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Understanding Japan's Linger-  
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## Understanding Japan's Lingering Economic Stagnation

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### **Introduction**

Japan is trapped in the deepening financial slump and lingering economic stagnation. The Japanese regulators have made progress in implementing their framework for revitalizing the financial system (IMF[2000]). For instance, the major banks have been re-capitalized; reported capital adequacy ratios are strong; several mega-mergers of major banks have been announced and in process; two nationalized banks have been re-privatized; new funds for depositor protection have been allocated for financial revitalization<sup>2</sup>. In addition, “Big Bang” deregulation and reforms<sup>3</sup> in Japan have been largely completed (IMF[2000]). In spite of it, why haven't these financial policies bailed Japanese banks as well as economy out of the slump? Although the aftereffect of the burst of the “bubble” economy is heavy, why did Japan fail to find a solution for overcoming it over the last decade? What causes the lingering economic stagnation - the so-called “lost” decade? This paper attempts to point the systemic problems caused by an ill-planned transition from the “rent-based” and “relation-based” financial structure to the Anglo-American “securities-based” financial model under the political pressure of convergence to internationally accepted banking regulations. One is related to the transition which underestimated the impact of losing the important roles played by Japanese banks as financial intermediaries and monitors in the heyday of the “main bank” system. The other is related to the failure to institutionalize a new intermediation route of mediating “risk-averse” funds from the Japanese households sector to new industries.

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<sup>2</sup> Last enacted legislation added ¥10 trillion for depositor protection, bringing the total amount of public funds available for dealing with banking problems has brought to ¥70 trillion (US\$640 billion or 14 percent of GDP) (IMF [2000]).

<sup>3</sup> For instance, brokerage commissions have been fully liberalized, remaining restrictions on the stock brokerage business of banks' securities subsidiaries were lifted. Insurance companies are allowed to enter the banking business through subsidiaries or by setting up holding companies (IMF [2000]).

Japan's financial deregulation was partly driven since the mid-eighties by the US regulators' initiative appealing to "level playing-field" arguments (Dore) of promoting a convergence to the Anglo-American financial and banking system. The "deposit rate" deregulation (undermining the "rent-based" monitoring system) and the adoption of the Basel Accord (Capital Adequacy: preventing the expansion of loan assets with leverages<sup>4</sup>) have changed the strategies and behaviours by Japanese bank managers, as they have left the role of the "rent-based" and "relation-based" financial intermediaries and monitors behind. This change in financial environment surrounding them has something to do with the controversial "bubble" economy starting in the late eighties, when they were eager to get easy-profits through granting speculative credits and high-yielding mortgage financing in the real estate and construction sectors. These "profit-driven" strategies and behaviours can be considered as quasi rent-seeking activities in response to the fear that bank rents protected by the financial restraint might be reduced.

The burst of the "bubble" economy accelerated Japanese banking regulators to spur on the "rule-based" banking supervision, referring to the Basel Accord and the standard Credit Risk Model. In fact, the Basel rules have increasingly become normative, another constraint on the behaviour of Japanese bank managers. Accordingly, Japanese bank managers have been urged to attempt to adjust themselves to the new style of financial intermediation and monitoring (risk management including risk-based pricing), which are reflected in the practices and applications in the Anglo-American "securities-based" financial system. During the 1990s, the weight of banks as financial intermediaries declined in Japan. This is reflected not only in the decrease in the demand for funds in the private non-financial corporations sector (the aftereffects of the burst of the bubble economy) but also in the cautious lending attitude of banks. The credit rationing which caused a public outcry from the second half of fiscal 1997 to the first half of fiscal 1998 (BOJ [2000]), has also something to do with the changes in risk management activities of Japanese banks.

Recent changes have made more Japanese bank managers behave as "professionals" with the "investor's vision" of pursuing the fee and commission returns using financial techniques of mediating, mitigating and hedging risks in the process of financial intermediation, rather than the conventional interest spread returns through their lending business with "partner's vision" in the heyday of the *main bank* system. The changes in the feature and function of debt (loan) markets homogenized into those

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<sup>4</sup> See the section 2 for details.

of Anglo-American type capital/securities markets may have given professionals in Japanese banks an incentive to prefer short-run speculative profit-making. This trend has diverted resources from the long-term and stable debt markets, which have played the role of providing sufficient funds for firms with the underlying rationale of long-run production possibilities. Moreover, the pragmatic monitoring solutions using the standard Credit Risk Modeling and External rating system may limit long-term allocations of funds to industry. This is because there is no theoretical reason for expecting that the risk management protocol based on the statistical expected default frequency could help to improve the allocation of financial resources.

The more crucial problem is that during the 1990s, the financial structure in Japan continues to rely on “indirect financing”, reflected in the fundamental structure such that the preference for portfolio selection by the Japanese households sector, the largest fund providing entity, remains unchanged and “risk-averse”. Although there is a huge surplus of “safety” funds such as currency and deposits, there is a scarcity of “risk” funds such as shares, equities and securities to be mediated for incubating new enterprises and industries. Assuming that the existence of a large and diversified base of investors (“risk” fund- providers) is the critical foundation of the Anglo-American financial system, the imprudent transition of adjusting its own system to the Anglo-American mould without this critical foundation, is a systemic contributor to the problems of Japan’s financial intermediation and monitoring activities (risk management). On the one hand, an ill-planned transition from the “rent-based” and “relation-based” monitoring system to the Anglo-American “securities market-based” model may have lost Japan the (main) banks’ role as financial intermediaries and monitors, although the financial structure in Japan seems to require this kind of indirect financing. On the other hand, the failure to institutionalize a new financial intermediation route of mediating the “risk-averse” funds from the household sector to new ventures and industries might be a crucial factor causing the economic stagnation.

The first section and second section discuss the Japanese “main bank” system in the pre-deregulation period and the Anglo-American financial system, respectively. The third section attempts to examine the changes in the Japanese financial structure through the 1990s in comparison with those in the United States. The fourth section discusses the changes in lending strategies and the behaviour of Japanese bank managers after deregulation. The fifth section considers why Japan complied with the pressure of deregulation. The collapse of the “relation-based” system between the regulators and Japanese banks is another political factor causing Japan’s financial slump and economic

stagnation. The pre-commitment of financial deregulation having been made before the public bound the regulator's action, resulted in Japanese banks' suffering a collapse of confidence in the regulators and the *private and closed* information sharing system which were critical foundations of the "relation-based" system. The collapse of the relation-based supervision system which gave the system a flexible way of finding solutions in a cooperative way - is also a factor causing Japan's deepening financial slump and lingering economic stagnation.

### **1. Japanese "main banks" as Intermediaries and Monitors**

The economic literature has sharply distinguished the Anglo-American and Japanese financial systems. The former is often referred to as *the Anglo-American model of securities-based or capital market finance* (Aoki, Patrick and Sheard [1994]), and also as stock market capitalism (Dore) and the neo-classical spot market model of independent, arms-length financial transactions (Aoki *et al.* [1994]), in which securities markets play important roles for flows and allocations of financial resources. The other model is often referred to as the Continental European and Japanese model (Davis) or as the Japan-Germany model (Aoki *et al.* [1994]), and also as welfare capitalism (Dore) and a bank-based system of relationship finance and of repeated transactions and more or less close relations between typically banks and firms (Aoki *et al.* [1994]). The *Japanese "main bank" system* is categorized as a system, in which main banks play important roles, at least, in the catching up period, acting as *financial intermediaries* and *monitors* for flows and allocations of financial resources.

The important role of banks as "financial intermediaries" and "monitors", as one salient feature of the system, were sustained by several specific institutional characteristics of the Japanese system. (1) The *Financial Restraint* regulations of creating "bank rents" or "franchise values" (Hellmann, Murdock and Stiglitz [1997]); (2) Delegation of reciprocal monitoring arrangements among main banks (Aoki *et al.* [1994]); and (3) The informal "relation-based" (Okuno-Fujiwara) settings of practices, applications and behaviours among firms, banks and the regulatory authorities.

As for the first pillar, the *Financial Restraint* model suggests that the regulations of controlling deposit and lending rates helped to create rent opportunities which were potentially captured by financial intermediaries. The so-called "bank rents", on the one hand, create incentives for banks to operate as long-run agents (by creating a "franchise value" for the banks) so that they will work to monitor firms effectively and manage the

risk of their portfolio of loans<sup>5</sup>. On the other hand, the model claims that by increasing the returns to intermediation, banks have strong incentives to increase their own deposit bases<sup>6</sup>. Using “licenses” for new bank branches by the Ministry of Finance of Japan as the carrot (because expanding branches was highly profitable) and the stick threatening the reduction of rent opportunities for banks that shirk their duties for monitoring and prudence was a part of the system of financial restraint (Aoki *et al.* [1997]).

As for the second pillar, the Japanese “financial intermediary” based “monitoring” system (Aoki [1994] calls it the “Integrated” monitoring system) shares the same assumption with the “Delegated” monitoring theory of financial intermediation (originally advanced by Diamond<sup>7</sup>) suggesting that banks have, in general, a comparative advantage in monitoring activities. (In addition, the Japanese “main banks” are assumed to have much more advantages than other line banks.) In theory, monitoring typically involves increasing returns to scale, which implies that many projects are financed by a typical bank and the cost of delegation is low. The “Integrated” monitoring system would work only if the following conditions are fulfilled; (1) The cost of delegation is sufficiently low for each participating lender, in other words, the cost of monitoring or controlling the monitoring bank (main banks) does not exceed the prospective benefit from participating in the loan. (2) The cost of controlling the main bank is lower for each participating bank than directly monitoring its own portfolio (borrowers). (3) For the monitoring banks (main banks), their internal cost of monitoring borrowers does not exceed the prospective benefits from undertaking to monitor, which includes the benefit of maintaining franchise values, reputations and rent opportunities and so on through the financial restraint policy. (4) From a macro perspective, the cost of monitoring or controlling the monitoring banks does not exceed the benefit from exploiting scale economies in monitoring and controlling borrowers or investment projects through the system.

As Khan[2000] points, the Integrated monitoring system based upon the Financial Restraint policy understates the role of banking supervisors (regulators) in monitoring

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<sup>5</sup> Hellmann *et al.* P.170.

<sup>6</sup> On the one hand, the model starts with the empirical consensus that national savings respond favorably to higher interest rates, but this elasticity is very low. (This has something to do with the tendency that households are typically risk-averse.) On the other hand, the model assumes that the amount of savings depends on the available infrastructure for deposit collection, in particular on the extent of the bank branch network and the efficiency of services provided to the local communities. The model considers the possibility that the “rent effect” (the increased savings due to greater deposit security and/or increased investments in improving the deposit infrastructure and facilitating access to the formal financial sector) on savings is large.

<sup>7</sup> Freixas & Rochet, pp 29.

and disciplining banks. The fact is that banking supervisors are very closely involved in the operation of banks, in order to retain its effective power to monitor and discipline them, for the primary purpose of maintaining financial stability. In the case of Japan, the cost of delegation, in other words, the cost of monitoring the main banks to which each lender tends to delegate the monitoring activity, was almost negligible until the mid-nineties. The assumed low cost of delegation emanated from “*the Convoy system*”, in which Japanese banking supervisors retained a strong and effective power to monitor and discipline banks. In particular, the Inspection Division (Kensabu) of the Ministry of Finance (MOF) Banking Bureau was authorized to inspect the books of banks at its discretion. The power was so strong that banks believed that banking supervisors monitored the loan portfolio in every bank and that they might well be able to punish the management of the failing bank before it fell into a critically dismal portfolio position. Aoki *et al* [1994] raise the following strategic roles played by the MOF when a bank was judged to be poorly managed and to need drastic organization and asset restructuring; (1) The MOF arranged for a retired high-ranking MOF bureaucrat to enter as a director or the president. (2) The MOF influenced bank decisions concerning dividends pay-out. (3) The MOF mediated acquisitions of troubled smaller banks by larger banks (i.e. Sumitomo’s takeovers of Kawachi Bank in 1965 and of Heiwa Sogo Bank in 1986) and mergers of city banks (i.e. Daiichi and Nihon-Kangyo <Daiichi-Kangyo>, Taiyo and Kobe <Taiyo-Kobe>, Taiyo-Kobe and Mitsui <Sakura>, Kyowa and Saitama <Asahi>) in the pre-“deregulation” period. As a result, the sanctioning mechanism may have created a credible belief that the supervisors would effectively supervise and prevent the main banks from going bankrupt. This was a critical foundation of the Integrated Monitoring System.

As for the third pillar, the unique relationship between the regulatory authorities – the Ministry of Finance (“MOF”) plus the Bank of Japan (“BOJ”) – and the banking industry is also called “*the Convoy system*”. On the one hand, extensive analyses by Aoki, Patrick and Sheard [1994] shed light on the foundations of the system involving “*protection*” and “*sanction*” mechanisms. On the other hand, the “*relation-based*” structure described by Okuno-Fujiwara, shows the importance of close “*information-sharing*” between the regulators and banks, in which the MOF and some selected banks who have the power to influence decisions (the *insiders*<sup>8</sup>) negotiate rules and ensure *ex-post* flexibility. As Jack Knight [1992] points, (effective) institutions ensure compliance by a combination of (1) information provided about the choices of

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<sup>8</sup> Okuno-Fujiwara, p375.

other actors and (2) the threat of sanctions in the event of non-compliance. The flexibility in the “relation-based” structure was quite effective for sharing information and avoiding the occurrence of ‘non-compliance’ situations that would fail to achieve the institutionally targeted resource allocations. We elaborate on this third feature in section 5.

## **2. The Anglo-American financial system**

A prelude to Japan’s financial slump was that under diplomatic pressures for “deregulation”, Japan complied with the “level playing-field” demand (Dore) by the United States by promoting a convergence to the Anglo-American financial system. Recalling the mid-eighties, the performance of Japanese banks was, literally, the envy of American bankers who slumped over the aftereffects of the well-known Savings and Loans (“S&L”) crisis and the non-performing loans accumulated in the Latin America Crisis. Historically speaking, the United States regulators initiated an appeal to “level playing-field” arguments for rules which minimized restraints on *international* competition to the disproportionate advantage of their own national banks. The proposal of convergence to the international Capital Adequacy standard at the Basel Committee on Banking Supervision (1984), the Plaza Accord (1985), the bilateral deal on capital adequacy (1987), the Basel Accord (1988) and diplomatic pressures for financial deregulation were strongly pushed by the United States.

The salient features of the Anglo-American financial and banking system are summarized as follows; (1) Tight regulations on banking (lending) business and on promoting competition (on the other hand, the United States completed the “deposit rate” deregulation only in 1986 after gradual implementation since 1970). (2) Competitive securities markets are promoted, with a neoclassical belief that such a market-oriented mechanism backed by *a large and diversified base of investors* would realize better resource flows and allocations. In this financial framework, financial intermediaries have increased their capabilities by specialisation and division of work in credit risk assessment and monitoring functions. Thus, investment bankers acting as underwriters, venture fund managers acting as incubators and external rating houses as evaluators have come to play important roles in the Anglo-American financial system.

First, the importance of tight regulations means that unfettered banking (lending)

business and competition are generally not allowed<sup>9</sup> even in the United States, where market-oriented competition and allocations are promoted and widely observed in other industries. Traditionally, the fundamental concern by the United States regulators is how to attenuate the economic power of banks. Stiglitz [1994] points that the United States is perhaps more concerned than other countries that the banks would be able to exercise undue concentration of economic power without government intervention. The regulators have clearly been worried about the possible deleterious effects of banking practices that limit competition in product markets. Therefore, many of the restrictions imposed on banks, such as those relating to interstate banking (American banks are allowed to have branches only within one state) and those relating to the activities banks can engage in, are intended to limit their ability to exercise economic power. Moreover, the United States regulators have been very worried that *deregulation* has an aspect of giving banks the incentive of over-lending to riskier projects (to prefer short-run speculative profit-making). The Savings & Loan (“S&L”) crisis, which has cost the United States taxpayers hundreds of billions of dollars<sup>10</sup>, serves to remind regulators of this danger. The S&L debacles may have amplified the conservative tradition of United States regulators trying to attenuate the economic power and activity of banks. We call this tradition the “*Weak bank*” strategy<sup>11</sup>. Tighter capital adequacy requirements and limits on the scope of business, which policies were strengthened in the *ex-post* S&L crisis, are based upon this strategy.

Historically, the capital adequacy ratio (a ratio of equity capital to total assets)

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<sup>9</sup> Most banking texts emphasize *liquidity risks* in terms of the inability to obtain funding for current obligations (Davis[1995]). To counteract liquidity risks (or panic withdrawals and runs) whose nature is a short-run mismatching of liquidity, the instrument of “government insurance for depositors” or “the lender of last resort facilities by the Central bank” has been developed as the effective way of trying to maintain confidence in banks. On the other hand, the more important but complicated issue is for the government and banking supervisors how to monitor and discipline banks to keep banks from those bad credits (*credit risks*) that may also make banks become insolvent. This paper focuses upon analysing the latter issue.

<sup>10</sup> The magnitude of closed or merged assets of the insolvent S&L institutions amounted to approximately US\$540 billion (Davis, p.166).

<sup>11</sup> This is an analogy to the fundamental diplomatic policy supported by the U.S. Democrats towards Japan, the so-called “Weak Japan” strategy. This strategy is based upon an assumption that the United States should keep the military power of Japan attenuated and sterilized from the potentiality of Japan’s growing as a military threat again to the United States. Therefore, the “Weak Japan” strategy tends to allow Japan to focus on economic affairs. On the contrary, the US Republicans tend to support the so-called “Strong Japan” strategy, requesting Japan’s military contributions as a partner to the US military operations in the region. This strategy is based upon an assumption that for the benefit of the United States (saving costs etc.), Japan should play a bigger role beyond economic affairs in the region.

was conceptualised and promoted by the U.S. regulators as a prescription for preventing banks from over-lending to riskier projects (Miyoda). In the United States, “Returns on Equity or ROE” has long been used as an important index for measuring business management performances. Assuming that operating costs remain unchanged, there were two major ways for banking managers to raise “ROE”. The one was to expand loan assets by “leveraging” (borrowing funds, that is, increasing the weight of debts for lending, in order to earn profits while reducing the weight of equity capital), the other to pursue higher “Returns on Assets or ROA”. (“ROA” is a ratio of profits (after tax) to total assets ( $ROA = \text{Profits} / \text{Total Assets}$ ), while “ROE” is a ratio of profits (after tax) to equity capital ( $ROE = \text{Profits} / \text{Equity Capital}$ ). Thus, we could say that the capital adequacy ratio is a ratio of ROA to ROE [ $ROA/ROE = \text{Profits} / \text{Total Assets} \div \text{Profits} / \text{Equity Capital} = \text{Equity Capital} / \text{Total Assets} = \text{Capital Adequacy Ratio}$ ], in other words, ROE is a ratio of ROA to Capital Adequacy Ratio). The Capital Adequacy Requirement aims to prevent banks from expanding loan assets by leveraging and thereby promote safety and soundness in the banking system by maintaining adequate capital “buffers” or “cushions” to cover unexpected credit losses.

“Financial deregulation” has been globally promoted and propagated by the United States since the mid-eighties. It is worth noting that the United States regulators, as mentioned, so far as the banking industry is concerned, keep a tight rein on banking (lending) business and on competition. Although American banks only engage in lending, mainly, *short-term* loans for working capital, which has historically contributed to no more than 30 percent of total corporate debt (see Figure 1), the regulators hold to the traditional “weak bank” strategy of enforcing tight capital adequacy rules and disclosure rules on banks to prevent “bank runs”. At the same time, the fear by the regulators that the tighter capital adequacy standard on their own national banks might lose American banks their competitive edge in the international financial markets, urged the regulators to propose convergence to the international Capital Adequacy standards at the Basel Committee<sup>12</sup>.

Second, in contrast, so far as the securities market is concerned, the regulators opt for a competitive and less protective framework, based on a neoclassical belief that such a market-oriented mechanism backed by *a large and diversified base of investors* would realise better resource allocations. In this framework, the financial intermediaries have increased their capabilities by specialisation and division of work in credit risk

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<sup>12</sup> As for the backgrounds of “Basel Accord”, see, for example, Miyoda, Eichengreen [1999] for the details.

assessment and monitoring functions. Who absorbs the ultimate risks and uncertainty<sup>13</sup> in this environment? The answer lies in the existence of a large, broad and diversified base of investors in the US market who can afford to take credit risks on their own as fund providers, having assessed the information memorandum packaged by investment bankers or venture fund managers. This diversified base of private investors is the critical foundation of the existing Anglo-American system. We will elaborate on this point later.

Expectations occupied a central position in Keynes' famous analogy between a stock market and a beauty contest. Waves of sentiment tend to make security prices diverge from their fundamental values. However, some economists claim that security prices are not a random walk, that is, mean reverting and having a tendency to gravitate back to fundamentals over long horizons. For instance, Thaler argues; "Suppose that (marginal) investors judge the risk of both extreme winners and losers to be greater than the objective risk. Losers might be considered risky because bankruptcy risk is overestimated. Winners might be considered risky because they appear to have so much "down-side potential". Such firms will bear an excess risk premium, forcing prices lower<sup>14</sup>." While Keynes theory of expectation rejected the notion that the source of waves of pessimism depended upon a mass irrational psychology, he referred to "animal spirits" in individual initiatives which were expected to supplement and support reasonable calculations. Needless to say, if no investor for whatever reason can afford to absorb the "down-side risks", the firm must go bankrupt. The existence of a large, broad and diversified base of investors with quite different animal spirits and initiatives is essential for providing financing for the entire range of economic activities in a growing and changing economy. As long as the base as a whole has the strength and capacity to economically and socially absorb many different types of risks and uncertainty, the investment market backed by such a base of investors can become dynamic and powerful. This, on the other hand, implies that there is no guarantee that the Anglo-American financial system would work universally. This is because there is no guarantee that other countries possess the large and diversified base of investors which is the critical foundation of the Anglo-American financial system.

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<sup>13</sup> Although there has always been a good deal of skepticism about the behavioral significance of Frank Knight's distinction between "measurable uncertainty" or "risk", which may be represented by numerical probabilities, and "unmeasurable uncertainty" which cannot (Ellsberg). This paper basically follows the definition of "uncertainty" that prevailed as indicating the latter (this definition was also maintained by F. Knight), in which "subjective probabilities" corresponds to "uncertainty".

<sup>14</sup> Thaler, p.165.

### 3. Changes in the financial structures between Japan and the U.S.

We move on to argue how the “level playing field” demand – the deregulation of deposit rates and financial commissions and the Capital Adequacy requirement – have changed Japan’s Financial Structure. We discuss this issue using the data provided in a working paper which was recently issued by the Bank of Japan (“BOJ”) on 28 December, 2000, titled “Japan’s Financial Structure – in View of the Flow of Funds Accounts”. Their analysis of the Flow of Funds Accounts (FFA<sup>15</sup>) is very informative for comparing the changes and features of the financial structures between Japan and the United States through the 1990s.

#### *Comparison of household preferences in portfolio selection*

The household sector has been the largest fund provider in Japan throughout the 1990s. According to Figure 4 provided by BOJ [2000], the outstanding financial assets held by the households sector increased from ¥926 trillion at the end of fiscal 1989 (end of March 1990) to ¥1,390 trillion<sup>16</sup> at the end of fiscal 1999 (end of March 2000). A salient feature of the breakdown is that the weight of “safety assets” (BOJ [2000]) such as currency and deposits was large, while the weight of “risk assets” (BOJ [2000]) such as shares, equities and securities was small, reflected in their “risk-averse” preferences for portfolio selection. Moreover, their “risk-averse” preferences have intensified through the 1990s. The weight of “safety assets” rose from 48.5 percent (¥449 trillion) to 53.8 percent (¥748 trillion) and the weight of “risk assets” declined from 24.7 percent (¥228 trillion) to 15 percent (¥209 trillion)<sup>17</sup>. In contrast, in the United States, the

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<sup>15</sup> The FFA are comprehensive financial statistics that show the movements of funds among economic entities such as enterprises, households, and the government, and the claim/debt relationships between them. In July 1999, the Research and Statistics Department of the Bank of Japan conducted a fundamental revision on the FFA for the first time in nearly 40 years and started releasing the new data. Retroactively revised data for the past 10 fiscal years were also released in March 2000. (BOJ[2000], Introduction)

<sup>16</sup> The outstanding of financial liabilities was ¥393 trillion. Thus, the households sector was a net creditor with the outstanding of net assets of ¥997 trillion.(BOJ[2000], p.4)

<sup>17</sup> These changes are partly influenced by the decline in the market value of shares that followed the decrease in stock prices. However, according to BOJ[2000], the flows of financial investment in each fiscal year shows that a majority of the amount was invested as currency and deposits (including postal savings) and insurance and pension reserves. Moreover, the decline in the value of Japanese shares was partly due to the risk-averse of investors.

weight of “safety assets” was small while that of “risk assets” large. Moreover, during the 1990s, the former weight was declining (from 19.4 percent to 9.6 percent) and the latter weight was increasing<sup>18</sup> (from 52.1 percent to 57.6 percent).

### *Changes and Features of Financial Intermediation Structure*

BOJ classifies financial intermediaries into three categories. (1) “Depository corporations” including banks, postal savings and collectively managed trusts, (2) “Insurance and pension funds”, and (3) “Other financial intermediaries” including securities investment trusts, non-banks and the Trust Fund Bureau and government financial institutions.

On the liabilities side, depository corporations continue to constitute a large share of the financial intermediaries in Japan (BOJ [2000], see Figure 5). However, their weight declined over 10 years (from 60.1 percent at end of March 1990 to 51.7 percent at end of March 2000). However, we see, as another salient feature in the funding sources, that the weight of deposits with depository corporations to total financial liabilities remains almost unchanged throughout the 1990s (from 37.1 percent to 36.9 percent). In contrast, in the United States, depository corporations used to be the largest financial intermediary 10 years ago (37.0 percent), but declined to become least important (21.5 percent), in accordance with a sharp decline in deposits. On the asset side, the data (Figure 6) shows that the weight of “loans” to total assets of financial intermediaries remains over half of assets (54.4 percent at the end of March 1990 and 51.2 percent at the end of March 2000) in Japan. (We, however, should note that the weight of loans in depository corporations declined over 10 years [from 31.1 percent to 24.5 percent], while the weight of loans in other financial intermediaries, particularly in public financial institutions<sup>19</sup>, increased from 20.1 percent to 23.4 percent.). In contrast, in the United States, the weight of loans in depository corporations declined over the past 10 years (from 22.7 percent to 12.8 percent), while the weight of shares and other

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<sup>18</sup> This could possibly have more to do with the changes in the valuation of stock markets. However, we should take into consideration that the rate of increase in the size of “currency and deposits” (approximately 19.4%, from \$2.91 to \$3.47 trillion) was quite marginal in comparison with that in the total asset size (approximately 2.4 times, from \$15.0 to \$36.2 trillion). This is, at least, a sharp contrast with the Japanese households’ “risk-averse” nature for portfolio selection.

<sup>19</sup> According to BOJ[2000], the weight of public financial institutions among financial intermediaries in terms of the amount outstanding of assets increased from 15.4 percent at the end of March 1990 to 22.0 percent at the end of March 2000. By and large, governmental financial institutions rely their funding on the deposits with the Trust Fund Bureau which are transferred from Postal Savings.

equities of other financial intermediaries and insurance and pension funds increased (from 10.6 percent to 27.0 percent).

To sum up, the FFA data shows that during the 1990s, the United States has intensified its “securities-based” financial structure, while the financial structure in Japan continues to rely on indirect financing. For the past decade in the United States, the weight of other financial intermediaries such as non-banks and securities investment trusts has been increasing rapidly in comparison with traditional depository corporations. (Non-banks in the FFA are defined as private financial institutions that raise funds through methods other than deposits and deposit-like instruments and invest such funds by loans including purchase of structured-financing instruments.) In contrast, throughout the 1990s in Japan, although the weight of depository corporations (banks) has slightly declined, the public sector such as postal savings and public financial institutions as financial intermediaries just absorbed “safety” funds from the households sector, instead. The critical feature in Japan’s financial structure is that while there is a huge surplus of “safety” funds, there is a scarcity of “risk” funds due to the intensified “risk-averse” households sector in Japan– this is a sharp contrast with the financial structure in the United States.

#### **4. Changes of lending strategies and behaviours of Japanese bank managers**

In the “rent-based” banking and monitoring system, the rent opportunity created by a “franchise value” (Hellmann *et al*) was an important component of prospective benefits which made (main) banks operate as long-run agents for effective screening and monitoring. According to the Financial Restraint model, the franchise value induces banks not to succumb to moral hazard, because banks have an ongoing interest to stay in business. By the same token, Aoki[1994] argues that rents played a necessary role in creating incentives for Japanese main banks to perform delegated monitoring tasks without shirking. On the other hand, bank rents tend to be politically controversial. This is because it is intrinsically difficult for banking supervisors to precisely estimate how much protection of the abstract “franchise value” of banks is required for efficient screening and monitoring<sup>20</sup>. In addition, the structure of the “rent-based” and

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<sup>20</sup> The bank rents might be politically accepted in a fairly easy way when they can foster financial deepening. (Financial restraint presumes that the rent captured by banks has an important influence on their increased investments in improving the infrastructure for deposit collection and facilitating access to the formal financial sector.) On the contrary, the justification of the rents may become more difficult in accordance with the progress in

“relation-based” banking supervision - the so-called “Convoy” system in Japan – undoubtedly induced some unproductive rent-seeking activities.

Reportedly, the Returns of Assets (ROA) captured by Japanese banks were already declining since the seventies (Figure 2). Severer lending competition among banks fueled by the so-called “internationalization and disintermediation<sup>21</sup>” are said to have accelerated the trend (Economic Planning Agency [1999]). However, in those days, banks could expand loan assets with leveraging to compensate for the decline of ROA and to maintain or increase substantial profits. Therefore, the 8 percent capital adequacy rules (Basel Accord) promoted by the United States since 1984 shocked Japanese bank managers (as well as, probably, the regulators) and spurred them to change the lending strategy of expanding through leveraging. They feared potential penalties (forced withdrawals of overseas operations) against inadequate equity capital accumulation with the Basel Accord when it is enacted (Note: the international consensus set the deadline of the implementation of the 1988 Accord by 1992). This fear partly changed their preference for high-yielding loans (higher ROA). Moreover, the foreign diplomatic pressures for “deregulation” since the mid-eighties urged the Japanese banking regulators to lay out a plan to liberalize the financial restraint policy. The plan addressed not only the adopting of the Basel Accord, but also the implementation of ‘deposit rate’ and ‘commissions’ deregulation, relaxation of the limits of the scope of business and reduction of barriers to entry for promoting greater competition. (The diplomatic compromise to the Plaza Accord in 1985, further urging many Japanese manufacturers to shift their production base overseas in terms of “internationalization”, also affected bank manager’s behaviours in credit risk judgment.) These movements diminished the efficiency of monitoring in the Japanese “main bank” system. This is because the “prospective” benefits including bank rent opportunities from monitoring started diminishing when the deregulation plan was announced. Presumably, this change in financial environment surrounding Japanese banks has something to do with the “bubble” economy<sup>22</sup> starting in the late eighties, when they were eager to capture

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financial deepening.

<sup>21</sup> The term of “internationalization” in Japan meant that more Japanese manufacturers started shifting or expanding their production base overseas. The trend gave them a wider variety of funding sources, for instance, Off-shore financial markets and Euro or overseas capital markets. This resulted in a higher degree of disintermediation (Schaberg), leading to a situation that domestic bank lending became less important as a source of funds.

<sup>22</sup> The bubble economy has long been controversial in Economics. Some economists claim that the easy money policy (Aoki[1994]) after the Plaza Accord “fueled” the bubble. At the point in time, there was an increasing external pressure on Japan to keep the official discount rate low to stimulate domestic demand as a means of reducing its trade surplus with the United States. While the United States government was reducing interest rates

easy-profits through extending speculative credits and high-yielding mortgage financing in the real estate and construction sectors. These “profit-driven” strategies<sup>23</sup> and behaviours can be considered as quasi rent-seeking activities in response to the fear that bank rents protected by the financial restraint policy might be reduced.

The burst of the “bubble” economy accelerated Japanese banking regulators to spur on the “rule-based” banking supervision, referring to in the Basel Accord and standard Credit Risk Model (calculating risk-adjusted returns on assets or capital with quantifying credit risks. See Annex-1 for details). The Basel Committee has explicitly<sup>24</sup> urged banking supervisors to lead banks to use the internationally accepted Credit Risk Modeling, for supervisory and/or regulatory purposes (for making the Accord more sensitive to credit risks). In fact, the Basel rules have increasingly become normative, another constraint on the behaviour of Japanese bank managers, leaving the role of the “relation-based” financial intermediaries and monitors behind. Accordingly, Japanese bank managers have been urged to attempt to adjust themselves to the new style of financial intermediation and monitoring (risk management including risk-based pricing), which are reflected in the practices and applications of the Anglo-American financial system, in particular, its securities markets. During the 1990s, the weight of depository corporations (banks) as financial intermediaries declined in Japan. This is reflected not only in the decrease in the demand for funds in the private non-financial corporations sector (the aftereffects of the collapse of the bubble economy) but also in the cautious

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for the purpose of giving a stimulus to its stagnant domestic economy, the Japanese Government itself was also inclined to an easy money policy, for fear that high interest rates might induce an even greater appreciation of the Yen. The Ministry of Finance (MOF), therefore, urged the Bank of Japan to reduce domestic interest rates accordingly to keep the interest rate gap with the United States. This easy money policy was associated with an increasing outcry by Japanese export industry, the biggest political and economic problem at the point in time. On the other hand, the easy money policy worried the regulators about the possibility of causing “inflation”. Therefore, the regulators seemed to accept the “bubble” economy in terms of marking the outer limit of inflation on property and stock markets. In those days, Japanese banks were already required by the MOF to periodically report the loan exposure towards the real estate and construction sectors. The MOF’s silence in the midst of the bubble economy was construed by bank managers and directors as an approval for further exposures.

<sup>23</sup> At the point in time, they were also required to earn for accommodating the huge investment of enhancing electronic banking infrastructures. Developing the computerized accounting and clearing system, the information and simulation system for dealing with foreign exchanges or derivatives and so on - these investments were deemed necessary for surviving in the scheduled financial deregulation because these strategies were revitalizing the US banks.

<sup>24</sup> See, for instance, Basel Committee on Banking Supervision [1999], Credit Risk Modelling: Current Practices and Applications (“CRM/CPA”), p.8 or overview.

lending attitude of banks. The credit rationing which caused a public outcry from the second half of fiscal 1997 to the first half of fiscal 1998 (BOJ [2000]), has also something to do with the changes in risk management activities of Japanese bank managers.

In the heyday of the “integrated” (Aoki[1994]) or “relation-based” (Okuno-Fujiwara) monitoring system led by “main banks”, they contributed to making better allocations of scarce resources and ensuring that the allocated funds be used in the way promised. The “main bank” was regarded as a “*partner*” for most Japanese firms. It was said that in post-war Japan, having a good main bank relationship with one of the major banks had been the cornerstone of corporate financial strategy, and virtually essential for corporate success (Aoki, Patrick and Sheard [1994]). Of course, as observed in the post-war “*keiretsu*” system (Aoki et al[1994]), the role of principal commercial banks as main banks for those firms and enterprises within their groups was quite unique, stemming from a historical context of a relatively decentralized exclusive group (*zaibatsu*) banking system. However, throughout the post-war period and the adjustment to slower economic growth from the mid-seventies until the late eighties when many leading Japanese industries reached the international technological and marketing frontier, the main bank was deeply involved as a *partner* in mapping out a strategy of its client firms<sup>25</sup>. The bank occasionally played the role of incubating entrepreneurs, some of whom were truly novel, and also rescuing clients in temporary trouble. As a hypothesis, the officers and managers in the main bank possessed at that time “*partner’s vision*” (monitoring from inside), rather than “*investor’s vision*” (monitoring from outside).

Recent changes have made more Japanese bank managers behave as “professionals” with “*investor’s vision*”, pursuing fee and commission returns using financial techniques of mediating, mitigating and hedging risks in the process of financial intermediation, rather than the conventional interest spread returns through lending to business and undertaking credit risks. This is because the “fee and commission-driven” or “arbitrage” business, needless to say, greatly contributes to improving ROA. The Anglo-American type / securities-based “investment banking business” involving the underwriting and distribution of corporate bonds, loan securitization and credit derivatives, as well as “venture fund management” attracted Japanese bank managers as new or alternative business opportunities.

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<sup>25</sup> Stiglitz[1994] suggests that banks may exercise more effective control than do shareholders, or bond holders for that matter. For banks the costs of intervention will be smaller and the free-rider problems will be less severe than for shareholders.

Keynes [1936] already deplored the tendency in the thirties that certain classes of investment are governed by the average expectation of those who deal on the Stock Exchange as revealed in the price of shares, rather than by the genuine expectation of entrepreneurs. The inducement to invest comes to depend more on waves of optimistic and pessimistic sentiment fluctuating according to the highly volatile mass psychology in the market. The professionals in banks are more or less assumed to possess better knowledge and capability in risk assessment and monitoring than average investors. The competition among expert professionals could be expected to be an objective of financial deregulation, to play a role in correcting the volatility of fund allocations. However, in reality, “the energies and skills of the professionals are occupied otherwise” (Keynes [1936], p.154). “Most professionals are concerned, not with making superior long-term forecasts of the probable yield of an investment over its whole life, but with foreseeing changes in the conventional basis of valuation a short time ahead of the general public.” The changes in the feature and function of debt (loan) markets homogenized into those of Anglo-American type capital/securities markets may have given professionals in Japanese banks an incentive to prefer short-run speculative profit-making. Advanced techniques of mitigating credit risks through loan securitization and secondary loan trading may have fueled their occasionally opportunistic incentives. This trend has diverted resources from the long-term and stable debt markets, which have played the role of providing sufficient funds for firms with the underlying rationale of long-run production possibilities<sup>26</sup>.

The more important and crucial problem is that as mentioned earlier, during the 1990s, the financial structure in Japan continues to rely on “indirect financing”, reflected in the fundamental structure such that the preference for portfolio selection by the Japanese households sector, the largest fund providing entity, remains “risk-averse”. Although there is a huge surplus of “safety” funds such as currency and deposits, there is a scarcity of “risk” funds such as shares, equities and securities to be mediated for incubating new enterprises and industries. This implies that unless Japanese households

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<sup>26</sup> There also possibly arises a problem of crowding small or middle-sized firms out of debt (loan) markets until they acquire External ratings. Or, those firms who fail to be rated may be forced to accept severer loan conditions enough to compensate for the banks’ unwillingness under conditions of uncertainty. Higher pricing may lead to another moral hazard problem, in the light of the Stiglitz & Weiss model, encouraging borrowers to take riskier projects. We would say, at least, that the Basel regime neglects the fundamental assumption of “monitoring” that critically matters for making the socially better allocations of scarce resources (*ex-ante* monitoring for selecting projects) and for ensuring that the allocated funds be used in the way promised (*on-going* and *ex-post* monitoring). There is no theory of ensuring that the statistical expected default frequency for “publicly rated corporate bonds” would make the socially optimal or better allocations of fund resources.

were more risk-loving, no matter how banks attempted to adjust themselves to the securities-based financial mould by pursuing “investment banking business” or “venture fund management”, direct and long-term investments by ultimate fund providers would be limited. It seems that Japan’s financial structure has not possessed its own sufficient and diversified base of “risk” fund providers (investors) necessary for directly investing in new enterprises through venture capital funds, for instance. This might be one of the reasons causing Japan’s deepening financial slump.

At a macro-level, the transition from the “rent-based” and “relation-based” monitoring system to the “securities-based” and “arms-length” Anglo-American model underestimated the impact of losing the important roles of Japanese banks as financial intermediaries and monitors for flows and allocations of fund resources in the traditional “indirect financing” structure. In the past, Japanese main banks partly contributed to making allocations of fund resources (bank loans) that have historically contributed to around 90 percent of the total corporate debt (see Figure 1). The “indirect financing” structure remains unchanged during the 1990s. According to BOJ [2000], the non-financial sector still remains the largest net debtor on a stock base<sup>27</sup> as of the end of March 2000 (the outstanding assets in the non-financial corporations sector were ¥739 trillion and outstanding liabilities ¥1,469 trillion). The breakdown of liabilities shows that borrowing (loans) was ¥566 trillion and shares and other equities was ¥500 trillion, however, fund raising by securities such as industrial securities was a rather small figure of ¥78 trillion<sup>28</sup>. (It is reported that the high value of outstanding shares and other equities reflects the rise in stock prices. In fiscal 1999, the growth rate of the outstanding of shares and other equities was high, year to year increase of 41.6 percent (BOJ [2000]).)

On the one hand, the outstanding non-performing loans, which may still not be fully provisioned, may partly hamper the positive flows and allocations of resources for new industries and projects. IMF [2000] estimates that the true cumulative bad loans of the 17 major banks totaled about ¥65 trillion as of March 2000. (The uncovered losses are estimated within a range of ¥6.2 trillion (baseline) to ¥21.2 trillion (severer case). In the baseline, assuming of a true loss rate of 90 percent (based on historical trends in loss

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<sup>27</sup> On a flow base, the FFA (BOJ[2000]) shows the financial surplus in non-financial corporations (¥21.7 trillion) in fiscal 1999. BOJ analyses it that real investment such as in plant and equipment was restrained despite the recovery in corporate profits and the surpluses were used for debt payments and financial investment.

<sup>28</sup> Total of industrial securities (corporate bonds), Commercial Papers and external securities issued by residents.

rates and an estimated current loss rate of about 85 percent) implies loan losses of about ¥58.5 trillion, compared with major banks' cumulative provisions and write-offs of about ¥52.3 trillion<sup>29</sup>). On the other hand, adopting the Anglo-American monitoring solutions with the standard Credit Risk Modeling and External rating system may limit the socially necessary allocations of fund resources to long-term investments.

Assuming that the existence of a large and diversified base of investors ("risk" fund- providers) is the critical foundation of the Anglo-American financial system, an ill-planned transition of adjusting its own system to the Anglo-American mould without this critical foundation, is a systemic contributor to the problems of Japan's financial intermediation and monitoring activities (risk management). In particular, the failure to institutionalize a new financial intermediation route of mediating the "risk-averse" funds from the household sector to new ventures and industries might be a crucial factor causing the economic stagnation<sup>30</sup>. Recently, many billion-sized private equity funds for investing in Japanese venture firms or distressed firms (targeting the Management Buy-Out and the capital gains from restructuring) have been set up and arranged by American investment banks or US Non-Banks (such as GE Capital, Ripplewoods etc.). However, to what extent are these funds reliable for incubating new industries in the medium and long run? Rodrik[1997] points that "globalisation" is exposing social fissures between those with the skills and mobility to flourish in an unfettered world market – the apparent "winners" – and those without. The former category includes owners of capital and many professionals, who are free to place and retrieve their resources where they are most in demand. Their long-term commitments in one place cannot be expected too much.

More Japanese professionals become aware that the criticism against the protection of the Convoy system has made it exceedingly difficult for their banking supervisors to provide bank rents and public guarantees. At the same time, most of them might be aware of the arbitrary elements in the foundation of the Basel rules, which

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<sup>29</sup> IMF [2000], p.196

<sup>30</sup> Loans by public financial institutions, adding postal life insurance to public financial institutions, showed high growth throughout the 1990s. The weight of loans by public financial institutions as a result of the outstanding of financial assets was increasing in financial intermediaries at a rapid pace (BOJ [2000]). The loans by public financial institutions are addressed to (1) Central government (¥42.5 trillion, 13.9 percent), (2) Local Government (¥58.3 trillion, 19.1 percent), (3) Public non-financial corporations (¥67.4 trillion, 22.1 percent), (4) Private non-financial corporations (¥46.4 trillion, 15.2 percent) and (5) Households sector (¥90.8 trillion, 29.7 percent). Their portfolio for selection has been conservative hitherto. On the other hand, in the general government sector, the financial deficit expanded from fiscal 1993. How the loans by public financial institution have been used for incubating new industries entails further argument.

have overtaken the rent-based financial restraint policy, marking the limitations of screening and monitoring solutions for making the socially necessary allocations of fund resources. In spite of it, the market sentiment, in particular, how American investors would value a credit under the influence of mass psychology, becomes one of the most crucial variables for their credit assessment and judgment. Drifting with a fear that the polarization<sup>31</sup> is making capital flows much more volatile, Japan's financial slump and economic stagnation seem to continue without an end in sight.

### **5. Why did Japan comply?-The Collapse of “Relation-Based” Supervision**

Why did Japan comply with the Anglo-American model without the foundation necessary for it? What prevented the Japanese banking supervisors from making a proper intervention for preventing the financial crisis? Although they had been in a position to be informed of the near insolvency of some large banks and to rationally accommodate the information, what made them hesitate to suspend the schedule of deregulation and, instead, opt for a “ruthless” policy of letting those banks go bust? The attempt to find an answer is to fill a lacuna in the “relation-based” model of Okuno-Fujiwara.

It is essential to begin with a discussion of the mechanism which sustained the “relation-based” banking and monitoring system, that is, the unique relationship which we call “*the Convoy system*” between the regulatory authorities – the Ministry of Finance (“MOF”) plus the Bank of Japan (“BOJ”) – and the banking industry. In addition to the foundations of the system involving “*protection*” and “*sanction*” mechanisms (Aoki, Patrick and Sheard [1994]), the “relation-based” structure expressed by Okuno-Fujiwara, attributed the close “*information-sharing*” between the authorities and banks, in which the MOF and some selected banks who have power to influence decisions (*insiders*<sup>32</sup>) negotiated rules and ensured *ex-post* flexibility. The flexibility of the “relation-based” structure depended on effective sharing of information and avoiding the occurrence of ‘non-compliance’ situations that would fail to achieve the institutionally targeted resource allocations as well as effective sanctions. For ensuring this flexibility, the nature of channels for sharing information and conveying the threat

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<sup>31</sup> The salience of the ‘satisfy global investors or die’ argument is enhanced by the large and increasing role played in the Japanese stock market by foreign, chiefly American, investment funds. By mid-1999 they owned some 14 per cent of the Tokyo Stock Market and were regularly responsible for nearly half the daily trades. (Dore, p.91).

<sup>32</sup> Okuno-Fujiwara, p375.

of sanctions was critical. The arguments in the literature, however, understate the fact that information-sharing in the “relation-based” system was based upon *private or closed channels* between the MOF and banks, whose exclusiveness had an aspect of contributing to ensuring the flexibility of the system.

*Private and closed channels*, mainly based upon the particular Old Boys/Girls network connecting to a kind of “Establishment” in Japan, played more or less important roles of sharing information in the “relation-based” system between the MOF and banks. In fact, large banks used to aggressively recruit the educational elite of reputed universities as candidates for managers and directors as Establishment figures in the future. Some of them, in their career in the banks, were assigned in the hub of the banks, as undertaking the roles of a window to the MOF (*MOF-tan*), who were in charge of contacting and being contacted on an almost daily basis for sharing information or lobbying. The appointment as the *MOF-tan* was considered as a path to the top elite in the bank, promising his/her further promotion.

The major roles of the *MOF-tan* were (1) to provide information on demand by the MOF, (2) to collect and analyse information from the MOF for predicting the direction and change of financial policies and regulations, (3) to informally negotiate over the preliminary draft of changing regulations, (4) to lobby for necessary approvals or for accommodations, (5) to reconnoitre the schedule and strategy of the Inspection team. (In particular, the role of the number (5) was considered very important. On the one hand, it shows how threateningly the Inspection Division (Kensabu) of the MOF’s Banking Bureau retained the power of disciplining banks. On the other hand, it shows how effectively the power was used for avoiding costly “non-compliance” situations, by allowing banks to have time enough to prepare for the Inspection in the form of voluntary disclosures.) The seemingly exclusive and closed network of the “relation-based” Convoy system used to contribute to making the MOF and banks share information and coordinate the flexible and efficient financial policy for enhancing financial deepening (expanding banking business) without any major financial failure (disciplining banks and indirectly firms). For instance, as Aoki *et al.* [1994] shows, while the number of branches of Japanese City Banks increased from 1,765 in 1957 to 2,989 in 1991 (p.28-29), the number of city banks has been kept small (not more than 15 banks) since 1953. It indicates that while the MOF could control new entry to city bank status by restricting the allocation of nation-wide branch licenses to incumbent city banks (*ibid.* p.30), it could mediate acquisitions of troubled smaller banks by larger city banks (i.e. Sumitomo’s takeovers of Kawachi Bank in 1965 and of Heiwa Sogo in 1986) and mergers of city banks, for the purpose of maintaining financial stability.

As another example showing how the relation based financial system perhaps worked effectively in the post-war and catching-up period, we can raise the monitoring and financial role of Long-Term Credit Banks<sup>33</sup> such as the Industrial Bank of Japan (“IBJ”) and the Long-Term Credit Bank of Japan (“LTCB”). They, in particular, the IBJ played the important role as “insiders” from the viewpoints of not only private but also national economic interests and macroeconomic coordination. For instance, they granted, together with the government development financial institution (the Japan Development Bank or “JDB”), long-term loans for reconstructing infrastructure and for developing industries such as power generation, steel, coal, fertilizer, shipping and shipbuilding, which lending policy was reflected in strategic national economic plans. It is said that the IBJ’s capacity of offering industrial-strategic and engineering-related judgements improved the main banks’ (city banks) capacity to observe the managerial competence of their client firms (Aoki *et al.* [1994]). The IBJ’s neutral position from “keiretsu” enterprise groups helped it to play a brokering role in cross-group mergers such as the merger between Fuji steel and Yawata Steel in 1970 that resulted in the formation of the world’s largest private steel company, Nippon Steel (*ibid*). This merger was presumably reflected in the national industrial strategy (by the MITI). Also, it is well known that the IBJ played an important role of rescuing the First crisis of Yamaichi Securities in 1965, through lobbying and arranging the special borrowing from the Bank of Japan, for contributing to the maintenance of financial stability.

It was said that long-term credit banks, in particular, the IBJ had accumulated substantial human resources for monitoring projects and managerial decision-making in firms. (According to Aoki *et al* [1994], in the pre-war period, the IBJ was instrumental in the channeling of public funds to targeted military industries.) However, we should not overlook that their monitoring and financial role as *insiders or contributors* (from the private financial institution’s perspective) to Japan’s economic development used to attract the educational elite and maintain their staff’s quality and morale. In the catching-up period, the regulators and the regulated (in particular, the IBJ and main banks) seem to have worked together for revitalizing “Japan Incorporated”.

The Convoy system has been controversial, because this structure allowed unproductive rent-seeking activities. In fact, there were “the long-established conventions of entertainment of the regulators by the regulated – ‘relational regulation’,

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<sup>33</sup> Three private long-term credit banks, IBJ, LTCB and the Nippon Credit Bank (“NCB”) were established by re-capitalizing or transforming special long-term credit banks from the pre-war period (Aoki *et al.*[1994]). They were completely private banks, however, they operated under a special law (Long-Term Credit Bank Laws) giving them a privilege to issue bank debentures (5 years maturity) for collecting stable fund resources.

as it were, paralleling relational banking” (Dore). Some *MOF-tan* may have attributed his/her successful achievement to the Old Boys/Girls network or to entertaining the ‘public-spirited’ MOF officials for enhancing the communication channels with them. However, on and after the collapse of the ‘bubble’ economy, the populist media including intellectuals and opinion leaders started attacking the MOF and the “Establishment”. Initially, the media accused them of incompetence for allowing the “bubble” economy. Then, “its claim to elite incorruptibility has been badly dented, in part by one or two spectacular revelations of personal corruption on the part of senior officials – clear examples of personal enrichment or the enrichment of friends, through the abuse of power” (Dore). Needless to say, any corrupt official illegally leaking secrets leading to the abuse of power is to be blamed. However, we should critically assess the manipulative reports<sup>34</sup> by the media and intellectuals who just agitated an inflammatory outcry in the public while neglecting a genuine concern for the assessment of the essential pro & cons of the “relation-based” system.

Presumably, there also exist *private and closed information channels* in the Anglo-American system. For instance, the entrance into the Old Boys/Girls network and circle of reputed “Ivy League” business schools is considered as the key to success in business in the United States. (This is why many Japanese businessmen (and bureaucrats) used to be sent by their companies to get their MBAs at American business schools for entering the business circle<sup>35</sup>.) According to an interview, Wall Street holds a kind of force of organizing the informal “club” for exchanging information among the members only and for seemingly preventing excessive competition. Those markets requiring the experts who have skill and expertise in dealing with special products, such as Emerging market bonds or Distress loans (heavily discounted loans for secondary trading) seem to have this tendency because markets of this kind become naturally oligopolistic. Besides, there are many articles and journals suggesting strong relationships including interchanges of personnel between Wall Street and the US

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<sup>34</sup> Dore points that newspapers report the size of the restaurant bills turned up by the prosecutors investigating cases of bank fraud, but rarely relay the bureaucrat’s defense: ‘Our decisions are not swayed by feasting and golf course treats, which we receive in moderation from all participants about equality; but they are essential ways in which we get to learn informally the problems of the industry; they serve to establish the relations of trust which enable Japan to have reasonably honest banking with only 400 bank inspectors, a tenth of the number in the United States....’ (p.159)

<sup>35</sup> Dore claims that this is what drove Japan to change towards the American Model. According to him, the dominance of the United States increases steadily as the proportion of young US-trained Ph.D.s staffing Japanese economics departments and teaching from American textbook steadily grows, along with the number of American-MBA Japanese businessmen.

Treasury. For instance, Wade and Veneroso refer to Jagdish Bhagwati's comments (being asked why the International Monetary Fund was seeking financial deregulation everywhere) ;

*Wall Street has become a very powerful influence in terms of seeking markets everywhere. Morgan Stanley and all these gigantic firms want to be able to get into other markets and essentially see capital account convertibility as what will enable them to operate everywhere. Just like in the old days there was this 'military-industrial complex', nowadays there is a Wall St. – Treasury complex' because Secretaries of State like Rubin come from Wall Street. ...*

This paper does not aim to clarify the virtues and problems of the “Wall St. – US Treasury complex”. However, it is worth noting that there also exist the private and closed information channels in the Anglo-American system, and there exist personnel interchanges and relations between the regulators (US Treasury) and the regulated (Wall Street) even in the “rule-based” system. These channels and relations may possibly function providing the regulators with opportunities to informally learn from the regulated and with the flexibility of policy-making. (It is worth noting that this structure, on the other hand, may allow unproductive rent-seeking activities. Okuno-Fujiwara points that in the United States where the government is considered closer to the rule-based type, policy decisions seem to be influenced more heavily by lobbying activities in Congress (p.398).)

Going back to the case of Japan, during the late 1980s and early 1990s, foreign diplomatic pressure to accelerate deregulation urged the MOF to lay out a plan to liberalize its financial restraint policy. At the same time, the populist media including some intellectuals and opinion leaders attacked the “relation-based” convoy system and very simply concluded that deregulation and a convergence to the Anglo-American model must take it over, without considering the positive features the “relation-based” system possessed in the special context of Japan. Some media dramatised the example of “the few bad apples (few cases of secretive corruption) in every barrel which were always there” (Dore). As a result, the MOF came to publicly state that it would not provide public rescue for those financial institutions that could not survive the process of deregulation. The “deregulation” slogan intensified after the arrival, in 1993, of the first coalition government of Prime Minister Hosokawa. As late as autumn 1994, the retiring president of the Bank of Japan (BOJ) publicly announced that bankruptcies of

small banks with financial difficulties would be unavoidable and possibly desirable<sup>36</sup>. The growing dissatisfaction of the public, together with their irritation against the long recession and the failure of the state to deal with the non-performing loan problem has made the MOF officers (as well as the MOF-tan in banks and regulating banks) hesitate to revitalize the traditional *private and closed channels* for sharing information. This has further undermined *ex-post* flexibility, which was a positive feature of the ‘relation-based’ system in Japan.

The moves towards deregulation were helped by a long recession, the failure to develop the relation-based regulation system to deal with non-performing loan problems and the disarray in Japanese banks. As time went on, this made it more difficult for the MOF officers (as well as the MOF-tan in banks) to renew and develop the *private and closed channels* for sharing information and mapping out internal rescheduling. Okuno-Fujiwara points out that bureaucrats in the heyday of the system had relative autonomy from political influence and their quality and morale were high. He does not emphasize, however, the autonomy and quality of the MOF officials, as well as the flexibility of the private and closed information channels, as a critical foundation of the ‘relation-based’ system. The pre-commitment of financial deregulation resulted in harshly shaking the Japanese banks’ confidence in the regulators as well as in the private and closed information sharing system. The collapse of the relation-based supervision system made the Japanese system lose its ability to find flexible solutions in a cooperative way. We have argued that this was a critical factor causing Japan’s deepening financial slump and lingering economic stagnation.

### **Annex-1: The Concept of Basel Accord and standard Credit Risk Modeling**

When estimating the amount of economic capital (Capital Adequacy) needed to support their credit risk activities, many large banks started to employ an analytical framework that relates the overall required economic capital for credit risk to their portfolio’s *probability density function of credit losses* (“PDF”), which is the primary *output* of a credit risk model. The figure 3<sup>37</sup> illustrates this relationship. A bank would use its credit risk modeling system to estimate such a PDF. The Expected credit loss (shown as the left-dotted vertical line) shows the amount of credit loss the bank would expect to

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<sup>36</sup> Okuno-Fujiwara, p.375.

<sup>37</sup> Basel Committee on Banking Supervision [1999], *Credit Risk Modelling: Current Practices and Applications* (“CRA/CPA”), p.15.

experience on its credit portfolio over the chosen time horizon<sup>38</sup>. Banks typically express the risk of the portfolio with a measure of unexpected credit loss (i.e. the amount by which actual losses exceed the expected loss) such as the standard deviation of losses or the difference between the expected loss and some selected target credit loss quantile. The estimated economic capital needed to support a bank's credit risk exposure is generally referred to as its required economic capital for credit risk. The process for determining this amount is analogous to *value at risk* (VaR) methods used in allocating economic capital against market risks. Specifically, the economic capital for credit risk is determined so that the estimated probability of unexpected credit loss exhausting economic capital is less than some target insolvency rate. (CRM/CPA, p12-13.) Capital allocation systems generally assume that it is the role of reserving policies (provisions of bad loans) to cover expected credit losses, while it is that of economic capital (capital adequacy) to cover unexpected credit losses. Thus, required economic capital is the additional amount of capital necessary to achieve the target insolvency rate, over and above that needed for coverage of expected losses (ibid, p.13). For a target insolvency rate equal to 'x' in the figure, the required economic capital equals the distance between the two dotted lines.

The high-water mark in the Basel process remains the 1988 Basel Capital Accord (Eichengreen). The Basel Committee is made up of representative of the G-10 countries plus Luxembourg, but *over 100 countries* voluntarily adopt the *8 per cent* capital adequacy rules that the Committee agreed upon in 1988 to shore up the equity cushions of internationally active banks. (Miyoda, Rosenbluth & Schaap). The Accord has been expected by the Basel Committee to be a cornerstone of the international financial architecture and its overriding goal is to promote safety and soundness in the international system and the existence of an adequate capital cushion or buffer to cover a variety of risks is central to this goal<sup>39</sup>.

The standard models are required to estimate (a) the portfolio's *current value* and (b) the probability distribution of its *future value* at the end of the planning time horizon. In general, a portfolio's (expected) credit loss can be defined as the difference of the two and the key issue is how to determine the expected probability of default (often termed the *expected default frequency* or "EDF") as a critical model *input*. Basically, the

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<sup>38</sup> According to the CRA/CPA survey, most of the banks adopt a "one-year" time horizon across all asset classes. The reasons put forward for this choice generally favour computational convenience rather than model optimisation. This is a point of showing the arbitrariness and limitations of the standard Credit Risk Modeling.

<sup>39</sup> Basel Committee, "A New Capital Adequacy Framework"("NCAF"), June 1999, p.9.

“internal credit risk rating” for each client firm as determined by a bank’s credit staff has been a key criterion for determining the EDFs. It means that the EDFs to be adopted in each bank may vary according to the credit strategy and circumstance of its own. However, in the recent trend of “globalisation” and “technological innovation”(i.e. *value at risk* or “VaR” methods used in allocating economic capital against *market risks*), bank managers have been urged to utilize External rating systems, such as Standard & Poor’s or Moody’s ratings for corporate bonds, for determining the EDFs. For instance, the top rating category in internal grades may be deemed roughly equivalent to an S&P bond rating from AA to AAA, the second category equivalent to a bond rating of single-A, and so on. Accordingly, the worst internal grade would typically correspond to the “worst state”, termed the “default” state. “Given this concordance, an EDF can be interpreted as representing a loan’s probability of *migrating* from its current internal rating grade to default within the credit model’s time horizon.<sup>40</sup>”

**Table 1: Sample credit rating transition matrix**

(Probability of migrating to another rating within one year as a percentage)

*Credit rating one year in the future*

		AAA	AA	A	BBB	BB	B	CCC	Default
Current credit rating	AAA	87.74	10.93	0.45	0.63	0.12	0.10	0.02	0.02
	AA	0.84	88.23	7.47	2.16	1.11	0.13	0.05	0.02
	A	0.27	1.59	89.05	7.40	1.48	0.13	0.06	0.03
	BBB	1.84	1.89	5.00	84.21	6.51	0.32	0.16	0.07
	BB	0.08	2.91	3.29	5.53	74.68	8.05	4.14	1.32
	B	0.21	0.36	9.25	8.29	2.31	63.89	10.13	5.58
	CCC	0.06	0.25	1.85	2.06	12.34	24.86	39.97	18.60

(Source: Basel Committee on Banking Supervision, CRA/CPA, p. 21<sup>41</sup>)

“This likelihood of a customer migrating from its current risk rating category to any other category within the time horizon is frequently expressed in terms of a rating transition matrix similar to that depicted in [the table]. Given the customer’s current credit rating (delineated by each row), the probability of migrating to another grade (delineated by the columns) is shown within the intersecting cell. Thus, in [the table], the likelihood of a BBB-rated loan migrating to Single-B within one year would be 0.32%.” (CRM/CPA” paper, p.20).

<sup>40</sup> CRM/CPA, p.20.

<sup>41</sup> The original source is; Gupton, G., Finger, C and Bhatia, M., *CreditMetrics – Technical Document*, Morgan Guaranty Trust Co., New York.

## **Bibliography**

**Antoniewicz, R.L.**, 2000. 'A Comparison of the Household Sector from the Flow of Funds Accounts and the Survey of Consumer Finances', <http://www.federalreserve.gov/pubs/>

**Aoki, M.**, 1994. 'Monitoring Characteristics of the Main Bank System: An Analytical and Developmental View', in Aoki, M and Patrick, H., *The Japanese Main Bank System*, Oxford University Press.

**Aoki, M., Murdock, K., Okuno-Fujiwara, M.** 1997. 'Beyond The East Asian Miracle: Introducing the Market-Enhancing View', in Aoki, M., Kim, H-K and Okuno-Fujiwara, M. eds. *The Role of Government in East Asian Economic Development: Comparative institutional Analysis*, Oxford: Clarendon Press

**Aoki, M., Patrick, H. and Sheard, P.**, 1994. 'Introduction', 'The Japanese Main Bank System: An Introductory Overview', in Aoki, M and Patrick, H., *The Japanese Main Bank System*, Oxford University Press.

**Bank of Japan**, 2000. Japan's Financial Structure – in View of the Flow of Funds Accounts, Research and Statistic Department, Working Paper.

**Basle Committee on Banking Supervision**, 1999. *Credit Risk Modelling: Current Practices and Applications*, <http://www.bis.org/>

**Basle Committee on Banking Supervision**, 1999. *Principles for the Management of Credit Risk*

**Basle Committee on Banking Supervision**, 1999. *Best Practices for Credit Risk Disclosure*.

**Basle Committee on Banking Supervision**, 1999. *A New Capital Adequacy Framework*.

**Basle Committee on Banking Supervision**, 2001. *The New Basel Capital Accord: an explanatory note..*

**Davis, E.P.**, 1995. *Debt Financial Fragility and Systemic Risk*, Clarendon Press, Oxford.

**Diamond, D.W.**, 1984. 'Financial Intermediation and Delegated Monitoring', *Review of Economic Studies*, 51.

**Dore, R.**, 2000. *Stock Market Capitalism: Welfare Capitalism, Japan and Germany versus the Anglo-Saxons*, Oxford University Press.

**Economic Planning Agency (EPA)**, 1999, 2000. Heisei 11, 12 Nendo Keizai Hakusho (Japanese).

**Eichengreen, B.** 1999. *Toward a New International Financial Architecture, A Practical Post-Asia Agenda*, Institute for International Economics.

**Ellsberg, D.**, 1961. 'Risk, ambiguity, and the Savage axioms', reprinted in Moser, P.K., *Rationality in Action: Contemporary approaches*, Cambridge University Press.

**Elster, J.**, 2000. *Ulysses Unbound, Studies in Rationality, Precommitment, and Constraints*,

CUP.

**Fine, B., and Murfin, A.**, 1984. *Macroeconomics and Monopoly Capitalism*. New York, St.Martin's Press.

**Freizas, X. and Rochet, J-C.**, 1997. *Microeconomics of Banking*, The MIT Press.

**Hargreaves Heap, S.**, 1992. "Rationality", in Hargreaves Heap, Hollis, Lyons, Sugden & Weale, *The Theory of Choice; A Critical Guide*, Blackwell.

**Hayek, F.**, 1944, 2000. *The Road to Serfdom*, Routledge.

**Hayek, F.**, 1945. "The Use of Knowledge in Society", reprinted in *The Economic Nature of The Firm, Second Edition*, edited by Putterman, L, and Kroszner, R.S., CUP.

**Hellmann, T., Murdock, K., and Stiglitz, J.**, 1997. Financial Restraint: Toward a New Paradigm, in Aoki, M., Kim, H-K., Okuno-Fujiwara, M., eds. 1997. *The Role of Government in East Asian Economic Development: Comparative Institutional Analysis*. Oxford: Clarendon Press.

**International Monetary Fund**, 2000. 'Progress in financial and corporate restructuring in Japan', *The 1999 International Capital Markets Report*. IMF Publication.

**Itoh, M. and Lapavitsas, C.**, 1999. *Political Economy of Money and Finance*, Macmillan.

**Kahneman, D. and Tversky, A.**, 1979. 'Prospect theory: an analysis of decision under risk', in Moser, P.K., 1990. *Rationality in Action: Contemporary approaches*, CUP.

**Keynes, J.M.**, 1936. *The General Theory of Employment, Interest and Money*, Volume VII, Macmillan, CUP.

**Khan, M.** 1998. "Asymmetric Information", "Uncertainty and Risk Aversion", *Microeconomics, MSc Lecture Notes 1998-9*, SOAS, University of London

**Khan, M.** 1999. "Financial Institutions", "Collective Actions", "Transaction Costs and Firm Theory", *Political Economy of Institutions, MSc Lecture Notes 1999*. SOAS, University of London.

**Khan, M.** 2000. "Rents, Efficiency and Growth", "Rent-Seeking as Process", in Khan, M & Jomo, K. , *Rents, Rent-Seeking and Economic Development*. CUP.

**Kindleberger, C.**, 1996. *Manias, Panics and Crashes*: Third edition, London and Basingstoke, Macmillan.

**Knight, F.**, "From Risk, Uncertainty and Profit" in Putterman, L. eds., 1996. *The Economic Nature of the Firm, A Reader 2<sup>nd</sup> Edition*, Cambridge University Press.

**Knight, J.**, 1992. *Institutions and Social Conflict*, Cambridge University Press.

**Krugman, P.** 1999. *The Return of Depression Economics*, Penguin.

**Lyons, B.**, 1992. "Risk, Ignorance and Imagination", in Hargreaves Heap, Hollis, Lyons, Sugden & Weale, *The Theory of Choice; A Critical Guide*, Blackwell.

**Minsky, H.P.**, 1977. 'A Theory of Systemic Fragility', in E.I. Altman & A.W. Sametz (eds.),

*Financial Crises; Institutions and Markets*, Wiley.

**Miyoda, M.**, 1994., *Revival of US Banks – Merchant bank, Investment bank, Money-center bank, Super-regional bank.*

**Okuno-Fujiwara, M.**, 1997. 'Toward a Comparative Institutional Analysis of the Government-Business Relationship', in in Aoki,M., Kim,H-K and Okuno-Fujiwara, M. eds. *The Role of Government in East Asian Economic Development: Comparative institutional Analysis*, Oxford: Clarendon Press

**Price, L.D.D.**, 1987. 'Discussion of Contagion Effects in the Interbank Market' in R.Porter and A. Swoboda, eds., *Threat to International Financial Stability*, Cambridge Univ. Press.

**Rodrik, D.**, 1997. *Has Globalization Gone Too Far?*, Institute for International Economics.

**Rosenbluth, F. and Schaap, R.**, 2000. 'The Domestic Politics of Financial Globalization', prepared for American Political Science Association Meeting, September, 2000.

**Schaberg, M.**, 1998. "Globalization and financial systems: policies for the new environment" in D.Baker eds.: *Globalization and Progressive Economic Policy*, Cambridge University Press.

**Simon, H.A.**, 1983. "Alternative visions of rationality" in Moser, P.K., *Rationality in Action: Contemporary approaches*, Cambridge University Press.

**Stiglitz,J.** 1994.*Whither Socialism?*, The MIT Press.

**Stiglitz, J and Weiss, A** 1981: "Credit Rationing in Markets with Imperfect Information" *American Economic Review* 71, June 1981.

**Thaler, R.H.**, 1992. *The Winner's Curse, Paradoxes and Anomalies of Economic Life*, Princeton University Press.

**Tversky, A. and Kahneman, D.** 1974. 'Judgment under uncertainty: heuristics and biases', in Moser, P.K., 1990. *Rationality in Action: Contemporary approaches*, CUP

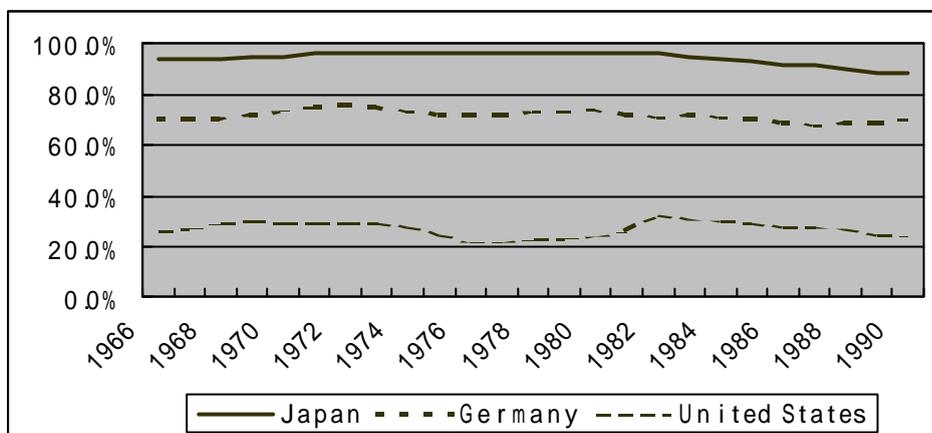
**Wade, R. & Veneroso, F.**, The Asian Crisis: The High Debt Model Versus the Wall Street-Treasury-IMF Complex.

**Weale, A.**, 1992. 'Homo economicus, Homo sociologicus', in Hargreaves Heap, Hollis, Lyons, Sugden & Weale, *The Theory of Choice; A Critical Guide*, Blackwell.

**Williamson, O.E.**, 1985. *The Economic Institutions of Capitalism*, The Free Press.

**Figure 1**

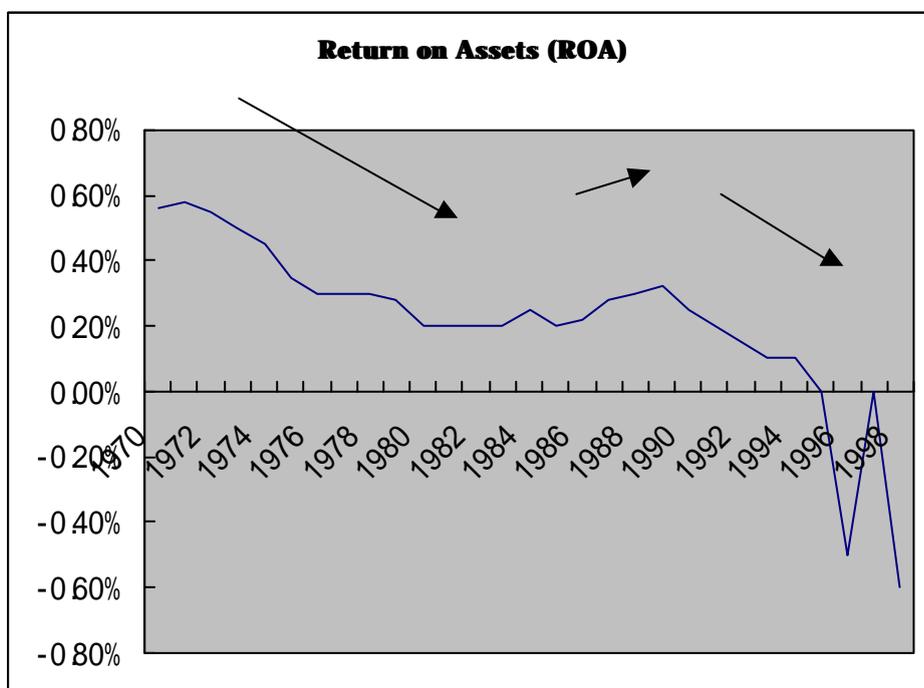
**Bank lending / Corporate debt ratios**



(Source: Davis etc.)

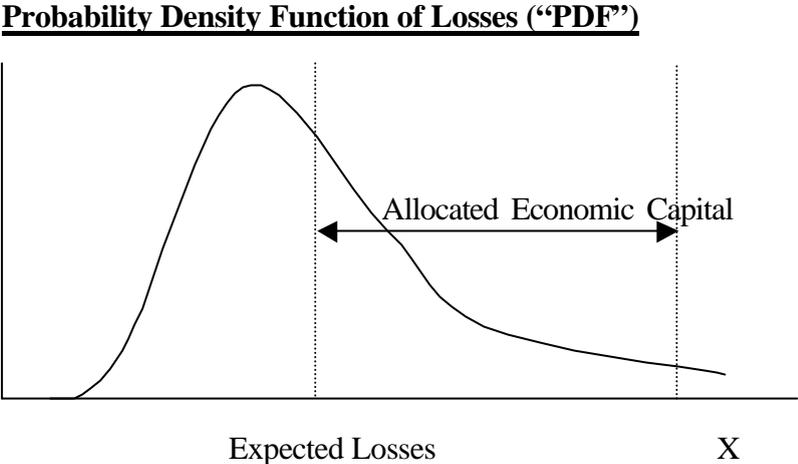
**Figure 2**

**The trend of changes in average Returns on Assets (ROA) in Japanese banks**



(Source: EPA [1999], p.245, [Japanese Bankers Association's data])

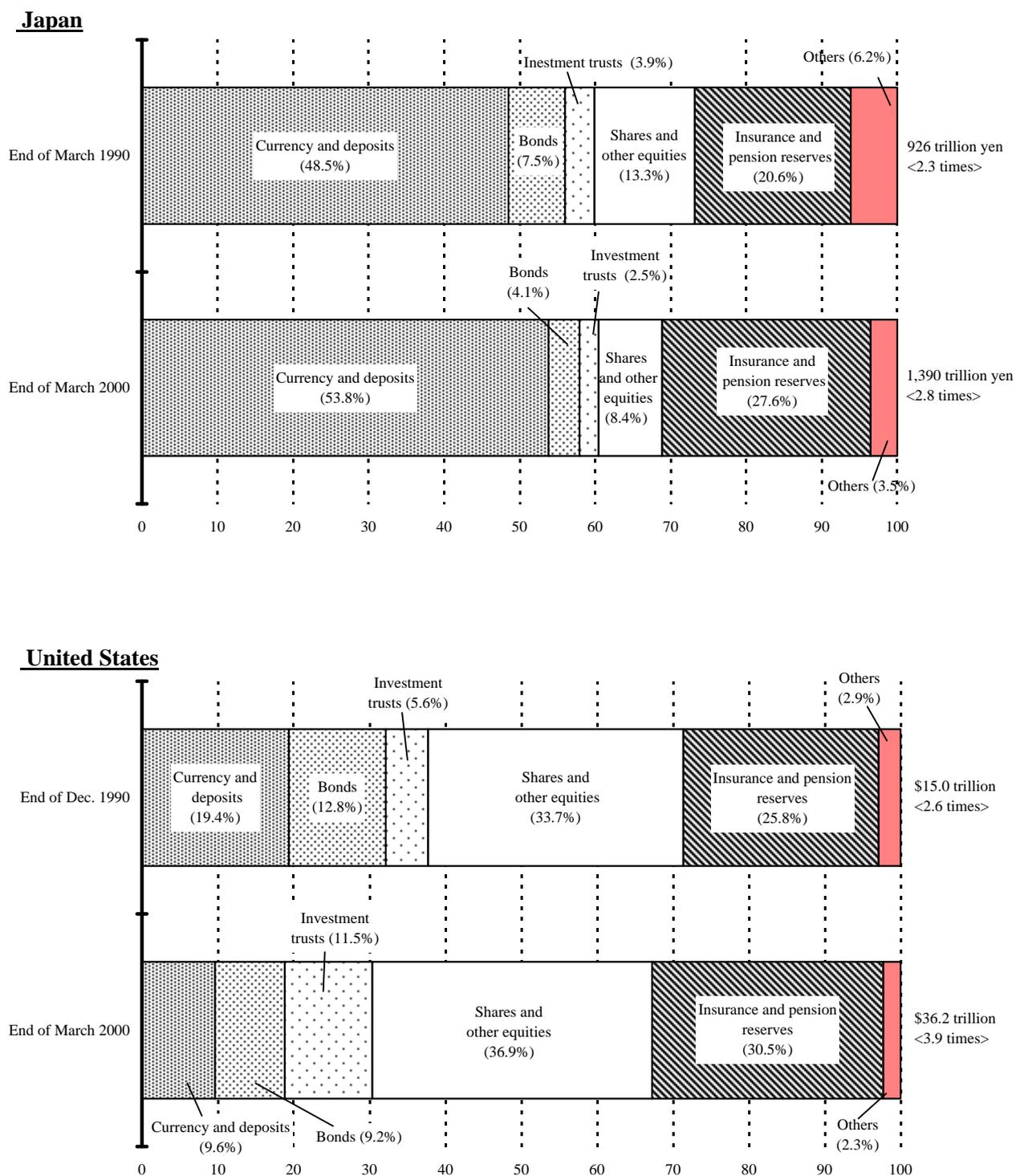
Figure 3



(Source: Basel Committee [1999], CRM/CPA)

(Figure 4)

### Financial Assets held by Households (Comparison between Japan and US)



Notes: 1. The horizontal axis is the percentage of total financial assets.

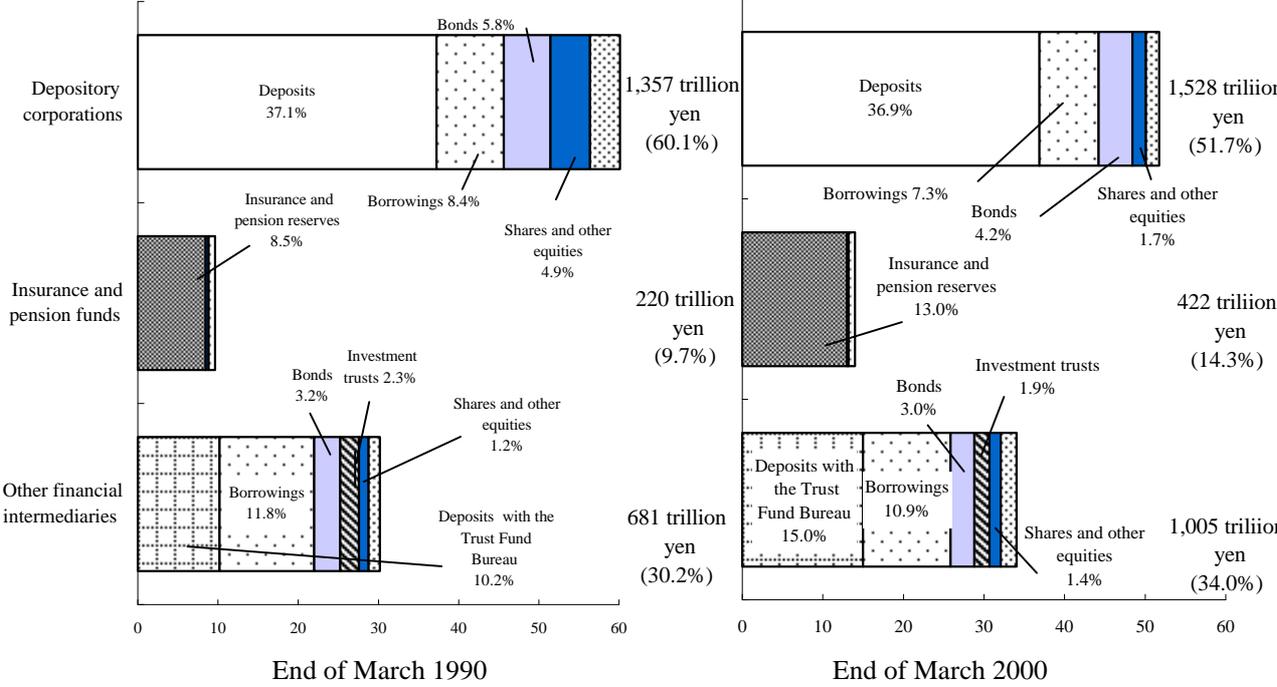
2. Items in angle brackets are the ratio to nominal GDP.

Source BOJ[2000]

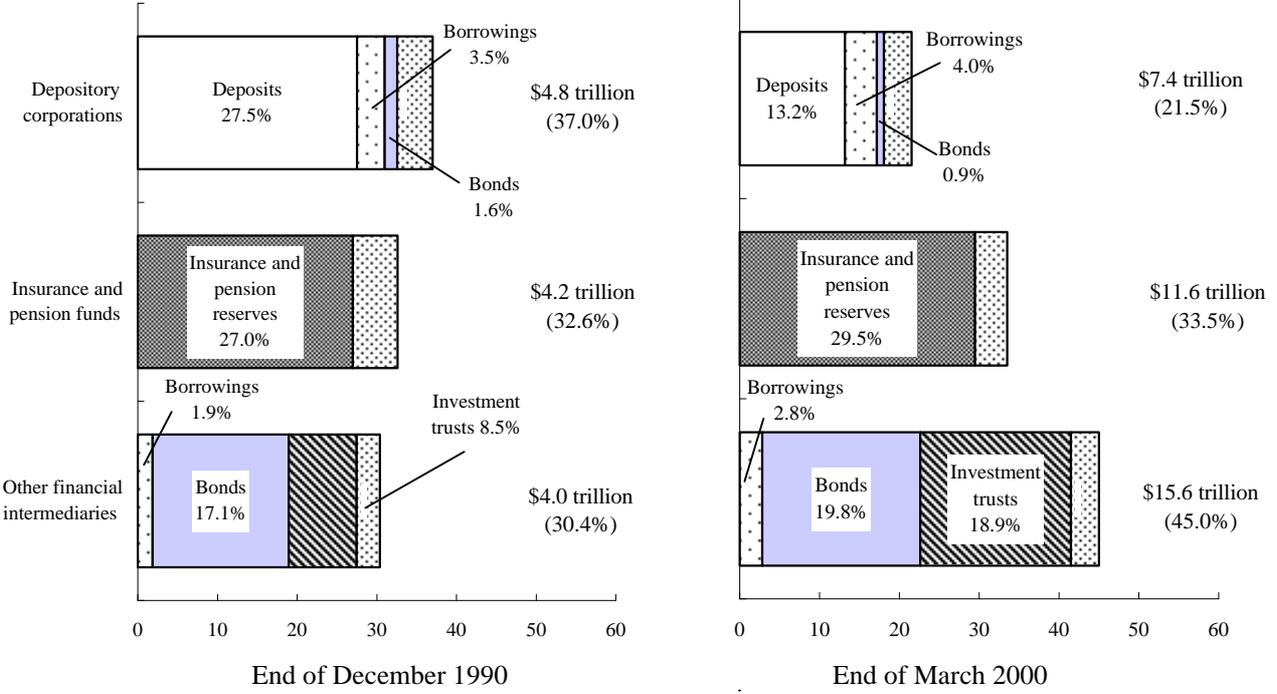
(Figure 5)

**Liability Composition of Financial Intermediaries**  
(Comparison between Japan and US)

Japan



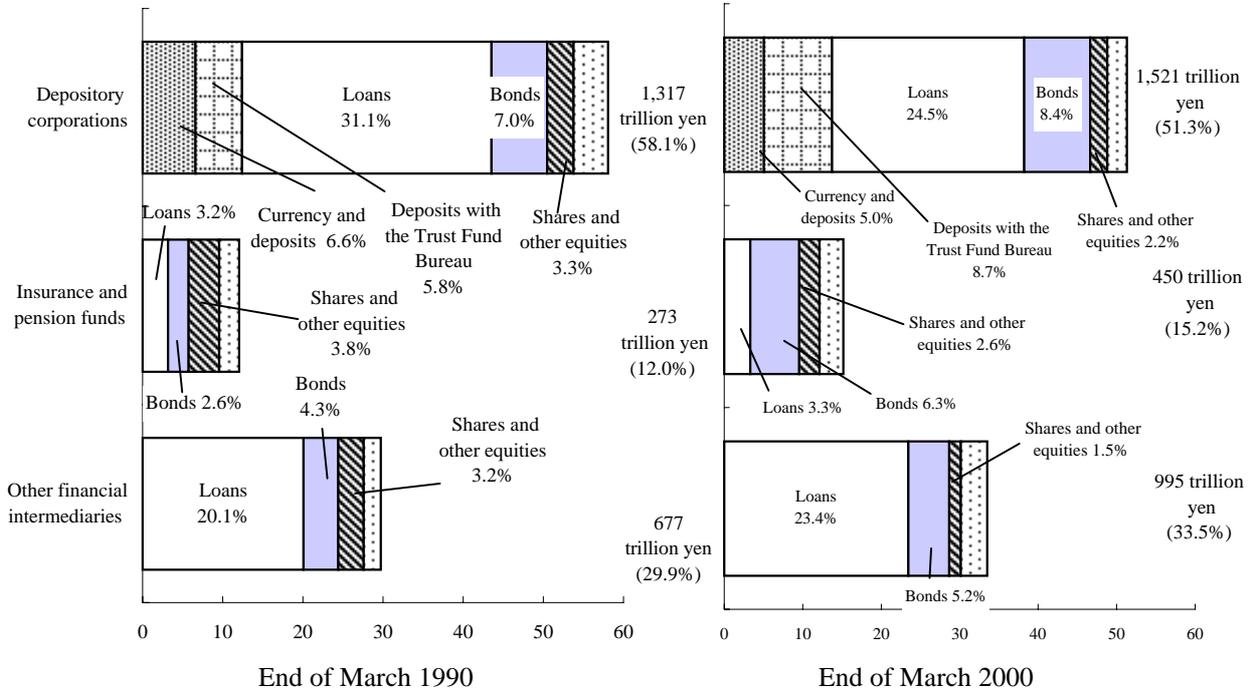
United States



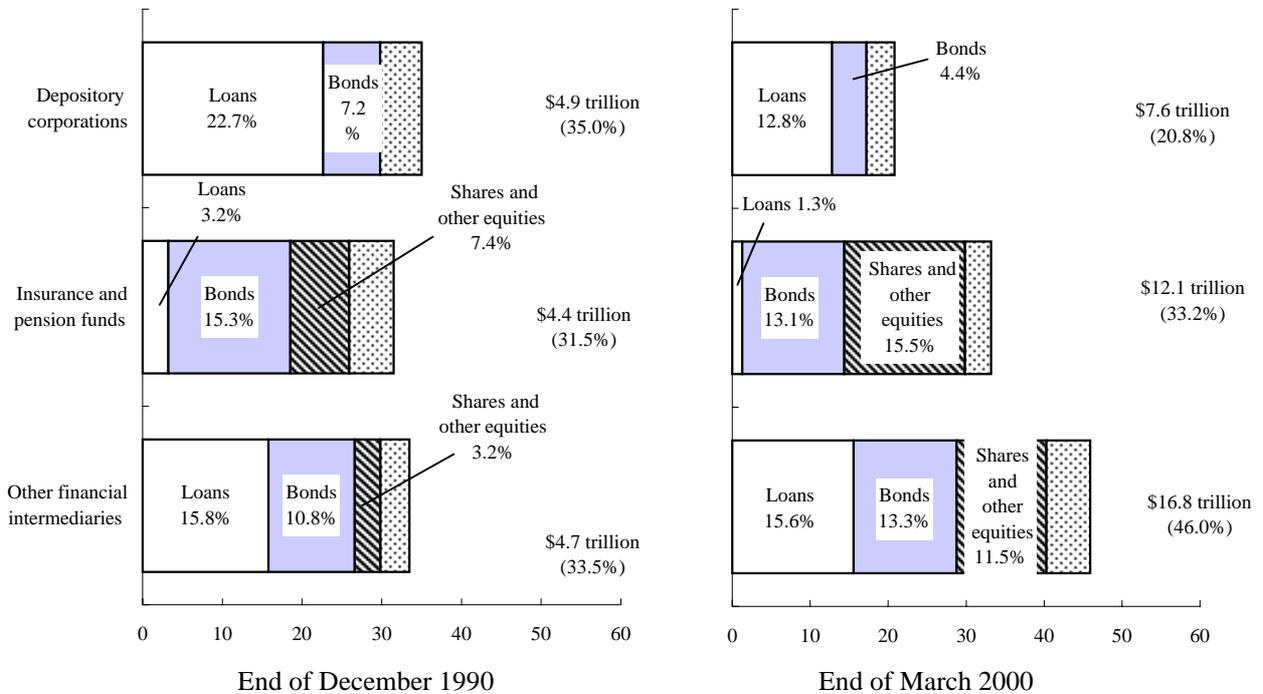
Notes: 1.The horizontal axis is the percentage of total financial liabilities of financial intermediaries (excluding central bank).  
Source BOJ[2000]

## Asset Composition of Financial Intermediaries (Comparison between Japan and US)

### Japan



### United States



Notes: 1. The horizontal axis is the percentage of total financial assets of financial intermediaries (excluding central bank).