholdings of these companies are counted only when they are among top 20 shareholders. For example, Nippon Life shows up only in 16 out of 25 companies, although the world's largest life insurance company holds all but 11 listed companies in Japan.

On average, 25.7 percent of a Mitsubishi company's stock is owned by other Mitsubishi companies. As Table 7 shows, this amount is higher than in the 1960s.[132] Out of 25.7 percent, 15.7 percent are held by Mitsubishi financial institutions and 10.4 percent by non-financial institutions. 25.7 percent is a substantial holding, but not sufficient to control the management against their will as discussed below, even if group companies behave unanimously, which does not seem an easy task. In general, no Mitsubishi company, either financial and non-financial, can exert much influence by its own shareholding alone. However, more than 20 percent of five companies' stock are held by a single Mitsubishi company: Mitsubishi Plastics by Mitsubishi Chemical (51.5 percent), Mitsubishi Cable by Mitsubishi Materials (29.2 percent), Mitsubishi Shindoh by Mitsubishi Materials (27.6 percent), Mitsubishi Motors by Mitsubishi Heavy Industries (27.0 percent) and Mitsubishi Construction by Mitsubishi Materials (25.9 percent). Except for Mitsubishi Motors, each largest shareholder not just has a close business tie with, but also sends a president to its respective affiliated company (or subsidiary). We can say these affiliated

[131] There is a famous phrase in Japanese: *Soshiki no Mitsubishi*, Mitsubishi *the* organization.

[132] Because the membership is changing (for example, Mitsubishi Motors was incorporated in 1970), figures in different years are not directly comparable. The data of Okazaki (1992) seem more stable than the data in Table 7: 24.7 percent (financial 15.2 percent, non-financial 9.5 percent) in 1964, 26.5 percent (15.4 percent, 11.0 percent) in 1973 and 24.0 percent (15.2 percent, 8.7 percent) in 1987.

companies belong to their respective largest shareholders' *kigyo gurupu*, as Mazda belongs to the Ford group, rather than the Mitsubishi *kigyo shudan*. As for Mitsubishi Motors, considering the board composition[133] and the relative business scale of both companies (roughly equal sales figures), the relation seems more equal than vertical despite the large shareholding which is due to the fact that Mitsubishi Motors used to be a division of Mitsubishi Heavy Industries, but was incorporated in 1970 as a joint venture with Chrysler and listed in 1988. However, their relation[134] is much closer than, say, that between Mitsubishi Corporation and Mitsubishi Bank.

As briefly mentioned above, is a 20-odd percent shareholding enough to control the company? Fortunately, a test case occurred a few years ago. East Japan Railway (JR East) has 21.9 percent of the privately held stock[135] of JTB, Japan's largest travel agent, and the latter is classified as an affiliated company in the annual report of the former.[136] However, a proposal by Shoji Sumita,[137] then chairman of JR East and a director of JTB, publicly endorsed by the president of JR East in advance, to make JTB listed on the Tokyo Stock Exchange at a board meeting was turned down by the internally promoted directors unanimously. The move of JR East was not supported by directors on the board of JTB from other JR companies, although they used to form the same corporation until JR companies were incorporated in 1987 as a result of the reorganization of the now defunct Japanese National Railways (JNR), and virtually all full-time directors of JR companies used to be colleagues there. In particular, the then presidents[138] of the three largest companies, JR East, JR Central and JR West, closely cooperated and masterminded the reorganization of the JNR and still continue to cooperate extensively in various areas.[139] If we take account of the fact that railroad operation needs close cooperation among them[140]

[133] There is no managing director exchange, while the president of Mitsubishi Motors is on the board of Mitsubishi Heavy Industries and the chairman of the latter on the board of the former.
[134] For example, they share housing facilities for employees in Tokyo and other areas.
[135] 19 shareholders in total in 1997. The six JR companies hold 37.5 percent in total.
[136] However, JTB is not included as a member of the JR East *kigyo gurupu* in its brochure (East Japan Railway 1997).
[137] He has been arguably the most powerful vice-minister of transport since the war and now strongly advocates the deregulation of Japanese economy.
[138] The mass media calls them the *Kokutetsu Kaikaku Sanningumi* (JNR Reform Triumvirate).
[139] All six current presidents in tandem fiercely protest against the additional contribution to the repayment of JNR debt proposed by the government.
[140] The rail network is integrated even after the dissolution of the JNR.

and managers spent most of their career as colleagues in the same organization, the JR companies are expected to be at least as close as ex-*zaibatsu* companies, which were broken up half a century ago. Therefore the detached attitude of other JR companies to the move of JR East casts doubt on the usually asserted claim that corporate group companies with heterogeneous interests can make a concerted effort and exert a material influence on management policies of a member company. The fact that the mass media was also very critical of the alleged high-handedness of JR East surely deter implementing any policy not agreed upon by the incumbent management in advance, although asking the affiliate company to get listed hardly seems to be an unreasonable request.[141] This case[142] shows the strong power of internally promoted directors, the lack of any material influence even over some affiliated companies by large shareholders, and the difficulty of coordinating large shareholders even they are believed to be close.

The recent upheaval at Meitec is another telling case: the founder and then president has been fired by his fellow inside directors at a board meeting, though he was and still is the largest shareholder.[143] This case again suggests that less than majority ownership of stock alone cannot be relied upon to give effective voice in controlling a company in Japan.

If a more than 20 percent share is not sufficient, a bank's less than 5 percent share is smaller still. For example, not only Sanwa Bank is the largest shareholder (4.9 percent) of Toyo Trust, but also the trust bank was incorporated in 1959 partly based on Sanwa's trust business due to the MOF's trust/city bank separation policy. Therefore, their relation is expected to be closer than that between usual group members. However, in the recent scandal briefly mentioned in Chapter 3, it has been revealed that Sanwa bankers *misappropriated* the confidential information of Toyo Trust through MOF officials.[144] This

[141] In general, JTB gives no more information on their business to JR East than to other shareholders. The management of the latter knows only what the former shows in the financial statements specified by the Commercial Code. Because JTB is not listed on any stock exchange, the Securities and Exchange Law does not apply and far less information is revealed publicly through the Commercial Code based statements.
[142] I know this case personally because I was a deputy manager of Corporate Planning Headquarters at JR East until 1995. Although this incident was made public, there should be many similar cases which have not been made public.
[143] Then he had 16 percent of the stock with indirect holding through his closely held company.
[144] Those officials were arrested and indicted.

embarrassing incident raises questions about the alleged closeness of group members, financial institutions in particular, and the importance of bank shareholdings.

Returning to cross shareholding among Mitsubishi companies, except the five cases mentioned above, shareholdings by non-financial companies are rather limited. An average combined share of 22 companies is 10.4 percent and if we exclude those five affiliated companies, the figure would be lower still. Only Mitsubishi Corporation, Mitsubishi Heavy Industries and Asahi Glass hold more than 1 percent on average.

On the other hand, each group financial institution holds more substantial shares consistently, and an average combined share of four institutions is 15.3 percent. Meiji Life is the largest shareholder, Mitsubishi Trust the second and Mitsubishi Bank, the alleged center of cross shareholdings, the third. More noteworthy but rarely pointed out is the fact that non-Mitsubishi financial institutions hold *more* shares than Mitsubishi financial institutions with 18.5 percent on average, though these holdings are spread across a large number of institutions. Moreover, this amount is an underestimate because of data availability mentioned above. These data suggest cross shareholdings among Japanese companies are not limited to group companies. As for financial institutions, they hold shares of non-group companies and companies whose main banks are different from them extensively as well as those of their group companies and companies under the main bank relation with them. As non-Mitsubishi financial institutions hold shares of Mitsubishi companies, Mitsubishi financial institutions also hold shares of non-Mitsubishi companies. Mitsubishi Bank holds a more than 1 percent share of 463 out of 2,291 listed companies, while it is the largest lender of 170 listed companies; Mitsubishi Trust holds a more than 1 percent share of 570 listed companies, while it is the largest lender of only 30 listed companies.

The situation is not different as for non-financial companies. In order to confirm this conjecture, let's examine the shareholding data of Mitsubishi Corporation and Mitsubishi Heavy Industries, two of the so-called Mitsubishi Triumvirate.[145]

Because their shareholding is so extensive (Mitsubishi Corporation holds a more than 1 percent share of 111 listed companies and Mitsubishi Heavy Industries 36), I

[145] The remaining one is, of course, Mitsubishi Bank.

choose one specific industry in which each of them has a strong business tie as well as banking industry. First, Mitsubishi Corporation holds: 0.3 percent each of Teijin, a Sanwa company, and Toray, a Mitsui company, 0.2 percent of Nisshinbo, a Fuji company, and 0.1 percent of Asahi Chemical, a DKB company, as well as 0.5 percent of Mitsubishi Rayon in textile industry; 1.7 percent of the Bank of Tokyo, 1.0 percent of DKB, 0.7 percent each of Sanwa Bank and Tokai Bank, 0.5 percent of Fuji Bank, 0.4 percent each of Sumitomo Bank and Shizuoka Bank, 0.3 percent each of the IBJ, the Long-term Credit Bank of Japan (LTCB) and the Bank of Yokohama, 0.2 percent each of Sakura Bank, Sumitomo Trust and Hachijuni Bank as well as 1.4 percent of Mitsubishi Bank and 1.6 percent of Mitsubishi Trust. Second, Mitsubishi Heavy Industries holds: 3.0 percent of Mitsui OSK Line, 2.3 percent of Tokai Kisen[146] and 1.6 percent of Navix Line, a Sanwa company, as well as 4.6 percent of Nippon Yusen in shipping industry[147]; 1.3 percent of Hachijuni Bank, 1.1 percent of the IBJ, 0.7 percent each of the LTCB and Tokai Bank, 0.6 percent each of Yasuda Trust and the Bank of Yokohama, 0.3 percent each of Sakura Bank and Sumitomo Bank as well as 3.0 percent of Mitsubishi Bank and 2.7 percent of Mitsubishi Trust. These data show the group boundary does not matter much for shareholdings even by the very core of group companies, though a weak concentration on group companies is seen.

All in all, the data show the shareholding of Japanese companies is very well-diversified. It is not an exaggeration to say that the shareholding of a large Japanese company is a kind of market portfolio aside from the holding of affiliated companies' stock by non-financial companies.

Then, why do Japanese companies hold shares of other companies? I believe it is easier to tackle the question by classifying those companies into three categories; mutual life insurance companies; other financial institutions; and non-financial companies.

As mentioned above, mutual life insurance companies unilaterally hold shares of other companies and the magnitude of their shareholding stands out. Therefore, should the shareholding be the decisive factor, it would be natural to single out mutual life insur-

[146] It does not belong to any group, but is said to be close to the IBJ.

[147] Recently Mitsubishi Heavy Industries has taken over Showa Line, a Fuji company, despite little ties before.

ance companies as *the* dominant power of Japanese economy.[148] Considering the fact that policy holders are their "owners," we could claim Japanese economy is the ultimate people's capitalism. However, in spite of the near obsession with the main bank control, researchers usually consider life insurance companies as passive investors, i.e. large mutual funds. I agree with the view that insurance companies are passive investors because there is no reason to believe otherwise.

However, if insurance companies are passive investors, why aren't banks, city banks in particular, in the same situation? City banks as a whole have smaller shares than mutual life insurance companies. Also, in long-term lending, life insurance companies are comparable to city banks. In addition, the position of city banks as controllers is weaker than that of life insurance companies because, unlike mutual companies, substantial shares of city banks are held by their alleged targets to be controlled, non-financial companies. If life insurance companies are passive investors, there is no compelling reason why banks should be seen to behave differently. After all, the reason why banks hold stock seems rather simple. As Ramseyer (1993) points out eliminating the logically impossible reasons advocated by other scholars, banks buy stock to make money as other investors do, but with superior publicly unavailable information through lending, because they are *legally* allowed to hold stock in Japan. Indeed, stockholding was a profitable investment in Japan at least until the 1980s (Figure 10). Between 1971 and 1985, the Japanese stock market outperformed the U.S. market by a wide margin (Table 8).

The logic for the shareholding of non-financial companies is the same. They hold a well-diversified stock portfolio of companies with close or not so close business ties to make money. If we consider a loan relation as one of many business relations, there is no reason to single out the shareholding of banks as a device for monitoring unique to banks at all. Perhaps banks monitor borrowers as intensively as other business partners do. Considering the generic nature of money and often highly specific nature of some business relations, these non-financial business partners may monitor each other more intensively than bankers can.[149]

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[148] Komiya (1989, p. 442).
[149] Miwa (1991a, p. 16).

Besides, there is an additional institutional reason why Japanese companies hold shares on their own account. Retirement allowance has been more important than corporate pension in most Japanese companies, though the importance of the latter has been increasing. Twenty-one Mitsubishi non-financial companies excluding Mitsubishi Corporation hold 735 billion yen in reserve as retirement allowance on their balance sheets, while the total stated capital is 1,496 billion yen. Because of the tax regulation which limits the maximum tax deductible amount,[150] most companies only set aside 40 percent of the amount needed for payment if all workers quit companies at will. Due to the nonlinear pay scale, the amount based on this assumption would be an underestimate even if the whole amount were reserved. Therefore, the amount on the balance sheets is a substantial underestimate compared to the actual amount needed. If the retirement allowance were put outside the corporate balance sheet and administered independently, i.e., treated as a pension fund, it would be natural for the fund to invest in the stock market. Indeed, diversified portfolios of stockholdings by Japanese non-financial companies are not dissimilar to the pension fund accounts of U.S. companies.[151]

It is widely believed and asserted that Japanese companies hold each other's stock as *antei kabunushi*, friendly shareholders, to protect the incumbent managers. Some argue this practice contributes to the stable long-term oriented management (Ito 1993), while some claim the practice enables the management to take advantage of "ordinary" shareholders and to build corporate empires (Okumura 1984). I examine the latter "exploitation" theory first. Because no one is forced to buy stock and the stock market is the most liquid of all markets, shareholders dissatisfied with the management can exit,[152] i.e., sell their shares any time they want. The Wall Street Rule works nowhere better than stock markets.[153] Even if the company is inefficiently managed, investors do not suffer because the price of the company already reflects poor management. Moreover, as shown above, those who invest in publicly traded stock have been handsomely rewarded in Japan most of the time since the war. The "exploitation" view does not hold water.

[150] Article 55 of the Corporate Tax Law.
[151] Odagiri (1992a, p. 28).
[152] See Hirschman (1970).
[153] Easterbrook and Fischel (1991, p. 83).

Then, does friendly shareholders protect the management to pursue a long-term goal? It is not clear what a long-term goal means, but if it means profit maximization, the management does not need any protection, because no one makes money to take over efficiently run companies by kicking out the incumbent management. Also even friendly shareholders do not have any incentive to protect the incompetent management from potential acquirers.[154] So despite all nice talk, such a thing as a friendly shareholder is unlikely to exist if everyone is rational and wants to make more money. Yes, these two conditions, rationality and exclusive monetary concern, are crucial. However, there are lots of strange people in the real world. Also, because of time inconsistency, green mailers can make money as terrorists can. Furthermore, because minority shareholders with a more than 25 percent share could require cumulative voting until 1974,[155] it is not unreasonable for the management to believe subjectively the high possibility of disruption by idiots and villains, whether imaginary or real, at least until then. The fact that the shareholding by non-financial companies reached the peak (27.5 percent) in 1973 and has been declining (23.8 percent in 1996) since then supports this conjecture.[156] In the real world, friendly shareholding is consistent with profit maximization. But what friendly shareholders are expected to do is to behave rationally to make money. It does not make economic sense to churn a portfolio. On the other hand, buying shares at a discount in case of new issues, which are allegedly used to strengthen the friendly shareholding relation, is not a bad deal for business partners. Also, business partners free from irrational disruption are beneficial to friendly shareholders including banks. Seemingly stable cross shareholdings do not need any reason other than profit seeking.[157]

If we see the time series data more closely, we can explain the institutionalization of shareholdings without recourse to Japanese uniqueness. Until the early 1960s, when main banks were alleged to have substantial power, individual shareholdings (including mutual funds) exceeded 50 percent of the total holding and this percentage did not decline between 1956 and 1963 (Figure 8). “Hello securities companies, good bye banks” was a

[154] Ramseyer (1993, p. 2009).
[155] Article 256-4 of the Commercial Code before the 1974 revision.
[156] The data on institutional shareholdings are from National Conference of Stock Exchanges (1997).
[157] Ramseyer (1993, p. 2013).

commonly heard phrase then. However, as Figure 10 shows, Japanese investors experienced the "burst of bubble" in the early 1960s. After the Nikkei 225[158] reached 1,549 in 1961, stock prices stagnated and then dropped to 1,203 in 1965, when Yamaichi Securities almost went bankrupt.[159] The Nikkei 225 could not recover to the 1961 peak price until 1968 (Figure 10). In these dark days, both financial institutions and non-financial companies increased their shareholding in order to mitigate the selling pressure from individual investors and the collapse of the mutual fund market. Household financial flow data confirm the dramatic change of household behavior (Figure 11). It is clear that after 1965, individual investors turned away from the stock market and went back to bank deposits. Since then, the institutionalization of shareholdings continued until the early 1980s.

However, this increase of institutional holding makes economic sense. As Black (1977) points out, individual investors are in general gamblers. If their aim were to make money, it would make little sense to hold a small amount of individual shares directly. Japanese investors seemed to learn the hard lesson in the 1960s. They can and do hold shares indirectly through not just life insurance premiums but also bank deposits. Because banks are allowed to hold shares on their own accounts as well as on trust accounts, they have a strong incentive to hold a diversified portfolio to make money. In a sense, they are forced to hold a portfolio because they have to pay competitive interests for deposits under the legal scheme in which all banks are allowed to hold shares. In spite of the decline of shareholdings by non-financial companies and the stable holding by life and property insurers, banks increased their holding until the early 1990s (Figure 9). This increase is not consistent with the claim that banks' shareholding is related to the control of non-financial companies because it is a consensus that the main bank control has been weakened since the 1970s. The significant increase in the mid-1980s also reflects the increase of shareholdings on trust accounts due to the advantageous tax rule change. The real owners of those accounts are mainly cash rich non-financial companies and they are most likely to set up accounts for making money.

[158] Annual average.
[159] However, the Bank of Japan rescued the company under the strong leadership of Kakuei Tanaka, then finance minister. In the same year, the regulation of securities business was strengthened with the revision of the Securities and Exchange Law.

Finally, friendly shareholders are not uniquely Japanese. Scholes (1991, pp. 812-813) describes the similar situation in the United States:

> By encouraging fund managers to invest in common stock, corporate managers placed many shares in ‘friendly’ hands, reducing the probability that outside shareholders could garner enough votes in proxy contests to restrain managerial actions. In recent years, the active funds voicing concern over managerial actions have been the noncorporate pension funds (e.g., State pension funds), whose mangers are not worried about losing pension fund assets if they are too critical of corporate management policies.

Japanese companies buy stock because they want to make money. What they expect friendly shareholders to do is not to do special favors but just to behave rationally, i.e., to make as much money as possible for themselves.

Chapter 5. Top management

Under the Japanese Commercial Code and its subsidiary laws, the company has two types of top management posts: directors and auditors.[160] The former are equivalent to the U.S. counterparts, but a little explanation is needed for the role and status of the latter. First, they are different from outside accounting auditors whose audit is required for large companies[161], and are basically expected to monitor the directors independently. In order to enhance their independence, at least one of them must be an outsider, that is, not internally promoted person. However, their actual power is limited and, with very few exceptions, their job does not go beyond honorable advisors if they have full-time jobs outside.[162] In the case of full-time auditors, they are a kind of second-tier directors in charge of internal audit, whether they are internally promoted or not. It is not an exaggeration to claim auditors report to the board of directors, the president in particular, as subordinates.

I should point out the role of labor union in corporate management before examining the role of directors in detail. Unlike the German *Mitbestimmung* system, no formal participation of labor into management is designated in Japan. Instead, union members are not allowed to become either director or auditor because the appointment is considered interference with union activities.[163] Therefore, Japanese auditors are completely different from and far less important than the German *Aufsichtsrat*, in which the law requires union members to be included. It may be true that the post-1960s relations between the management and labor in Japan have been more cordial than in the United States.[164] But, the power of Japanese labor unions is limited compared to the German counterparts, and quite naturally, Japanese labor leaders are eager to introduce the German *Mitbestimmung*.

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[160] Articles 254 through 280 of the Commercial Code, and Law for Special Exceptions to the Commercial Code concerning Audit, etc. of Kabushiki-kaisha.
[161] What is “large” is somewhat complicated, but virtually all listed companies are legally regarded as large for this purpose. See the aforementioned subsidiary law for detail.
[162] Therefore, they are not unlike part-time directors mentioned later.
[163] Article 2 of Labor Union Law.

Directors can legally be given a representing right with the approval of the board.[165] This right enables a holder to act as a representative of the company such as signing a legally enforceable loan contract by himself. The president is always a representing director. So is the chairman in most cases if the post exists. Chairmen are most often former presidents.[166] If both have representing rights, it is difficult to judge who is the No. 1 of the company. Actual power balance is highly dependent on the specific situation of each company, but chairmen are not usually involved in day-to-day operations and are expected to behave as elderly statesmen in *zaikai*.[167] Retired chairmen and presidents are often given honorary posts called *sodanyaku*,[168] and sometimes they continue to be directors[169] and maintain substantial power, which is heavily dependent on their performance as presidents. Although this long relay process has been criticized as gerontocracy in Japan, it makes economic sense because this process substantially mitigates top executives' opportunism. As recent scandals at banks and brokerage houses show, top executives cannot enjoy this enviable post-retirement elderly statesman life once pre-retirement misbehavior (fraud may be an appropriate expression in the recent cases) is detected. Poor performance during or just after presidency may sufficiently damage the post-retirement life of the president on both pecuniary and non-pecuniary terms so that one has a strong incentive to choose one's actions in the long-term interest of the company. The same kind of relay process in U.S. companies is also documented by Vancil (1987) and others. Considering the smaller rewards in presidency and larger ones after retirement in Japan, the process should have more disciplinary power in Japan than in the United States. Moreover, seemingly smaller salaries may be simply due to delayed payment to Japanese

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[164] Until the late 1970s, the number of lost working days due to labor disputes in Japan was more than hundred times as high as today. I enjoyed extra holidays in spring due to public transportation strike when I was a high school student in the 1970s.

[165] Article 261 of the Commercial Code.

[166] The post has become more and more widespread partly because former presidents want to retain power after stepping down from presidency. In 1930, only four out of 158 (2.5 percent) largest companies adopted the separate president /chairman structure; then 22.0 percent in 1954, 48.5 percent in 1974 and 64.2 percent in 1991 (Morikawa 1993, p. 206). Presidency to chairmanship is an irreversible process except in unusual circumstances such as a sudden death of the president.

[167] Japanese big business community. President of Keidanren is considered the highest, though essentially honorary, position. The incumbent is Takashi Imai, chairman of Nippon Steel.

[168] Senior executive advisor may be a close translation.

[169] Even some retain representing rights.

presidents. Also, on-the-job consumption is expected to be higher in Japan than in the United States because the Japanese marginal personal income tax rate is higher than the U.S. rate.

Among 26 Mitsubishi companies, 21 presidents are internally promoted[170] and five from other Mitsubishi companies closely connected in business relations,[171] though none is from Mitsubishi financial institutions (Table 9). Out of 22 presidents of non-financial companies, 11 are engineers and seven have law degrees. Unlike U.S. companies, those in charge of finance are considered more experts than contenders who aspire to become presidents. Twenty-two companies have the post of chairman, all of whom have representing rights, and 19 are internally promoted and 3 are from other Mitsubishi companies.[172] Again there is no chairman from group financial institutions.

Some companies give representing rights to other directors. In this case, they are given more weight than non-representing ones, but are not considered equal with presidents and chairmen. Actually, the president and/or possibly the chairman have the full control of the board and they designate who are directors and who have representing rights, not vice versa.

In Japanese companies, almost all directors are full-time executives and they are informally called *jokin torishimariyaku*.[173] On the other hand, outside directors who have full-time jobs outside are called *hi-jokin torishimariyaku*.[174] Because this distinction is not legal, many studies blur the different nature of the jobs. Take a concrete example. Among 26 Mitsubishi companies, there are 741 directors (29 per company), of which 669 or 90 percent are internally promoted (Table 10). Among 741 directors, 715 are full-time directors and 669 of them or 94 percent are internally promoted (Table 11). On the other hand, only 26 (just one per company) are part-time ones (Table 12). Among the latter, seven are from Mitsubishi Corporation, five from Mitsubishi Bank, 13 from other Mitsu-

[170] I define internally promoted directors as those who spent the most of their careers up to that post in the respective companies. In the Japanese business jargon, those internally promoted are often called *proper*.
[171] The presidents of Mitsubishi Construction, Mitsubishi Shindoh and Mitsubishi Cable are from Mitsubishi Materials (all three are affiliated companies of the latter), Mitsubishi Plastics from Mitsubishi Chemical (the parent company), and Mitsubishi Kakoki from Mitsubishi Heavy Industries (the largest shareholder).
[172] The chairmen of Mitsubishi Plastics from Mitsubishi Chemical, Mitsubishi Shindoh and Mitsubishi Cable from Mitsubishi Materials.
[173] Full-time directors.

bishi group companies and one (American) from Shell. They are usually themselves presidents or chairmen and expected to advise from broader perspectives. However, because they are busy on the management of their companies, they even miss the board meeting frequently. The part-time directorship signifies more courteous relation among them than any substantial business commitment.[175]

Apart from the president and chairman, the full-time directors usually consist of vice-presidents, senior managing directors, managing directors and (plain) directors.[176] A great divide exists between managing directors and (plain) directors. As the number of directors per company shows implicitly, being a director does not mean one belongs to the top management. For example, Mitsubishi Bank has 67 directors (all full-time ones)![177] How can they manage a meaningful meeting with so many people on the table? Actually, the real decision making body in a large company is the managing directors' meeting[178] which consists of managing directors and up. Although the board of directors is legally the supreme decision making body, it is actually a rubber stamp just to codify

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[174] Part-time directors.

[175] Nissan Life, which was said to belong to the Nissan/Hitachi group, went bankrupt recently. One of Nissan Motors' directors was on the board of Nissan Life as a part-time director. But the president of the auto maker vehemently refused a request by the MOF to rescue the life insurance company, declaring a part-time director has one thousandth as much responsibilities as a full-time one has. The president of Hitachi also refused to help. Jiro Ushio, outspoken president of Keizai Doyukai, one of the top *zaikai* organizations, was reported to comment that the group may consult how much to contribute to Expos but there is no reason to help ailing companies simply because of the group affiliation. This case also shows the MOF or any governmental body cannot exert much influence over the business corporation without explicit legal sanctions. Japanese companies, financial institutions in particular, abide by notorious administrative guidance only because those pieces of guidance are backed by specific legal regulations. Administrative guidance is not an arbitrary whim but rather the administrative interpretation of often obscure legal letters in most cases. Therefore, the MITI's power cannot be substantial because it has very little legal backing unlike the MOF (See Miwa 1996, ch. 9 for the case of the steel industry). Countless anecdotes notwithstanding, the fact that retired MITI officials are rarely offered top positions by leading Japanese companies indirectly supports my conjecture. There is also a telling example concerning Mitsubishi Corporation. Makoto Kuroda, a renowned tough negotiator as the MITI's vice-minister for international affairs, had been hired as a (plain) director with much fanfare by the trading company, and promoted to higher positions, but was soon forced to retire, i.e., fired. If the MITI were as powerful as pundits claim, a trading company could not have fired a retired top official so ruthlessly.

[176] They are called *hira-tori*. *Hira* means plain or mere, and *tori* is an abbreviation of *torishimariyaku*, director. The label has a slightly contemptuous connotation.

[177] This is partly due to the merger with the Bank of Tokyo. Mitsubishi Corporation's board is the second largest with 47 directors including one American. Other leading city banks have roughly 40 directors.

[178] The nomenclature is different among companies and some companies have an even more selective body because there are too many managing directors.

real decisions by the managing directors' meeting in large Japanese companies.[179] However, in emergency the supreme nature of the board meeting is again restored. Because (the majority of) the board has the exclusive right to give and take a representing right, quite a few presidents are unexpectedly deprived of their rights and forced to retire by their junior colleagues at supposedly routine meetings (See Chapter 4 for the case of Meitec).

Often the managing directors' meeting seems a mere ceremony because a managing director and his staff in charge of a particular agenda consult the president[180] and other full-time board members related to the agenda in advance, and without their approval that agenda is not presented to the meeting. If that agenda has been already approved by the president and related directors, who would dare to oppose it? However, this ceremonial nature does not mean the managing directors' meeting is useless. Related parties have to negotiate the agenda before presenting it to the meeting in the shadow of what would be the consensus if the matter were directly presented to the meeting.

Virtually all (plain) directors are assigned the positions of general managers (employee positions) and are more like division managers than top executives. The nominal nature of being a (plain) director is even acknowledged by the Corporate Tax Law. Although the bonus payment to directors is a distribution of profit in principle,[181] the payment to (plain) directors with employee positions can be expensed as an exception.[182] In order to satisfy the dream of Japanese *salarymen*[183] to become a board member, presidents have been overissueing nominal posts for years and even the tax authorities cooperate this maneuver.[184]

Because of the importance of the managing directors' meeting, I want to investigate into the composition of managing directors in detail. Twenty-six Mitsubishi companies have 357 managing directors and up (14 per company), which are about half the full-

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[179] There was an attempt to legalize the managing director's meeting but it has not materialized so far.
[180] Also the chairman is consulted in some cases.
[181] Article 35, Section 1. The bonus payment to employees is tax deductible as salaries.
[182] Article 35, Section 5.
[183] Male white-collar workers.
[184] The number of directors was limited even at large companies before the war. Ten directors at one company were considered quite numerous. Even in the 1950s, more than 20 directors were very rare (Morikawa

time directors (Table 13). Among them, 327 or 92 percent are internally promoted and 30 are from other companies: eight from Mitsubishi Materials, seven from the government, four each from Mitsubishi Bank and Mitsubishi Chemical,[185] three each from Mitsubishi Heavy Industries and non-Mitsubishi companies and one from Mitsubishi Trust.

Apart from non-financial managers being assigned to closely related companies,[186] the top management at Mitsubishi companies almost exclusively consists of internally promoted professional managers.[187] There is no evidence of the bank control. A small number of former bank managers seem to be on the boards of non-financial companies because of their expertise, which can be seen from the fact that they are usually in charge of finance and accounting and not regarded as contenders for top jobs.[188]

Also retired bureaucrats seem to be hired because of their expertise[189] and no one is given a top position. Moreover, they are not given any preferential treatment compared to internally promoted top executives in the sense that at least one of internally promoted ones of the same college graduation year[190] occupies a position senior to retired bureaucrats'. It is often claimed that the MOF and the Bank of Japan have huge discretionary power over financial institutions. However, there is no retired MOF bureaucrat and only one retired central banker on the board of Mitsubishi Bank, who happens to be there because of the merger with the smaller Bank of Tokyo.[191] No retired official is on other Mitsubishi financial institutions. Actually, neither other top five city nor trust banks, that

1993, p. 205). Americans are not immune from post inflation. Every bank officer nowadays is a vice-president.

[185] All four are at Mitsubishi Plastics, a subsidiary.

[186] Mitsubishi Construction, the youngest company incorporated from scratch in 1960, is the least "independent" in the composition of managing directors with nine out of 13 from outside. Although the company seems to be under some control of Mitsubishi Materials, which holds 26 percent of the stock, the claim that the company is controlled by the group as a whole is not supported because two are from Taisei Corporation, a Fuji company, and three are retired governmental civil engineers.

[187] Because Mitsubishi Motors was separated from Mitsubishi Heavy Industries in 1970 and almost all current directors joined the latter before that year, we could claim they are sent by the latter to the former. However, I classify a director as internally promoted if one was a middle manager or new recruit and changed one's affiliation around the inception of the company.

[188] In Japanese companies unlike U.S. ones, personnel managers are considered more powerful and important than financial managers.

[189] Or a delayed payment from rent earned through regulation. See Ramseyer and Rosenbluth (1993) for the analysis of Japanese politics from rational choice theoretical perspectives.

[190] The year of graduation from college is as significant at Japanese large companies as it is at the U.S. army.

[191] In case of Makoto Usami, a former Mitsubishi banker and Keio graduate, who became governor of the Bank of Japan in the 1960s, the process was reversed.

is, other five *kigyo shudan*'s banks, have any retired MOF bureaucrat or central banker on their boards.

Are Japanese bureaucrats too shy to take advantage of their influential positions? Where do they go after relatively early retirement from bureaucracy? They usually find a job at less prestigious and smaller banks.[192] Ailing banks seem to believe it expedient to employ retired officials.[193] Also, quasi-governmental institutions are places to go: five out of nine directors of Japan Development Bank (JDB),[194] including two from the MOF (one is the president) and one from the Bank of Japan (the only vice-president), all graduated from the Faculty of Law of Tokyo University; four out of seven directors of Japan Export-Import Bank, including two from the MOF (one is the president) and one from the Bank of Japan (the only vice-president), again all graduated from the same faculty of the same university. Because the governmental shareholding of leading companies is much rarer in Japan than in continental European countries, it is difficult for bureaucrats to head a leading company after retirement. The situation in Japan[195] is different from *pantouflage* in France, where top posts of leading companies are often occupied by ex-bureaucrats, most likely, *énarques*.[196] Among top 50 publicly held manufacturing companies in Japan,[197] only one president is a former bureaucrat (a former vice-minister for Finance), while 47 are internally promoted and two are from closely related companies

[192] The president of the Bank of Yokohama is a former vice-minister of finance, the most powerful and prestigious position in bureaucracy. This fact suggests the real beneficiaries of the strict MOF regulations are not leading banks but smaller ones. This situation seems close to the U.S. banking world where regional small bankers are politically very influential. Considering the populist tendency common in both countries, this similarity is not surprising.

[193] The only major bank headed by a former bureaucrat is the half-bankrupt Nippon Credit Bank. However, Hiroshi Kubota, former director general of the MOF's Banking Bureau and chairman of the bank, was reported to have declined a bonus payment and even to have reduce his monthly salaries while he was the president. The current president is a former central banker.

[194] Some researchers argue JDB has played a significant role to signal the creditworthiness of a borrower through its lending and let other banks follow its lead (Horiuchi and Zui 1994). This claim is a variation of the Japan, Inc. view in the sense that it claims bureaucrats can consistently outmaneuver the market. However, Beason and Weinstein (1996) and El-Agraa (1997) show there is negative correlation between growth rates and targeted industries by industrial policies including JDB lending. The most targeted industry in terms of JDB lending is mining, which, mostly coal mining, has been euthanized since the 1960s due to substitution for imported oil. Isn't is a typical capture by vested interests? Anyway, JDB has been criticized as redundant for years and will be abolished soon.

[195] It is called *amakudari*, parachuting from above.

[196] Graduates of Ecole Nationale d'Administration.

[197] The data are based on 1997 consolidated sales and NTT is included (Toyo Keizai Shimpo-sha 1997a).

(also the largest shareholders),[198] and accordingly no company is headed by a banker. The only company under the presidency of an ex-bureaucrat is Japan Tobacco (JT), a recently privatized state monopoly,[199] and the government still holds 67 percent of the stock.

From personnel data, we can conclude that Mitsubishi companies are independent entities or decision units, and no government control or bank control is substantiated.

There are some data for international comparison. According to Cosh and Hughes (1987), among the U.S. sample consisting of 27 Fortune 100 industrial companies in 1981, 23 CEOs (85 percent) had spent more than two thirds of their career with the company they led. The average years with the company was 29 years, and the average age 58.

Vancil (1987) has a wider pool, 227 companies, from Fortune 500 industrial and 500 service companies in 1984. Of the CEOs holding office in 1972, more than 50 percent had spend at least 21 years with the company *before* becoming CEO. The average length of years with the company before appointment was 19 years and the average age of appointment was 51 years old. Of 211 CEOs holding office in 1984, 43 percent of them had spend at least 20 years and the average age of appointment was again 51 years old. But the average length of years with the company is not reported.

The most comprehensive comparison, however, is conducted by Kato and Rockel (1992), who use the *Business Week* survey[200] for the U.S. data. With the sample of 599 Japanese and 506 U.S. companies, the average years with the company before appointment were 22 years for Japanese presidents and 18 years for U.S. CEOs. These data show U.S. CEOs are in general "company men"[201] as Japanese presidents are, and cast doubt on

[198] The president of Mazda is from Ford (British until 1997 and now American) and that of Fuji Heavy Industries from Nissan.
[199] JT is still the only domestic manufacturer sanctioned by the JT law. Considering the high tobacco tax, the company is still a tax collecting institution rather than business organization as it was before privatization.
[200] *Business Week*, October 23, 1987.
[201] Actually, virtually all CEOs in the U.S. are not only men but white. According to Cosh and Hughes (1987), the typical U.S. giant company board consisted of 5 male executives, 9 male outsiders and only 1 female outsider in 1981. On the other hand, the typical U.K. board consisted of men only. In the *Business Week* survey, there was no black CEO and only two out of 1000 CEOs were women. One was a daughter of the late owner and the other seemed to share power with her husband.

the existence of the alleged CEO market in the United States.[202] At least it is likely that the market is far from a liquid one.

Overall, we can conclude the typical Japanese president and U.S. CEO are more alike than usually believed. Professional managers prevail in modern large companies in both Japan and the United States. This tendency will be discussed in detail in Chapter 8.

[202] Kurtz et al. (1989) show other interesting characteristics concerning CEOs. Their sample consists of 243 CEOs from the 800 largest industrial and service U.S. companies. First, 64 percent of them were from upper-middle or higher social classes, while only 14 percent of all Americans were in these categories. Second, 33 percent of them were Episcopalian or Presbyterian (another 16 percent of them simply claimed to be Protestant, which surely includes Episcopalian and Presbyterian.), while these denominations only represented 2 percent of all Americans. On the other hand, only 3 percent claimed to be Baptist, while 11 percent of Americans did. The religious data confirm the social class data because the former denominations are regarded as the ones for rich people and the latter predominates in lower social classes. Third, 90 percent were taller than 5'10" and 60 percent were taller than 6'0", while the average height of male Americans was 5'9". Moreover, the median age of CEOs was 58 years old, and the average height of American males in the 55-64 years old cohort, which covered two thirds of CEOs, was only 5'8". How can we interpret these data? Are managerial abilities positively related to age, height and/or family background? The relative homogeneity of the CEO family background implies that even the appointment of outsiders to CEOs is not through the CEO market, but through the Old Boy network ("Girls" seem to be excluded.). As for height, it is plausible that Americans are partial to height and tall guys have a competitive edge in business as well as in politics. Of course, we can claim being tall is a part of higher managerial abilities.

Chapter 6. Group transactions

It is often said that group companies transact with each other exclusively or on favorable terms and non-group companies, foreign ones in particular, are unfairly excluded from business. Apart from countless anecdotes,[203] Nakatani (1984), often cited by proponents of the view, claims to show that group companies insure each other because they grow at a lower rate than non-group independent companies. However, a careful replication by Odagiri (1992a, pp. 192-194) does not support the claim. There is no marked difference between group companies and independent companies in sales, assets, profit and profit variability. Even such main bank/corporate group view advocates as Ito and Hoshi (1992) do not find any economically significant difference. At least among Japanese scholars, this mutual insurance hypothesis seems to have been abandoned.

Before concluding, I want to show actual intra-group transaction data in some detail. The FTC (1994) offers us the most comprehensive data.[204] The FTC started to collect data in 1977 and the overall picture has not change much since then, though group cohesiveness has been decreasing gradually. Therefore, what I present here is not limited to group transactions today. I focus on the Mitsubishi group, which happens to be the most group-oriented among six groups according to the data.[205] First, the ratio of the intra-group sales to total sales was 14.2 percent consisting of a 12.1 percent transaction related to Mitsubishi Corporation and a 2.1 transaction not related to Mitsubishi Corporation On the other hand, the ratio of intra-group purchase to total purchase was 16.9 percent consisting of a 14.9 percent transaction related to Mitsubishi Corporation and a 2.0 percent

[203] One of the clichés is that only Kirin beer is offered at parties and ceremonies held by Mitsubishi group companies, though it is not clear how helpful this behavior is to Kirin Brewery with one trillion yen annual sales. However, I suspect this group-oriented behavior is possible only if it is marginal to their business, e.g., which beer to choose for parties. For example, Mitsubishi Corporation and Mitsubishi Heavy Industries use mainly IBM computers, though Mitsubishi Electric is a major manufacturer of computers and its president is on the board of Mitsubishi Corporation. Moreover, Mitsubishi Heavy Industries maintains extensive business ties with Asahi Brewery, Kirin's arch-rival, while Kirin maintains similar ties with Sumitomo Metal. The same kind of result is shown in FTC (1994) concerning the private branch exchange (PBX) system.

[204] This report is based on 1993 data. The figures also include non-listed companies. The FTC started to collect data from 1977 and the overall picture has not change much since then.

[205] In any measure, not surprisingly, the ex-*zaibatsu* groups are more cohesive than the bank-centered groups.

transaction not related to Mitsubishi Corporation As expected, most transactions among group companies involve the trading company. It would be strange if companies in different industries buy and sell many of their products with on another , simply because they belong to the same group. Some argue the relative weight of transactions between Mitsubishi Corporation and other group companies is evidence of group favoritism beyond economic reason. Let's look at the data in detail. According to my estimate based on the FTC data, Mitsubishi Corporation's sales to group companies were 0.9 trillion yen or 6.3 percent of its total sales, and the sales of 21 non-financial group companies to Mitsubishi Corporation were 2.7 trillion or 17.7 percent of their total sales.[206] The sales of Mitsubishi Corporation is 13.5 trillion yen, which were roughly equal to the combine sales of other 21 non-financial group companies (15.7 trillion yen). Not only Mitsubishi Corporation but any other large trading companies stand out in their sales figures,[207] because their transactions are recorded in a gross amount. It means when they intermediate the transaction between a seller and a buyer, they record not the amount of commission but both "sales" and "purchase" amount as if they bought and sold the product. In any sense, 6.3 percent is not a figure that supports the "dependence" on group transactions from Mitsubishi Corporation's point of view. 17.7 percent is a more substantial figure but it is still too small to claim the dependence on Mitsubishi Corporation from group companies' point of view.

Although most studies, including the FTC report, focus on group transactions and no comprehensive figures are available,[208] transactions between group companies and non-group trading companies are also substantial. For example, in 1996, Mitsubishi Heavy Industries is one of Sumitomo Corporation' top five customers and borrows 28.2 billion yen on account payable, which is nearly equal to 28.4 billion yen borrowing from Mitsubishi Corporation and slightly less than a 33.2 billion yen short-term loan from Mitsubishi Bank; Mitsubishi Rayon sells 7 percent of its products to C. Itoh, a DKB company, 5 percent to Marubeni, a Fuji company, as compared to 9 percent to Mitsubishi Corpora-

[206] The simple sum of sales figures of 21 companies.
[207] The sales of top five trading companies including Mitsubishi Corporation exceed 10 trillion yen.
[208] Toyo Keizai Shimpo-sha (1996c) includes the data on top five customers of each listed company, though not complete.

tion; Mitsubishi Corporation has set up Japan Kentucky Fried Chicken with PepsiCo, now one of the top five restaurant chains in Japan,[209] and has substantial shareholdings in several bottling companies of Coca Cola, which has a lion's share of the Japanese soft drink market, though Kirin Brewery, a Mitsubishi company, has a soft drink division (Kirin Beverage) far behind Japan Coca Cola.[210] Also, Mitsubishi Estate uses not just Mitsubishi Construction but also such non-Mitsubishi contractors as Taisei, Shimizu, Obayashi and Takenaka, all of which are among the top ten shareholders of Mitsubishi Estate, for development projects. Mitsubishi Construction relies 75 percent of sales outside the group.

The *keiretsu* transaction, mainly argued in the context of automobile industry,[211] is a related but different issue. I am of the opinion that *keiretsu* is a concept too liberally used and too vague to be useful for any understanding of Japanese economy. Therefore, I define the word as a long-term relationship between not just legally but economically (as a decision unit) separated assemblers and suppliers, and explain the nature of transaction. As mentioned in Chapter 2, companies in Japan form *kigyo gurupu* as U.S. companies do. The relation between the core company and other member companies varies and is often not so tight, however. Although the shareholding is a good yardstick to judge the strength of tie, and *kigyo gurupu* is formally[212] defined as the group of the parent company, its subsidiaries and affiliated companies, almost exclusively using the stockholding criterion. Moreover, the stockholding is not the only important benchmark as exemplified in the relation between JR East and JTB mentioned in Chapter 4.

Suppliers in the *keiretsu* relation are sometimes, but not always, affiliated companies of assemblers in the sense that 20 to 50 percent of their stock is held by the latter. Also we usually do not use *keiretsu* for the relation between parent companies and subsidiaries, closely held ones in particular, because subsidiaries are more divisions than separate companies and we would not use *keiretsu* for the intra-departmental transaction.

[209] The largest chain is, what else, Japan McDonald's.
[210] Japan Coca Cola's 1996 taxable income is 66 billion yen and ranked 52nd in all Japanese companies.
[211] Nishiguchi (1994) is the most comprehensive study on the Japanese automobile industry in English.
[212] Article 4 of *Renketsu zaimushohyo kisoku* (the MOF Ordinance for Consolidated Financial Statements). Companies are required to disclose this information including consolidated financial statements by this or-

The crucial misunderstanding commonly held is that the *keiretsu* relationships should be exclusive. Actually, virtually all primary suppliers[213] have transaction with more than one assembler.[214] For example, Denso, Japan's largest automotive parts maker and an affiliated company of Toyota with a 23 percent holding, supplies its products to other assemblers such as Honda and Mitsubishi Motors. If Denso were under Toyota's control or at least other assemblers believed so, Honda, Mitsubishi Motors and other assemblers could not share information vital for their close cooperation.[215] Because Japanese auto makers use outsourcing more extensively as discussed below, they have to share more information than U.S. assemblers do with outside suppliers such as Denso which are often to be affiliated with a rival company in terms of shareholdings. The fact that Robert Bosch is the third largest shareholder of Denso also implies that foreign investment is not discouraged if it makes economic sense. Koito, which has become known in the United States by Boone Pickens's takeover bid, also supplies its products to Toyota, Nissan, Mitsubishi Motors and other assemblers. Although recognizing this non-exclusivity in general, some scholars claim that Toyota and Nissan rarely buy from the same suppliers due to their historical rivalry.[216] It is simply wrong as pointed out in Miwa (1996, p. 72). Twenty-seven publicly held suppliers classified as transportation equipment manufacturers by stock exchanges list Nissan as one of their top five customers in 1996. Ten out of these suppliers also list Toyota as one of their top five customers. As for Mitsubishi Motors, 23 suppliers in the same category list the company as one of their top five customers and all but one list at least one other assembler as well. The only exception, Yasunaga, lists Kubota, a Fuji company, as another top five customer, which makes specialized vehicles such as cultivators. A different but equally interesting example is Exedy, which is said to be close to Nissan, its largest shareholder with a 26 percent share. However, the largest customer of Exedy is not Nissan but Mitsubishi Motors. Another interesting case is Akebono Brake, which is said to be independent and has started a joint venture with GM in the United

dinance. However, this group information is called *kigyo shudan* information. We should be very careful about what several related words mean in each context.

[213] Suppliers directly transact with assemblers.

[214] Nishiguchi (1994, pp. 114-115) and Miwa(1996, p. 72) also point out this oft-neglected fact.

[215] There is no full-time director on the board from Toyota.

[216] For example, Itami et al. (1988, p. 146) and Odagiri (1992a, p. 163).

States, but its outstanding shares are fairly concentrated: Toyota with 16 percent, Nissan with 15 percent and Robert Bosch with 14 percent. Is Akebono Brake under the control of these three shareholders? Well, the largest customer is again Mitsubishi Motors. Moreover, Akebono Brake and others are often the sole suppliers of key components which would be made internally in the U.S. Isn't there a hold-up problem which corners not suppliers but assemblers, though researchers seem to be less concerned about this "reverse" hold-up problem? However, shrewd business people don't miss the point. Toyota makes it a committed policy to diversify its sources of procurement.[217] Toyota has set up Hosei Brake with Akebono Brake and maintain the double sourcing policy even incurring additional cost due to the scale diseconomy of Hosei relative to Akebono.

Figure 12 compares the popular beliefs and facts of *keiretsu* relations. In spite of such frequently uttered fancy words as trust and mutual responsibility, both suppliers and assemblers carefully avoid becoming overly dependent each other. Only those in whom you have put much trust can hurt you deeply. At least in business, weak ties often have *more* strength than strong ties as Granovetter (1973) points out.

Japanese manufacturers including automobile makers are outsourcing extensively as mentioned briefly above. This is why Japanese companies are relatively small compared to U.S. companies. For example, Toyota's outsourcing ratio is 70 percent[218] and the number of its employees are about 70,000, while the heavily restructured GM still keeps 300,000 employees as mentioned in Chapter 2.[219] However, the domestic production of Toyota with one fourth of GM's work force is 84 percent of that of GM in 1996.[220] It does not mean Toyota employees are three times as efficient as GM employees. Instead, it suggests that suppliers in the *keiretsu* relation are substitutes for internal divisions in GM. Therefore, Japanese companies in the *keiretsu* relation are *more* market-oriented than often vertically integrated U.S. manufacturers.[221]

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[217] Miwa (1996, p. 225).
[218] The ratios of Honda and Mitsubishi Motors are slightly higher.
[219] Miwa (1994b, p. 97; 1996, p. 10) also points out this smallness, though his comparison uses consolidated figures for GM and non-consolidated ones for Toyota.
[220] The data are from the website of Toyota (www.toyota.co.jp).
[221] See Shimotani (1993, pp. 236-239).

It has been debated why Japanese manufacturers maintain the *keiretsu* relation instead of integrating vertically. A once popular and still influential argument is the dualist view: small suppliers are exploited by big assemblers. However, this argument is not consistent with the fact that suppliers continue to improve their products for almost a half century. As Miwa (1996, ch. 2) shows, small companies were more profitable than large ones in the 1960s, when the dualist view was very popular. It is true that employees at small companies are paid less than those at large ones in Japan, but the wage differential in the United States has been even larger than that in Japan for many years (Figure 13). Today, it is well-known that labor cost in Japan is one of the highest along with Germany, though most Japanese work for small companies. All in all, the labor exploitation argument does not hold water.[222]

As Nishiguchi (1994) shows, historical contingency certainly plays a role for the current institutional framework. However, whatever historical path the Japanese industry has taken, the *keiretsu* system has emerged under the global competition. This suggests the system should be efficient. Actually, this is the conclusion of Miwa (1990, 1996) and Nishiguchi (1994). Therefore, the question to ask is not why *keiretsu* is common in Japan but why *keiretsu* is not so common in the United States as in Japan, though the *keiretsu*-like relation exists to a certain degree in the Unites States as vividly depicted by Coase (1991, pp. 71-72) concerning GM and A.O. Smith.

My argument is in line with Coase (1988, 1994). Law matters. Some readers argue my claim contradicts the Coase theorem: institutional arrangements do not matter for efficiency. However, Coase (1988, p. 15) himself admits, the so-called Coase theorem is an invention of Stigler and misses his message:

> It would not seem worthwhile to spend much time investigating the properties of such a world. What my argument does suggest is the need to introduce positive transaction costs explicitly into economic analysis so that we can study the world that exists. This has not been the effect of my article.

[222] At least Japanese workers are not exploited more than U.S. workers. Nishiguchi (1994) refutes the dualist view with convincing evidence.

We should be cautious about the difference between what Coase claims and what he is said to claim, though his text is not sacred and what we have to do is not to find what he "really" means.[223]

Until the relatively drastic change occurred during the late 1970s and early 1980s, the U.S. antitrust policy was very hostile to vertical integration including exclusive dealing[224] as well as against horizontal monopoly including cartel. However, if the antitrust policy should pursue economic efficiency, there is very little, if any, justification for the restriction of vertical integration. As such eminent law and economics scholars as Posner (1976, pp. 196-201), Bork (1993, ch. 11) and Posner and Easterbrook (1981) show, vertical integration is only harmful if it helps horizontal monopoly from a viewpoint of economic efficiency.[225] Rather, the restriction of vertical integration is likely to decrease efficiency as long as horizontal competition is kept alive. Then, why did the antitrust authorities and courts try to restrict vertical integration? The motivation seems more political than economic. They not only are pressured by vested interests but themselves want to protect small guys against big bullies, following the Jeffersonian populism,[226] even though small guys are inefficient and unproductive, and their "protection" is economically questionable. It is too naive to believe antitrust policies pursue economic efficiency as the only objective. Rather the U.S. antitrust enforcement has been more anti-competitive than usually believed. Also there is a twist in rhetoric (Harada 1993, p. 93):[227]

> The fact that the U.S. antitrust law is enforced to restrict competition leads us to a deep insight of human nature. Americans, who claim to love competition, actually hate competition. However, because promoting competition is an official ideology rooted in American psyche,

[223] Marxists and post-Keynesians seem to be fond of this theological exercise.
[224] The most typical court decision is *Brown Shoe Co. v. United States*.
[225] Although most economists agree that vertical integration is not efficiency reducing unless it leads to horizontal monopoly - Samuelson's celebrated introductory text (1980, p. 525) cites the Robinson-Patman Act as an example of bad economic policies -, the claim that even horizontal monopoly is efficiency increasing based on the contestable market theory (Baumol et al. 1988) is far from a consensus.
[226] Although Roe (1994, ch. 4) describes this tendency in detail as an American trait, populism is almost always another name of envy. See Schoeck (1987) for a comprehensive analysis of envy.
[227] My translation.

> restriction of competition is practiced quite perversely in the name of protection of competition. Indeed, American rent-seeking is complicated.

But as mentioned above, a kind of sea change occurred in the 1980s.[228] Actually, the 1984 Department of Justice Merger Guidelines abandon "foreclosure" as an antitrust theory and "state that vertical acquisitions are objectionable only to the extent that they affect horizontal competition." (Posner and Easterbrook 1984, p. 139)

As Bork (1993, p. 248) points out, conglomerates are analogous to vertical integration:

> Like the vertical merger, the conglomerate merger does not put together rivals, and so does not create or increase the ability to restrict output through an increase in market share. Whatever their other virtues or sins, conglomerates do not threaten competition, and they may contribute valuable efficiencies.

Therefore, even if corporate groups such as the Mitsubishi group were tightly knit conglomerates, they could not be claimed to be anti-competitive per se. It is their business not ours (consumers') whether they form corporate groups or not. Moreover, the worry for dominant economic powers, which may be a legitimate consideration besides an antitrust one,[229] is not warranted either: the size of each corporate group is comparable to that of *one* giant corporation in the United States and insignificant relative to the entire Japanese economy. Even if their operations became inefficient due to conglomeration, it would not hurt us, only them. In every industry in which a group company exists, there are non-group independent companies that could take advantage of the inefficiency of their rivals.

It is often claimed that the Japanese antitrust enforcement is weak and what Japanese companies do in Japan would be illegal in the United States. This claim is not far from truth particularly if we consider the U.S. antitrust policy until the 1970s, although

[228] Bork (1993) affirmatively comments on this change in the new introduction and epilogue. In the original edition (1978), he looked like Cassandra.

[229] Bork (1993) also implies the possibility of considerations other than antitrust, but argue that "They are not *antitrust* issues." (p. 248)

such an efficiency-reducing policy is not desirable from an economic point of view as mentioned above. If the Japanese FTC had adopted the U.S. style (but pre-1980s) antitrust policy after the war, Japanese assemblers could not have established the *keiretsu* relation with suppliers. Rather they would have had to rely more on in-house production and only to contract out peripheral parts to outsiders at arm's length. Fortunately, the Japanese antitrust authorities did not follow their U.S. counterparts. Consequently, the *keiretsu* relation has enabled late comers such as Honda, Mitsubishi and Mazda[230] to join the market because they did not have to build up a vertically integrated production chain, but only to make the core components such as engines, and procure other components from suppliers who had established ties with *other* assemblers. Indeed, Japanese manufacturers are assemblers rather than producers and, accordingly, the entry barrier is inherently low. If we regarded *keiretsu* companies as quasi-divisions of assemblers, we could say incumbents are forced to supply key components to new entrants. One of the distinct characteristics of globally competitive Japanese manufacturing industries such as automobile and electronics is the existence of numerous competitors, which is attained *because of* the *keiretsu* relation. A large number of competitors make cartel difficult to maintain and competition fierce. The *keiretsu* relation enhances rather than restricts the horizontal competition, which is crucial for efficiency, although it should be noted that the liberal attitude toward vertical integration is inseparable from weak enforcement for horizontal collusion, which might in certain cases hurt the welfare of consumers.

This argument is consistent with the recent changes in U.S. auto industry. GM has been restructuring itself and outsourcing more parts. The relation between GM and Delphi, a parts making subsidiary soon to be spun off as an independent company, is close to the *keiretsu* relation. Even before public offering, GM has been encouraging Delphi to supply parts for other auto makers.[231] Recently, U.S. auto makers are reported to have surpassed the productivity of Europeans and be closing up in the Japanese. Competition

[230] Until the 1950s, only Nissan, Toyota and Isuzu made passenger cars (Actually there were two others, but Hino has become a truck maker of Toyota group and Prince has been acquired by Nissan). Among them, Nissan was then the largest company. In 1955, the gross asset of Nissan was three times as large as that of Toyota, which was even smaller than that of Isuzu, now a GM affiliate. The data are from Nakamura (1993, pp. 368-369).

[231] 36 percent in 1996. *The Wall Street Journal*, March 13, 1997.

seems to matter more than history. Moreover, surprisingly enough, the *keiretsu* system is actually made in the Unites States.[232] As Helper and Hochfelder (1997) shows, "many of the features of these so-called 'Japanese-style' customer-supplier relationships were present in the US auto industry before 1920." (p. 187) "During the 1910s and 1920s, the large makers moved away from quasi-internalization and toward a mixture of vertical integration and arm's-length (and often adversarial) relations with outsider suppliers." (p. 208) "American anti-trust legislation and business culture placed limits on interfirm co-operation[.]" (p. 208) "Accordingly, the current trend toward more co-operative supplier relations in the US auto industry seems like a return to this earlier pattern." (p. 209) They also claim (p. 209):

> Early US automaking seems to have combined the best of both a keiretsu and a competitive market... close collaboration fueled innovation, as it allowed both sides to solve technical problems and to preserve many of the benefits of a competitive marketplace. Automakers profited from their suppliers' technical expertise gained in other industries such as carriage-building and bicycle parts, and entry into the industry, either as supplier or assembler, was relatively easy.

Indeed, this is what the Japanese *keiretsu* relation actually is, contrary to the imagined but non-existent exclusive relation which many researchers including Helper and Hochfelder take as a "stylized fact."

Also noteworthy are the zigzags in the U.S. antitrust policy. In spite of the stability of statutes in letters, their interpretation by courts and antitrust agencies is quite capricious and unforeseeable. This arbitrariness in the aggressiveness of courts is not unlike notorious administrative guidance in Japan, while the business review procedure is administrative guidance pure and simple. We may regard the U.S. antitrust policy as an example of judicial guidance so prevalent in the U.S. governance.[233] We should not be overly alert to the distinction between the words, judicial and administrative. In addition

[232] Also life-time employment is. See Chuma (1987) and Harada (1993, ch. 9).
[233] See Berger (1997) for a thorough examination of this peculiar U.S. governance structure.

to lawmakers, judges and bureaucrats also "legislate" through specific cases.[234] However, in both judicial and administrative guidance, those who influence the welfare of people are neither elected by nor representative of the general public. Moreover, the mindset of liberal supreme court judges who formed the majority before Reagan presidency is close to interventionist Japanese bureaucrats.[235] They believe they know what we want more than we do ourselves. Moreover, due to its constitutional scheme, the U.S. courts play, or are forced to play, an executive function different from other democracies such as Japan, the United Kingdom, France and Germany, where courts are less politicized and more passive.[236]

In a sense, judicial guidance tends to be more arbitrary than administrative one. Supreme court decisions are final and accordingly supreme court judges can be very creative without worrying about their decisions being overturned. Could anyone infer the abortion right from the text of the U.S. constitution? Although there is some possibility that the congress may enact new statutes after the decision, the congress rarely passes laws which resolve such controversial issues. Rather this indecisiveness is one of the reasons why the judiciary is so powerful in the United States. Even if the congress enacts a new law, the court can declare it unconstitutional.[237] On the other hand, administrative guidance is precarious because interested parties can go to courts and courts are not bound by it.[238] Therefore, the discretion exercised by bureaucrats is expected to be limited unless related parties voluntarily agree. Rather most of administrative guidance may be merely sealing compromises already agreed upon among related parties. It is often argued that business people cannot voice their complaint because bureaucrats will take revenge

[234] See Kelsen (1967) and Hart (1994).
[235] Contrary to the usual claim that bureaucrats are guardians of big business, they are extremely suspicious of market mechanism and big business. The intellectual atmosphere at Tokyo University is close to those of European prestigious universities including French grandes écoles; those who go to business are considered "sold out."
[236] See Posner (1996). However, being "neutral" to the political controversy is indeed a very political position.
[237] A recent example is *City of Boerne v. Flores*: The Religious Freedom Restoration Act, which had been enacted in response to *Employment Division v. Smith*, was declared unconstitutional in 1997.
[238] A famous case is a 1984 Supreme Court decision on the cartel of gasoline price.

at them and treat them unfairly in unrelated areas.[239] However, once "revolts" are known, not just the mass media heavily criticizes bureaucrats, but also their authority is tainted and finally they cannot but acquiesce. Moreover, those "brave" companies would be heard again if treated unfairly in other instances. Considering the huge damage incurred in case of failed guidance, bureaucrats are expected to be more accommodating than usually claimed. Actually, the possibility of "revolts" is very real: there are quite a few instances of unsatisfied players openly refusing to abide by guidance.[240]

U.S. antitrust authorities are also willful. In spite of no statutory change, the 1984 Merger Guidelines of the Justice Department are a major departure from the earlier practice as discussed above. The Robinson-Patman Act, which was enacted in the depression era intended to protect small owners from chain stores in line with the Jeffersonian populism, has been rarely enforced recently though the law itself has not been repealed. This situation is similar to the case of the notorious Japanese Large Retail Store Law,[241] which is also a result of politically powerful small shop owners' demand backed by the populist sentiment strong among Japanese, but has been interpreted in favor of large retailers recently due to the pressure from the U.S. government.[242]

All in all, we can conclude that the transaction both among group (*kigyo shudan*) companies and among companies in the *keiretsu* relation (some *kigyo gurupu* companies included) is neither exclusive nor xenophobic nor particularly concentrated. This is also the conclusion of the Japanese FTC (1994, p. 10). Of course, it is a reasonable attitude to doubt the reliability of the official document or any public statements by any influential figures.[243] However, despite many anecdotes of Japanese non-tariff barriers and arcane

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[239] Such a conduct has been considered illegal and many cases of administrative guidance have been overturned by courts, though not explicitly banned by Article 32 of the Administrative Proceedings Law until 1993.

[240] Such leading companies as Daiwa Bank, Idemitsu, Sumitomo Metal and Yamato Transport openly challenged and they almost always won. See Miwa (1994a, pp. 192-193; 1996, ch. 10).

[241] Neither the (in)efficiency of the Japanese distribution system or the effect of the law is a settled issue. Maruyama (1988, 1992), Miwa (1991b) and Miwa and Nishimura (1991) show the Japanese distribution system is at least as efficient as those of other industrial countries. Flath (1990) and Flath and Nariu (1996) argue that the law is not the essential reason for the ubiquity of small stores in Japan using cross-country data.

[242] The law will be repealed in 1998.

[243] For the same reason, it is too naive to take what U.S. CEOs say at face value. Claiming that the Japanese market is closed is a dominant strategy: a good excuse for failed managers; a compliment for successful managers if the market is believed to be so difficult to penetrate.

regulations,[244] the Heritage Foundation and Wall Street Journal (Holmes et al. 1997), both self-styled pro-U.S. business organizations, rank Japan as the 11th in its 1997 index of economic freedom. Among G7 countries, Japan is the third behind the United States (5) and the United Kingdom (7), but considered freer than Canada (15), Germany (20), France (31) and Italy (36). Compared to the United States, Japan is given the same scores in such subcategories as trade, regulation and property rights, lower (more regulated) ones in foreign investment and banking, but higher (less regulated) one in government intervention. They comment:

> Although Japan's economy often is characterized as heavily regulated, most business enjoy a large amount of economic freedom... even though some regulations may impose a burden on individuals, regulations on businesses are aimed at allowing them enough room to maximize profits. Therefore, many regulations on business either are not enforced or are not significantly burdensome... by global standards, Japan's level of regulation is low.

[244] Japan actually imports more U.S. goods than Germany, France and Italy combined. Japan's per capita import from the United States exceeds any of these three countries for years. Moreover, in 1995 Japan imported more than twice as much as the U.K. (also slightly more on a per capita basis), which is believed to have special ties with the Unites States (U.S. Department of Commerce, 1997).

Chapter 7. Japanese corporate groups, more myth than reality

> No, Child, money speaks sense in a Language all Nations understand, 'tis Beauty, Wit, Courage, Honour, and undisputable Reason[245]
>
> Aphra Behn

From the data and the arguments above, I conclude: *kigyo shudan* does not have much substance beyond, say, a loose trade organization in the United States; Japanese banks play no more important role than U.S. banks; *kigyo gurupu* such as the Mitsubishi Motors group and Toyota group are not different from such U.S. corporate groups as the GM group and Ford group.[246]

The Mitsubishi Public Affairs Committee[247] has a website and publishes brochures (Mitsubishi Public Affairs Committee 1994, 1997). In the website, the Committee addresses several questions related to our discussion. The above evidence is consistent with their answers:

> Why do the Mitsubishi companies undertake joint endeavors like Mitsubishi Center if they are separate and independent companies?
>
> The companies conduct their business activities independently and even compete with each other in many fields. But they cooperate in areas of common concern, such as sporting and cultural events and public-interest activities.
>
> Do the Mitsubishi companies have some kind of decision-making body that determines overall policy for the companies?
>
> No. But all the companies honor the three general principles prescribed by Koyata Iwasaki, the Fourth and final president of the old Mitsubishi organization:

[245] Behn (1996, p. 265).
[246] Moreover, the Ford group can be rightly claimed as a U.S. *zaibatsu* if we adopt a broader definition, which includes a family controlled industry-specific big business such as the prewar Kawasaki *zaibatsu*.
[247] According to the website, "The Public Affairs Committee works to promote understanding of the traditions and activities of the Mitsubishi companies. It began operating in 1964 as a joint initiative by the Mitsubishi companies." This committee consists of all *shachokai* members and another twelve smaller companies.

(1) Corporate responsibility to society

(2) Integrity and fairness

(3) International understanding through business

Do the Mitsubishi companies give preference to each other in business dealings?

No. The companies deal with each other on the same fair and open terms that apply to their dealings with all companies.

What else could we expect[248] under the fiercely competitive Japanese product markets, often described as excessively competitive? [249]

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[248] I cannot agree more with the comment by a manager of Mitsubishi Corporation: “We may help group companies under the constraint of maximizing our profit. However, first of all, we have to make profit which cannot be sacrificed for helping group companies for whatever reason.” The same manager also informed me: they often join a non-group company to win a contract competing against a Mitsubishi company; what they have to explain to foreign customers first is that there is no group favoritism which new customers, foreign ones in particular, implicitly expect before business starts; there is a huge perception gap between outside and inside the group. However, he added “I don’t go against the tide if most people believe a fancy story. It’s not my business to correct the misperception unless it hurts our business.” Other managers at several corporate group companies told me essentially the same story. Of course, they may lie in tandem, though I believe information contradicting the conventional wisdom is more informative than conforming one. Anyway, all of them surely agree with Miwa (1996, p. 265): “Every buyer and seller emphasizes the importance of mutual ‘trust’ of some kind. Every wife and husband emphasizes the importance of love, and answers, ‘Yes, I love my partner’ whenever asked and so long as they want to maintain the status quo. Answering this way is both cheap and at least non-damaging.”

[249] Akio Morita, flamboyant former chairman of Sony, asserted that Japanese companies are too competitive and should keep “symbiotic” relations with both domestic and foreign competitors as western companies are practicing. Some economists interpret this message as an urge for cartel: let’s divide the market and stick to our own field as western companies do. Fortunately, this message seems to be ignored.

Chapter 8. Why do professional managers exist?

Why professional managers[250] exist is another way of asking why firms exist. Before trying to answer this question, I want to clarify the difference between two concepts, company and firm. In the analysis of Japanese corporate groups, I have used the word "company" as nothing but a legal person, i.e., incorporated entity. Therefore, when I say "internally promoted," this simply means promoted within the company. However, economically speaking, there is no clear boundary that distinguishes market from firm or organization. Rather, such a dichotomy does not have much meaning for economic analysis. Any economic human *inter*action has a firm- or organization-like element. Because there is no clear boundary that delineates market and firm, what we can meaningfully talk about is how firm-like a particular interaction is (Demsetz 1988, p. 156). Indeed, even U.S. economy, the self styled champion of the market mechanism, is an organization economy. As Simon (1997, p. 200) succinctly summarizes, "It would appear that successful market economies are actually organization-and-market economies."

Then, why do firms, or more precisely, firm-like activities exist? I think the specialization theory advocated by Demsetz (1995, p. 11) is the most satisfactory answer: "firms exist because producing for others, as compared to self-sufficiency, is efficient; this efficiency is due to economies of scale, to specialized activity, and to the prevalence of low, not high, transaction costs."

In this theory, "The moral hazard problem is no different than the problem posed by any cost. Some iron ore is left unearthed because it is too costly to bring to the surface." (Demsetz 1989, p. 8) This approach is based on the comparative institution approach, while some agency theorists seem to be trapped into the *nirvana* approach.[251] Agency theorist are fond of talking about first best and second best solutions. However, comparing the best available solution with the unapproachable nirvana solution and declaring the latter the first best and the former the second best is similar to saying the first

[250] This category includes not only top executives but also most white-collar and quite a few blue-collar workers.

[251] "In practice, those who adopt the nirvana viewpoint seek to discover discrepancies between the ideal and the real and if discrepancies are found, they deduce that the real is inefficient." (Demsetz, 1989, p. 3)

best solution obtains under zero labor and capital cost and the solution under positive cost is the second best. The claim that managers maximize sales or whatever rather than profit is another example of the Nirvana approach. [252] In this line of research, managers are supposed to maximize something other than profit under the constraint of satisfying a *given* minimum acceptable profit. However, the minimum acceptable profit is given not by researchers but by the (competitive) market. If managers meet this market imposed criterion, that means they maximize profit. The market sets the required rate using all relevant information including managers' alleged megalomania.

In firm-like production, managers are rightly at the center of stage because in modern advanced economies human capital embodied in them is the most important factor of production. The majority of the company's value added is distributed as salaries and wages, which are the return on human capital. Of course, shareholders are also important participants of the game called firm, but they are one of many classes of participants. They own securities called shares but not a firm because no one does in any meaningful sense. Although we can say shareholders own a company by defining as such, what are given as shareholders' rights in the corporate law is surprisingly limited (Clark 1985, pp. 56-59). In any case, if capital in capitalism means monetary capital, neither Japanese or U.S. economy is a capitalist one any longer (Miwa 1997, pp. 246-251).

The argument above is not new at all. Indeed, Berle and Means (1968) and Barnard (1968) pointed out the emergence of managerial capitalism in the United States distinct from text book neo-classical capitalism more than half a century ago. While scholars in this tradition tend to think this phenomenon is inevitable once the economy has become sophisticated, Roe (1994) claims this "strong managers, weak owners" mechanism is not universal but rather brought about by regulations only realized in the U.S.-specific political atmosphere. Although his historical description on U.S. economy is fascinating and well-grounded, his analysis on Japanese economy[253] seems rather superficial and heavily influenced by the conventional wisdom.[254]

[252] Baumol (1962) is a classic, while Leland (1972) is a sophisticated dynamic extension.
[253] He puts Japan and Germany into the same category but I concentrate on Japan because I have no expertise in German economy.
[254] For example, He does not mention Odagiri (1992a), which shows the unexpected similarity of the Japanese and U.S. economic structures, though Miwa (1996) was not yet translated into English then. As for

On the other hand, Japanese scholars such as Morikawa (1996) tend to contrast the shareholders-oriented U.S. governance with the managers-dominated Japanese one. Kagono (1994) reconciles this view with Berle and Means (1968) by claiming the counterrevolution against the dominance of managers occurred in the United States in the 1960s. It is true that outside directors have substantially increased since then, but as Fischel (1982) points out, the “corporate governance movement” seems a periodic fever or much ado about nothing.

In any case, Roe (1994) and Morikawa (1996) give convincing arguments for the relative importance of managers in their respective native countries but the description of their foreign countries is rather casual and impressionistic. In the long-run, institutional differences do not seem to matter much as Ramseyer (1994b) argues. Indeed, La Porta et al. (1996) show that despite some influence of legal origin on corporate governance, there is no systematic relation between per capita income and shareholder rights but strong relation between per capita income and civil law enforcement regardless of legal origin. They do not rule out the possibility that the legal system does not matter in their conclusion (p. 42).

Also, once we take a firm as a forum stated above, many concepts such as vertical integration lose meaning. In large companies, some divisions are almost independent entities though legally constituting one entity. Whatever contractual forms including company as a ready made set of contracts are adopted, production needs to get integrated economically and technologically. Simon (1991, pp. 28-29) points out:

> Why did General Motors manage its own tool design for many years, but recently decide to contract most of it out? Under constant returns to scale and reasonably competitive markets, which characterize many manufacturing situations, make-or-buy decisions become ambiguous. The possibility of using internal division-by-division balance sheets, and internal pricing

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Gilson and Roe (1993), Miwa (1996, p. 286) comments “unfortunately, they study Japan’s keiretsu, following the conventional view, shown to be totally false in Part II of this volume.” I agree. Also, his argument is sometimes too legalistic. Despite his claim on the legally restricted role of banks in the United States, banks plays an active role pointed out by Mintz and Schwartz (1995) and others. Prostitution is prohibited except in Nevada, but this oldest profession is flourishing all over the United States.

in negotiation between components of an organization further blurs the boundary between organizations and markets.

Also, as sociologists and non-mainstream economists claim, the U.S. corporate world is as well interlocked as the Japanese corporate world.[255] Researchers may simply see U.S. economy from an undersocialized point of view and Japanese economy from an oversocialized point of view.[256]

Then, what is human capital that makes managers so prominent in modern economies? In a word, it is an expertise embodied in their minds. "[T]he ultimate decisions must be left to the people who are familiar with these circumstances, who know directly of the relevant changes and of the resources immediately available to meet them." (Hayek 1945, p. 524) This expertise is related to optimization cost described in Appendix 3. Most business decisions require substantial computational burden relative to realizable gains from those decisions. But human beings can reduce computational cost through learning and at least know how burdensome it is to find a solution in a particular setting. Experts may not hit upon solutions but are expected to judge how difficult problems are instantaneously.[257] In a sense, only those who have acquired this tacit knowledge can be called experts and become successful managers.

This story is also consistent with the declining influence of *zaibatsu* headquarters in prewar Japan. As Hashimoto (1992) and Kikkawa (1996, ch. 2) point out, each *zaibatsu* member company became more and more autonomous and detached from headquarters after the 1910s. It is true that the tight control of member companies by headquarters was efficient when the economy was in the early stage of industrialization and human capital was still in low level. However, once the economy became sophisticated, the further development of each member company required the expertise of internally promoted professional managers. We should not overemphasize the influence of *zaibatsu* dissolution on the development of Japanese economy after the war not because

[255] There are many interesting studies as mentioned in Chapter 10.
[256] The over- and undersocialized conceptions of human action are utilized by Granovetter (1985) in an interesting way.

kigyo gurupu is a kind of tightly knit disguised *zaibatsu* as some researchers claim, but because the decentralization of management is an inevitable course whether *zaibatsu* was formally dissolved or not.[258]

In the age of information explosion, the cost of gathering information is no longer a big obstacle for business decisions. But, because the information processing abilities of human brains are limited, the raison d'être of experts or managers will never diminish.

Then, from the argument above, it is clear that professional managers have leverage over other participants in the game, though who is dominant in or controls the firm is rather a futile question. A more interesting and fruitful question is: who disciplines them?

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[257] See Simon (1996, pp. 82-90) for a related argument on intuition. As a survivor of the Japanese exam hell, I can quite reasonably estimate how long it takes to solve a particular problem in a time-constrained exam. In business, time management is one of the most important elements for success.

[258] Miwa (1993b) claims the dissolution of *zaibatsu* does not materially affect the course of Japanese economy and corporate governance.

Chapter 9. Who disciplines managers?

As discussed in the previous Chapter, professional managers are the most important class of participants in the game field called firm. Then, who disciplines those managers who have more information on activities than any other participants?

The stock market is the most plausible candidate. In order to be an effective disciplinary device, stock prices must reflect the fundamental value efficiently. However, the fact that the market is unpredictable, i.e., no filtering rule exists, which is supported in general by a huge amount of empirical analysis, is necessary but not sufficient for the market efficiency. The market may be unpredictably irrational. Even in an experimental setting, which is relatively straightforward compared to the real market, unpredictably irrational outcomes emerge (Plott and Sunder 1988 and Sunder 1995). As for the real stock market, Summers (1986) shows it is next to impossible to distinguish the efficient market from the unpredictably irrational market. Also Amershi and Sunder (1987) shows that, without common knowledge of rationality,[259] stock prices generically fail to discipline managers in a rational expectations economy, though all participants are *individually* rational. In addition, if market participants are not rational, the situation would be even worse. As Grossman and Stiglitz (1980) shows, it is not easy at all to explain why any transaction exists in a rational expectations market. The argument that market participants sell and buy shares in order to realign their return-risk preferences (Grossman 1995) does not seem very convincing considering the sheer size of transaction. Apart from convinced non- or near-rational school researchers as Shiller (1989) and Thaler (1992), Black (1977, 1986) asserts noise (nice) traders are necessary for the liquid market and De Long et al (1991) argue noise traders are not phased out as consistent losers contrary to the usual evolutionary argument a la Alchian (1950). Whether the market is efficient or not, it is certain that the market is quite volatile, and accordingly investors would have to pay huge risk premium if they compensate managers based on the stock prices.[260]

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[259] More precisely, without consistently aligned beliefs. See Appendix 3 for the difference between these two concepts.
[260] However, the volatile market is not necessarily inefficient.

Theoretical controversies notwithstanding, it is usually asserted that U.S. companies are disciplined by the stock market more so than companies in other economies. However, as Stiglitz (1994, p. 94) shows, "There is by now quite strong evidence that equity markets account for a relatively small faction of new capital raised in almost all counties." Among five countries (France, Germany, Japan, United Kingdom and United States) shown in Table 14, internal financing (net flow each year) is by far the most important for all five countries with Japan's 71.7 percent, United States' 91.3 percent and Germany's 80.6 percent; bank financing with Japan's 28.0 percent, United States' 16.6 percent and Germany's 11.0 percent; bond with Japan's 4.0 percent, United States' 17.1 percent and Germany's -0.6 percent; equity with Japan's 2.7 percent, United States' -8.8 percent and Germany's -0.6 percent. Bank finance is more important than equity in all economies on average in the entire period. However, Japan's reliance on bank loan has decreased substantially (become negative) since the 1970s, while its reliance on equity increased significantly in the late 1980s (Table 15). As for bond financing, the United States stands out in its reliance on bonds compared to Japan (but before the 1980s) and Germany.

Because of my lack of knowledge of German economy, I focus on the difference between Japan and the United States. It is true that the Japanese domestic bond market has been insignificant until the 1980s. However, as Ramseyer (1994a, pp. 233-236) points out, bank interest rates in Japan tracked the market rates more closely than those in the United States in the 1970s and early 1980s when interest rates were regulated both in Japan and the United States. Therefore, "Japanese investors had less reason to avoid banks." (p. 235) At least a gain through disintermediation for investors in Japan was smaller than in the United States, "so did entrepreneurs who created the institutions necessary to let them avoid the banks. Institutions are not free. With smaller incentives to create the institutions that would facilitate disintermediation, those entrepreneurs did less to facilitate disintermediation in Japan than in the United States." (p. 236) Another institutional reason is that due to he long/short separation in the Japanese deposit regulations, long-term credit banks and trust banks[261] play a similar role to U.S. investment banks.[262]

[261] And possibly life insurance companies.

It is a consensus that these banks, the three long-term credit banks[263] in particular, commit to borrowers much less than city banks even among main bank view advocates.

It can be argued that the relative unimportance of equity as financing is different from the disciplinary role of stock prices. The most discussed topic is executive compensation linked to stock performance. However, what numerous empirical studies from Simon (1957) to Cyert et al. (1997) have revealed is that the size of the company is by far the dominant factor[264] with a weak, if any, relation between the stock price and compensation.[265] Demsetz (1995, p. 136), no fan of behavioral research, admits "firm size, the most significant explainer of variations in management compensation, might reflect a more or less "mechanical" rule of thumb (i.e., a rule with no apparent rationale) as well as it reflects the importance of management productivity."

What investors want managers to do is not to share risks but to exert managerial efforts. Considering the volatile nature of the stock price, the appropriateness of the stock price as a performance measure is far from clear as usually asserted because investors have to compensate managers for risks inherent in volatile measures. Although earnings figures are claimed to be distorted by managers' discretion,[266] their less volatile nature may more than compensate for their distortion.[267] Some other paradoxes are left unanswered: the performance of the entire market is not abstracted in stock-linked compensation, i.e., relative performance is not adopted widely; stock-linked compensation seems to be used only when the market is booming; tax disadvantageous stock options persist and do not seem to be penalized by investors.[268]

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[262] Actually, the IBJ, the largest long-term credit bank, calls itself and is considered in the business community the strongest investment bank in Japan.
[263] None of them belongs to any corporate group.
[264] It is true that controlling the height of a patient is a sensible procedure when explaining the effect of exercise on his weight (Goldberger, 1991, p. 241), but it does not seem to be appropriate to "control" the size in a particular functional form (log-log linear relation) and focus on the relatively small effect of corporate performance on compensation as almost all researchers do. Notable exceptions are Simon (1957), Lucas (1978) and Demsetz (1995).
[265] However, as Cyert et al. (1997) shows, the much publicized extremely weak relation claimed by Jensen and Murphy (1990) is likely to be an underestimate.
[266] As summarized in Sunder (1997, pp.77-78), this claim has yet to be firmly established.
[267] Lambert and Larcker (1987).
[268] This situation is similar to the persistent use of FIFO in spite of LIFO's tax advantage. See Stiglitz (1994, pp. 75-77) for a critical assessment of several tax-disadvantageous practices.

Therefore, even if stock-linked compensation were not so widely used in Japan as in the United States, it would not necessarily imply Japanese managers are less motivated to enhance their stock prices. However, the facts are more complicated. Kaplan (1994) and Kaplan and Ramseyer (1996) show Japanese top executives are as likely to resign as their U.S. counterparts when stock prices decline, although the majority of presidents and CEOs in both countries do not resign even if the stock prices decline by half.[269] As Kaplan and Ramseyer (1996, p. 417-418) point out, we tend to compare two different samples: well-run Japanese companies and all U.S. companies. Once we include not so well-run Japanese companies, the seemingly surprising results are not so surprising. At least we can safely conclude the U.S. CEOs are by no means more disciplined by stock markets than the Japanese presidents are, despite what they claim in public.

If outside directors should represent shareholders' interest, i.e., the performance of the stock price, much admired outsider-dominated boards of U.S. companies do not seem to function better than insider-dominated Japanese ones.[270] There are two interpretations: U.S. outside directors do not have much power despite their number and visibility; or Japanese top executives are more sensitive to the market than their U.S. counterparts are, and do not need the monitoring of outside directors in order to attain the same degree of discipline. Which story is more plausible? Mizruchi (1996) and others have been protesting about the interlocking of Corporate America and the rubber stamp nature of the board. Also Zajac and Westphal (1996) and Westphal and Zajac (1997) show an unsurprising result: CEOs choose accommodating directors and avoid nosy ones. They also find "the ownership of institutional investors is only weakly related to the governance and strategic changes" (Westphal and Zajac 1997, p. 179). Considering what is at stake, inside directors may monitor their CEO more intensively and seriously than outside directors, who have neither expertise nor incentive to challenge the CEO's (Fischel 1982, p. 1283). Moreover, how can and why should shareholders trust other companies' executives than those of their company?[271] As for the effectiveness of separation of CEO and board

[269] When earnings decline, Japanese executives are more likely to resign than U.S. counterparts.
[270] However, U.S. companies used to be insider-dominated. Among 35 of the 50 largest U.S. manufacturing companies, inside directors outnumbered outside ones (58 versus 42 percent) in 1967 (Vance 1968, p. 33).
[271] See Power (1997) for a related argument on auditing.

chairman, Daily and Dalton (1997, pp. 18-19) conclude "Our analysis of large firms - those firms typically targeted by activist shareholders - indicates no difference in chair independence under either board leadership structure… the activism of institutions may be largely unproductive[.]" After all, *The Economist* (April 16, 1997) seems to be right:

> In short, bosses are quick to turn every imaginable system of corporate government to their advantage - which is probably why they are the people who are put in charge of things. Here is a paradox for the management theorists: any boss who cannot outmanoeuvre a system designed to keep him under control is probably not worth having.

However, outsider-dominated boards may play an important role ignored by researchers in the neo-classical tradition. Daily and Dalton (1997, p. 19) point out citing Sheppard et al. (1992, p. 30):

> The organizational justice perspective may provide some insight into institutions' very public persistence in demanding the separate board leadership structure. This perspective suggests: "If we think that a decision is unfair, but believe that the procedure generating that decision was fair, we are less likely to act on that perception to change the outcome." Applied to our situation, it may be that institutions expect very little from the actual change to the separate board leadership structure. Still, the perception persists that this is the superior structure from a shareholder perspective. Therefore, it may be that institutions continue to engage in activism primarily to enhance their reputation among shareholders by demonstrating that they are effectively discharging their duties in protecting their constituents' interests.

In short, what is important is not reality but perception as Sheppard et al. (1992, p. 12) argue:

> In summary, one decides about the perceived justice of some action that harms or benefits someone by deciding whether the action appears to be both balanced and correct... a critical point in all such judgment is *perceptions* - for all intents and purposes, "reality" is *not* consequential, so differences between perceptions and reality are not relevant. We act on our own perceptions, and must deal with the perceptions of the people with whom we interact.

Fairness-related arguments are often dismissed as metaphysical. However, once we allow non-material arguments in the utility function, people's perception is a most plausible candidate, and accordingly a legitimate concern for methodological individualists armed with constrained maximization. Sen (1987) emphasizes the importance of procedure in addition to substance and criticizes the lack of concern for the former as welfarism. Procedure can be not just a means to an end but an end itself. Although there may not be any substantive difference between Japanese and U.S. companies in the influence of shareholders on corporate governance, perceptions are surely different. Consequently, U.S. investors may get higher utility than Japanese investors if the actual pecuniary returns are the same. It is an interesting contrast that Japanese managers take great care of building a labor-friendly image but show a curiously detached attitude toward shareholders[272] and U.S. managers seem to do the opposite, whatever both of them actually do.

Then, does takeover play an alleged important role to penalize inefficient management? A relative lack of takeover in Japan is believed to show the inefficiency of the Japanese capital market, though the fact that an anti-takeover legislation does not decrease much the stock prices of companies incorporated in the jurisdiction of that legislation casts doubt on the relative importance of takeover as a disciplinary device in the United States.[273] It is also argued that takeover does not fit the Japanese labor custom. However, in an efficient market, takeover does not make economic sense: "If making a bid reveals the fact that the bidder knows the firm is undervalued, then anyone spending any money searching for undervalued firms would obtain no return on that investment"; as for minority shareholders, "[b]y holding on to their shares, they will participate as well in the gain in value." (Stiglitz 1994, pp. 69-70)[274] Empirical evidence suggests that those (shareholders) who initiate hostile takeover do not gain, though the shareholders of target companies no doubt gain substantially.[275] Then, why do some people initiate hostile take-

[272] It is widely believed that the shorter the general annual meeting is, the better in Corporate Japan. Many meetings last for less than one hour and a two-hour meeting is often regarded as a sign of poor management.
[273] Easterbrook and Fischel (1991, pp. 196-198) and Ramseyer (1993, p. 2018).
[274] This argument is a corollary of Grossman and Stiglitz (1980).
[275] See Jarrell et al. (1988) and Easterbrook and Fischel (1991, pp. 194-196).

over? One possibility is the lack of consistently aligned beliefs[276] as mentioned in Appendix 3, while there is no evidence to support the winner's curse. Also, as Stiglitz (1994, p. 75) argues, "It is not business judgment but managerial ego that drives much of the takeover activity." However, what is wrong with managerial ego? The data show takeover in the United States is a Pareto-optimal activity, though the benefit seems to be attributed only to the target shareholders. Different from a widely held perception, U.S. corporate raiders are rather a kind of noblesse oblige. They voluntarily make poorly run companies more efficient without much reward for themselves. Americans are more compassionate than usually they themselves and others usually admit, as Alexis de Tocqueville (1966, p.498) pointed out long ago:

> The Americans, on the other hand, enjoy explaining almost every act of their lives on the principle of self-interest properly understood. It gives them pleasure to point out how an enlightened self-love continually leads them to help one another and dispose them freely to give part of their time and wealth for the good of the state. I think that in this they often do themselves less than justice, for sometimes in the United States, as elsewhere, one sees people carried away by the disinterested, spontaneous impulses natural to man. But the Americans are hardly prepared to admit that they do give way to emotions of this sort. They prefer to give the credit to their philosophy rather than to themselves."

The bottom line is that if we assume the market is efficient, the paradox is not the lack of takeover but the frequent existence of takeover. In this respect, I could argue Japanese shareholders are more rational than U.S. ones. We do not need the alleged inefficiency of the capital market[277] or alleged rigidity of the labor market to explain the lack of (hostile) takeover in Japan. Simply, Japanese investors are more cold-blooded profit maximizers than U.S. investors!

The low dividend yield of Japanese companies is also not the sign of neglect of investors but a rational response to the asymmetric tax treatment. Again the paradox is not why Japanese investors accept low dividend payment, but why U.S. investors allow

[276] The lack of common knowledge of rationality is sufficient but not necessary.

companies to pay relatively high dividend. Why do U.S. companies pay substantial dividend (more than 2 percent in 1996)? I agree with Black (1990): "investors simply like dividends." Informational role is often invoked to justify dividend payment. But, "[c]hanging dividends seems a poor way to tell about a firm's prospects. Public statements can better detail the firm's prospects, and have more impact on both the speaker's and the firm's reputation." Then, he predicts "dividends that remain taxable will gradually vanish." Indeed, this is what has happened in Japan. The dividend yield used to be high and comparable to bank interest rates, particularly before the war when both personal and corporate income taxes were very low. However, since the 1960s, the yield has been reduced to a bare minimum (less than 1 percent since 1985).[278]

Instead of stock markets, Jensen (1989, p. 67) proposes another candidate: "Some may find it curious that a company's creditors wield far more power over managers than its public shareholders, but it is also undeniable." Stiglitz (1985) is more explicit on the monitoring role of banks. Thus, enters a bank as a controlling device. Then, isn't it another main bank story? It is true that bank loan is important as a corporate disciplinary device but it is only effective if the relation between lenders and borrowers is more detached than cohesive as described below.

Above all, the most important disciplinary device is competition. As Stiglitz (1994, p. 131) claims, "imperfections in the managerial control systems make competition in the product market all the more important. A competitive product market imposes a discipline on management in large, publicly held corporations that is not provided in any other way."

However, competition per se is not a sufficient condition. As Becker (1962) shows persuasively, non-rationality, i.e., non-profit-maximizing behavior, at an individual level does not lead to pathological aggregate behavior as long as the budget constraint is maintained. Furthermore, Gode and Sunder (1993) show a striking allocative efficiency in a double-auction experiment with random bids and offers only constrained by the budget constraint and concludes that "Adam Smith's invisible hand may be more powerful than

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[277] Stock markets may not be different from beauty contests. However, as beauty contestants are almost always beautiful, good performing stocks are likely to reflect the good performance of companies.
[278] Companies have to pay dividend to remain listed on the Japanese stock exchanges.

some may have thought: when embodied in market mechanisms such as a double auction, it may generate aggregate rationality not only from individual rationality but also from individual irrationality." (p. 136)

Kornai (1986, p. 4) has reached the same conclusion from his investigation into socialist economies:[279]

> [T]he budget constraint is not a bookkeeping identity nor a technical relation, but a rational planning postulate. Two important properties must be underlined. First, the budget constraint refers to a behavioral characteristic of the decision-maker: he is used to cover his expenses from the income generated by selling his output and/or by earning return on his assets. Therefore, he adjusts his expenditures to his financial resources. Second, the budget constraint is a constraint on ex ante variables and first of all on demand; it is based on expectations concerning his future financial situation when the actual expenditure will occur... The 'softening' of the budget constraint appears when the strict relationship between expenditure and earnings has been relaxed, because excess expenditure over earnings will be paid by some other institution, typically by the State. A further condition of 'softening' is that the decision-maker expects such external financial assistance with high probability and this probability is firmly built into his behavior... The notion of the soft budget constraint refers to a trend in modern society: the relaxation of financial discipline, the weakening of the feeling that spending, survival, expansion depends on earning capability and not on external assistance.

In this regard, the argument that the assumption of rationality can be abstracted away by evolutionary process (Alchian 1950) is wanting, as Demsetz (1996, p. 486-488) pointed out:

> To satisfy Alchian's needs, positive profit must be to business decisions as the ice age was to the survival of species. The positive-profit criterion must be external to our decision; its application must not rely on human calculation if we are to avoid relying on rational behavior indirectly... Positive profit clearly is not independent of thought processes. Profit is itself

[279] See Kornai (1996) for a recent summary on the post-communist eastern European economies.

> a result of conscious calculation, and positive profit is a filtering criterion that we *choose* to impose on ourselves...
>
> The appeal of the positive profit criterion to Alchian undoubtedly is related to the notion of feasibility or of the need to satisfy budget constraints... [But, w]hence the budget constraint? That there is a budget constraint seems to require rational decisions by others... The people behind the budget constraint behave as if they husband their resources. Without this behavior, budget constraints lack meaning as long as wealth exists in the community.

In the following, I use a rudimentary evolutionary game theoretic model to make the argument more transparent.

Figure 14 (1) depicts the payoff matrix dependent on the behavior of players. P is a proportion of those who play 'Hard', that is, keep their budget constraints. This proportion can be between 0 and 1, and is commensurate with the degree of contract enforcement and political independence in society. Figure 14 (2), (3) and (4) show the payoffs at p = 1, 0.5 and 0 respectively. Actually, these three values are the only equilibrium values, which will be shown later.

Now let's find best reply strategies in each p value. Let x be the probability of playing 'Hard' for the row player and y for the column player. Then, the expected payoff of each player is:

$$\begin{aligned}\pi &= (-5+10p)xy + (-4+8p)x(1-y) + (4-8p)(1-x)y \\ &= x[(10p-5)y + (8p-4)] + (4-8p)y.\end{aligned}$$

Let $L = (10p-5)y + (8p-4)$.

Then,

$$L < 0 \text{ if } 0 \le p < 0.5,\ L = 0 \text{ if } p = 0.5 \text{ and } L > 0 \text{ if } 0.5 < p \le 1 \ (\because\ 0 \le y \le 1).$$

Therefore,

$$x = 0 \text{ if } 0 \le p < 0.5,\ 0 \le x \le 1 \text{ if } p = 0.5 \text{ and } x = 1 \text{ if } 0.5 < p \le 1.$$

That is, play 'Soft' if 0 = p < 0.5, 'Hard' if 0.5 < p = 1 and anything goes if p = 0.5.

Figure 15 shows the neighborhood of the three equilibrium points. Figure 16 shows the payoff values at best reply strategies. Figure 17 shows why the aforementioned three points are the only equilibria. If 0 < p < 0.5, playing 'Soft' is the best reply. Therefore, those who play 'Hard' continue to lose relative to those who play 'Soft.' On the oth-

other hand, if $0.5 < p < 1$, playing 'Hard' is the best reply. Therefore, those who play 'Hard' continue to outperform those who play 'Soft.'

How about stability? Let's look at Figure 18, a conceivable phase diagram. Although $p = 0.5$ is an equilibrium as well as $p = 0$ and $p = 1$, the midpoint equilibrium is not stable while the two endpoint equilibria are. Once, the proportion deviates infinitesimally from $p = 0.5$, it converges to either $p = 0$ or $p = 1$. More formally, I assume the following condition for the differential equation of p and dp/dt (t is time):

$dp/dt = f(p) = 0$ if $p = 0$, $p = 0.5$ or $p = 1$,

$dp/dt = f(p) < 0$ if $0 < p < 0.5$ and

$dp/dt = f(p) > 0$ if $0.5 < p < 1$.

In this setting, if the majority of people believe the majority of people keep budget constraints, all surviving people tend to keep constraints. On the other hand, if the majority of people believe the majority of people are rent seekers breaking budget constraints, everyone is force to become rent-seeker in order to survive.

The situation is different from the Smithian anarchy described in Figure 14 (5). There, both ('Hard', 'Hard') and ('Soft', 'Soft') are Nash strategies as well as one mixed strategy. Moreover, the former outperforms the latter and the deviation from the former strategy does not make economic sense once agreed upon before playing even if the agreement is not binding. Also, those who keep budget constraints may prevail by clustering and transacting with each other. This is a situation described by Axelrod (1984). Because, unlike the Prisoner's Dilemma of Axelrod (1984), my setting is a coordination game, it is more likely that the Pareto-optimal strategy prevails by construction. Besides, it is possible to incorporate a stochastic element through multiplying each payoff by $(1 + \varepsilon)$; ε may be assumed to be an i.i.d. standard normal, Poisson, etc. Perhaps, life is not so cruel as depicted in the Prisoners' Dilemma but more benign as describable with a coordination game.

However, in my main setting (Figure 14 (1)), the payoff of ('Hard', 'Hard') is commensurate with p. Although it is not unreasonable to assume that the payoff of ('Hard', 'Soft') or vice versa is related to p because contract enforcement is likely to be positively related to the proportion of those who keep budgets (court decision is quick if few breach contract, etc.), there seems to exist little reason to support my payoff structure at (‘Hard’, ‘Hard’). Well, my reasoning may sound little sleight of hand, but I believe it is not entirely outrageous: those who keep budget constraints are regarded as deep pocket by the government and society in general, and likely to be intervened and exploited from outside even if they transact among like-minded people. Unlike the Smithian world, the government exists in my world. Whether the Smithian world is possible or not, human beings have never experienced such a blissful anarchy yet. Furthermore, democratic governments do not necessarily keep property rights intact. In such democracies as India and post-communist eastern European countries, the soft budget constraint is prevailing. In many industries in advanced economies, rent-seeking seems the best way to make money. On the other hand, Hong Kong under the British rule is a good example of the hard budget constraint without democracy.

The discussion above shows a certain discipline has to be imposed internally in democracies. Then, enters accounting. First, we need accounting to grasp how much we make or lose, though it is the only necessary condition. In my parable, without accounting, we cannot know the payoff matrix. We have to keep in mind that accounting does not merely describe the things which are out there; accounting is constitutive of reality as language is of social reality. Second, accounting as a bundle of activities, not account information, continually forces us to think in a particular fashion. People, possibly except philosophers, do not examine why murder should be punished. Most moral codes survive because people abide by them without thinking deeply about them. Rather, these codes are too deeply ingrained to have their validity questioned. Compared to these moral codes, keeping budget constraints is much weaker. Such beautiful words as social responsibility easily mesmerize us and enable some smart people to tap other hard working people’s money.

From this point of view, the role of accounting is fairly obvious: established accounting concepts such as historical cost and conservatism as well as accounting system itself are constructed either explicitly or implicitly to harden the budget constraint.[280] If

[280] Ijiri (1975) advocates hardness from an accountor-accountee point of view. The argument above shows hardness is also vital from a viewpoint of decision usefulness at a meta-level, i.e., the market system itself.

the budget constraint is the most important device for the viability of the market system, accounting, which is the backbone of the budget constraint, may be another name of the market system. The Sombart thesis is right after all. Accountants feel offended that people utter “mere accounting.” However, accountants should take it a homage to accounting.[281] This matter-of-fact sentiment suggests that accounting way of thinking is so deeply ingrained that people cannot think otherwise. Accounting becomes one of the most reliable commitment technologies. The benefit of stability itself can be shown from this point of view.

For example, one of the great achievements of “mere” accounting is the fact that it has brainwashed people into believing deficit is a bad thing without pondering. The rhetorical effect of the word itself disciplines managers substantially. Rhetoric matters. This is all the more important if we realize that breaking the budget and seeking external help is the dominant strategy in many situations. However, because the budget constraint of the entire economy is always hard, everyone is a loser under this dominant solution. Of course, accounting or rhetoric does not discipline managers completely. Its established status makes it difficult to soften the budget constraint, but not impossible. Such brilliant rhetoricians as Lee Iacocca sometimes make it possible. As McCallum (1996) forcefully argues concerning the independence of the central bank, such a thing as commitment technology does not exist contrary to the usual rules versus discretion argument.[282] Constitutions need to be enforced but who should do the enforcing under the democratic governance which is rightly required to be sensitive to public demand?[283]

Accounting is the ultimate device to maintain rationality in the sense that it makes people take a minimal but crucial element of rationality culminating in the budget constraint almost as an external environment. Considering high optimization cost, we may

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Inflexibility limits room for creative accounting (March 1987, pp. 157-160). If we think broadly enough, there is no trade-off between the roles of decision usefulness and stewardship of accounting.

[281] Schelling (1978) and Klamer and McCloskey (1992) seem to agree that economics is little more than accounting. Mirowski (1986) and Hoskins and Macve (1993) also point out the neglected importance of accounting in economic discourse. John R. Hicks, one of the greatest economists in this century, wanted to be remembered as the accountant of the economics profession (Klamer 1989).

[282] See Kydland and Prescott (1977) for the usual argument.

[283] What many economists consider the ideal polity seems to be a kind of Hong Kong under the British rule. Benign but undemocratic policy makers maintain a market-oriented regime without any interference from the public. It is a logical consequence of what Sen (1987) calls welfarism.

not need more than this minimal level of rationality to conduct our economic lives. But the near unconscious nature of the accounting/budget constraint has a negative effect. Although trade deficit is a completely different concept from corporate deficit, people do not seem to be able to distinguish. If it were coined trade difference, the actual economic policy would be quite different and the relation between Japan and the United States would be smoother.[284]

To repeat, the budget constraint is crucial for the attainment of economic efficiency. However, the hard budget constraint is not an externally imposed condition on human activities unlike severe weather on non-human animals, as pointed out by Demsetz (1996, p. 486). Therefore, a usual evolutionary argument without teleology is wanting for human economic behavior. Maximizing utility in economic dynamics is different from least action in physical dynamics. The latter is an as-if metaphorical statement except for deists,[285] but the former is literally teleological.[286] We cannot avoid assuming the existence of human deliberation or purposiveness (rationality of a non as-if kind). But this rationality has become so internalized that people behave almost unconsciously in accordance with it. Above all, accounting has been playing a (the) crucial role in facilitating this process.

Another point not to be missed is the importance of a company as a legal entity. Because the basic unit of budget constraints is a company unless explicitly contracted otherwise, the legal boundary of organization matters economically.

The soft budget constraint gives a good counter-argument against the claim that corporate groups and main banks are instrumental in the success of Japanese manufacturing industries. What is described about now defunct Yugoslavia in Knight (1984) seems to be very Japanese: "In the Yugoslav system, labor rather than capital is the residual claimant of surplus left..." (p. 8); "banks may also be subject to considerable pressure

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[284] However, the U.S. government and multinationals may knowingly blur the difference for rent seeking and take advantage of the innocent anger of the grass root. See Otani (1996, ch. 5) for a related argument.
[285] However, only intentional from God's point of view, not from a mortal's.
[286] If we understand human behavior solely from dispositions, eliminating preferences from the argument, economics is reduced to sociobiology and economics may really become social physics without teleology. However, as Lewontin et al. (1984) show persuasively, most sociobiological arguments are tentative at best. Even Edward Wilson admits "evolutionary theory itself [is] still too imperfect, for the propositions re-

from the enterprise in difficulties, particularly if it is large and a founding member of the bank in question... this pressure is strong enough that the bank feels it has little choice in responding...” (p. 24); “The interlocking system of banks, enterprises and SPCs [socio-political communities] has ensured that bankruptcy proceedings have been instituted only exceptionally.” (p. 40) But his policy recommendation that “the ‘soft budget constraint’ facing Yugoslav enterprises needs to be ‘hardened’” was not followed. Stiglitz (1994, p. 184) is harsher: “Given the importance of interfirm lending, the disease of soft budget constraints - and the resulting softening of incentives - can spread quickly through the economy.” What is told in line with the corporate group/main bank view is precisely what is described about inefficient planned economies with the soft budget constraint as the key concept. There are two alternatives to reconcile: Japanese economy is as inefficient as former socialist economies or the corporate group/main bank view is not a correct description of Japanese economy. For me, it is too obvious to explain which alternative to choose, though I do not deny some inefficient Japanese companies can and do survive due to governmental regulations and interventions as some U.S. companies do.

Japanese economy has been able to attain the current high productivity, starting from its obscurity compared to other industrialized economies several decades before, because companies, non-financial ones in particular, have been facing the hard budget constraint. After the oil crisis in the 1970s, many leading manufacturing companies suffered from deficit, often persistent one,[287] and implemented severe restructuring including cutting workforce.[288] However, the tragic failure of Japan’s largest corporation, the JNR, is reminiscent of the collapse of the command economies and a striking example of the grand scale soft budget constraint in Japan.[289] Although the scale of the JNR’s soft budget

viewed here to be carved in stone.” (1978, p. xi) Also economic prosperity is not related to reproductive success, which is the benchmark in evolutionary theory, in modern human society.

[287] Those industries are called structurally depressed. An examples then was shipbuilding.

[288] “It is hardly known that even large companies fire employees when deficit continues in two to three consecutive years.” (Inoki 1997, p. 230; my translation) Japanese companies call firing voluntary retirement, though they try to find jobs and add substantial benefit for the fired.

[289] Ryohei Kakumoto pointed out the structural weakness of the debt-laden JNR using the tragedy of impossibility of bankruptcy as the key concept, which is similar to the soft budget constraint, independent of Kornai’s analysis in the 1970s (Kakumoto 1977, 1994). With his experience as a Ministry of Transport official and JNR executive, he describes how the morale of the management deteriorated after they were forced to abandon the balanced budget plan in the early 1970s due to the denial of fare rise by the Diet. After that, the management borrowed to spend without any plan for repayment, and spending spree started. The only task

is beyond comparison as that of any single entity,[290] regulated industries such as utilities are notorious for their inefficiencies due to built-in soft budgets.[291] The JNR was not different from manufacturing companies in almost all alleged respects of Japanese uniqueness: life-time employment, the existence of the main bank (government), growth-orientedness, etc. Above all, JNR managers and employees shared the same Japanese culture in general with, say, those at Toyota and Matsushita. But the results of their nearly half-century operations show completely divergent paths.[292]

Perhaps the industry with the softest budget constraint in Japan at the moment is banking. By asserting their special position in the economy and the possibility of systemic risk, they have been protected from competition and recently secured preferential treatments such as use of tax money and hyper-low interest rate policy to make ends meet. The government seems to be trapped into a typical time-inconsistent policy regime. Is it reasonable to believe that regulated and now globally discredited bankers monitor globally feared competitive manufacturers? Is it plausible that bankers used to be efficient, say, until the 1970s but have become inefficient since then?

Isn't there any secret for the economic "miracle" of Japan? If equally educated people (not limited to Japanese) seek their self-interest under competition with the budget constraints as hard as Americans or western Europeans face, we expect to see those people become able to enjoy high living standards before long. We need neither monitoring

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for them was to secure the government guarantee for loan by political maneuvering. This national enterprise was dissolved in 1987 and three of its successor companies are now publicly held and listed as discussed in Chapter 4. However, how to deal with remaining more than 20 trillion yen debt in the hands of the government has been a major political issue recently. The 10-odd trillion yen debt incurred by successor companies are being repaid smoothly. JR East, which owes the largest burden with a six trillion yen debt, has been rated AA- by Standard & Poors. If the government forces those successor companies to incur additional burden, i.e., scrapping the agreed scheme before privatization not to require any additional burden, because they are doing well, those companies have to face the super-hard budget constraint. The super-hard budget is another side of the soft-budget, however. Because the overall budget constraint is always hard (accounting identity), some incur the results of the soft-budget of others. If efficient companies are penalized, who dares to work hard?

[290] Its scale is only comparable to the sovereign debt crisis of Latin American and Asian countries.

[291] Because Japanese regulators still stick to the rate of return regulation, utilities can and do pass any increase of cost to consumers.

[292] The fact that railroad business has been in decline does not explain the difference. First, there are many profitable railroad companies in Japan which have been adjusting their operations to the changing environment. Second, passenger railroad is still a viable industry different from the United States and Europe. The Japanese passenger traffic volume is larger than that of all EU countries and the United States *combined*. Third, since the dissolution, labor productivity has been doubled.

main bankers nor outmaneuvering bureaucrats to explain the “miracle,” because there is no such thing as a miracle except in religion. For macroeconomic growth theorists, the paradox is not that Japan has caught up but that most nations have not. Great peoples with high educational standards such as Russians and east Europeans have not been able to acquire the same level of economic prosperity because their budget constraints were and often are soft though the constraint of the national economy is always hard, i.e., there is no free lunch as a whole. Why could Japanese bankers and bureaucrats be smarter than Russian bankers or Polish bureaucrats? Considering the fact that their command economies have failed miserably without exception, the Japanese economy would be as bad as theirs if main bankers and bureaucrats were so powerful as the conventional view claims.[293] We should not learn, much less teach, wrong lessons. What those aspiring for economic prosperity have to do may be too mundane to mention: just to keep budget or, more generally, promise. Simon (1990b, p. 11) rightly points out:

> An interesting thing you learn when you teach something about management, however, is that almost all the things you can say about good management are platitude.
>
> That’s what advice on how to be a manager or how to be a revolutionary sounds like. It’s platitudinous. I suppose that this is also true for advice on how to be a prize-winning, world-class tennis player. What’s different between the world-class tennis player and revolutionary, and the person who simply hears this advice, is that the world-class tennis player and the revolutionary do it.

[293] Ikeo (1994, pp. 112-117) also uses the soft budget constraint as an important concept, but his argument is the opposite of mine. He claims loosened main bank control in the late 1980s made the budget of borrowers soft; main bank control is the device for the hard budget constraint. However, as mentioned before, those suffered most are banks and industries heavily dependent on bank loan such as real estate and construction. Now no one denies that banks are the weakest part of Japanese economy, but that manufacturing companies under alleged loosened bank control are rather in a good shape. Such loan free companies as Toyota and Matsushita do not seem to have suffered much from the “bubble” economy.

Chapter 10. Why does the myth persist?

> Myths have truth content in the moral and psychological sense that the Bible does. They no more represent literal truth than do they demonstrate that cyclops *really* exist.[294]
>
> Steven Goldberg

Why do so many scholars maintain the view that corporate groups dominate Japanese economy and main banks control industrial companies in spite of scant evidence and inconsistent theoretical claims? I believe there are several distinct reasons, though not neatly separable and rather interrelated. Indeed, they are all closely related to the socially constructed nature of reality. I only mention the more plausible of these reasons in this Chapter and defer the more speculative ones to Appendix 2.

The first one is rather institutional in the current research environment. Ramseyer (1993, p. 2012) cites a candid comment of his Japanese academic friend (Yoshiro Miwa?) which summarizes the situation succinctly:

> Bag the main bank stuff. The reason there're all these main bank papers doesn't have a thing to do with what Japanese banks do. They don't do anything special. Instead, this whole discussion is theory-driven. There're all these fancy signaling, monitoring, and principal-agent models out there in status economics journals, but until people thought up the Japanese banking story no one had any facts to apply them to. So my friends started dreaming up this main bank stuff. Now these stories about main bank monitoring give them a great set of anecdotes to apply their high-tech models to. They're relatively plausible, too, since they perpetuate lots of stereotypes about the Japanese economy that the older academic taught - you know, those professors who were into all that dreadfully dogmatic Germanic theory. That's all there is to it...

Miwa (1996, p. 28) complements the above comment:

[294] Goldberg (1993, pp. 163-164).

> Readers may comment, 'why so much discussion and new literature on Japan's main banks and industrial policy?' My answer is threefold. First, many ignore the post hoc, ergo propter hoc fallacy. Second, strong demand for the discussion and literature exists among politicians, government officials, journalists and academics, particularly in the former socialists economies. It creates the supply, which the politicians and government officials in Japan support enthusiastically both on the belief of effectiveness of government policy and for their own self-justification. Third, as is usually the case, the authors of the literature on main banks, for example, are only those who are interested in them. Thus, there now exist the 'main bank literature industry' and the 'Japan's industrial policy literature industry'.

Also, we have such a vast amount of data on corporate grouping and bank lending only in Japan. For example, companies in other industrial countries including the United States do not disclose separate loan amount by each bank as pointed out by Shikano (1994, p. 177). Researchers run regressions because there are data, as people climb because there are mountains.[295] Accounting information dictates what we can construct with our own lenses.

Don't you call a certain concrete example similar to the situation above in mind in your own fields? As a self-interested utility maximizer, I refrain from offending my future senior colleagues by pointing out examples in the accounting literature.

If conventional views were confined to the ivory towers, it would be as harmless as most extraordinary philosophical claims are for the general public. But I am afraid there is a real danger that economic policy makers in other countries "learn" wrong lessons from the Japanese experience and/or some shrewd former nomenklatura knowingly exploit to their advantage.[296]

If experts repeat conventional views, who else dares to question? Dawes (1994, pp. 202-203) points out:

> Goebbels maintained that the effects of propaganda depend less on a belief in the legitimacy of the source than on the repetition and intensity of the propaganda itself. Subsequent

[295] A comment of Joseph Kadane on the increasing use of scanner data (1997, personal communication).
[296] For example, the main bank story would give a convenient justification for managers at inefficient state monopolies when demanding consistent help from the financial sector.

> psychological experiments have borne out this contention; experimenters have consistently found that people tend to judge that whatever has been repeated is true - even when the repetition is only of the words in the assertion…
>
> Most of the time and in most contexts, most of us do no adopt the "show me" scientific attitude.
>
> Moreover, as others have pointed out, we couldn't.

This is the point. It is a rather rational resource saving strategy for us to rely on experts. Our time and energy are limited; our bounded rationality forces us to adopt a division of (intellectual) labor. We have seen many conventional views collapse suddenly with a small amount of newly "discovered" information. More conventional views may be actually brought about by informational cascades than we are ready to admit.

The second reason is, as mentioned in Miwa (1996, pp. 2-3), the extremely strong influence of Marxism in Japanese social scientific research. For a long time, social science meant Marxism in Japan. Its influence is the strongest in economic analysis, though it has been enormous academically and socially in general and not restricted to economics. Until the 1970s or even later, economics meant Marxian economics at such leading universities as Tokyo and Kyoto Universities and there were very few economists in the neoclassical tradition.[297] Even those few non-Marxian economists were heavily influenced by Marxism.[298] Even in the 1980s, Marxian economics was given as much weight as "modern economics" (Japanese call economics taught in the United States and other countries as such) in many leading universities.[299] However, those Marxian economists seem to have recently transformed their identities into economic historians because of the worldwide tide against them.

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[297] Miwa (1997, p. 165) mentions the dominance of Marxism at the Faculty of Economics of Tokyo University when he was an undergraduate student there between 1966 and 1970.

[298] Ryutaro Komiya at Tokyo then was a rare exception and has been challenging the conventional wisdom since the early 1960s.

[299] When I was an undergraduate student at Tokyo University in the early 1980s, economics major could choose either the Marxian economics or modern economics track. It means many economics graduates did not learn anything about standard economic tools such as marginal analysis and constrained maximization. Instead they learned exploitation, labor theory of value, monopoly capital, finance capital, etc. Many of them are now working at government and financial institutions.

It is not difficult to see the ideas of corporate group dominance and main bank control have a strong affinity with Marxism even for those who have minimal knowledge of the doctrine. Actually, those views are direct applications of the finance capital theory first advocated by Rudolf Hilferding, an Austrian Marxist politician and economist, in the 1910s. Hilferding (1981) is based on the analysis on the Austro-German economies in the early twentieth century and distinguishes itself from other scholastic interpretations of Marx's work in trying to develop Marx's idea with empirical evidence. This work is one of the most widely discussed and read books on economics in Japan partly due to Lenin's praise[300], although it is a rather obscure book only known to a limited number of Marxist scholars in the English speaking countries and the English translation was not published until the 1980s.

One of the most famous phrases in the book is "Even today, taking possession of six large Berlin banks would mean taking possession of the most important spheres of large-scale industry." (p. 368) If we exchange Tokyo for Berlin, this phrase summarizes what is claimed on Japanese economy nicely. The following passage (p. 225) sounds a typical description of Japanese economy:

> The dependence of industry on the banks is therefore a consequence of property relationships. An ever-increasing part of the capital of industry does not belong to the industrialists who use it. They are able to dispose over capital only through the banks, which represent the owners. On the other side, the banks have to invest an ever-increasing part of their capital in industry, and in this way they become to a greater and greater extent industrial capitalists. I call bank capital, that is, capital in money form which is actually transformed in this way into industrial capital, finance capital...
>
> Finance capital develops with the development of the joint-stock company and reaches its peak with the monopolization of industry...

Of course, it would be a textbook ad hominem fallacy if I questioned the conventional view simply because it is originated from Marxism. What I want to question are

[300] Lenin acknowledges Hilferding's influence on his analysis of imperialism. Marxism in Japan is more Marxist-Leninist than in western European countries. However, after the Cold War ended, the publisher

undoubted assumptions underlying this view: economic exchange is analogous to the master-servant relation, that is, one "controls" the other; money is the only important resource for business enterprise. Under this view, neither human capital formation, incentive structure nor the value of specialized information (expertise) is a problem at all. Stiglitz (1994, p. 6) sees the same thinking in British economists who are also influenced by Marx[301]:

> In the economy of Joan Robinson (or Arrow and Debreu), decision makers, and the structure of decision making, play no role. Joan Robinson describes the job of the manager of a firm as simply looking up in the book of blueprints the appropriate page corresponding to current (and future) factor prices. That page would show what technology minimized costs at those factor prices. Were life so simple! Of course, if life were so simple, being a manager would be a truly boring job, worthy of the disdain cast by the traditional British academic, and the lack of concern of Lange, Lerner, and Taylor for managerial incentives would be of little moment: They could essentially be replaced by automata.

Even for U.S. economy, there are quite a few studies which assert the U.S. industries are under bank control, mainly from sociologists and Marxian economists,[302] though rarely cited in the Japanese corporate group/main bank literature.[303] What is described there is surprisingly[304] similar to the main bank/corporate group view expressed on the Japanese economy.

However, such claims as the bank control of U.S. economy and the interlocking of large companies have never caught material concern of mainstream economists in contrast to the popularity of the main bank/corporate group view on Japanese economy

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deleted it from the catalog. Books on Marxism in general suffer the same treatment from various publishers.

[301] As Stiglitz (1994) also points out, general equilibrium is quite consistent with market socialism.

[302] Mizruchi (1996) and Mizruchi and Stearns (1994a) are concise reviews. Major works (books only) are Kotz (1978), Mizruchi (1982, 1992), Mintz and Schwartz (1985), Mizruchi and Schwartz (1987), Useem (1984) and Zukin and DiMaggio (1990). There are many journal articles, but if you try Mizruchi and Koenig (1991), Mizruchi and Stearns (1994b) and Stearns and Mizruchi (1993) for example, a feeling of déjà-vu may be unavoidable for those familiar with the Japanese main bank and corporate group literature.

[303] Shikano (1994) is an exception and cites Mintz and Schwartz (1985). However, his argument that a bank's influence through management control is different from that through loan is not clear.

[304] However, it is not so surprising as first thought because the origin is the same finance capital theory of Hilferding.

among many neo-classical economists and law and economics scholars on both sides of the Pacific. Why are they attracted by the view which they would and do dismiss if applied to U.S. economy with “evidence” of the same degree? This question is too fascinating to be left unanswered, but I defer my speculation to Appendix 2 as mentioned in the beginning of the Chapter.

Chapter 11. Conclusion

> Such a result can be called negative, though not entirely worthless. For the sake of intellectual honesty, the destruction of any illusion is a great achievement.[305]
>
> Carl Schmitt

Against all odds, An inevitable conclusion is that the difference between Japanese and U.S. economies is much less than widely believed. Although both economies have established (superficially) distinctive corporate governance structures historically, their influence on the relative prosperity and actual working mechanism of both economies is much less significant than the market discipline induced by budget constraints deeply ingrained in the psyche of both nations.

Some (all?) readers may be fed up with my "rational" explanation for Japanese corporate governance. However, at least Becker (1996, p.155-156) must be sympathetic to my argument.

> William Blake said that you never know what is enough until you see what is more than enough... My work may have sometimes assumed too much rationality, but I believe it has been an antidote to the extensive research that does not credit people with enough rationality.

Above all, we have no other way than assuming a certain kind of rationality in order to understand human society, Japanese or whatever. "Charity is forced on us; whether we like it or not, if we want to understand others, we must count them right in most matters."[306]

Of course, charity forces me to try to understand why certain stereotypes exist. Actually, stereotyping saves our scarce resources and energies and enable us to concentrate on what is more important for us. However, I believe Japanese economy is too important for both Japanese and non-Japanese scholars and practitioners to stick to this

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[305] My translation: "Man kan dieses Ergebnis 'negativ' nennen, aber es ist sicher nicht wertlos. Für das Interesse intellektueller Redlichkeit ist jede zerstörte Illusion ein großer Gewinn." (Schmitt 1988, p. 97).
[306] Davidson (1984, p. 197).

resource saving strategy any more. Serious interest in Japanese economy by non-Japanese researchers is most welcome for more thorough understanding of *human* economic interaction regardless of different histories and cultures.[307] "It is time we learned instead to love Japan for telling us the cold truth: that, notwithstanding the rich variation within and among societies, economic incentives generate similar and largely predictable results everywhere - in Tokyo, in Chicago, and in Jackson, Mississippi."[308]

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[307] Although Aoki (1988), perhaps the most comprehensive work on the Japanese economic system written in English, qualifies his analysis carefully with empirical evidence not to oversimplify the difference between Japan and the United States, his brilliant mathematical models are based on stereotypical views on both Japanese and U.S. economies. He seems to believe there exists "the highly market-oriented Western economy" (p. xi) nearly orthogonal to Japanese economy, but the actual differences among industrial economies are rather small and any industrial economy is an organization-and-market economy, as Simon (1997, p. 200) points out.

[308] Ramseyer (1994b, p. 267).

Appendix 1. Mitsubishi group companies (*shachokai* members)

1. The Mitsubishi Bank, Limited (The Bank of Tokyo-Mitsubishi, Ltd. since April 1996)
2. The Mitsubishi Trust and Banking Corporation
3. Meiji Life Insurance Company
4. The Tokio Marine and Fire Insurance Company, Ltd.
5. Mitsubishi Corporation
6. Mitsubishi Construction Co., Ltd.
7. Kirin Brewery Company, Limited
8. Mitsubishi Rayon Company, Limited
9. Mitsubishi Paper Mills Limited
10. Mitsubishi Chemical Corporation
11. Mitsubishi Gas Chemical Company, Inc.
12. Mitsubishi Plastics, Inc.
13. Mitsubishi Oil Company, Limited
14. Asahi Glass Company, Limited
15. Mitsubishi Steel Mfg. Co., Ltd.
16. Mitsubishi Materials Corporation
17. Mitsubishi Shindoh Co., Ltd.
18. Mitsubishi Cable Industries, Ltd.
19. Mitsubishi Kakoki Kaisha, Ltd.
20. Mitsubishi Electric Corporation
21. Mitsubishi Heavy Industries, Ltd.
22. Mitsubishi Motors Corporation
23. Nikon Corporation
24. Mitsubishi Estate Company, Limited
25. Nippon Yusen Kabushiki Kaisha
26. Mitsubishi Logistics Corporation

(Non-listed non-financial)

27. Mitsubishi Aluminum Co., Ltd.
28. Mitsubishi Research Institute, Inc.

Appendix 2. Academic (mis)construction of reality[309]

I will indulge myself in speculation on why the myth prevails so persistently, though my story seems too whimsical to be included in the main text. On apologizing in advance for all who may feel offended after reading this Appendix, I continue to discuss the fascination of the conventional view for both western and Japanese scholars and the popularity of Marxism in Japan.

First of all, western scholars seem to want to believe Japan is different. Otani (1996) succinctly summarizes[310]:

> If Industrial Revolution was internally arisen within the western culture and civilization, this revolution, more broadly industrialization, should be inseparable from or part of the western civilization. Accordingly, it would be quite natural to doubt the Japanese industrialization, which has taken place in a society completely detached from the western tradition, is something unnatural, and even to suspect it is phony. From this suspicion, it is easily concluded that any aspect apparently different from the West must reflect the Japanese tradition or uniqueness... The latest example is the Japan-is-different view that the Japanese capitalism and western capitalism are as different as night and day... (pp. 190-191)
>
> Tenaciously repeated emphasis by western intellectuals on the role of government, the MITI in particular, with the Japan Inc. view as a typical example, is a corollary of the above mentioned conceptual framework. Should industrialization be a result of the internal development of the European civilization and society, Japan would lack the force inherent in the society to generate its own industrialization spontaneously. Therefore, they conclude that the external force initiated by government must be instrumental and sine qua non... (pp. 217-218)

What exists behind such a self-gratifying perception is pointed out by Lewis and Wigen (1997, pp. 100-101):

[309] The title of this appendix is borrowed (and modified) from Hamilton (1996).

[310] My translation. Otani (1996) is a good read for those who are fed up with conventional views. Also, Inoki (1996, pp. 1-2) summarizes the basic principle of modern Japan as "broad opportunity and fierce competition" with ample historical evidence adding "I want to debunk the groundless conventional wisdom."

While debates on Oriental despotism are of a rather recondite nature, the belief that Westernization is a necessary concomitant of modernization has immediacy in the popular imagination. The assumption is still often made that all of the desirable features of modernity are inextricably bound to the West. In a recent survey of Japan in the influential journal the *Economist*, for example, we are told that "Japan is changing;... modernization is indeed turning out to mean westernization." Westernization, in turn, is taken here to mean nothing less than individualism, freedom of expression, tolerance, and democratization.

The alleged lack of originality of Japanese is a corollary of the above argument.[311] The following comment by an advocate of the western dominance is by no means extreme and rather the same kind of view is often expressed by western intellectuals:

It is not true, as some people think, that Japan adds European technology to its culture; no, European science and technology are trimmed with Japanese characteristics. The foundation of actual life is no longer the special Japanese culture, although it determines the color of life - because outwardly, in consequence of its inner difference, it is more conspicuous to the European - but the gigantic scientific-technical achievements of Europe and America; that is, of [western] peoples. Only on the basis these achievements can the Orient follow general human progress. They furnish the basis of the struggle for daily bread, create weapons and implements for it, and only the outward form is gradually adapted to Japanese character.

If beginning today all further [western] influence on Japan should stop, assuming that Europe and America should perish, Japan's present rise in science and technology might continue for a short time; but even in a few years the well would dry up, the Japanese special character would gain, but the present culture would freeze and sink back into the slumber from which it was awakened seven decades ago by the wave of [western] culture... But if it is established that a people receives the most essential basic materials of its culture from foreign [nations], that it assimilates and adapts them, and that then, if further external influence is lacking, it rigidifies again and again, such a [nation] may be designated as '*culture-bearing*,' but never as '*culture-creating*.'[312]

[311] Inoki (1996, p. 2) points out "one thing is certain that those who claim Japanese lack originality are not original at all; instead of reaching a conclusion logically with their own definition of originality, they simply repeat what others say." (My translation)
[312] Hitler (1943, p. 291-292). Words in the brackets are modified from the original text: from Aryan to western and from race to nation.

However, these arguments do not answer why so many *Japanese* scholars are obsessed with the Japanese uniqueness. Again Otani (1996, p. ii) gives us a brief summary[313]:

> Japanese universities have been established as organs for the westernization of Japanese society through catching up and getting ahead of the West. Therefore, it is quite natural for Japanese social scientific research to emphasize the Japanese peculiarity, difference and uniqueness compared to the West.

In other words, Japanese scholars are self-styled representatives of the western civilization. The late Masao Maruyama, arguably the most influential post-war Japanese intellectual not only in Japan but also among Japanologists through his translated works,[314] is a typical example. I suspect the intellectual backbone of the Japan-is-different view can be traced back to his rather journalistic writing.[315] He asserts that students should study western languages, "because the Japanese language itself is not suitable for the expression of rational thinking."[316] Paradoxically enough, he continued to write in Japanese until his death a few years ago. The strong appeal of Marxism in Japan is not surprising from this intellectual atmosphere. Considering the strong constructivist[317] nature of Marxism, it is natural for intellectuals in "backward" countries to be mesmerized by Marxism.[318] In particular, its Leninist variety gives the avant-garde, i.e., intellectuals, a free hand for remaking a society from the scratch. Hayek (1967a, p. 93) himself points out:

[313] My translation.
[314] Maruyama (1963, 1974). He was a professor of political science at Tokyo University until early retirement in the 1970s.
[315] He never wrote any substantial scholarly work after the war comparable to Maruyama (1983) written early in his career.
[316] My translation of a comment in Maruyama (1949), quoted in Okamoto (1996, p. 323).
[317] See Hayek (1979) for constructivism.
[318] As Hayek (1967b) points out, intellectuals in general tend to have a strong affinity for socialism everywhere.

> It was therefore only natural that, when Japanese thinkers began to study the different strands in the development of European thought, they should have been most attracted by those schools which seemed to represent this rationalist tradition in its most extreme and explicit form. To those who were seeking the secret of Western rationalism, the study of the most extreme form of it, what I have called constructivist rationalism and what I regard as an illegitimate and erroneous exaggeration of a characteristic element of the European tradition, was bound to appear as the most promising path to the discovery of this secret.[319]

On the other hand, this Japanese psyche harmonizes with the western psyche well: the cultural superiority complex based on material dominance for more than 400 years. The economic success of Japan has always been a thorny problem from the view that the prosperity of the West has been brought about internally. But the view that Japan is playing a different game would resolve this paradox. Besides the case of Japan, western intellectuals love the theme of the Rise of West despite more and more serious doubts being posed by experts on the premises of those arguments. Abu-Lughod (1989) shows similarities between the West and other parts of the world before the western hegemony with ample evidence from broader perspectives:

> One of the striking findings of the research was that similarities between trading partners in the thirteenth century far outweighed differences, and, wherever differences appeared, the West lagged behind. This seemed to contradict the usual assumptions. Furthermore, in spite of the tendency of western scholars dealing with the "Rise of the West" to stress the *unique* characteristics of western capitalism, comparative examination of economic institutions reveals enormous similarities and parallels between Asian, Arab, *and* Western forms of capitalism. This finding is particularly intriguing because, as we all know, variations cannot be explained by constants... (p. 15)
>
> What, then, distinguished the two regions - Europe and the Orient?... The question to be asked is why, particularly if one rejects the facile answer that Europe had unique qualities that allowed her to. My contention is that the context - geographic, political, and demo-

[319] However, there are some Japanese scholars who have freed themselves from the constructive rationalist straitjacket. Among them, Sakamoto (1991) is a radical reinterpretation of the modern Japanese political thought based on the Hayekian spontaneous order.

> graphic - in which development occurred was far more significant and determining than any internal psychological or institutional factors. (p. 18)

Powelson (1994, p. 2) is more specific on Japan[320]:

> It is often supposed that Japanese economic development "began" around the turn of the twentieth century and that Japan copied its economic system from the West. Recent scholarship demonstrates that neither of these assertions is completely true. Rather, Japanese economic development had been progressing strongly for almost three centuries before the Meiji Restoration of 1868. Indeed, the Japanese at that time may have been as far advanced as were the British just before their Industrial Revolution. Furthermore, the Japanese had developed sophisticated banking and exchange practices, commercial law, and bureaucracies capable of handling advanced economic policy. Their agrarian system had been modernized. Taking a cue from this scholarship, I will argue that Japan did *not* copy the West. Rather, the Japanese and Europeans were independent progenitors of economic development.

The persistent appeal of the Weber thesis seems to have the same psychological or ideological root, though the current consensus among experts is that the Protestant ethic *may* contribute to the economic development marginally but definitely is not *the* driving force. Such scholars as Samuelsson (1961), MacKinnon (1988a, 1988b), and Hamilton (1996) even question any marginal contribution at all. However, the Weber thesis is too appealing to abandon just based on historical evidence because this thesis completes the ranking among societies putting the U.S. at the very top. Roth (1987, pp. 2-3) writes:

> One important ideological reason has to do with Weber's attitudes toward England and America. In the superheated nationalist atmosphere of his time, Weber proved to be one of the last liberal Anglophiles... On this score he found ready resonance among an Anglo-American public that took the linkage of Protestantism, political liberty, and world power for

[320] He is very critical of some Japanologists for being "extremely paternalistic toward pre-Meiji Japanese." (p. 32) But overemphasizing the difference between western Europe plus Japan and the rest of the world, he considers Japan as an honorary member of the West. This move is not uncommon. See also Hanley and Yamamura (1977), and Hayami and Miyamoto (1988) for the detailed description of the pre-modern Japanese economy.

granted. Weber embraced the exalted self-image English Whig historians had fashioned about the "Puritan Revolution" and its liberal consequences...

As it was, the original Whig interpretation, adapted by Weber for polemical reason, was re-imported by Parsons and others into the Anglo-American realm and help reinforce the American orthodox understanding of an inherent connection between Protestantism and liberal democracy. The exportation and reimportation of Protestant self-interpretation, if not self-congratulation, appears to me an important element in accounting for the American receptivity to the Weber thesis. If the thesis was, for the German side, a kind of negative foundation myth - the "birth defects" of Imperial Germany - it embellished the myth of America.

The last but not the least reason why the myth persists is: Japanese academics see the world through their own lenses.[321] In Japan, social scientific research is conducted mainly in the faculties of law and economics. A political science department, particularly in national universities, belongs to the former and a business department to the latter. Unlike the United States, undergraduates can major in law, and most of them go to business[322] as economics majors do. Actually the faculty of law has more undergraduates than the faculty of economics in national universities which on average attract academically better prepared and motivated students and are considered more prestigious in every field than private and local governmental universities. Although either of the two faculties represents the overall tendency among Japanese social scientific researchers, I believe legal scholars are expected to show the Japanese uniqueness, if it ever exists, more than economists, because very few legal scholars have a foreign degree and they are more insulated than economists from research conducted abroad. Therefore, I choose legal scholars instead of economists for a detailed analysis. Table 16 summarizes which schools professors and associate professors[323] come from. I believe my 25 schools chosen represent the best part of the Japanese legal education and my selection invites few protests from those who are knowledgeable about the Japanese education. I only count researchers

[321] For this part, I am indebted to Bourdieu's (1988) analysis on French intellectuals.
[322] Less than 5 percent practice law.
[323] Because any full-time instructor is tenured in Japan, there is no equivalent to an assistant professor at U.S. institutions.

on law and political science and exclude those on other areas who belong to the faculty of law for general education such as foreign languages. Also, I do not count legal scholars who belong to other faculties for general education there.

As is clear from the table, results are very different from the case of Mitsubishi group directors. Tokyo and Kyoto Universities are without question dominant in the number of researchers. Not only they are inbreeding at their schools (96 percent and 89 percent respectively), but also send their graduates to other leading universities. 37 percent of researchers at 23 leading schools are either Tokyo or Kyoto graduates. Also, national universities rarely hire private school graduates. It is often claimed that personnel decision at other national universities and some private universities is in the hands of Tokyo and/or Kyoto professors. Those schools are called “colonies.” For example, 21 out of 31 professors at Tohoku University are from Tokyo, and only six are their own graduates. But, the fact that Tohoku sends more graduates than any other school except Tokyo and Kyoto to other schools suggests the high quality of Tohoku graduates.[324] Among private schools, 25 out of 28 Gakushuin professors and 20 out of 32 St. Paul professors are from Tokyo. The situation at these two universities contrasts with that at Aoyama Gakuin, which is considered equal to Gakushuin and St. Paul in terms of academic reputation and student body[325], but only two out of 26 professors are from Tokyo. These pieces of evidence show *something* other than academic standards plays a significant role for hiring at quite a few leading schools.

From the data, without exaggeration, it can be concluded that Tokyo and Kyoto, particularly the former, dominate the Japanese legal education.[326] This dominance is not confined to law.[327] More or less, the same picture obtains in other areas including eco-

[324] The late Yoshito Obuki at Chiba University, an outspoken Tohoku graduate, angrily pointed out how professors from Tokyo belittled students at Tohoku when he was a student there.

[325] Among private universities, Waseda and Keio stand out overall in terms of influence on Japanese society. In legal education, Chuo is considered as good as Waseda and Keio. The high inbreeding ratios of these schools also show their independence.

[326] Besides academia, Kyoto is as influential as Tokyo in the judiciary. Kyoto is said to have a strong anti-Tokyo sentiment and more liberal tendency than Tokyo, which may explain Kyoto’s underpresence in administrative bureaucracy.

[327] All eight Japanese Nobel laureates are graduates of either school, though four out of five science prize winners are Kyoto graduates and the only Tokyo graduate conducted research at IBM.

nomics, although it is not so overwhelming in natural sciences and engineering as in social sciences and humanities.

If every human being is not free from his own experience when seeing how the world is, it is hardly surprising that Japanese intellectuals emphasize the control of the game by the supposed dominant power. But it may be true only for *their* world where a huge non-tariff barrier, i.e., the Japanese language, insulates them from foreign competition, and the market mechanism hardly works due to rigid hierarchies, in contrast to the business world where participants have been competing fiercely with domestic and international rivals.

It is also plausible that Japanese academics are influenced by their friends in business. Figure 19 shows the placement of law and economics majors of Tokyo University in 1997.[328] Out of 735 undergraduates, 183 (25 percent) go to public service, 252 (34 percent) to financial institutions, 46 (6 percent) to trading companies, 160 (22 percent) to other service companies, while only 94 (13 percent) choose manufacturing companies. The six city banks and IBJ attract more students (104 or 14 percent) than all manufacturing companies combined. Even world famous manufacturers cannot lure Tokyo law or economics graduates: only one each goes to Honda and Matsushita and none (!) goes to Canon and Toyota.[329]

Top jobs at each segment reflect the placement data quite well. In 1996, 18 (14 law, two liberal arts, one economics and one engineering) out of 20 administrative vice-ministers of the Japanese Government[330] and 14 (seven law, six economics and one agriculture) out of 20 presidents of city, trust and long-term credit banks are graduates of To-

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[328] The data are from *Tokyo Daigaku Shimbun*, June 10, 1997.

[329] Of course, these companies hire quite a few Tokyo engineers every year.

[330] This distribution is all the more striking if we take into account the fact that there are much more engineers than law graduates among fast-track bureaucrats, and the number of economics graduates is half as much as law graduates. Since 1945, all but one vice-ministers of finance have a law degree from Tokyo University. Hayato Ikeda, the only exception and a Kyoto law graduate, later became one of the most popular prime ministers and is considered the most market-oriented in postwar Japan. It is highly likely that the dominance of law over economics in bureaucracy makes economic policy biased for regulation against market, whether it be effective or not. Miwa (1990, 1996) and Komiya et al. (1988) show that their economic policy has been by no means beneficial or effective, but not materially destructive to disrupt the essentially market-oriented Japanese economy.

kyo University, while nine presidents of the 20 largest listed manufacturing companies[331] are graduates of Tokyo University. In addition, among nine Tokyo graduates, four have an engineering degree, four law and one economics. Mitsubishi group companies are no exceptions. Three out of four presidents of financial institutions are Tokyo graduates (two law and one economics) as well as all four chairmen. On the other hand, nine out of 22 presidents of non-financial companies are Tokyo graduates, five of whom are engineers.[332] The conventional wisdom that smart bureaucrats and bankers control industrialists is consistent (only) with the Japanese educational hierarchy.

Should my speculation have any plausibility, the same reasoning could be applicable to academics in the United States. It seems that social scientists at U.S. universities in general show more pro-market attitudes in the analysis of economy than those in other countries. Is it too outrageous to claim that their view reflects the highly competitive academic market which they personally have to face, rather than U.S. economy itself?

[331] The data are based on 1997 consolidated sales and NTT is included (Toyo Keizai Shimpo-sha, 1997a). Two government-owned companies, JT and NTT are included in the list and both are headed by Tokyo graduates. Among the largest 50 listed manufacturing companies, only 15 are Tokyo graduates and eight out of 15 are engineers.

[332] In many prestigious manufacturing companies such as Mitsubishi Heavy Industries, top posts are said to be “reserved” for engineers. It is also said that being a Tokyo graduate matters less in engineering than in law and economics. In general, being a Tokyo graduate matters much more at financial and regulated industries such as utilities than manufacturing and service sectors, while being a Tokyo *law* graduate is a must in quite a few ministries such as the MOF. Regulation is bread and butter for Tokyo graduates!

Appendix 3. Research Methods[333]

> Student must be prevented from speculating along different lines and the more restless colleagues must be made to conform and 'to do serious work'. Is this what Kuhn wants to achieve?[334]
>
> Paul K. Feyerabend

> If, as Feyerabend suggests, some social scientists take from me the view that they can improve the status of their field by first legislating agreement on fundamentals and then turning to puzzle solving, they are badly misconstruing my point.[335]
>
> Thomas S. Kuhn

In this analysis, I try to pursue a less positivistic[336] approach than is common among respected researchers.[337]

First, I do not conduct statistical "testing", because I believe it has become a convenient substitute for real discussion. Data mining[338] is almost inescapable in the current research environment. As Coase (1994, p. 27) points out, "if you torture the data enough, nature will always confess." Aside from data mining, there are many conceptual problems

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[333] I agree with Machlup (1963), though he is a little pretentious: "Semiliterates [!] adopt the word when they are concerned neither with philosophy nor with logic, but simply with methods. Instead of 'statistical techniques' they would say 'statistical methodology,' and instead of 'research methods' they love to say 'research methodology.' They do not understand that the same method may be justified on very different methodological grounds, and that from the same methodological position one may defend very different methods of research."

[334] Feyerabend (1970, p. 198).

[335] Kuhn (1970, p. 245).

[336] Less demarcationist or more pragmatic may be a more precise expression. In any case, most researchers claim to be positivists in a narrower sense in that they seem to be Baconian justificationists believing the observation/theory dichotomy.

[337] Fortunately, such noted economists such as the late Fischer Black, Ronald Coase, Richard Posner and Lawrence Summers express the skeptical remark on the current scientific style (Black 1995; Coase 1994; Posner 1990; and Summers 1991). It is ironic that Posner, the epitome of the law and economics school, whom positive accounting theorists seem to aspire to declares himself anti-positivist. At least among professional philosophers, positivist research program has been dead for years. Among philosophy of economics literature, McCloskey (1985a, 1994) is fun to read.

[338] See Mayer (1975), Lovell (1983) and, in particular, Denton (1985) whose title is "Data mining as an industry."

that were pointed out some years ago but to no avail.[339] Particularly conspicuous is the practice to equate statistical significance, which almost always obtains with a large enough sample,[340] with substantive significance. Many works only mention the sign of coefficients without discussion of magnitude and declare their results plainly "significant," if the direction of sign coincides with the prediction[341] of their favorite hypotheses with a ritualistic 5 percent significance level.[342] But "tall men are more likely than short men to bump their heads on the moon."[343] Often we cannot interpret the magnitude of coefficients due to the complicated processing of original data. In this analysis, I focus on magnitude and the word significance is reserved for economic one only. There is no "scientific" criterion free from *our* experience and subjectivity to decide whether some data is economically significant. Therefore I will try to persuade readers with various data, arguments and of course some regressions and equations. I hope to be as good a conversationalist as possible, whether conversation be bourgeois virtue (McCloskey 1996) or vice (Schmitt 1985).

Second, theory-oriented researchers always talk about "stylized facts." As for the topic discussed in this analysis, there are many stylized facts that churn out countless theoretical works. However, my strategy here is not to propose another sophisticated theoretical claim, but to examine whether stylized facts really exist. McCloskey (1994, p. 115) summarizes nicely an awkward feeling I have whenever I read theoretical works in the corporate governance literature. After citing a typical phrase "Consider the following stylized setting" from a theoretical paper published in *American Economic Review*, she continues:

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[339] Leamer (1983) and McCloskey (1985b, 1996) for economics, Morrison and Henkel (1970) for sociology and psychology, and Gigerenzer (1993) for psychology critically examine the abuse of statistical significance in their respective fields.
[340] That is why parapsychologists, astrologers and race scientists love significance test. See Gauquelin and Gauquelin (1977) for an example of sophisticated astrological work surprisingly similar to empirical accounting research. Zelen et al. (1977) seem to require a higher standard for empirical astrology than usually required for empirical accounting in their rebuttal.
[341] *Post*diction may be more precise.
[342] 1 percent and 10 percent are also used.
[343] Shwartz (1987, p. 118) quoted in Green and Shapiro (1994, p. 61).

> These are mathematical, uninterested in facts, followers of a certain fashion, pretending to be direct but staying firmly in the lecture room, unaware of how funny the first sentence sounds to most economists. "Stylized" in economics means "I have not checked this in the world or even in the library, and am relying on the imaginary world that I and a few of my friends like to talk about, but never mind."

As for theoretical works themselves, she proposes a witty *metatheorem on hyper-spaces of assumptions* (pp. 138-139).

> For each and every set of assumptions A implying a conclusion C and for each alternative conclusion C′ arbitrarily far from C (for example, disjoint with C), there exists an alternative set of assumptions A′ arbitrarily close to the original assumption A, such that A′ implies C′...
>
> We have discovered empirically in economics over the past forty years that blackboard proofs that $A \to C$ are not robust, cannot in principle be robust, because there always exists $A' \to C'$, A close to A′, where C′ is the negation of C.

I do not deny the use of sophisticated theoretical works for understanding economic phenomena as McCloskey doesn't either. Rather I hope some more competent researchers make models based on my argument below. However, I believe what we can expect from fine theories is just a grain of truth, neither more nor less, unless we are satisfied with being second-rate applied mathematicians. Again, a witty remark by Coase (1988, p. 185): "In my youth it was said that what was too silly to be said may be sung. In modern economics it may be put into mathematics."

Next, I also want to make clear my position on more substantive issues. It is summarized into four *heuristics*: functionalism, folk behaviorism, methodological individualism, and individual rationality.

First, an important heuristic I adopt in the analysis is functionalist explanation: if something exists for a while, it performs some beneficial[344] function for some, though not all, people; this benefit is a reason for its existence; conscious intention is often not only

[344] Under informational cascades, people do not seem to gain anything by playing an inefficient equilibrium strategy. However, that strategy is the best one in terms of utility maximization, though they misperceive others' behavior.

lacking but denied by its beneficiaries. However, I use functionalism in a limited sense that I only ask why a certain phenomenon continues to exist, not why it emerges.[345] Also, I do not claim functional explanation can be reduced to causal explanation as Wright (1973) does. Functions are always observer relative with teleological and normative implications (Searle 1995, pp. 13-23). Otherwise the statement that it *mal*functions would not make sense.

Second, I believe behavior is more telling than words.[346] In other words, talk is cheap. It is informative to know what people say in order to understand what they believe are right things to say, though not necessarily what they actually practice. Perceived norms often influence actual behavior and hypocrisy is a long-term investment,[347] but that is another story. However, because I do not deny the existence of mental phenomena, I am not a scientific behaviorist who regards any mental phenomenon as an epiphenomenon caused by disposition.[348] That is why I have chosen folk behaviorism as a better description of my position.

Third, an individual is a unit of analysis and all supra-individual concepts should be understood from a viewpoint of methodological individualism. Methodological individualism may receive two objections from above and below. Among evolutionary biologists, the view that a basic unit is a gene is popular though by no means dominant.[349] From this point of view, an individual or organism is a mere vehicle for genes. However, we have to keep in mind that selection occurs on a phenotypic, i.e., individual level. In this regard, an individual is still the basic unit. On the other hand, superorganisms such as family, community, race, nation and class[350] have been claimed to be units though unfashionable now and dismissed by fiat by most biologists. However, as Wilson and Sober (1989, p. 354) point out, the relation between individuals and alleles is analogous to that between superorganisms and individuals:

[345] See this distinction for Ullmann-Margalit (1978).
[346] Nisbett and Wilson (1977) show how unreliable "explanations" given by human experimental subjects are in order to understand their behavior.
[347] "A decision maker with good-sounding talk may be a person experimenting with being good in other ways. It may be more sensible to encourage the experimentation than to condemn it." (March, 1994, p. 263)
[348] See Searle (1992, pp. 33-35) for the critical assessment of scientific behaviorism.
[349] Dawkins (1989) is perhaps the most widely known book.

> The statement "phoretic associations are mutualistic because of between-community selection" cannot be pitted against the statement "phoretic associations are mutualistic because genes in associates that increase the fitness of the carrier are more fit than neutral or detrimental genes." All of these statements are correct, and mere recognition of their compatibility would be an important advance for evolutionary biology.

I agree with their argument. Therefore, methodological individualism adopted in this analysis does not contradict the existence of group goals. Individuals may align their self-interest with assumed group goals. The social self advocated by Brewer (1991) and Brewer and Caporael (1991) cannot be dismissed as a kind of oxymoron. A brief summary of the theory is: "social identity derives from a fundamental tension between human needs for validation and similarity to others (on the one hand) and a countervailing need for uniqueness and individuation (on the other)"; "equilibrium, or optimal distinctiveness, is achieved through identification with categories at that level of inclusiveness where the degrees of activation of the need for differentiation and of the need for assimilation are exactly equal"; however, "Social identities are selected from the various bases for self-categorization available to an individual at a particular time. And specific social identity may be activated at some times and not at others."[351]

Herbert Simon's concept of docility can be understood in this line.[352] Olson (1971, p. 478) also argues "groups must maintain distinctiveness in order to survive - effective groups cannot be too large or too heterogeneous." However, as Olson (1971) shows, seemingly group oriented behavior can be understood from rational self-interest maximization based on methodological individualism.

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[350] However, some of these concepts are extremely obscure. See Hannaford (1996) for race, Hobsbawm (1992) for nation and Popper (1945) for class.

[351] Brewer (1991, pp. 477-8). Although the author does not explicitly mention, the concentric view of social identities assumes that "Personal Identity" = $S_0 \subset S_1 \subset ... \subset S_n$. In other words, any social identity is a subset of the next larger social identity. However, we cannot determine whether the Californians be larger or smaller than, say, the psychologists all over the world as a social identity. If we allow the multidimensionality of social identities, what should we optimize? Should we put some weight on each dimension and then aggregate a vector into a scalar measure? How much weight should we put on each dimension? Or is the theory a kind of partial equilibrium one on one dimension at each time?

[352] Akerlof (1983) and Frank (1988) are in the same vein. However, Simon's explanation (1990a) is close to the selfish gene argument and sounds Panglossian, perhaps contrary to his intention.

Fourth, I assume people try to choose the best option subjectively available for themselves. Put differently, they do not knowingly choose an option subjectively inferior to available alternatives.[353] I also assume people have some desires and beliefs, and act to satisfy them. That is, folk psychology full of teleological explanations must be seriously considered. In addition, I do not exclude anything from the set of arguments in the utility function because there is no compelling reason to do so. Of course, once we allow unobservable arguments in the utility function, any behavior is explainable by utility maximization and the framework would become tautology. My defense against this criticism will follow at the end of this Appendix.

People in my analysis can be called rational,[354] though more limited than usually attributed to this elusive concept. In particular, I do not assume the common knowledge of rationality unless it seems reasonable to do. In addition, I use a narrower definition of the common knowledge of rationality: the consistent alignment of beliefs is *not* an element of rationality.[355] If beliefs are consistently aligned, people cannot agree to disagree,[356] while I assume people agree to disagree at least in a short-term.

To be more specific, I assume people will defect in the Prisoner's Dilemma because defection is the best reply to any strategy of the opponent (dominant strategy). It does not matter whether the opponent is a monkey, or an (ir)rational human being. However, because a dominant strategy is rarely available in human *inter*actions, people have to form a belief on what others do. In some (not all) instances in which the assumption of the common knowledge of rationality is reasonable, people are expected to play rationalizable strategies,[357] but not necessarily Nash ones which require consistently aligned beliefs.

Moreover, I explicitly take optimization cost as well as usual constraints into account. What is optimization cost? "Decision-making is a costly activity, in two ways. (i)

[353] This fourth heuristic is close to the premise of Sunder (1997, p. 6).
[354] More precisely, instrumentally rational.
[355] This narrower definition is explained in detail by Bicchieri (1993, ch. 2) and Hargreaves Heap and Varoufakis (1995, pp. 23-28).
[356] See Aumann (1976).
[357] See Bernheim (1984). Iterated strict dominance and rationalizability are not perfectly equivalent, but the equivalence restores if we allow correlation in the definition of rationalizability (Fudenberg and Tirole 1991, pp. 50-53)

Gathering information is costly. (ii) Given the information, seeking an optimal action is costly. The former cost, call it 'information cost', is well incorporated into economic theory. The second cost, call it 'optimization cost' is typically suppressed."[358] Optimization cost seems to be easily incorporated into the usual constrained optimization framework as information cost. However, it cannot be done because unlike information cost, the infinite regress problem occurs; how to decide how to decide how to...[359] Due to this infinite regress problem of optimization cost, any closed model is wanting. In other words, once the scarcity of computational resources in human brains is legitimately acknowledged, the optimization paradigm loses its adored status as a closed model. Therefore Simon's satisfying behavior cannot be "nested" into the optimization paradigm, although many believe otherwise.[360]

Finally, I want to make sure how these heuristics are used in my analysis. In every intellectual inquiry including physics, some core premises are tautologies or negative heuristics.[361] The notorious Duhem-Quine thesis haunts us: "Any statement can be held true come what may, if we make drastic enough adjustments elsewhere in the system."[362] Although this strong version of the thesis is contested, few doubt the validity of the weaker claim that "for any finite body of evidence, there are indefinitely many mutually contrary theories, each of which logically entails the evidence." (Laudan 1996, p. 31)[363] Even Lakatos (1978, pp. 99-100), the last pillar of the Popperian rationalist camp, asserts:

> The direction of science is determined primarily by human creative imagination and not by the universe of facts which surrounds us. Creative imagination is likely to find corroborating novel evidence even for the most 'absurd' programme, if the search has sufficient drive. This look-out *for new confirming evidence* is perfectly permissible. Scientists dream up phantasies

[358] Conlisk (1988, p. 213). Agency theory is concerned mainly with (i). One of the classic articles in this information cost tradition is Stigler (1961). See Conlisk (1996) for optimization cost in the bounded rationality framework.
[359] Lipman (1991) shows the possibility of convergence of this sequence, but its applicability seems rather limited.
[360] Conlisk (1988, p. 215) quotes a typical claim by Baumol and Quandt (1964, p. 23).
[361] See Lakatos (1978). Also Von Neumann and Morgenstern (1953, pp. 8-9) argue in the same way for expected utility.
[362] Quine (1980, p. 43). (The first edition of the book was published in 1953) However, as Laudan (1996, p. 251) points out, Quine seems to retreat in later works (Quine 1975).
[363] Laudan (1996, p. 31). In the economics literature, this problem is called observational equivalence.

> and then pursue a highly selective hunt for new facts which fit these phantasies. This process may be described as 'science creating its own universe' (as long as one remembers that 'creating' here is used in a provocative, idiosyncratic sense). A brilliant school of scholars (backed by a rich society to finance a few well-planned tests) might succeed in pushing any fantastic programme ahead, or, alternatively, if so inclined, in overthrowing any arbitrarily chosen pillar of 'established knowledge'.

And the Master himself admits (Popper 1972, p. 30):

> At the same time, I also realized the opposite: the value of a *dogmatic* attitude: somebody had to defend a theory against criticism, or it would succumb too easily, and before it had been able to make its contributions to the growth of science.

Keeping these arguments[364] in mind, I want to explore the possibility of these heuristics in explaining various phenomena as far as I can go. Because I do not commit myself to any doctrine so earnestly (zero prior probability measure on alternatives) as, say, Gary Becker commits to the stable utility function, I will reconsider any heuristic if it becomes clear that it does not work well. But before it turns out that my explanations degenerate into just-so stories, I will stick to these four heuristics. Of course, only readers can tell when my own story degenerates.

[364] What Lakatos and Popper have in mind is not social science but physics. It may be high time we abandoned inferiority complex toward physics.