BANK RENTS AND UNCERTAINTY

A Legacy of the Subjectivists

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Abstract

Is it possible to bail Japan out of its lingering financial slump by the means of transition to an Anglo-American financial system and a convergence to Basel pragmatism? This paper argues that the imprudent convergence to an Anglo-American type management in credit risks without the preconditions for diversifying risks and uncertainty have problematically encouraged *herd behaviors* in lending by the Japanese banks. This paper also sheds light on the understated role of *bank rents*, which contributed to mediating financial resources to new industries and to pooling monitoring skills within banks. The ill-planned transition may have lost Japan the important components of the traditional "rent-based" monitoring system, which Japan should have reserved in alternative forms. One of these components was the role of transferring rents for incubating new enterprises. The other was giving lenders the *incentive and time* for developing what we call a *relation-based non-algorithmic* monitoring style.

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Introduction

It has been popularly argued that the accumulation of huge non-performing loans[1] in Japanese banks shows a malfunction of the "rent-based" *main bank* system. The *rent* opportunity used to play the important role of creating incentives for Japanese main banks to perform as long-run agents for effective screening and monitoring as well as to manage the risk of their portfolio of loans (Hellmann *et al.* 1997, Aoki 1994). However, it appears that recent arguments tend to cast shadows only on the negative aspect of *bank rents*, in terms of moral hazard or unproductive rent-seeking activities. In fact, the burst of the "bubble" economy encouraged the Japanese banks (as well as the banking regulators) to change the traditional mode of screening and monitoring to an Anglo-American mode of monitoring using such a pragmatic code as calculating risk-adjusted returns on assets or capital with quantifying credit risks[2]. At the same time, the Basel Capital Accord as a solvency regulation, which was set under a strong influence of the Anglo-American mode of monitoring, has increasingly become normative, another constraint on the behavior of Japanese bank managers. As a whole, the Japanese bank managers have been encouraged to attempt to adjust themselves to the new style of financial intermediation, monitoring and risk management including risk-based pricing, which are reflected in the practices and applications of the Anglo-American "securities-based" financial system[3].

However, is it possible to bail Japan out of its lingering financial slump by the means of convergence to the Basel code? How could a codified assessment of credit risks with

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[1] The IMF estimates that the true cumulative bad bans in the 17 major banks totaled about JPY65 trillion as of March 2000. Out of which, the uncovered losses are estimated within a range of JPY6.2 trillion (baseline) to JPY21.2 trillion (severer case). In the baseline, assuming of a true loss rate of 90 percent (based on historical trends in loss rates and an estimated current loss rate of about 85 percent) implies loan losses of about JPY58.5 trillion, compared with major banks' cumulative provisions and write-offs of about JPY52.3 trillion (IMF 2000: 196).

[2] It is well known that Risk Adjusted Return on Capital or "RAROC" as the key criterion for evaluating profits and performances was developed and conceptualized by *The Bankers Trust* in early-eighties. The code was developed for banks to estimate their portfolio's Probability Density Function (PDF) of credit losses for calculating the amount of adequate capital needed to support their credit risk activities. To infer the PDF (the primary output a [standard] credit risk model), external ratings based upon statistical default data have been more used as the Expected Default Frequency (EDF), the probability of a particular credit facility defaulting during a time horizon, which is a critical model input. (See Suzuki 2002: Appendix-1 for details.)

[3] For instance, the Basel Committee on Banking Supervision (BCBS) has explicitly urged banking regulators to lead banks to use the internationally accepted Credit Risk Model for supervisory and/or regulatory purposes (see Basel Committee on Banking Supervision 1999a: 8 or overview).

homogenized information flows (i.e. the statistical expected default frequency and the external ratings based upon it) be expected to well mediating and allocating financial resources? The argument of supporting the convergence is, in my view, missing the more important point on how to manage the Japanese lenders' *uncertainty*– unmeasurable subjective probabilities – which affects credit risk assessments. Uncertainty is considered as one of the most crucial factors causing a systemic fragility of financial markets (Meltzer 1982, Davis 1995).

This paper argues that the imprudent convergence to an Anglo-American type of management of credit risks without the critical preconditions for diversifying risks and uncertainty have problematically encouraged *herd behaviors* in lending by Japanese banks. In general, uncertainty in the process of credit risk management is likely to drive lenders to watch others and seek a normative or widely accepted standard for justifying their decisions. However, a codified assessment of credit risks with homogenized information flows, can make lenders' sentiments much more volatile. This paper examines the process of encouraging *herd behaviors* in lending, causing the swings of lenders' mood from "euphoric" (Minsky 1977) speculations in upturns to negative spirals in reversals.

This paper also sheds light on the understated role of *bank rents* observed in the heyday of the Japanese *main bank* system, which contributed to well-dealing with lenders' uncertainty in credit risk assessments. An ill-planned transition may have lost Japan critical components of the "rent-based" system, which Japan should have reserved in alternative forms. One of these components was related to the role of transferring rents for incubating new enterprises. The other was the role of giving lenders the *incentive and time* for developing what we call a *non-algorithmic* monitoring style, which was acquired in the process of a long-term partnership strategy of incubating and closely monitoring clients. This argument attempts to reawaken our awareness of the *lost* but important elements in the Japanese rent-based financial system, by expanding some of the insights of Herbert Simon who suggested the notion of human bounded rationality. Just casting shadows *only* on the negative aspect of *bank rents* and naively expecting that a transition to an Anglo-American banking system and a convergence to Basel pragmatism[4] will take Japan out of its financial slump, amounts to a very risky strategy.

Section 1 argues how delicately lenders' *uncertainty* in credit risk assessments should be dealt with for maintaining financial stability and sound financial intermediation. Section 2

[4] Concerning "pragmatism", there is one argument, in particular, by G.L.S.Shackle, that is about the "causal dualism", in which Aristotle distinguished between "efficient" and "final" causality. "Efficient" causality is similar to the materialist or mechanical causality of the modern natural sciences, while "final" causality, or "sufficient reason", is teleological in character: directed by an intention, purpose or aim (Hodgson 2000). In the modern society, "efficient causality" appears to outweigh "sufficient reason", that is, *pragmatism* has prevailed, nevertheless more people become aware that it is just *makeshift* (Jung 1921).

attempts to analyze a mechanism causing the swings of lenders' mood in credit risk assessments. Section 3 aims to critically assess the limitation and arbitrariness of internationally standardized credit risk management. Section 4 attempts to examine the understated roles of *bank rents*.

1. Delicate relations between monitoring and financial regulations

We begin with a discussion of the delicate relations between monitoring (credit risk management) and financial regulations. There is little doubt that capital markets should be well-functioning in a well-functioning capitalist economy because capital is at the heart of capitalism (Stiglitz 1994). Accordingly, there is also little doubt that better *screening* and *monitoring* (by lenders and/or investors) is a critical assumption for the central functions of capital markets[5]. It is, however, unfortunate that "of all the markets in the economy, the capital markets are perhaps the most complicated and least understood" (Stiglitz 1994). In most capital markets, there are always more individuals and firms who seek funds than there are funds available. For making 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), *monitoring* activities critically matter. Even if there are sufficient funds available, monitoring activities still critically matter because the failure or lack of monitoring would possibly cause moral hazard problems in terms of information problems, consequently preventing optimal allocations of fund resources.

At the same time, there is little doubt that capital markets, in particular, banking and credit markets intrinsically require financial regulations and government policies. This is because banking and credit markets are exposed to a *systemic* risk of potential contagious *runs*, which cannot be prevented and resolved by the ordinary auction market mechanism. If they occur, they may have disastrous effects on the real economy. This is due mainly to the unique nature of credit markets that are dealing not only with inter-temporal trade but also with *promises* whose fulfillment is uncertain (Stiglitz 1994, Davis 1995). Banking and lending business is a specific *information intensive* industry stemming from mediating the transactions reflected in respective borrowers' deposit or cash flows history and ongoing credit relationships. This seemingly

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[5] Occasionally, capital markets are defined as '(direct) investors holding financial assets', in a narrower sense, for instance, typically, bond and equity stock markets. However, this paper, so long as there is not any note for asking attentions, defines capital markets in a broader sense as 'markets for borrowing and lending funds', corresponding to the same notion of financial markets in a broad sense.

intangible nature of the information for dealing with the borrower's *promise* to repay makes it almost impossible to transmit to markets or other lenders through the ordinary auction market. This is why the insolvency of a bank would possibly cause a contaminant decline in the economy's information-organizational capital (Stiglitz 1994), and the collapse of banking system would have severe macroeconomic consequences.

Moreover, since banks exchange huge liquidity for the settlement of various payment orders and engage in maturity transformations[6] mutually in inter-bank money markets, the insolvency of a bank would trigger *bank runs* contagiously. This is a systemic risk of banking and credit markets that the free and unfettered market mechanism fails to prevent, consequently, financial regulations and government intervention for prevention are critical to maintain financial stability.

Most banking textbooks emphasize *liquidity risks* in terms of the inability to obtain funding for current obligations. To counteract liquidity risks (or panic withdrawals and runs) whose nature is a short-run mismatching of liquidity, the instrument of "governmental insurance for depositors" or "the lender of last resort facilities by the central bank" has been developed as an effective way of maintaining confidence in banks. On the other hand, the more important but complicated issue for the government and banking regulators is how to monitor and discipline banks to keep banks from those bad credits (*credit risks*) that may also make banks insolvent. Intrinsically, monitoring banks is costly and necessarily imperfect (Stiglitz 1994). This is due mainly to (1) the lenders' difficulty of assessing the degree of *uncertainty* in credit risk assessments (the difficulty of estimating the *subjective* probability they attribute to default as a critical input for their decision-making) and (2) *asymmetries of information* between banks and banking supervisors, resulting in potential moral hazard problems.

The question is the delicate balance of maintaining and enhancing the roles of banks (lenders) as financial intermediaries and monitors for socially better allocations of fund resources, while preventing them from undertaking the non-performing credits under conditions of *uncertainty* in credit risk assessments. At the same time, while preventing contagious *runs* through the policy for protection, the regulatory structure has to keep the monitors as well as the regulators from abusing their power to their own advantage. The delicate relations between monitoring and financial regulations have something to do with the fact that, as Stiglitz (1994) points, the structure of financial markets appears, in some important respects, vastly different

[6] Davis (1995) raises as an example that banks offer the possibility of early redemption of deposits at a fixed rate; they offer returns superior to hoarding cash, as funds are on-loaned for fixed investment projects, but returns are below those on illiquid direct investment, reflecting the "insurance" provided. This pattern is held to imply that banks provide "optimal risk-sharing".

among major capitalist economies. His implication is that the differences are important, with each country's markets reflecting an adaptation to the particular cultural or economic circumstances of their own. It follows that the appropriate (national) financial systems for socializing risks and uncertainty for better monitoring and allocations of fund resources may vary according to the historical process reflected in each economic and social environment.

There are profound insights and invaluable contributions by many economists including Aoki, Davis, Dore, Okuno-Fujiwara, Patrick, Sheard and Stiglitz, of contrasting the economic/financial systems between Japan and the United States. One of their common perceptions is that the Japanese banks have a much more dominant role in corporate finance in their economic system, while the financial role of US banks is fairly limited to lending short-term loans for working capital. (By contrast, the securities markets in Japan are relatively underdeveloped, while more long-term funds are mediated through bond and equity markets in the United States.) Statistically, the Japanese banks have been mediating funds in no less than 90 percent of the total corporate finance, while American banks have contributed no more than 30 percent (see Davis 1995: 37).

Each (financial) structure has developed over a long period on the basis of country-specific conditions, and thereby could not easily be reproduced elsewhere (Davis 1995). Japan, however, was encouraged to leave its traditional financial system for responding to the forces of *globalization* and *technological change* after its *catching-up* period. Since the mid-eighties Japan chose to comply with Anglo-American type financial deregulation that has been promoted and propagated by the United State. It is worth noting that the United States regulators, so far as the banking industry is concerned, keep a tight rein on banking (lending) business and on competition. Although the financial role played by American banks was limited in terms of corporate finance, the regulators hold to the traditional conservative strategy of enforcing tight capital adequacy requirements and disclosure rules on banks to prevent *bank runs*. At the same time, the fear by the US regulators that the tighter capital adequacy standard on their own national banks might lose the US banks their competitive edge in international financial markets, urged them to propose setting up the international capital adequacy standard at the Basel Committee. This "level-playing field" demand (Dore 2000) *per se* was less concerned about the role of banks as financial intermediaries and monitors. In the US financial system, the diversification of risks and uncertainty was possible because of a developed securities market backed by a large and diversified base of investors. This unique structure allows (and encourages) the US banks not to have large exposures to particular companies or groups. By contrast, given the Japanese banks' predominance in corporate funding in Japan, the effect of limiting the important roles as financial intermediaries and monitors has had profound implications for the Japanese economy.

2. Uncertainty

We need to further consider lenders' *uncertainty* (*subjective* probability) in credit risk management, which is one of the most crucial factors causing systemic fragility of financial markets (Meltzer 1982, Davis 1995). In the Basel regime, a codified assessment of quantifying credit risks by inferring from the statistical (*objective*) Expected Default Frequency (EDF) has been increasingly promoted and propagated. The main objective of this policy is to urge lenders to objectively measure expected credit losses and to maintain a capital *buffer* against unexpected credit losses. By preventing lenders from undertaking excess credit risks beyond an internationally regulated capital *cushion*, the regime aims at the stability of international banking and financial markets. *Uncertainty* often persuades social systems to use hierarchy because standardization and coordination, to some extent, may be more effective than (individual) prediction[7] (Simon 1996: 42). However, the convergence to standardized credit risk modeling based upon statistical data provided by External rating houses, creating a homogenized information flow, has an aspect of paradoxically amplifying systemic fragility by promoting *herd behaviors* in lending.

Since the consequences of many actions extend into the future, correct prediction is essential for objectively rational choices. However, in the real world, most choices take place under conditions of uncertainty. "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 1961). This paper basically follows the second definition of uncertainty (this definition was also maintained by F. Knight), in which *subjective* probabilities corresponds to uncertainty. Subjective probabilities can be distinguished from statistical or objective probabilities in the sense that uncertainty cannot be reduced to risks (meaningfully) in a measurable way[8]. "Uncertainty pertains to future events not susceptible to being reduced to

[7] Simon also explained that "Uncertainty calls for flexibility, but markets do not always provide the greatest flexibility in the face of uncertainty" (Simon 1996: 43).

[8] "It would be possible to infer for ourselves numerical subjective probabilities for events, in terms of which some future decisions could be predicted or described. Thus a good deal – perhaps all – of Knight's class of 'unmeasurable uncertainties' would have succumbed to measurement, and 'risk' would prevail instead of 'uncertainty'" (Ellsberg 1961: 90). The famous "Ellsberg Paradox" sheds light on the aspect that human beings would fail to infer meaningful probabilities. He proves that the implication of the Savage axioms such that for a "rational" man, all uncertainties can be reduced to risks (see ibid.: 91), is quite misleading.

objective probabilities" (Davis 1995: 134).

Davis (1995) points out that in the real world, *uncertainty* reflects the changing economic environment, in which the random element is not well represented by stationary probability distribution. Therefore, the future is not knowable either precisely or probabilistically (inferring from past data). Davis notes that uncertainty may be more or less ignored or, alternatively, subjective *ex-ante* probabilities may be applied, together with a risk premium to cover unspecified adverse events, because there is no precise economic theory as to how decisions are made under uncertainty. In each case, people tend to watch others and do not deviate widely from the norm in terms of factors taken into account and weights given to them. "When the crowd is wrong *ex-post*, there is the making of a financial crisis" (Davis 1995: 135).

Presumably, *uncertainty* in credit risk management drives lenders to watch others and seek a normative or widely accepted standard for justifying their decisions. Williamson (1985) claims uncertainty as a factor causing *opportunism* that may give individuals the incentive to follow *rules of thumb*. Bikhchandani and Sharma (2000) raise several reasons why a profit/utility maximizing investor should be influenced after observing others. First, others may know something about the return on the investment and their actions reveal this information. Second, this is relevant only for money managers who invest on behalf of others, the incentives provided by the compensation scheme and terms of employment may be such that imitation is rewarded. A third reason for imitation is that individuals may have an intrinsic preference for conformity. Keynes noted that "a 'sound' banker, alas!, is not one who foresees danger and avoids it, but one who, when he is ruined, is ruined in a conventional and orthodox way, along with his fellows, so no one can really blame him[9]" (Keynes 1963 [1931]: 176).

Recent changes have encouraged more bank managers and lenders to use pragmatic *rules of thumb* such as the statistical EDF or the external ratings based upon it as a critical input for quantifying credit risks[10]. Autonomously to some extent, the *rules of thumb* tend to become normative, another constraint on the actions[11] by bank managers. The problem is that the

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[9] This is related to "reputation-based herding". This basic idea is, according to Bikhchandani and Sharma (2000), that if an investment manager and his/her employer are uncertain of the manager's ability to pick the right stocks, conformity with other investment professionals preserves the fog – that is, the uncertainty regarding the ability of the manager to manage the portfolio. This benefits the manager and if other investment professionals are in a similar situation then herding occurs (ibid.: 10).

[10] See Suzuki 2001: Appendix-I for the basic concept.

[11] According to Shackle (1972), a *code*, a set of terms or symbols, and a set of operations or transforms producing one of these entities out of one or more others, can be a working formula or a rule of thumb, a technique. He also pointed that the code is thus an instruction for practice.

convergence to an internationally accepted assessment of credit risks seems to promote *herd behaviors* in lending.

When External rating houses remain offering a rating category for a particular borrower (or country) unchanged as 'stable', the codified assessment of credit risks with homogenized information flows may drive lenders to change their subjective probabilities closer to statistical or codified ones. This is because the expectations to the continuity and the behaviors by other lenders, who are supposed to refer to the same *rules of thumb*, are likely to encourage lenders to believe in the offered statistical probabilities of default and corresponding pricing in which uncertainty may be more ignored. As a result, more lenders may take risks even if subjective *ex-ante* risk premiums are not fully reflected in pricing[12]. Needless to say, *herd behaviors* in lending do not necessarily contribute to overcoming asymmetric information problems between lenders and borrowers. Rather, the codified assessment of credit risks with homogenized information flows attenuates lenders' incentives of monitoring borrowers on their own. The stronger is the *confidence* in the external information, the relatively weaker the *confidence* in their own information acquired from direct credit relations with borrowers would presumably be.

Next, when External rating houses offer a positive outlook moving towards an 'upgraded' category, the codified assessment of credit risks may possibly drive lenders to reduce risk premiums further for competitions[13]. The expectations to better ratings may boost competitions of increasing loan exposures, because the expected risk-adjusted return on the current EDF can be expected to be upwardly marked to market (more accurately, marked to model) in the future when the EDF actually migrates to the new one in better categories. This process, as illusively-confident expectations or "optimism" set in, may lead to "euphoric" speculations (Minsky 1977). There also ensues a *chicken game*, all the players assuming that they can exit just before the "manias" (Kindleberger 1996) or "bubble" crashes. "Lenders (or intermediaries) were comforted by the knowledge that others were making the same judgments, and/or they assumed risk was diversifiable; in each case they were proved wrong, and risk premiums proved too low in retrospect" (Davis 1995: 193).

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[12] Needless to say, various sensory and perceptual dimensions may share the property of psychological responses for physical changes. For instance, from a perspective of the theory emphasizing that the carriers of value are changes in wealth or welfare, rather than final states, the value function is also likely to become more risk-neutral (or loving) with increase in assets (see Kahneman and Tversky 1979).

[13] *Uncertainty*, as another aspect, provides opportunities for profits in competitive markets (Davis 1995).

"In Minsky's formulation they start with a "displacement", some structural characteristics of the system, and human error. Some event increases confidence. Optimism sets in. Confident expectations of a steady stream of prosperity, and of gross profits, make portfolio plunging more appealing. Financial institutions accept liability structures that decrease liquidity, and that in a more sober climate they would have rejected. The rise is under way, and may feed on itself until it constitutes a mania.…… Yet euphoric speculation, with stages or with insiders and outsiders, may also lead to manias and panics when the behaviour of every participant seems rational in itself. This is the fallacy of composition, in which the whole differs from the sum of its parts" (Kindleberger 1996: 29-30, 34).

On the contrary, when External rating houses offer a negative outlook towards a 'downgraded' category, in particular, downgrade suddenly and unexpectedly, the codified assessment of credit risks may lead to the lender's retrievals in "panics" (Kindleberger 1996). In accordance with the extent which the codified assessment of credit risks based upon homogenized information flows attenuated lenders' incentives of monitoring borrowers on their own, the sudden reversals may amplify the "panics". This is because the lost confidence in any information would upset lenders' uncertainty which nature is intrinsically more susceptible that that of borrowers[14]. As a result, the amplified panics may cause harsh rationing of credits, possibly falling into a negative spiral or trap in which there is no lender who can take risks, even if very high-risk premium is offered.

In theory, it is impossible to precisely compute subjective probabilities in credit risk assessments even in the particular circumstance of time and place, because uncertainty is seemingly dispersed in an incomplete and frequently contradictory form due to the limited knowledge or bounded rationality. On the one hand, uncertainty in the process of credit risk management is likely to drive lenders to watch others and seek a normative or widely accepted code for justifying their decisions. On the other hand, a codified assessment of credit risks with homogenized information flows[15] may encourage *herd behaviors* in lending, making lenders'

[14] There is another way of seeing the lender's "panics" from a viewpoint of *loss aversion*. This may also endorse that the sudden reversals, in case of causing actual losses to banks, can radically upset lenders' behaviors or position in lending that occasionally might be categorized as general irrationality.

[15] Interestingly, Bikhchandani and Sharma (2000) introduce the recent theoretical and empirical research on herd behavior among investment analysts and newsletters. "Recently, there has been some skepticism about the 'independence' of research findings of investment banks and other researchers about the prospects of firms who are their clients or would be clients. It is difficult to ascertain to what extent traders and other decision makers are swayed by newsletter

sentiments much more volatile. The residual problems not being captured but rather exacerbated by a standard credit risk model for quantifying "measurable risks", may amplify the swings of lenders' mood. As Davis points, when the crowd is wrong *ex-post*, there is the making of a financial crisis, but there may be no objective basis to prove before the event that the crowd will be wrong.

3. Internationally accepted credit risk management

The Basel Committee has explicitly[16] encouraged banking regulators to lead the regulated banks to use an internationally accepted model of quantifying and aggregating credit risks, for supervisory and/or regulatory purposes. At the same time, standard Credit Risk Modeling has come to play increasingly important roles in banks' risk management and performance measurement processes, including performance-based compensation, customer profitability analysis, risk-based pricing (Basel Committee on Banking Supervision 1999a: Summary). Although a range of practices in the conceptual approaches to modeling, from the simple to the complex, is observed, the Committee's implication seems to put preference to the models of enabling 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. (The concept of *value at risk* or "VaR" method used in allocating economic capital against *market risks or volatility* was expanded to the quantification of *credit risks*[17].) 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 "internal credit risk rating" for each client firm as determined by a bank's

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recommendations" (*ibid.*: 23). They introduce a model of herd behavior among investment newsletters built by John R. Graham. In the model, the likelihood of herding (1) decreases with the analysts ability – a low ability analyst has greater incentive to hide in the herd than a high ability analyst; (2) increases with the analysts initial reputation – analysts with high reputations (and presumably salaries), are more conservative in bucking the consensus and herd to protect their current status and pay levels; (3) increases with the strength of prior public information – when aggregate public information is strongly held, and reinforced by the actions of the market leader, and individual analyst is less likely to take an opposing view based on private information; (4) increases with the level of correlation across informative signals.

[16] For instance, see Basel Committee on Banking Supervision 1999a: 8 or overview.

[17] It reminds us of the following insight by Shackle. "The elegant and powerful codes of one field or discipline are tempting to the analyst engaged in other fields. Once adopted, such a code steers him inexorably down one path of thought. It may or may not in the end be opt to provide him with knowledge worthy of that name" (Shackle 1972: 52).

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, the Basel regime may have directly or indirectly encouraged lenders to utilize statistical External rating systems, such as Standard & Poor's or Moody's ratings for corporate bonds, to internally justify its own EDFs. In fact, the Basel Committee has decided, in the proposal of "New Accord", to promote replacing existing approaches with a system that would use *External credit assessments* (External Rating systems) for determining risk weights. The Committee pays careful consideration to ensuring that the regulatory capital charge under the Internal Rating-Based approach is developed in a manner that ensures accuracy and consistency with the standardized approach based upon External credit assessments (Basel Committee on Banking Supervision 1999b: 37-40).

We should critically assess the limitation and arbitrariness of internationally standardized credit risk management. First of all, we should ask the following question: Can our existing knowledge provide a sufficient basis for a calculated mathematical expectation in a sense that reason is wholly instrumental? Philosophically, the answer is negative. "No number of viewings of white swans can guarantee that a black one will not be seen next" (Simon 1983: 190). So far as a complete set of risk markets is absent, it is impossible in theory to determine the definite value of the EDFs, without risk of error, even from myriad of statistical data. Even though the credit rating transition matrix (probability of migrating to another rating within one year as a percentage) provided by External rating agencies is statistically significant, it would never suggest to which direction a particular customer will be migrating. Furthermore, the statistical observations, having their own variance, are likely to differ from the social assessment, possibly resulting in excessive allocations of funds in some sectors and shortfalls at other times in other sectors. Nobody knows how statistical observations would optimize social allocations of funds. "Reasoning processes take symbolic inputs and deliver symbolic outputs. The initial inputs are axioms, themselves not derived by logic but simply induced from empirical observations, or even more simply posited" (*ibid*.: 190).

Next, we should note that the basic methodology in credit risk models standardized and promoted by the BCBS is historically driven by the US regulator's initiative appealing to "level playing-field" arguments (Dore 2000) of promoting a convergence to the Anglo-American financial and banking system. Needless to say, there is no guarantee that the Anglo-American financial system has a universal value.

"The processes that produce the transformations of inputs to outputs are also introduced by fiat and are not the products of reason" (Simon 1983: 190). Regardless of the arbitrariness in the rules of inference, more lenders are required directly by their banking regulators or voluntarily

to pay more attention to a normative process not only for calculation of the capital adequacy requirement (the Basel Accord) but also for risk-based pricing. As a result, more lenders use the statistical EDF and the external ratings based upon it as a critical input for mathematically measuring credit risks. In the past, banks were considered as professionals in screening and monitoring so that banks might play the important role of mediating stable and long-term funds to new industries and middle-sized enterprises. In contrast, external-rating houses used to play the limited role of offering the credit profile of bond issuers for the sake of amateur investors who had the limited capacity of assessing credit information. The more was the statistical EDF provided by external rating houses for publicly rated corporate bonds used by lenders as the critical input for inferring the EDF for all the borrowers, lending behaviors in loan markets were getting similar to investors' behaviors in bond markets.

In the United States, 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 well allocate financial resources. In this framework, the financial intermediaries have increased their capabilities by specialization and division of work in credit risk assessment and monitoring functions. The existence of a large 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 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 can be universalized. This is because there is no guarantee that other countries possess the large and diversified base of investors which is a critical foundation of the system.

The Japanese banks attempt to change their mode of lending and monitoring to an Anglo-American financial system without the preconditions or alternatives for diversifying risks and uncertainty. This transition would be less plausible, even worse, exacerbating the "crowd psychology in lending". A codified assessment of credit risks with homogenized information flows would have an adverse effect on amplifying the swing of mood of Japanese banks, when they hold credit risks on their own. While the financial structure in Japan seems to still require the kind of indirect financing, the swing would have an ill-effect on mediating financial resources. For instance, there 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 (1981) model, encouraging borrowers to take riskier

projects.

4. Bank rents for managing lenders' uncertainty

This section discusses the hypothesis that the "rent-based" financial system contributed to well dealing with the Japanese lenders' uncertainty in credit risk assessments, beyond the monitoring perspective of bank rents. Some economic literatures shed light on the important role of bank rents for monitoring which create incentives for banks to operate as long-run agents so that they may work to monitor firms effectively and manage the risk of their portfolio of loans (Hellmann *et al.* 1997, Aoki 1994). Furthermore, the analysis of *bank rents* has provided new tools for investigating the role of financial institutions (Khan 2000). We argue that the role of bank rents in the heyday of the Japanese *main bank* system is understated and then, we need to examine what Japan lost in the process of its transition to the Anglo-American banking system and convergence to the Basel rules.

The Stiglitz & Weiss (1981) model is of importance to show that credits are intrinsically *rationed* due to asymmetric information problems. Since lenders cannot perfectly and costlessly monitor the behavior of borrowers, credits even *in equilibrium* in the standard fashion are accordingly rationed, where price mechanism does not work for clearing an assumed excess demand for loanable funds. For instance, when a borrower whom banks once judge as *not credible*, is even willing to pay higher interest rates, banks would decline the loan application. This is because banks regard this offer as a signal of higher risks of default. Hellmann *et al.* (1997) expand this theory by arguing that government regulations of setting a ceiling on the deposit rate which is below the market-clearing rate can help to create rent opportunities which are potentially captured by banks as financial intermediaries, giving them the strong incentives to monitor their portfolio better.

According to this *financial restraint* basic framework[18], there are three sectors: the household sector supplies funds, the corporate sector is a user of funds, and banks act as financial intermediaries. Figure 1 shows the market equilibrium (in the standard fashion) at an interest rate r_0 as the intersection of a household funds supply curve and a corporate funds demand

[18] The model also claims that by increasing the returns to intermediation, banks have strong incentives to increase their own deposit bases. A simple graphical way of describing the efficiency gains from rent creation is an outward shift in the supply curve. Consider the model wherein the "rent effect" (i.e. the increased saving 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. If the rent effect is large relative to the interest-elasticity of savings, then it is possible that the total volume of funds intermediated through the formal financial sector is larger than would be available under 'free markets'.

curve. If the government intervenes in the financial sector by regulating the deposit rate of interest, rents are potentially captured by financial intermediaries. The new equilibrium-lending rate will now be r*L* and the difference defines the economic rent accruing to banks. The gap between the regulated deposit rate, r*D*, and the market lending rate, r*L*, is the source of the rent for banks. Hellmann *et al.*(1997) claim that the only way that the rent will continue to be available for owners of banks is through their survival, which in turn is only assured if their managers manage its portfolio well (see Khan 2000: 58). This *financial restraint* policy explains one of institutional settings for sustaining the Japanese "rent-based" financial system in which *main banks* used to play important roles, at least, in the catching up period, acting as financial intermediaries and monitors for flows and allocations of financial resources.

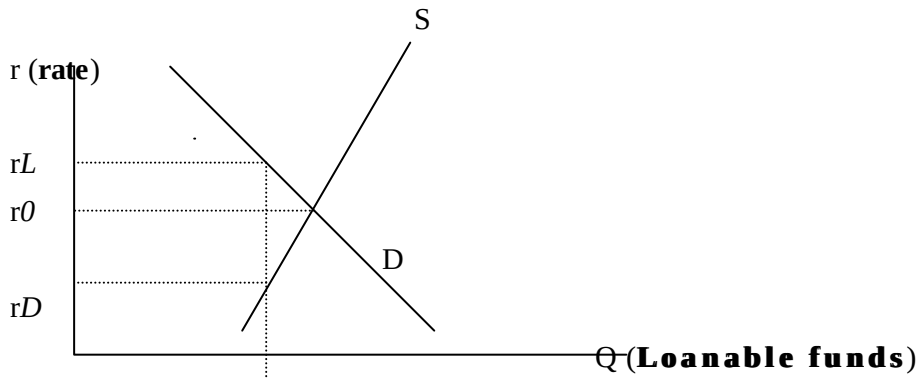

Figure 1: Financial sector rents as incentives for portfolio monitoring

Bank rents on transfers to new enterprises

In a *closed* financial system where the lending rate is fairly controlled irrespective of credit risks of individual borrowers, even prominent companies would have to pay higher spread margins (interest rates) than the spread condition on which they could have possibly raised funds in international loan markets or securities markets. The rent in terms of excess spreads (incomes) is likely to be captured by banks. In the case of Japan, the lending rate, in particular, the long-term lending rate (Long-Term Prime Rate or "LTPR") was substantially controlled and fixed at the level of 0.9 per cent per annum over the coupon rate (funding rate) of the 5 years debenture which long-term credit banks are privileged to issue.

Figure 2 illustrates the mechanism which may have partly contributed to incubating new enterprises and ventures through the transfer of *rents*. Based upon a particular firm's credit (ratings) and statistical EDFs for the credit category, we can roughly estimate a range of expected spread conditions (interest margins), even in a mechanical fashion, in which the firm would be able to raise funds in the market. Then, we can draw the relation (*required margin*

curve) of the expected spread in accordance with the credit ranking of each borrower. In a closed financial system, the gap between the required margin curve for prominent borrowers and the regulated LTPR may possibly arise as rent opportunities to be captured by banks as financial intermediaries. There is an aspect for prominent companies whose opportunities to tap international debt markets or securities markets are hampered. However, in the sense of making a contribution to incubating new enterprises by financing them with lower interest rates, the above rent may possibly function as "learning rents for infant industries" (Khan 2000). So far as this transfer creates social benefits as a whole, the rent for learning can be justified.

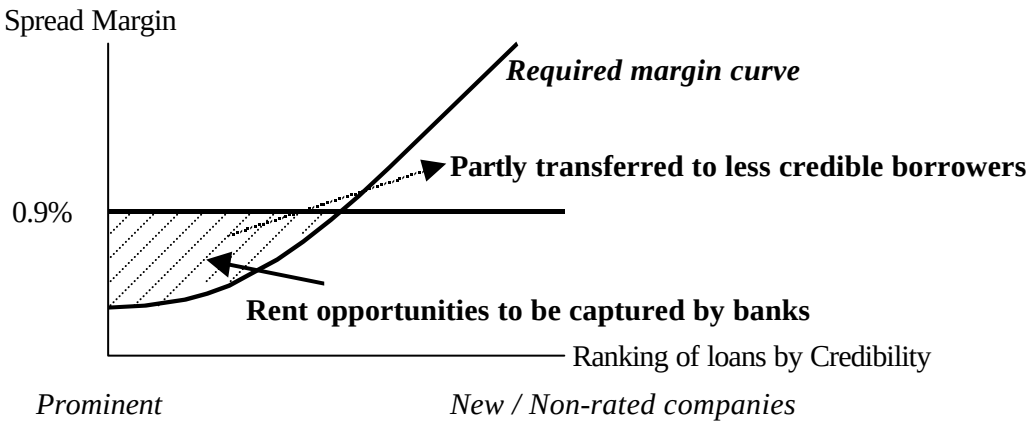

Figure 2 : Potential bank rents on transfers to less credible borrowers.

This mechanism, on the one hand, has an aspect of attenuating *adverse selection* / *moral hazard* effects in the Stiglitz & Weiss model. They daim that as interest rates for borrowers become higher, it becomes more and more likely that only risk-loving borrowers or borrowers with no intention of repaying will keep borrowing. However, the closed financial market has an aspect of getting good borrowers to stay in the domestic debt market and creating the rent opportunity to be inter-mediated for incubating new enterprises by financing them with lower interest rates. From the lenders' viewpoint, the rent opportunity may function as a *buffer* for them to underwrite venture capital and the lower spread condition may contribute to raising the probability of success in invested projects. This mechanism may partly stabilize the swings of mood in lenders' credit risk assessments accordingly.

On the other hand, such a related problem may come out that the incentive to screen and monitor new enterprises can be diluted because banks can enjoy more rents by concentrating their portfolio on prominent borrowers only. In the case of Japan, the problem of this kind did not arise so significantly in the *catching-up* period. In the Japanese "main bank system" of relationship finance and of repeated transactions (Aoki *et al.* 1994), the main bank played the important role of well allocating financial resources and of ensuring that the allocated funds be

used in the way promised. In post-war Japan, having a good main bank relationship with one of the major banks was the cornerstone of corporate financial strategy, and virtually essential for corporate success. Of course, as observed in the post-war *keiretsu* system, the role of major 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 (*ibid*.). However, throughout the post-war period and the adjustment to slower economic growth from the mid-seventies when many leading Japanese industries reached the international technological and marketing frontier, the main bank was deeply involved as a *quasi-partner* in mapping out a strategy of its client firms, in particular, those firms within its *keiretsu* group. For instance, the bank occasionally played the role of incubating entrepreneurs, who were considered strategically important for integrating and internalizing supporting industries for its core business in order to enhance the group's competitiveness (and also of rescuing its clients in temporary trouble). The above mechanism of transferring rents may have been fitted in the post-war period, when banks and Japanese enterprises seem to have worked together for revitalizing their groups, collectively, the so-called "Japan Incorporated".

To deal with lenders' uncertainty is very difficult but very important for well-mediating and allocating financial resources while maintaining financial stability. *Adverse selection* or *moral hazard* problems in credit markets have a complex relationship with the issue of how to manage lenders' uncertainty. On the one hand, bank rents *per se* are not always effective. For instance, the *keiretsu* system in Japan may have caused a certain moral hazard of encouraging main banks to easily authorize loans to companies within their group. In this case, rents are no longer effective for the good management of banks and better allocations of funds. On the other hand, the mechanism of transferring rents with a partnership strategy by the main banks may have contributed to successfully incubating new enterprises and to partly stabilizing their swings of mood in credit risk assessments. The claim of financial deregulation by casting shadow *only* on the negative aspect of bank rents was apparently missing the positive role. This is why it is quite important to examine what conditions or mechanisms would increase or decrease the positive effects of bank rents.

The "Lost" Japanese Credit Risk Management

In the heyday of the Japanese main bank system, bank rents had an effect on stabilizing lenders' sentiments in credit risk assessments, which partly contributed to sustaining a long-term partnership strategy of the main bank. The long-term partnership strategy used to provide bank managers and officers with an *incentive* and *time* for developing what we call a *relation based non-algorithmic* style of credit risk management, enabling them to fairly well-screen and

monitor each borrower who has its unique profile under conditions of uncertainty. No codified assessment can precisely measure each profile that is composed of various dimensions of risks such as trajectory of technology, business cycle, counteractions by competitors and other factors. A relation based non-algorithmic style or human capital based assessment of credit risks, which seems to have well-managed lenders' uncertainty, was once observed and lost in the Japanese mode of monitoring. This sub-section discusses the role of *bank rents* understated in the economic literature in the past.

Noticeably, in the heyday of the main bank system, there was no concept of *probability* (of default) in their decision-making. More *relation based non-algorithmic* screening and monitoring style was observed to alert lenders, leading to *all or nothing* judgements or solutions. The confidence of "no risk at all", at least, in a *subjective* sense was a prerequisite for approving any loan application including rescue operations (see, for example, Yokoi 1985: 272). Of course, an external or objective set of beliefs, such as institutional settings of *bank rents* for maintaining "franchise values" (Hellmann *et al.* 1997), as well as pledged collateral values, was presumably taken into consideration in the process of credit assessments. However, the relation based non-algorithmic or hermeneutic[19] method played a more important role of creating and stabilizing Japanese lenders' subjective beliefs (uncertainty).

Herbert Simon developed a more realistic description of human bounded rationality, and considered to what extent the limited capability for analysis that is provided by bounded rationality can meet the needs for reason in human affairs. In practice, economic actors are *intendedly* rational but *limitedly* so, because of information problems and the complexity of computing best strategies (Williamson 1985). According to his interpretation, in the real world, instead of trying to work out Nash equilibrium or solve optimization problems, individuals follow *rules of thumb* (Simon himself treated the use of rules of thumb as short-cut devices for decision-making). This is not because they are irrational, but it is simply that they economize on a scarce resource, the brain's limited computational capacity. Simon argued a model of human rationality referring to an intuitive model, in which "a great deal of the success of human beings in arriving at correct decisions, is due to the fact that they have good intuition or good judgment"(Simon 1983: 200). [Note: In a psychological sense that the term of *irrational* is used not as denoting something *contrary* to reason, but something *beyond* reason, something, therefore, not grounded on reason, Jung (1921) defined "intuition" an irrational function. At the same time, he added that "many intuitions can afterwards be broken down into their component elements and their origin thus brought into harmony with the laws of reason."] Simon's intuitive model is related to a non-algorithmic style.

[19] This terminology refers to Hargreaves Heap 2000.

> *"What is intuition all about? It is an observable fact that people sometimes reach solutions to problems suddenly. They then have an "aha!" experience of varying degrees of intensity. There is no doubt of the genuineness of the phenomenon. Moreover, the problem solutions people reach when they have these experiences, when they make intuitive judgments, frequently are correct"* (Simon 1983: 201).

Most executives probably find Simon's account of their *intuitive* or judgmental[20] decision processes persuasive. In the heyday of the *main bank* system, Japanese veterans seem to have been alerted of credit risks by intuition, nevertheless junior officers often would not, just looking at the atmosphere of staffs working in the treasury office of their clients, some of whose staffs were later accused of covering up serious losses. Other veterans felt a suspicion, in spite of positive recommendations by junior officers, just having a look at the trend of straightforwardly increasing profits in the Profit & Loss account of a firm, which actually suffered a liquidity problem. There are many episodes in which Japanese veterans' first impulse was correct. (Besides, the intuitive or judgmental decision processes might be also necessary for underwriting venture capital. There exist many failed ventures behind successful ones. For identifying good seeds under conditions of uncertainty, no stereotyped assessment of financial statements of new enterprises would be meaningful. Fast Retailing Co., Ltd., which becomes Japan's top casual clothing chain behind the UNIQLO brand, recorded net sales of JPY 418.6 billion in fiscal year of 2001. For instance, its financial statement in fiscal year of 1996 showed that the company was still a middle-sized unlisted retailer with net sales of JPY 59.9 billion. Rakuten Inc., the CEO of which is one of the most popular figures in the newly emerging E-commerce and internet shopping-mall business, recorded net sales of JPY 3,089 million with ordinary profits of JPY 970 million. The company started its business 4 years ago and had a net loss of JPY 18 million in the first financial report. Of course, these successful results in financial statements at this point, which were partly brought by their aggressive M&A strategies, would not necessarily guarantee if their business is going to continuously expand.)

How could Japanese veterans acquire the *intuitive* or *judgmental* monitoring style as the higher form of knowledge[21] and skills? Simon (1983) pointed out two interesting features about

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[20] Simon referred to Chester Barnard's distinction between "logical" and "non-logical" or "judgmental" processes for making decisions (Simon 1997: 129-130).

[21] According to Jung, a well-known psychologist, intuitive knowledge possesses an intrinsic certainty and conviction, which enabled Spinaza (and Bergson) to uphold the *scientia intuitiva* as the highest form of knowledge (Jung 1921: 453).

intuition. One is that "intuitive rationality" in his expression happens only to people who possess the *appropriate knowledge*. He referred to Henri Poincare[22] who suggested that inspiration comes only to the *prepared mind*. The other is that *intensive learning and practice* are required to acquire intuition. He referred to empirical data gathered by Hayes, his colleague, for chess masters, composers, painters and mathematicians. According to the data, ten years is the magic number. "Almost no person in these disciplines has produced world-class performances without having first put in at least ten years of intensive learning and practice" (Simon 1983: 203).

As for the first point, we should examine how the Japanese main banks used to acquire the appropriate knowledge (know-how) for monitoring their client firms. It is analyzing *cash flows and projections* that had a more or less central position in their credit risk assessment and monitoring. In those days, the main banks retained an effective power of disciplining their client firms to open checking-accounts for clearing almost all of their payment transactions. This arrangement enabled the main banks (bank managers and officers in charge) to monitor the borrowers' outflows of funds because their promissory bills and cheques of account payable were addressed to the bank. At the same time, loan officers usually contacted on an almost daily basis to collect (or sometimes discount) their bills of account receivables, enabling him/her to monitor the borrower's projected inflows of funds. The ability and privilege of monitoring dynamic flows was presumably very important for the main banks to underwrite the role as incubators or partners. In addition, the main banks were in a position as financial advisors of getting their client firms to report cash flow projections periodically. Most firms consulted their main banks about their cash management and projections for getting necessary working capital. The main banks played the role of teaching a skill of cash management if necessary and giving a warning when the clients' projection seemed too optimistic. A kind of partnership strategy created by monitoring dynamic flows produced a certain positive incentive (a *will*) for the Japanese main bank officers and managers to support their client firms. At the same time, the positive *will* might let them acquire a higher capability of monitoring, which might lead to an *intuitive* assessment of credit risks. The main bank's monitoring and financial role as *partners or contributors* (from a private financial institution's perspective) to Japan's economic development used to attract the educational elite and maintain their staff's quality and morale. Their *will* may have produced a kind of *prepared mind* not only to pursue business profits but also to evaluate the social value of their clients and their business and try their best to support

[22] Poincare is French scientist, insisting that mathematical reasoning be based upon not logical understanding such as the syllogism but a kind of creative virtue (Nishida 1912: 256. See also Poincare 1952: 3).

those clients and projects considered as socially beneficial.

As for the second point, we should note that *relation based non-algorithmic* monitoring skills were acquired by veterans through a period of trial and error practices. In the Japanese society, "practicality outweighs the theoretical element" (expressed by Robert Schinzinger in Nishida 1958[23]) and intuitive methods being acquired through trial and error practices used to be socially respected. On the one hand, an intuitive style of monitoring (backed by rents for monitoring) was not always efficient but exposed to a risk of causing error practices. For instance, there was such a rescue operation as leading to an unnecessary prolongation of a seemingly hopeless borrower, just raising the cost of the final resolution. On the other hand, "bank rents" played an important role of creating incentives for the Japanese main banks to perform as *long-run* agents for effective screening and monitoring (rents for monitoring). In addition, we hypothesize that bank rents may have contributed (as rents for learning) to facilitating the process of developing *relation based non-algorithmic* monitoring approaches, which may happen only to the real professionals through trial and error practices. The franchise value (or adequate profits) which banks must earn for realizing better loan portfolio (sound management) may have given their staffs the incentives and time for developing the non-algorithmic monitoring style. In turn, the hermeneutic style and capacity of monitoring may have contributed to maintaining the franchise value or long-run reputation of the banks.

This mechanism of giving them the incentives and time for developing a relation based non-algorithmic monitoring style, however, seems to have disappeared on and after the late-eighties. Reportedly, the Returns of Assets (ROA) captured by Japanese banks were already declining (Suzuki 2002: Figure1) since the seventies due to their severer lending competition fueled by the so-called "internationalization and disintermediation[24]". Many Japanese banks were required

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[23] It is notable that Japanese early-twentieth philosophers and intellectuals such as Nishida Kitaro or Kobayashi Hideo were strongly influenced by French philosophers such as Henri Bergson and Poincare. Bergson criticized the trend trying to make all the phenomena in the world confined to the "causality", which is a typical viewpoint of the modern natural science, for explaining the real existence. Rather, he insisted on the role of creative mind in ourselves (Bergson 1946: 28). He emphasized upon the internal point of view for understanding the real existence. Bergson's perspective to see how *real time*, its essence being to flow, eludes mathematical treatment, is suggestive of transcending the limitations of pragmatic monitoring solutions. It is interesting that his perspective shares with the assumption by the Shacklean argument of suggesting that *time* is a denial of the omnipotence of reason.

[24] The forces of *technological change* and *internationalization* may have raised the lenders' (banks) cost for monitoring. In general, monitoring can become more difficult as technology becomes more complex and borrowers invest in projects whose prospects outsiders find increasingly more difficult to assess. Intermationalization in terms of giving borrowers a wider variety of funding sources such as off-shore financial markets and Euro or overseas capital markets, may also make each lender's process of monitoring more difficult. Accordingly, the

to expand loan assets with leverages or to save operating / monitoring costs to compensate for the decline of ROA and to maintain or increase the nominal amount of profits. Simultaneously, financial deregulation was undermining the foundation of the rent-based monitoring system. In fact, the deposit rate deregulation was steadily progressed since its commitment in 1984 by the Japanese regulators at the Japan-US Yen-Dollar Ad hoc Committee (the deposit rate deregulation was completed in 1994). According to an interview, in the year of 1986, one of Japanese long-term credit banks changed its credit analysis/approval form for internal use, shifting the focus point *from* analyses of cash flow projections *to* those of collateral values to be pledged. This change was reflected by the bank's consciousness of losing an effective power of disciplining client firms (the difficulty in getting borrowers to disclose more information than financial statements) and by the internal demand of speeding up the credit approval process for increasing loan assets. In 1988, the mentioned bank installed a vendor *code* of analysing the borrower's financial statements and giving loan officers codified warnings by calculating the financial ratios and earning trends of showing the borrower's *one-shot* liquidity or profitability in a mechanical way. This change in the strategy of monitoring partly aimed to avoid the cost of monitoring increased by the forces of internationalization and disintermediation. The installation of the vendor software may have, in turn, given an adverse effect on stagnating their capacity for monitoring, by losing them an opportunity of developing a higher form of skills for monitoring.

Recent changes have made more Japanese bank managers behave as professionals in a sense of having advanced skills of estimating marketable risks and probabilities of default through pragmatic instruments of monitoring. Dore (2000) points that this change is partly attributable to the fact that the proportion of young US-trained Ph.D.s staffing Japanese economics departments and teaching from American textbooks steadily grows, along with the increasing number of American-MBA Japanese businessmen. The migration of MBAs and Ph.D.s has succeeded in diffusing widely as principles – if not always principles which determine practice – the doctrines of neoclassical economics which elevate the basic precepts of individualism to the status of axioms (Dore 2000: 57).

Some analysts and intelligentsia claim that the accumulation of huge non-performing loans in Japanese banks shows a malfunction of the "rent-based" *main bank* system. The burst of the "bubble" economy encouraged the Japanese banks (as well as the banking regulators) to change

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monitoring cost in lenders would rise with higher costs of hiring experts who have the capacity of evaluating advanced technologies or who have expertise in international corporate finance, for instance. This forces may gradually encourage more lenders to use a codified assessment or credit information (such as external ratings or collateral) inexpensively available in markets, to avoid the increasing cost of monitoring.

the traditional mode of screening and monitoring to an Anglo-American mode of monitoring using such a pragmatic code as calculating risk-adjusted returns on assets or capital with quantifying credit risks. At the same time, the Basel Capital Accord as a solvency regulation, which was set under a strong influence of the Anglo-American mode of monitoring, has increasingly become normative, another constraint on the behavior of Japanese bank managers. However, pragmatism can claim validity only so long as no sources are discovered, other than intellectual capacities colored by temperament, which might reveal new elements in the formation of philosophical concepts (Jung 1921). The over-reliance on *rules of thumb*, as argued, would have an ill-effect on amplifying the volatility of market sentiments causing "euphoric" behaviors of over-lending in upturns and excessive cowardice leading to severe credit rationing in reversals. "The criterion of success for a code is the contrast between the disorder and diversity of what we seek to understand, the complexity and anarchy of the field of observation" (Shackle 1972: 51). The illusive value of firms and projects in the world of only *cold calculations* and the reliance on the valuation would exacerbate the crowd psychology in lending and amplify the swings of lender's sentiments in credit risk assessments, particularly in the case that there are few alternatives for diversifying risks and uncertainty.

Another problem is that the important components of the rent-based mode of monitoring for well mediating and allocating financial resources to new enterprises and industries and for pooling the (true) monitoring skill and knowledge were lost in the ill-planned transition to an Anglo-American banking system. We should have attempted to maintain or reserve these components in alternative forms. In this sub-section, we shed light on the understated roles of bank rents, which contributed to incubating new ventures through the transfer of rents and to giving lenders an incentive and time for developing a higher form of knowledge and skills for screening and monitoring. The simple resurrection of the mechanism of producing these roles is not plausible because the mode had its own defects of causing negative effects. However, we should attempt to find the necessary parts to be institutionalized and analyze the complex nexus. We would say, at least, that naively and simply seeking a transition to an Anglo-American banking system and a convergence to the Basel rules as a prescription for overcoming Japan's lingering financial slump, amounts to a very risky strategy.

Bibliography

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*, OUP.

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*, OUP.

Basle Committee on Banking Supervision (BCBS). 1999a. *Credit Risk Modelling: Current Practices and Applications*, http://www.bis.org/

_____. 1999b. *A New Capital Adequacy Framework*.

Bergson, H 1946, 1992., *The Creative Mind, An Introduction to Metaphysics*, translated by Andison, M.L., A Citadel Press Book.

Bikhchandani, S. and Sharma, S. 2000. "Herd Behavior in Financial Markets: A Review", IMF Working Paper WP/00/48, IMF Institute.

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

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

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

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

_____, 2000. "How far can you get with Hermeneutics?", in *Economics as an Art of Thought: Essays in memory of G.L.S. Shackle*, edited by Earl P. and Frowen S., Routledge.

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.

Hodgson, G. 2000. "Shackle and Institutional Economics: Some Bridges and Barriers", in *Economics as an Art of Thought: Essays in memory of G.L.S. Shackle*, edited by Earl P. and Frowen S., Routledge.

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

Jung, C.G. 1921, 1981. *Psychological Types*, A Revision by R.F.C. Hull of the translation by H.G. Baynes, Routledge, London.

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. 1963 [1931]. *Essays in Persuasion*, W.W. Norton & Company.

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. 1921. "From Risk, Uncertainty and Profit" in Putterman, L. eds., 1996. *The Economic Nature of the Firm, A Reader 2nd Edition*, Cambridge University Press.

Meltzer, A.H. 1982. "Rational Expectations, Risk, Uncertainty, and Market Responses", in Wachtel, P. (eds.), *Crisis in the Economic and Financial Structure*, Salomon Bros. Series on Financial Institutions and

Markets, Lexignton.

Minsky, H.P. 1977. "A Theory of Systemic Fragility", in E.I. Altman & A.W. Sametz (eds.), *Financial Crises; Institutions and Markets*, Wiley.

Nishida, K. 1912. 'Ronri no Rikai to Suuri no Rikai' (Logical understanding and Arithmetic understanding), in *Nishida Kitaro, Nihon no Meicho 47*, edited by Ueyama, S., 1984., Chuo-Koron-sha, ISBN4-12-400437-0.

_____. 1958. *Intelligibility and the Philosophy of Nothingness*, translated and introduced by Robert Schinzinger, Maruzen, Tokyo.

Poincare, H. 1952. *Science and Hypothesis*, Dover Publications.

Shackle, G.L.S. 1972. *Epistemics & Economics, A critique of economic doctrines*, CUP.

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

_____. 1996. *The Sciences of the Artificial*, Third Edition, The MIT Press.

_____. 1997. *Administrative Behavior*, Fourth Edition, The Free 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.

Suzuki, Y. 2002 [2001]. "The Crisis of Financial Intermediation; Understanding Japan's Lingering Financial Stagnation", in Sabri, N., *International Financial Systems and Stock Volatility: Issues and Remedies, Volume 13, International Review of Comparative Public Policy*, pp.213-243, Elsevier Science. Forthcoming.

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

Yokoi, S. 1985. *Project Finance*, Yuhikaku Business, ISBN 4-641-06825-9.