

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Krawczyk, Mariusz K.

Working Paper

Change and Crisis in the Japanese Banking Industry

HWWA Discussion Paper, No. 277

Provided in Cooperation with:

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)

Suggested Citation: Krawczyk, Mariusz K. (2004): Change and Crisis in the Japanese Banking Industry, HWWA Discussion Paper, No. 277, Hamburg Institute of International Economics (HWWA), Hamburg

This Version is available at: https://hdl.handle.net/10419/19249

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





Change and Crisis in the Japanese Banking Industry

Mariusz K. Krawczyk

HWWA DISCUSSION PAPER

277

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)
Hamburg Institute of International Economics
2004

ISSN 1616-4814

Hamburgisches Welt-Wirtschafts-Archiv (HWWA) Hamburg Institute of International Economics Neuer Jungfernstieg 21 - 20347 Hamburg, Germany

Telefon: 040/428 34 355 Telefax: 040/428 34 451 e-mail: hwwa@hwwa.de Internet: http://www.hwwa.de

The HWWA is a member of:

- Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz (WGL)
- Arbeitsgemeinschaft deutscher wirtschaftswissenschaftlicher Forschungsinstitute (ARGE)
- Association d'Instituts Européens de Conjoncture Economique (AIECE)

HWWA Discussion Paper

Change and Crisis in the Japanese Banking Industry

Mariusz K. Krawczyk

HWWA Discussion Paper 277 http://www.hwwa.de

Hamburg Institute of International Economics (HWWA) Neuer Jungfernstieg 21 - 20347 Hamburg, Germany e-mail: hwwa@hwwa.de

This Discussion Paper has been prepared in collaboration with the HWWW-Research Programme "Development und Integration", while the author was a guest at the HWWA.

Edited by the Department World Economy Head: PD Dr. Carsten Hefeker

Change and Crisis in the Japanese Banking Industry

Abstract

The weakness of the Japanese banking industry, suffering from acute problem of non-performing loans, prevents Japan from restoring sound growth rates despite having undertaken structural reforms and substantial fiscal policy efforts, and, through impairing transmission channels of monetary policy, it has also made ineffective efforts to stimulate the economy through "zero interest rates" and quantitative easing policy. Misunderstanding the roots of the banking crisis contributed greatly to its exceptional length and depth and prevented its early solution. Poor coordination and sequencing of liberalisation of financial services together with macroeconomic policy mistakes have been responsible for the crisis. But the origins of those mistakes can be traced to the bureaucratic character of the country's policy-making process often lacking a comprehensive analysis of macroeconomic effects of a particular policy decision. Simple solution to the banking crisis in the form of eliminating non-performing loans burden, bailing out ailing financial institutions etc., if not accompanied by decisive steps restoring rationality to the public spending and resolving the problems arising from the presence of the government sponsored financial institutions, may not be sufficient to achieve sound growth and prevent similar crises in the future.

JEL-Classification: G21, G28

Keywords: Japanese economy, banking crisis, financial liberalisation

Mariusz K. Krawczyk
Faculty of Economics
Fukuoka University, 8-19-1 Nanakuma, Jonan-ku, Fukuoka 814-0180
Japan

E-mail: mak@fukuoka-u.ac.jp

For more than 10 years Japan has not been able to overcome the repeating sequence of mild recessions followed by periods of stagnation. An average real growth rate of approximately 1 percent per year between 1991 and 2001 was the lowest among advanced industrial countries. Negative growth rates, falling individual consumption, historically high unemployment, and fast growing public debt stand in such a sharp contrast with relatively stable performance before 1980s, that Japanese often call the 1990s their "lost decade".

The depth and length of the Japan's stagnation - the costliest recession suffered by any advanced industrial economy after the World War II - has led some to predict that, till now very conservative, Japanese savers may even flee into cash, gold, and offshore accounts (equal to thing until now unimaginable; to capital flight from Japan)1. Although, there are numerous causes why the Japanese economic performance continues to disappoint, the weakness of the country's banking industry is one of the main factors behind the inability to break this prolonged cycle of recessions. For a large part of the last decade Japan has experienced a steady deterioration of its banking sector condition. The decline of the Japanese banking industry began at the end of the 1980s asset bubble and turned into a full-blown crisis in the second of half of 1997 when a number of high profile financial institutions collapsed. There is no significant improvement since then, despite of enormous amounts of capital allocated for strengthening and revitalising the financial system (approximately 60 trillion yen spent in last five years what amounts to 12% of the country's GDP). This contrasts sharply to the S&L (savings and loan association) crisis of the late 1980s in the USA or to the Nordic Banking Crisis of the early 1990s, where the recovery started 2-3 years after the crises had begun. Ailing banking industry prevents Japan from restoring sound growth rates despite having undertaken structural reforms and substantial fiscal policy efforts, and, through impairing transmission channels of monetary policy, it has been also one of the reasons why the Bank of Japan (BOJ) policy of quantitative easing has failed to stimulate the economy².

Banking crisis is not a phenomenon unique to Japan. On the contrary, the basic aspects of the Japanese banking crisis are almost typical of banking crises in general (Mayes et al., 2001). Its roots can be traced to major regulatory changes towards liberalisation that was poorly coordinated between sectors of the economy, a period of rapid economic growth accompanied by an excessive asset expansion, unsustainable macroeconomic policies, and a substantial adverse shock. It is argued here that misunderstanding the origins of the crisis, lack of sense of urgency, weak corporate governance, poor supervision and regulatory forbearance when the system came under stress led to the worsening of the crisis and its exceptional length. The solution to the crisis should not be viewed in isolation from the processes taking place in the rest of the economy and must not be reduced to a mere resolving the non-performing debt problem.

The remaining of the paper is organised as follows. Section 1 provides a brief overview of the banking crisis and sums up the main factors that contributed to the crisis, e.g. the regulatory framework as well as banks' and authorities' poor management of the crisis. Section 2 presents the current condition and the main problems the banking industry is facing. Section 3 defines the conditions necessary for the recovery of the banking industry against the background of economic conditions prevailing in Japan. Finally, concluding section provides some more general lessons that can be drawn from the experience of the Japanese banking crisis.

1. A Brief Overview of the Japanese Banking Crisis

1.1 The Prelude: Asset Inflated Economy

The emergence of the bubble economy can be attributed to a combination of external pressure, ongoing domestic liberalisation, and policy mistakes made by the central authorities. Growing consensus that the US dollar was unrealistically overvalued against the other currencies (especially the Japanese yen) resulted in coordinated policy effort to devalue the US currency known as Plaza Accord (September 22, 1985). Consequently, the dollar lost 45% of its value between February 1985 (when it reached a peak of 260 yen/dollar) and May 1987 (141 yen/dollar). The move, primarily aimed at putting cap on the US trade deficit with Japan, imposed a heavy toll on the Japanese economy known as the "High-Yen Recession". The real economic growth dropped to -0.5%, its first negative rate since the oil shock and the total unemployment rate reached historically high level of 3.1% in May 1987. Concerned with already growing at that time public debt (50.3% of the GNP), the authorities chose monetary expansion with reduction of the official discount rates hoping for a wealth effect that would increase domestic consumption and investment and, in the end, boost the real economic growth.

The scenario worked as expected. In February 1987, the BOJ reduced its discount rate to a historically low 2.5% level and kept it there for two years till the mid-1989. The result was an increase in the money supply (defined as M2 plus CD) that reached 10.8% in 1987 and remained on average 11% until 1990. As shown in Figure 1, the policy of easy money supported investment and asset prices increase. The stock prices increased threefold (Nikkei 225 increased from 13,024 in January 1983 to 38,916 in December 1989) and land prices increased fourfold during the same time. Meanwhile, the BOJ concentrated its antiinflationary vigilance on the consumer price movements, which, thanks to the yen appreciation, were becoming increasingly distorted by the decreasing prices of tradable goods. The Bank's policies largely ignored the surge in asset prices. The unprecedented monetary policy easing coincided with massive privatisation programmes performed by the Nakasone administration (Japan National Railway and Nippon Telephone and Telegraph) and partial liberalisation of financial markets. These two factors too contributed to the asset bubble getting out of control.

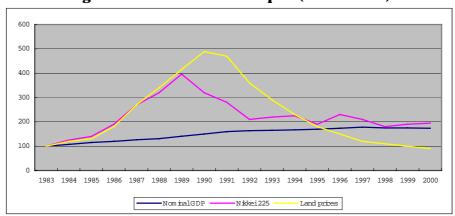


Figure 1: Asset Prices in Japan (1983 = 100)

Source: Japan Institute for Social and Economic Affairs

The asset bubble was abruptly brought to an end in the second half of 1989 when the BOJ started increasing its discount rate. The share prices collapsed in summer 1990 (Nikkei 225 dropped from 38,915 in December 1989 to 20,984 in September 1990). Meanwhile, to contain the rise in land prices, the Ministry of Finance (MOF) introduced limits on total amounts of loans to real estate. The limits resulted in sudden contraction of lending to real estate and were lifted in January 1992, after the land prices had started to decline. The overheated economy gradually slowed down.

1.2 Banks' Response to the Asset Bubble

The banks actively participated in the exacerbation of asset bubble by credit creation. The rapid increase in land prices and real estate related businesses shares led to a lending boom towards this kind of businesses. On the contrary, lending to large manufacturing corporations was on decline. While the share of lending to big manufacturing companies to total lending decreased from almost 60% in 1985 to less than 50% in 1990 and 40% in 1991, the share of construction and real estate lending increased from 14% to 18% during the same period (Fujiwara, 1998). The lending to real estate related businesses was based on misguided expectation that land prices would increase indefinitely (as they did during all post war years except for 1975). The sharp decline of land prices following the end of the asset bubble caused the quality of loans to the real estate industry to deteriorate rapidly. Banks themselves were to blame for lack of proper risk evaluation. Lending offices were using a simple "direct capital comparison method" e.g. comparing the published land prices of neighbouring properties (only

Interest Rate Controls in Japan

The Temporary Interest Rate Adjustment Law was introduced in 1947. It allowed the Bank of Japan (under the Ministry of Finance supervision) to establish detailed interest rate ceilings on deposits and on short-term lending. The Law applied to all kind of banks and credit cooperatives (however the *Shinkin* small- and medium-sized businesses credit associations, agricultural cooperatives, and the credit cooperatives were exempt from the restrictions on lending rates). Government financial institutions (including postal savings) were not subject to the regulations. As a result all financial institutions applied almost the same interest rates. The variation of the interest rates remained very small even after gradual relaxation of the controls (a significant part of the controls on lending rates was removed in 1959) as banks tended to apply a uniform rates within the Federation of Bankers Association. The same happened with long-term lending rates despite of the fact that formally the long-term rates were not a subject to interest rate controls.

During 1980s the controls on deposit interest rates were gradually relaxed. In 1979, certificates of deposits (CD) became exempt from the interest rate controls. Large deposits (more than 1 billion yen) became exempt from controls in 1988 and their minimum amount was later reduced and finally abolished. Not until 1971 were the ordinary banks allowed to accept deposits of maturity longer than one year (in 1981 they were allowed to accept deposits of maturity three years). Only since October 1993, floating rates and maturity longer than three years have been permitted. Before that, long-term credit banks had a monopoly on long-term deposit activities. The interest rate controls were finally abolished in September 1994.

later they began calculating the value of land collateral based on future income

flow), they extended their lending disproportionately to the value of collateral, their lax policies allowed for using the same collateral for multiple borrowing etc.

Table 1: Credit Ratings of Major Japanese Banks

_ ,	0 /00	0 (0 =	0.400	0 /0 ==	0.400	0 (0.0	0.400	0 (0 1	0 /00
Bank	3/90	3/95	3/96	3/97	3/98	3/99	3/00	3/01	3/02
Industrial Bank of J.	AAA	A+	Α	Α	A-	BBB	BBB+	BBB+	Α
Long Term Credit B. ¹	AA	Α-	BBB+	BBB+	BBB-	BB-	BBB-	BBB-	BBB-
Nippon Credit Bank ²	AA+	A	BBB-	BB+	BB+	BB-	BB-	BB	BBB-
Dai-Ichi Kangyo	AA	A+	Α	Α	BBB+	Α	Α	Α	BBB
Sakura	AA+	AA-	A-	A-	A-	BBB	BBB	A-	A-
Fuji	AA	A+	A-	A-	BBB+	Α	A+	A+	BBB
Mitsubishi ³	AA+	AA-	A+	A+	A	A-	A-	A-	BBB+
Asahi	AA+	A	A	A	A	BBB	BBB	BB+	BB+
Sanwa	AA	AA-	A	A	A	BBB+	BBB+	BBB+	BBB
Sumitomo	AA+	A+	A	A	A-	BBB	BBB	BBB+	BBB
Daiwa	AA+	A-	BBB+	BBB+	BBB-	BB+	BB+	BB+	BB+
Tokai	AAA	A	A	A	A	BBB-	BBB-	BBB	A
Hokkaido	AA	A	BBB-	BBB-	BBB-				
Takushoku									
Tokyo ³	AA+	AA+	AA+	AA+					·

Notes:

- ¹ since 1999 Shinsei Bank,
- ² since 1999 Aozora Bank,
- ³ in 1996 merged into Bank of Tokyo Mitsubishi.

For mergers after 1999 see Table 2.

Source: Miyajima and Yafeh (2003).

Large increase in lending to real estate is often viewed as a primary cause of the non-performing loans problems that emerged later in 1990s. However it would be a great oversimplification to attribute all the problems of the banking industry only to the irrational lending behaviour during the late 1980s. On the contrary, it is possible to argue that Japanese banks were left with no choice but to undertake risky lending activities in order to survive. Their very unusual lending practices can be linked to two characteristics of the Japanese banking industry at that time. First, partially due to the pressure from the US government, the Japanese authorities embarked on the protracted process of liberalisation of the country's financial system. By mid-1980s the process was only half finished with gradual removal of restrictions on access to the corporate bond market and creation of the commercial paper market on the one hand but still numerous restrictions on financial institutions activities in place (see box on liberalisation of the interest rates controls). These developments had serious consequences. Incipient liberalisation triggered competition for customers that further cut down already low profit margins of Japanese banks (Shimizu, 1999). At the same time large corporations, until then the banks' main borrowers used their newly acquired freedom of access to corporate bond markets. Enjoying very high credit ratings, the corporations were able to borrow directly from the market at significantly lower cost. Japanese corporations raised approximately \$519 billion in first five years after lifting their bond market restriction (Taniguchi, 1999). The long-term credit banks, which enjoyed most protection under the interest rate controls, were among hardest hit by the new reality. Facing declining profits and loosing their traditional corporate customers, the banks had no choice but to look for substitute lending markets. They increased their loan activity not only for the

real estate industry, but also for small and medium size enterprises, individuals, finance industry, and overseas investment (Shimizu, 1999, 2000).

Second, the Japanese banking industry suffered from huge overcapacity problems. The industry was designed to provide financing for the Japanese economy that was growing on average 9.7% between 1960 and 1973. At the same time the average growth in Europe and the USA was 4.8% and 3.9% respectively. Slowing growth (on average 4.4% between 1975 and 1985) and decreasing demand for funds in the second half of 1970s and in 1980s was not accompanied by the reduction of the banking sector capacity. Fierce competition for lending under heavy overcapacity in the banking industry and banks' special attention to their market shares³ caused a kind of *cognitive dissonance* e.g. in order to survive banks had to compete for borrowers even if it meant willingly loosening credit standards. The myopic character of the lending patterns reached almost farcical dimensions with banks engaging in phoney realtor activities in exchange for kick backs or lending more than \$1.8 billion to a small restaurant owner. Fully rational change in lending patterns, which resulted from changes in regulatory environment, reached at that stage a state of irrational exuberance.

It was however still 5 years before the banking sector soundness came to question. During that time the amount of non-performing loans was steadily increasing. Banks were extremely reluctant to raise their loan-loss provisions. This might have happened either due to the banks' concern that increase in loanloss provisions would be providing markets with negative expectations about future increases of non-performing loans, or because individual banks did not want to draw attention to themselves by braking ranks with other banks. Banks could not write-off their non-performing loans due to restrictive tax regulations that allowed for write-offs only in cases of bankruptcy or foreclosure proceedings. Given the average speed of legal proceedings in Japan it substantially slowed down the writing-off non-performing loans. Close relationship between banks and their borrowers, known as the main bank system might have been yet another important reason why banks were slow in cleaning their balance sheets of nonperforming loans. The main bank may be reluctant to identify troubled borrower because this in turn may raise questions about its own monitoring abilities and because the main bank would be usually required to absorb the main bulk of the losses incurred by creditors. When the main bank itself comes under stress it may result in bank becoming a captives of its own borrowers. Finally, poor corporate governance of Japanese banks might have been one of the main factors behind the growing amount of non-performing loans. The weak corporate governance of Japanese banks originates from the fact that banks' major shareholders have little incentive to confront the management. Main groups of shareholders have been either dependent on management (banks' employees and banks' corporate borrowers) or had close relationship with management (other banks and insurance companies due to cross shareholding). Members of boards of directors are usually promoted from the ranks of employees at the end of their careers and resign after their terms expire in order to be replaced by junior employees. This, combined with weak internal and external audits, creates incentives for concealing problems rather than taking decisive steps during manager's tenure. During 5 years following the collapse of the bubble economy, Japanese banks chose not to make determined effort to solve mounting non-performing loans problem. Instead, they preferred to wait for stock and land prices to recover to the bubble economy level.

1.3 Banking Crisis

1.3.1 Instability Begins (early 1995 - Fall 1997)

The instability in Japanese banking industry came into public view in early 1995. Two insolvent credit cooperatives (Tokyo Kyowa and Anzen) collapsed at the end of 1994 and further two (Cosmo and Kizu) followed by August 1995. In August 1995 Hyogo Bank, one of regional banks, was ordered to suspend its operations. The closure of insolvent financial institutions marked the end of policy not allowing depository institutions to fail. Adding insult to injury, the loss concealing scandal forced Daiwa Bank to close its operations in the US later in the year. Those events coincided with the controversy surrounding the *Jusen* (the housing loan) companies.

The *Jusen* companies, established in 1970s by banks and other financial institutions for lending in home mortgage market, engaged in real estate lending in late 1980s and at the beginning of the 1990s. With funds from agricultural cooperatives the *Jusen* companies increased their lending to real estate businesses filling the gap left by commercial banks that had to follow restrictions on lending to real estate imposed by the MOF⁴. Already by early 1992 the *Jusen* companies lending quality raised serious concerns but it was only in 1995 when authorities decided to step in. By that time, three quarters of *Jusen* loans were already non-performing.

Soon the *Jusen* problem became a major political issue. It was the first time that the government attempted to use public funds for solving problems of weak financial institutions. For that reason, the discussion surrounding the *Jusen* companies set an important precedent in dealing with such problems. Facing a clear public dislike to the idea of using taxpayers' money for rescuing banks, the authorities reached a consensus that problems of financial institutions should be solved possibly without direct involvement of the government. In *Jusen* case, 55% (or 3.5 trillion yen) of their losses had to be covered by their founding banks, 27% (1.7 trillion yen) by the lending banks, 8% (530 billion yen) by the agricultural financial institutions, and the remaining 10% (680 billion yen) by the public funds⁵.

The collapse of insolvent financial institutions together with the *Jusen* confusion heavily damaged the image of Japanese banking industry. It was then that the "Japan Premium" (premium on lending to Japanese institutions) appeared for the first time on international financial markets and international rating agencies, already downgrading Japanese banks since 1989, radically reduced the credit ratings for 1996 (while there was no major Japanese bank with B ratings in 1995, a year later four of them were classified as BBB and only one reached AA rating). Despite of that, inaction and regulatory forbearance of financial authorities continued until 1997, substantially undermining the public confidence in country's banking industry.

1.3.2 Crisis (Fall 1997 - mid 1999)

The increase of consumption tax rate in April 1997 marked the beginning of another recession. The economic conditions deteriorated and by November 1997 Japanese financial industry faced several spectacular bankruptcies. On November 3, 1997, Sanyo Securities, a second tier security company defaulted on the interbank loan market. It was followed by the collapse of Yamaichi Securities, one of the country's big four securities companies, and by Hokkaido Takushoku Bank, one of the, then 12, city banks. Those events resulted in serious disruptions on the inter-bank market and sell-off of banks' shares on the Tokyo Stock Exchange. Unable to continue its non-interference policy, the government established, under newly enacted Financial Stabilisation Law, a 30 trillion yen fund for capital

injection into troubled banks. The Law was an important novelty in authorities' response to banking problems. Loosely modelled after the US Prompt Corrective Action regulations, the Law provided introduction of well-defined self-assessment procedures and their external audit for banks and, no less important, it clearly defined the capital threshold ratios for authorities to intervene in an individual bank's management affairs (restrictions on dividend payments, management bonuses, closure of branches, suspending operations etc.). It reduced the scope for regulatory inaction so often exercised before 1997.

In March 1998, four months after the crisis had begun, the newly created Financial Crisis Management Committee supervised capital injection of 1.8 trillion yen for 21 major banks in the form of subordinate debt. The injection of public funds was intended to help the banks to meet their capital requirements. In order to avoid drawing attention to weaker banks, all banks applied for the same amount (100 billion yen) of capital. Calm did not last however long. The collapse of the Long Term Credit Bank, the largest bank failure in post-war Japan, brought new waves of instability. In October 1998, the Financial Function Early Strengthening Law replaced the earlier Financial Stabilisation Law. The new Law was designed to help banks with insufficient capital. The Diet authorised the use of 25 trillion yen for this purpose. 15 major banks received 7.4 trillion yen already at the beginning of 1999. Contrary to the 1998 public fund injection, this time banks were required to submit rehabilitation plans and the amount of public capital varied between banks. The capital injection took form of preferred stock that could be converted into common stock and used for exerting pressure on bank's management if the implementation of a rehabilitation plan was not satisfactory. Of major banks, only the Bank of Tokyo Mitsubishi, the biggest and soundest of Japanese banks at that time, turned down the offer of public funds.

The second law introduced in October 1998, the Financial Reconstruction Law, was designed to deal with failed banks. Under this law, 17 trillion yen was set aside on special account to become a deposit guarantee for failed banks, and another 18 trillion was held for purchasing shares (nationalisation) of failed banks and for supporting the Resolution and Collection Corporation (RCC) to purchase non-performing loans. Finally, admitting that banks' supervision had not been sufficient, the Financial Supervisory Agency (FSA) was established and took over supervision of banks from the MOF^6 in June 1998.

Under the new legal framework, the Financial Reconstruction Committee decided to place under public administration (that means effective nationalisation) the Long-Term Credit Bank and the Nippon Credit Bank (late 1998), two banks that used to be indispensable participants of Japan's rapid economic growth in the early post-war period.

1.3.3 Merger Wave (1999-2003)

Capital injection under the Financial Function Early Strengthening Law required receiving banks to clean up their balance sheets of the non-performing loans and strengthen their capital positions. Restructuring and cost cutting was an obvious way to become profitable and be able to return public funds as soon as possible. This triggered a series of mergers. 23 large banks that existed in 1985 have been regrouped into four groups (Table 2)⁷. The number of regional banks also slowly decreased from 133 to 118 (mainly in the second half of 1990s).

The long awaited liberalisation of financial services (the Japanese "Big Bang" Plan) finally started being implemented. Under the new rules, the restrictions that once separated banking, securities, and insurance businesses have been lifted. In order to survive in a new environment, banks had to look for new partners.

Table 2: Consolidation of the Banking Industry

Date of Merger	Merging Parties	New Financial Group		
September 2000	Dai-Ichi Kangyo Bank, Fuji Bank, Industrial Bank of Japan	Mizuho Holdings		
April 2001	Sakura Bank, Sumitomo Bank	Sumitomo Mitsui Banking Corp. (SMBC)		
April 2001	Bank of Tokyo Mitsubishi, Mitsubishi Trust and Banking, Nippon Trust Bank, Tokyo Trust Bank	Mitsubishi Tokyo Financial Group, Inc.		
April 2001	Sanwa Bank, Tokai Bank, Toyo Trust and Banking	UFJ (United Financial of Japan) Group		
March 2003	Asahi Bank, Daiwa Bank	Resona Group		

1.4 What Caused the Crisis?

As the above story of unfolding banking crisis in Japan shows there is no single cause that triggered the meltdown of the industry. Instead it is possible to identify a set of factors that contributed to the worsening of the crisis. Undoubtedly, monetary policy mistakes by the BOJ in the second half of the 1980s generated asset inflation and provided excessive liquidity to the financial system that was unprepared for absorbing it⁸. It is also possible to argue, as Jinushi et al. (2000) do, that too tight monetary policy at the beginning of the 1990s further aggravated the crisis that was already well under way.

Second, the Japanese financial system was an instrument of industrial policy aimed at supporting reindustrialisation, supporting investment and exportled growth, protecting domestic businesses from international competition and providing liquidity at possibly low cost. The set of objectives produced a highly bank-dependent very rigid system full of administrative controls and guidance. The system fully met its objectives and served well during the period of high growth of Japanese economy in the 1960s. The authorities were very slow however to modify the system once it accomplished its mission (Cargill, 2000, Shimizu, 2000). Japan, Germany, and France are usually given as examples of bankoriented financial systems. But while the rate of bank deposits in Germany decreased from 67.9% in 1971 to 39.3% in 1999 as shown in Figure 2, the Japan's ratio of bank deposits to total financial assets remained almost unchanged (62.9% in 1998). As a result, at the time the asset inflated bubble economy arrived, Japan still relied on its highly bank-dependent but only partially liberalised and lacking transparency financial system. This leads to the third factor, extremely poor supervision and regulatory forbearance of Japanese financial authorities. There might have been various reasons of the authorities poor performance ranging from the lack of political leadership, to cosy relationship between regulators and regulated that originated from *amakudar*⁹, to simply poor quality of staff working on banking issues (see conclusions at the end of the paper), or to the fourth factor; the opposition from the taxpaying public to use public funds for dealing with ailing financial institutions (the opposition that became even firmer when series of scandals at the MOF and at the BOJ was revealed).

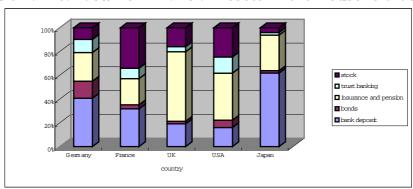


Figure 2: Breakdown of Financial Assets in the Household Sector

Source: Comparative Economic and Financial Statistics, BOJ

Perhaps each of the factors partially contributed to the depth and the length of the crisis. These factors can fully explain the unfolding of the banking crisis in Japan and there is no need for "revisionist" theories claiming that the Japanese bureaucrats intentionally planned and implemented the crisis as for instance Lee (1999) does.

2. The Condition of the Japanese Banking Industry

2.1 Increasing Non-performing Loans

Japanese banks accumulated loss of approximately 88.2 trillion yen due to disposing of non-performing loans. Despite of this enormous loss they still have more than 38 trillion yen of disclosed non-performing loans (Table 3). This amounts to more than 5% of their portfolio, yet there are some analysts who argue that the disclosed amount of non-performing loans is rather underestimated. For instance, Fukao (2002) points out that the rules of the *FSA Bank Examination Manual* contain too narrow definition of non-performing loans. Others, like Horie (2003), argue that there is a bias towards big companies in estimating their financial position and therefore also overestimation of the performance of funds loaned to these companies.

FY'92 FY'93 FY'94 FY'95 FY'96 FY'97 FY'98 FY'99 FY'00 FY'01 5232 13369 7763 13258 13631 Loss on disposal of bad loans Net transfer to loan-loss reserves Direct write-offs Incl. loss on bulk sales etc. Other Summing up from FY 1992 10744 24113 31877 45135 58766 65710 71818 81540 88198 Summing up of direct write-offs Risk management loans 12548 28504 21789 29758 29627 30366 32515 35231 Loan-loss reserves outstanding 5536 13293 12334 17815 14797 11555 13353

Table 3: Loss on Disposal of Bad Loans in *All Banks* (\ billion)

Source: the FSA

The prolonged recession is partially to blame for the increasing amount of non-performing loans since more and more firms face financial distress. Their loans increase the amount of non-performing loans. On the other hand banks tend to willingly underestimate their non-performing loans positions. Peculiarities of Japanese corporate governance mentioned in the preceding section aside, banks have been under heavy external and internal pressure. Within the keiretsu (industrial group) framework, which big Japanese firms still tend to prefer, classifying a certain loan as risky, puts not only a particular borrower but also a group as a whole in a difficult position. And bank, itself being a member of such a group can hardly afford to alienate its other members. Next, disposing of a bad loan and placing a borrower under bankruptcy means a reduction of tax income for local authorities. This, combined with the presence of "politically wellconnected firms", results in an external pressure on banks not to classify loans as non-performing. The internal pressure originates from the banks' management, which tends to avoid public fund injections associated with restructuring conditions (not least because it may reduce their own retirement bonuses).

Japanese banks maintain not sufficient loan-loss reserves. This happens due to the lenient reserving policy of the FSA (Fukao, 2002) and restrictive tax deduction guidelines on loan-loss specific provisions as well as unrealistically low limit on loan-loss general provisions (Kanaya and Woo, 2000). Comparing to the US banks, which maintain loan-loss reserve to bad loan ratio of more than 160%, Japanese banks' ratio has been in range of 40-60% since 1994.

2.2 Weak Capital Position

Under lenient supervision that has prevailed despite reorganisation, the BIS capital rules often have been manipulated. First, lower reserves for non-performing loans increase the banks' capital base. Second, banks are allowed to keep large amounts of deferred taxes as a part of their capital. However, in order to get the deferred taxes back, banks should be profitable. Since Japanese banks have been losing money during the post-bubble period, the deferred taxes should not appear in their capital base. It is said that a stricter application of this rule contributed to the failure of Resona Group in May 2003¹⁰. Finally, cross holding of shares between banks and insurance companies is shown as capital although the shares are nothing more than mutually held debt. Fukao (2002) made an estimation of the Japanese banks capital base with strict application of the BIS rules. According to his estimation, in 2001 four out of fifteen major banks had negative capital base, while the capital base at the remaining eleven banks was less than 2%.

Historically, Japanese banks faced no limits on the number of corporate share they could hold. Large share holdings are very sensitive to stock price fluctuations. The situation became very serious when the Nikkei 225 fell below 10,000 yen in 2002 and fluctuated in the range of 8,000 yen till summer 2003. Banks having difficulties with maintaining the BIS capital rules reduce their lending creating a credit crunch that results in financial distress for non-financial corporations, further reduces the value of shares held by banks and causes even more difficulties for banks themselves.

2.3 Low Profitability

The results released in March 2003 show that most of the banks have deficit¹¹. Most of Japanese banks have been unprofitable for the last ten years. They have been surviving mainly by realising capital gain from shares and real estate sales. There are a few reasons for the banks' current weak profitability. One

is that Japanese banks did not undertake serious restructuring until late 1990s. Not only the number of banks did not decreased significantly despite heavy overcapacity in banking industry (contrary to the USA where the number of banks decreased by 15%, Norway by 10%, and Sweden by 80% during first two years after the banking crises began), but the employment increased by 3% (the USA – 5%, Norway –25%, and Sweden –8%), and the personnel costs increased by more than 15% in the first half of 1990s (the USA and Norway –15%, Sweden –12%, Iwatsubo and Hino, 1998). The intensive cost reducing at the end of 1990s reduced the operating costs but the pace of improvement is certainly unsustainable because of long overdue investment in infrastructure, without which banks will further lose their market share to convenience stores and foreign financial institutions¹².

Second, deposit interest rate controls that existed until the early 1990s allowed banks to maintain relatively high lending margins. However after the controls had been lifted, the deteriorating market conditions prevented banks from significant increase of their lending rates. While real interest rates (lending rates adjusted for inflation rates) remain high for borrowers due to deflationary environment in Japanese economy, they have been hardly covering banks' operating costs.

Another reason for banks' poor profitability is the fact that they have to compete with government sponsored financial institutions. Those institutions hold almost 40% of a market. It is hard to compete with housing loan programmes that offer longer maturity and accept prepayment without penalties. In the deposit market, the postal savings system has more than 24,000 offices around the country (against 600 of the largest banking group Mizuho), does not charge account maintenance fees, and offers deposit interest rates similar to those of private financial institutions. Needless to say, the government sponsored financial institutions enjoy authorities' full guarantee.

Finally, technological change resulted in emergence of new types of banks. Those include, for instance, the IY Bank, which specializes in payment and settlement services for individual customers. Established in May 2001 by the largest Japanese supermarket chain Ito Yokado, the bank operates by using ATMs installed in the chain's convenience stores. Others, like Sony Bank, eBank or Japan Net Bank, established by trading companies, electronic makers, information services companies etc. offer bank services via the Internet or portable phone networks. This makes the traditional banks' competitive position even more dramatic. The environment of the Japanese financial market prevents banks from restoring their profitability.

2.4 Macroeconomic Effects of the Banking Crisis

Banking crisis is responsible for serious macroeconomic difficulties the Japanese economy has been facing. Struggling to improve their capital base and profitability, banks reduce their lending and contribute to further deterioration of economic conditions through a credit crunch. Instead of lending to private businesses, banks choose the purchase of government bonds and effectively prevent passing through the effects of the BOJ expansionary monetary policies (it is the government, not private businesses that end holding the increased money supply). Despite of growing deposits, banks' lending was declining on average 3.4% between June 2001 and June 2003. This makes a bulk of advice on the use of expansionary monetary policies or inflation targeting in Japan at least impractical (for instance Bernanke, 2003). Such policies cannot succeed without healthy banking industry, unless the BOJ directly lends to private businesses what is not a commonly accepted practice for a central bank.

Except for impairing the effectiveness of the BOJ monetary policies, the banking crisis has also other effects. First, the currency to bank deposit ratio has been growing steadily¹³ indicating lack of confidence in banking system. At the same time the share of postal deposits to total deposits almost doubled. Given poorer effectiveness of the investment of postal deposits (Iwatsubo and Hino, 1998, estimate that postal deposits are at least 20% less effective in generating growth) this may contribute substantially to the severity of the current recession. Second, banks' attitude impairs other policies aimed at revitalising businesses as for instance the Industrial Reconstruction Agency launched in May 2003 to buyback some of non-performing loans of small and medium enterprises in local economies.

On the other hand, Miyajima and Yafeh (2003) see some positive aspects of the banking crisis in Japan. They argue that credit crunch resulting from the crisis affects mainly small low profit companies in low-tech sectors with limited access to bond markets. On the contrary, companies with high R&D investment in high-technology sectors can easily find their way to direct financing. In this way the banking crisis contributes to the "natural selection" of firms and banks and therefore helps to transform the Japan's heavily bank oriented financial markets into a more direct financing system.

3. Solution to the Crisis

The solution to the crisis should include two groups of measures. One is strictly addressed to banks and should include tackling non-performing loans problem and improving bank supervision. The other should comprise of macroeconomic policy measures aiming at revitalising the Unfortunately, despite of highly publicised policy steps not very much has been changed in relations between banks and their regulators. Even now, under the FSA supervision banks are allowed for under-disclosure of the non-performing loans and poor profitability. Only in July 2003, the FSA issued the profitability warnings to several banks for the first time ever. The implicit policy of not interfering into the internal management of the banks that have received public funds adopted by the FSA results in management of the banks not being held responsible for their actions. Announcements of not interfering into the rehabilitation of de facto nationalised Resona Group seems to confirm this policy trend. But such attitude has been further undermining public confidence in financial sector and may result in even stronger opposition to using public funds in future. The government must stringently asses the real amount of nonperforming loans, make banks to put sufficient loan-loss reserves, make public funds injections without the banks' management consent, and under the conditions of effective nationalisation, rehabilitate them¹⁴. This is how Ryutaro Komiya once described the role of the main bank in the economy. Now the banks themselves need the same service.

But cleaning the banks sheets of non-performing loans alone is not sufficient. Decisive actions must be undertaken in order to restore a sound economic growth without which the banks cannot improve their profitability. The Japanese government tried to revitalise the economy through such policies as promoting information technology-led growth (called an "IT revolution"), liberalisation and opening of the Japanese economy (including the highly publicised "Japanese Big Bang"), stimulating stock market prices in order to support the value of banks' shareholdings, and massive public spending. All of them ultimately failed to live to the expectations because seemingly none of these

attempts was actually a consumer-oriented policy. Most of regulatory changes as well as fiscal stimuli are strictly business-oriented measures aimed at providing relief not even to the economy as a whole but to particular industries. Most of them do not improve an individual consumer's welfare. The same can be argued about the changes to the pension system, health insurance, social security, environment protection regulations and so on. In reality, the policy measures had rather adverse effects on consumer spending, while not providing enough relief to businesses.

Increased spending on public works projects failed to stimulate individual consumption because Japanese public is aware of negative fiscal effects of such projects and about their rather limited rationality. Numerous scandals of bid rigging, corruption among bureaucrats and politicians involved in public work projects, poor quality of construction work, and involvement of organised crime further undermine the confidence of Japanese public which seems to view those spending as a waste of public funds rather than genuine steps leading to an economic recovery. This, not less than deflation itself, discourages consumer spending. Anecdotal evidence says that, for the same reason as consumers, the companies participating in public works projects use leased machinery and equipment and hire poor quality part-time labour force instead of making capital investment and hiring full time employees as the primary objective of the public spending ought to be.

In order to restore public confidence, it is necessary to make substantial changes restoring rationality to the national pension system, health insurance, education and other areas of public spending. At the same time, in order to make a one-time boost to consumer spending, 0% consumption tax rate on certain goods (e.g. housing, vehicles, electric and electronic appliances and so on) for a limited period of time (for instance one year) could be introduced. Because the CPI deflation rate is still lower than the consumption tax rate, it could result in a substantial increase in consumer spending. On the contrary, the increase of consumption tax rate, as advocated by some of the business leaders, may rather result in 1997-like recession with similar results for the economy in general and banking system in particular. Given rapidly dissipating public confidence and much worse government's fiscal position, the recovery may be even more difficult than last time. However, reducing its transfers for thousands of government and semi-government agencies of questionable usefulness, that receive hefty subsidies, or at least do not pay taxes, the Japanese government has still enough room for a substantial fiscal improvement. Therefore the adverse fiscal effects of such a consumption tax reduction need not to be catastrophic.

No less important is resolving the problems arising from the presence of the government sponsored financial institutions. This especially applies to the postal saving services, which currently rule over more than 20% of total fundraising and is effectively crowding banks out from their primary deposit market. But privatisation of postal services, promoted as a trademark for structural reforms, is not likely to provide a sound solution to the problem. If simply privatised, as the current administration views it, the postal savings would become a near monopoly player on the country's deposit market, several times bigger than the biggest of banking groups. Additionally, transforming postal services into ordinary banking business would require finding solutions to its insufficient capital base (currently its own capital is less than one percent of its total assets, the remaining part would have to be provided by injection of public funds) and building its lending facilities from naught. As the experience teaches this is not a simple task. Needless to say, this would require a substantial fiscal effort while creating at the same time a lot of confusion on the financial markets.

Without addressing this issue, a fragile recovery in the banking industry may be seriously damaged.

4. Conclusion

Except for its extraordinary length, the banking crisis in Japan is very typical in all aspects. Therefore the lessons that can be drawn from its experience are also very typical, although quite often overlooked.

- 1/ Though it is often viewed as a crisis that triggered a change, in fact the banking crisis in Japan is the product of a change that resulted in a crisis. Poor coordination and sequencing of liberalisation allowed for "regulatory arbitrage" (unequal treatment of different institutions engaging in similar activities) while failure to address the overcapacity in the banking industry led to "survival myopia" (engaging in increasingly risky activities in order to survive on the market). Similarly, a specific Japanese corporate governance system (including the presence of a main bank, weak corporate management, low profitability etc.) that worked almost flawlessly in highly regulated environment of a post war growth era had to fail if confronted with new conditions of (partially) liberalised economy. The origins of this failure can be traced to the simplistic view of a market mechanism as a simple demand-supply game. On the contrary, viewing market as an internally coherent set of institutions that have to be created could result in much better prepared reforms.
- 2/ It is very difficult to perform economic policies in isolation. Although perhaps not directly responsible for the banking crisis in Japan, the Plaza Accord led to series of events that ultimately triggered the crisis and aggravated it depth. The ability to foresee what a particular policy may actually result in is a very important but often neglected element of policy making. Making short-term ad hoc international policy commitments without undertaking proper adjustment has continued also later as liberalisation of imports (often blamed for the ongoing consumer price deflation) within the WTO framework proves.
- 3/ Many policy mistakes made by authorities may be attributed to the specific character of policy making in Japan. The policy making process is under control of bureaucrats and therefore the quality of bureaucratic cadres is essential to its effectiveness. The central bureaucracy is largely comprised of graduates from undergraduate schools of law (it should be noted that in Japanese education system it means approximately two years of general education and two years of rather general studies of law). Bureaucracy is generally closed to economists (Heizo Takenaka's appointment as Minister for Finance and Economy is a very rare exception) and for that reason economics, finance and economic policy are self-taught subjects at the highest level of Japanese decision-making process (Cargill, 2000). Involving country's economists in decision-making process, as it happens in other countries, might have spared Japan some of its current problems.

NOTES

- 1 Posen (2002).
- 2 For instance Bayoumi (1998), Sekine (1999), Woo (1999) and others.
- 3 Japanese banks' obsession with their market share has been in a sense a remnant of the overly regulated financial system. Under the interest rate controls, the banks' lending spreads were more or less fixed and the size of their net income was determined by the sheer size of their outstanding loans (Kanaya and Woo, 2000).
- 4 The agricultural cooperatives were under the supervision of the Ministry of Agriculture and the limits on lending to real estate did not apply to them.
- 5 The largest creditor group of the *Jusen* companies, the agricultural cooperatives were charged with only minor part of the bail out costs due to the political pressure from the Ministry of Agriculture (Kanaya and Woo, 2000).
- 6 The FSA took over the supervision of banks, insurance and security companies, and non-bank financial institutions from the MOF, *Shinkin* credit associations from Regional Financial Bureaus and credit cooperatives from local governments. As one of the first changes, the FSA started investigating the non-performing loans on its own; until then banks calculated them themselves. In July 2000, the Financial Supervision Agency was renamed as the Financial Services Agency and from January 2001 took over the duties of the Financial Reconstruction Commission.
- 7 The fifth one, the Resona Group was launched in March 2003 only to file for protection two months later.
- 8 Much of the criticism directed at the BOJ policies during the bubble economy is based on our current knowledge of the events that took place later and our much-improved modern analytical tools. It is however very hard to estimate how aware of the problem were the officials at that time. The discussion on the responsibility for creating the asset bubble economy in Japan is far from being closed, just to mention recent papers such as Bank of Japan (2000), Kosai, Ito and Arioka (2000), Shiratsuka (2000), Bernanke and Gertler (2001), Okina and Shiratsuka (2001) and so on.
- 9 The practice, where top bureaucrats assume management posts in private businesses after retirement contributes greatly to the supervision failures (it happens that government controllers have to control their own mentors) and policy mistakes. Although the practice of *amakudari* seems to have subsided in recent years, still between 5.7% (regional banks) and 9.6% (second tier regional banks) of top management posts is occupied by former bureaucrats (Asahi Shinbun, September 13, 2003).
- 10 In March 2003 (end of fiscal year 2002), deferred taxes accounted for 60.8% of Mizuho Group own capital (in September the share decreased to 43.6%), for 58.7% (51.5% in September) in Mitsui Sumitomo, 41.6% (26.8% in September) in Mitsubishi Tokyo, 59.4% (51.6% in September) in UFJ, and 99.3% (12.6% in September) in Resona. The September low figures for Resona are due to public funds injection (Asahi Shinbun, Nov. 26, 2003).

- 11 Although the half-year results released in November 2003 show substantial improvement (except for Resona Group) there remain certain doubts about sustainability of the recovery in the banking industry (Asahi Shinbun, Nov. 26, 2003).
- 12 Because of outdated fund transfer system, unable to accept Chinese characters banks cannot compete with 24-hours bar code reading terminals at convenience store chains.
- 13 It has grown from 7.1% in the first quarter of 1993 to 9.1% in the first quarter of 2002 (Iwatsubo and Hino, 1998, Posen, 2002).
- 14 This is more or less exactly what happened in Korea after the 1997 crisis. See Nakai (2003) for comparison of Japanese and Korean approaches to banking crises.

REFERENCES

- Bank of Japan (2000): "A Symposium on the Monetary Policy During the Bubble Period", Institute for Monetary and Economic Studies (IMES) Discussion Paper (in Japanese).
- Bayoumi, Tamim (1998): "The Morning After: Explaining the Slowdown in Japanese Growth in the 1990s", IMF Working Paper.
- Bernanke, Ben (2003): "Some Thoughts on Monetary Policy in Japan", a speech delivered before the 60th Anniversary Meeting of the JSME, Tokyo, May 31, 2003.
- Bernanke, Ben, and Mark Gertler (2001): "Should Central Banks Respond to Movements in Asset Prices?" *American Economic Review*, 91 (2), pp. 253-257.
- Cargill, Thomas F. (2000): "What Caused Japan's Banking Crisis?" in Hoshi and Patrick (2000).
- Fujiwara, Kenya (1998): "The Fragility of Banking System Issues of Rehabilitation", in Ishigaki and Hino (1998).
- Fukao, Mitsuhiro (2002): "Barriers to Financial Restructuring: Japanese Banking and Life-Insurance Industries", paper presented at the Conference on "East Asian Monetary and Financial Co-operation; Concepts, Policy Prospects and the Role of the Yen", Hamburg Institute for International Economics, May 29, 2002.
- Horie, Yasuteru (2003): "Loan Classification and the Scale of Non-Performing Loans", paper presented at the annual conference of the JSME, Tokyo May 31, 2003 (in Japanese).
- Hoshi, Takeo and Hugh Patrick (eds.) (2000): *Crisis and Change in the Japanese Financial System,* Kluwer Academic Publishers.
- Ishigaki, Ken-ichi and Hiroyuki Hino (eds.) (1998): "Restoring Sound Banking System in Japan", Kobe University Research Institute for Economics and Business Administration (in Japanese).
- Iwatsubo, Kamon and Hiroyuki Hino (1998): "Banking Crisis and Macroeconomy", in Ishigaki and Hino (1998).

- Jinushi, Toshiki, Yoshihiro Kuroki, and Ryuzo Miyao (2000): "Monetary Policy in Japan Since the Late 1980s: Delayed Policy Actions and Some Explanations", in: Mikitani and Posen (2000).
- Kanaya, Akihiro and David Woo (2000): "The Japanese Banking Crisis of the 1990s: Sources and Lessons", IMF Working Paper.
- Kosai, Yutaka, Osamu Ito, and Ritsuko Arioka (2000): "Reconsidering the Monetary Policy During the Bubble Period", IMES Discussion Paper (in Japanese).
- Lee, Jongsoo (1999): "The 'crisis' of non-performing loans", in Tsutsui (1999).
- Mayes, David, Liisa Halme and Aarno Liuksila (2001): *Improving Banking Supervision*, Palgrave.
- Mikitani, Ryoichi and Adam S. Posen (2000): *Japan's Financial Crisis and its Parallels to US Experience*", Institute for International Economics, Washington, DC.
- Miyajima, Hideaki and Yishay Yafeh (2003): "Japan's Banking Crisis: Who has the Most to Lose?" Waseda University Financial Paper no. 03/02.
- Nakai, Hiroyuki (2003): "Dealing with Bad Loans in Japan: A Comparative Assessment", paper presented at the annual conference of the JSME, Tokyo May 31, 2003 (in Japanese).
- Okina, Kunio and Shigenori Shiratsuka (2001): "Asset Price Bubbles, Price Stability, and Monetary Policy; Japan's Experience", IMES Discussion Paper.
- Posen, Adam (2002): "The Looming Japanese Crisis", *International Economics Policy Brief* 02-5, Institute for International Economics.
- Sekine, Toshitaka (1999): "Firm Investment and Balance Sheet Problems in Japan", IMF Working Paper.
- Shimizu, Yoshinori (1999): "Problems in the Japanese Financial System in the Early 1990s", in William M. Tsutsui (1999).
- Shimizu, Yoshinori (2000): "Convoy Regulation, Bank Management, and the Financial Crisis in Japan", in: Mikitani and Posen (2000).
- Shiratsuka, Shigenori (2000): "Asset Prices, Financial Stability, and Monetary Policy: Based on Japan's Experience of the Asset Price Bubble", IMES Discussion Paper.
- Tsutsui, William M. (ed.) (1999): Banking in Japan, Routledge, London.
- Taniguchi, Tomohiko (1999): "Japan's Banks and the "Bubble Economy" of the late 1980s", in William M. Tsutsui (1999).
- Woo, David (1999): In Search of Credit Crunch: Supply Factors Behind the Slowdown in Japan", IMF Working Paper.