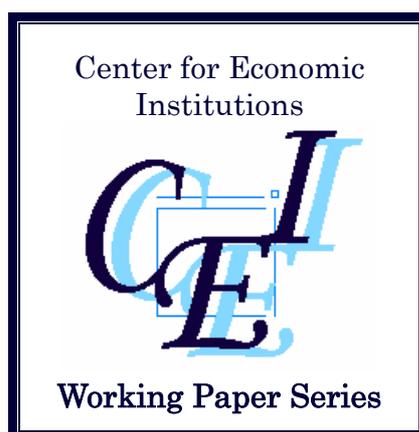


***Center for Economic Institutions***  
***Working Paper Series***

**CEI Working Paper Series, No. 2003-25**

***The New Basel Capital Accord and Its Impact  
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# **The New Basel Capital Accord and Its Impact on Japanese Banking: A Qualitative Analysis**

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**First preliminary draft**

**November 2003, Tokyo/Frankfurt am Main**

**(The views expressed in this paper do not reflect in any way the official views of the European Central Bank)**

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## **1. Introduction**

The development and introduction of the New Basel Capital Accord (Basel II) has instigated intensive and heated debates in many countries and industries. Some fear that the Accord will be counterproductive, others and by far the majority believe that it will establish safer and healthier banking systems in the medium and long run. Discussions have also concentrated on the question which banks will be among the winners and which among the losers. Risk magazine concluded that the Swiss and UK banks were set to win, but the Japanese to lose under Basel II [Risk (2002a)]. One does not need much imagination to conclude that over the past 10 years or so, Japanese banks could not be typified as being in a winning position. Saddled with bad loans and eroded capital positions, they had to retreat from international markets and put all their efforts into the resolution of their problems. Taking this into account, some argue that Basel II is not of direct relevance for Japanese banks yet, and that banks in Japan have other things to worry about right now than the New Capital Accord. Or, as it has been put more aptly, it is simply “a question of priorities” [Risk (2002b)].

Although this certainly may be correct, at least to some extent, Japanese banks know that they will be confronted with a new capital regulatory framework in the foreseeable future. Therefore, they need to prepare and one can simply not believe that Basel II considerations do not play some role in Japanese banks' strategic considerations and operational practices. Thus, this chapter investigates the possible implications for Japanese banks of the development and implementation of the New Basel Capital Accord. To this purpose, we have followed a qualitative research strategy consisting of the following elements. First, a detailed analysis of the relevant academic literature was conducted. Second, this was augmented by a structural investigation of relevant publications by the financial industry. This includes the work of the Basel Committee itself and the various consultation rounds related to that work, and various reports filed by major commercial and investment banks, rating organizations and international and national policymaking bodies. It also includes investigations of industry-specific publications such as Risk magazine. Third, a day-by-day search of major related daily news publications was conducted, in order to identify specific trends that could provide information regarding the short-term (tactical) and long-term (strategic) implications of Basel II for Japanese banking. This approach is based on the well-known trend-analysis developed by John Naisbitt [see Naisbitt (1984)]. The publications that were investigated were in particular the main Japanese financial daily (Nihon Keizai Shimbun, NKS) through the Nikkei Net System (NNS) and the Financial Times (FT). Fourth, to fill existing information gaps, we conducted interviews with key-individuals active in the Japanese financial system. In total 21 interviews were conducted with representatives from Japanese commercial banks, Japanese and international rating agencies, policy-makers and banking analysts from major investment banks. All in all, given the inherent uncertainty related to Basel II, i.e. the Accord is not in a steady state yet, we felt that

this was the most fruitful approach to follow.

The structure of this chapter is as follows. First, a general overview of certain specific elements of Basel II is presented. Second, the characteristics of the Japanese banking system and its main problems are discussed for the major banks in particular. Third, the impact of the Original (1988) Capital Accord on Japanese banking is investigated. Fourth, the formal reactions of Japanese banks published on the Basel Committee's website are analyzed. Then, the tactical and strategic implications of Basel II for the Japanese banking industry are discussed, merging all the information obtained. Finally, some conclusions are presented.

## **2. The main characteristics of the New Basel Capital Accord**

The New Basel Capital Accord basically addresses only the denominator, i.e. risk-weighted assets, of the capital adequacy ratios that were the cornerstone of the first Basel Accord of 1988, and leaves fundamentally the numerator, that is bank capital, alone. In its essence, the New Accord consists of three mutually reinforcing pillars affording better protection to the stability of the national and international banking systems, and can be summarized as follows [see for example: Basel Committee on Banking Supervision (1999), (2001a), (2001b) and (2003a); Claessens and Embrechts (2002); Credit (2001); Deutsche Bundesbank (2001); ECB (2001b); Kupiec (2001a) and (2001b); Jackson (2001); JP Morgan Securities (2001); Risk (2001a); Bank of Japan (2003h); EDS (2003); McDonough (2003); Morgan Stanley (2003a) and (2003b)]. Pillar 1 sets out the minimum capital requirements. Compliance with these requirements is measured by using the "capital ratio", which must be no lower than 8%. Pillar 2 concerns the so-called Supervisory Review process. This clarifies the need for qualitative banking supervision and is designed to capture external factors, such as the influence of the business cycle, as well as risk areas which have not been taken into consideration when calculating the minimum capital requirements. The provisions on minimum capital requirements – pillar 1 – and the supervisory review process – pillar 2 – are joined by transparency requirements which form the third pillar of the New Accord. These are designed to allow for a complementary use of market mechanisms for regulatory objectives. This concept is based on the expectation that well-informed market players will reward credit institutions characterized by effective risk-management of their investment and credit decisions on the one hand and penalize riskier behavior on the other hand. This provides credit institutions with additional incentives to control and manage efficiently their risks.

The New Capital Accord allows financial institutions to estimate the probability of default (PD) associated with each borrower according to its business conditions and hold capital based on such estimates [Basel Committee on Banking Supervision (2001a)]. In the Accord a mechanism is introduced that acknowledges any deterioration in the value of financial institution's loan assets at an early stage and

sets requirements for banks to promptly increase their capital relative to the risks associated with a loan project and any other change in the degree of risk. This mechanism, which is called the internal ratings-based approach (IRB), produces a statistical measurement of both the unexpected losses and the expected losses that banks face in relation to their credit risk exposures. Consequently, the measurement of the amount of risk-weighted assets would be based solely on the unexpected loss portion of the IRB calculations. Then banks will compare the IRB measurement of expected losses with the total amount of provisions that they have made. For any bank, this comparison will produce a “shortfall” if the expected loss amount exceeds the total amount of provisions, or an “excess” if the total amount of provisions exceeds the expected loss amount. The shortfall amount will be deducted from Tier 1 capital by 50% and by the same amount from Tier 2 capital [Risk (2003c)].

The proposed New Capital Accord gives banks three options for assessing credit risk. First, the standardized approach, tailored for smaller, less sophisticated banks, uses ratings provided by agencies to determine capital requirements. Companies rated BBB or BB would have a risk weighting of 100%, requiring a capital charge of 8%, while a company rated AA would have a risk weighting of 20%, requiring a capital charge of just 1.6%. Second, under the foundation IRB method, banks estimate the probability of default (PD) for their borrowers and then use figures provided by prudential supervisors for loss given default (LGD), exposure at default (EAD) and maturity (M) to calculate capital requirements. Third, under the advanced IRB approach, banks use their own estimates for all the above mentioned variables. To qualify for the advanced approach, banks need to collect several years of data on the performance of their borrowers to demonstrate to supervisors the soundness and reliability of their rating systems [Institutional Investor (2003)].

Another major innovation in the New Capital Accord is the explicit inclusion of operational risk, which is defined as “... the risk of losses resulting from inadequate or failed internal processes, people or systems, or external events” [Basel Committee on Banking Supervision (2003a)]. The Accord gives banks three alternatives for operational risk. The basic indicator and standardized approaches link the operational risk charge to a bank’s gross income. The advanced measurement approach allows banks to determine their own operational risk charge if they can meet strict requirements that include having well-tested risk control systems and detailed historical data.<sup>4</sup>

An important impact of the New Capital Accord’s capital regulation is the effect on financial procyclicality [see for example ECB (2001b)]. The minimum capital requirement may become binding in a downturn if banks’ capital ratios fall close to the 8% level. The capital shortage may induce banks to reduce lending beyond what would be warranted on the basis of the reduced demand for loans in an economic downturn. The quantitative impact on the actual regulatory capital requirements would depend

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<sup>4</sup> For interesting views on how to implement capital requirements in relation to operational risk see Mori et. al. (2000a) and (2000b), and Mori and Harada (2000) and (2001). See also Risk (2003b).

on the portfolio composition of individual banks. The increase in the minimum required amount of capital under the IRB approach might be substantial in a deteriorating economic environment, on account of the element of volatility of the probability of default measures. Hence, banks could face increasing capital needs in periods when capital is most costly and could choose to reduce assets instead, which might make the downturn more pronounced.

Another important characteristic of the New Basel Capital Accord is that it tries to block the practice of regulatory arbitrage, that is it tries to block effectively that banks take greater economic risks by diversifying into more risky assets and activities which do not lead to higher capital requirements, which was possible to a considerable extent under Basel I. Regarding the latter, Rodriguez (2002) argued that the “existence of risk categories that create a divergence between economic risks and measures of regulatory capital has led to widespread regulatory capital arbitrage”.<sup>5</sup>

With respect to bank capital, i.e. the numerator of the capital adequacy ratio which as mentioned before remains basically untouched, Basel II follows Basel I and provides a common international definition of bank capital that divides capital into two tiers. Tier 1 capital is common to all of the signatory countries, thus making it useful for cross-country comparisons. It consists of common stockholder equity and disclosed reserves (except for some forms of preferred stock that US bank holding companies take into account). Tier 2 capital, which consists of leeway elements that at least one of the signatory countries considered to be bank capital, can include any combination of the eligible capital elements permitted by the national regulators. Tier 3 capital is short term subordinated debt (maturity between 2 and 5 years) that can be used to support a bank’s capital requirements arising from market risks on trading book activities [see for example JP Morgan Securities (2002)]. The amendment to the Capital Accord to incorporate market risks in January 1996 was designed to capture the various market risks borne by financial institutions and introduced capital charges for them [BIS (1996)]. The amendment permits a bank to divide its business between its term lending and deposit-taking activities, known as the “banking book”, and its trading activities, known as the “trading book”. Tier 3 capital may not be set against credit risk, only against market risk capital requirements.

In October 2002, the Basel committee initiated a study involving 365 banks across 43 countries, including 66 Japanese banks, to gauge the impact of Pillar 1. The results were released in May 2003 in the Quantitative Impact Study No.3 (QIS 3) and are broadly in line with the objectives of the Accord [Basel Committee on Banking Supervision (2003b)]. The minimum capital requirements would be broadly unchanged for large internationally banks taking into account the fact that they are more likely to use the IRB approaches. For smaller, more domestically oriented G10 and EU banks, capital requirements could be substantially lower under the two IRB approaches, largely reflecting the importance of retail business for these banks. Thus banks oriented on retail business will see their credit risk weights fall significantly.

For instance, under the standardized approach, risk weights on residential mortgage portfolios fall from 50% to 35% and on retail and SME (small- and medium-sized enterprises) lending from 100% to 75%. Also weights will differ according to the size of the borrowers, with larger risk-weights for large corporate borrowers. The discussion of the treatment of small- and medium-sized enterprises (SMEs) under the new Accord has been extremely difficult. The Basel Committee decided in July 2002 to differentiate between risk weights applied to loans to SMEs and loans to larger firms [see Rodriguez (2002), p.24]. Another aspect of the proposed weighting scheme is that risk-weights will be lower for non-performing loans which are covered by adequate provisions, i.e. generating an incentive for banks to develop and maintain adequate provisioning levels.

After the completion of the consultations on the Third Consultative Paper (CP3), which was published in April 2003, and in interaction with the results of QIS 3, the Basel Committee aims to resolve the outstanding issues by no later than mid-year 2004 with the view of full implementation of the rules by the end of 2006 [Basel Committee on Banking Supervision (2003d)]. The areas where more work will be done are the following. First, changing the treatment of expected versus unexpected credit losses. Second, simplifying the treatment of asset securitization, including eliminating the so-called “Supervisory Formula”.<sup>6</sup> Third, reviewing of how to handle loans related to credit card business. Fourth, reviewing certain credit risk mitigation techniques. Given the inherent uncertainty at this stage, it is clear that this chapter cannot present a final assessment of these areas. According to the Federal Reserve Board (2003) implementation of the rules will happen differently for each bank as it is more important to “do it right” rather than “doing it quickly”.

Not surprisingly, similar to the experience with the 1988 Basel Accord, the New Basel Capital Accord has been increasingly the topic of research by major banks, supervisory and monetary authorities, and academics.<sup>7</sup> A full overview of this work is beyond the scope of this chapter but in the context of the research objective pursued, the following can be mentioned.<sup>8</sup>

First, a significant number of studies focus on the pro-cyclicality of Basel II. Reisen (2001) argued that speculative-grade borrowers will suffer from a dramatic rise in debt costs and heightened cyclicality of global bank credit as a result of Basel II, if the internal rating approach is implemented. On the same issue of the importance of cyclicality is ECB (2001b), where again it is argued that banks estimates of probabilities of default would likely vary over time and depend on economic cycles, and that

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<sup>5</sup> See also D. Jones (2000).

<sup>6</sup> A supervisory formula has been developed for treating retained or purchased exposures in traditional and synthetic securitizations where an external or qualified inferred rating is not available. The applicability of the supervisory formula approach will depend primarily on the requirements for calculating the IRB capital charge for the underlying asset type [Basel Banking Supervision Committee (2001c)].

<sup>7</sup> For academic research regarding the general role of capital and risk-based capital requirements, and impact of these requirements on banks see for example: Lackman (1986); Wall and Peterson (1987); Cooper et. al. (1991); Shrieves and Dahl (1992); Berger et. al. (1995); Wagster (1996); Ieda and Ohba (1999); Hellmann et. al. (2000); Hammes and Shapiro (2001); Barrios and Blanco (2003); Gup (2003); Ishikawa et. al. (2003).

the New Accord probably could increase pro-cyclicality [see also Danielson et. al. (2001)]. A comparison of pro-cyclicality effects of both Basel I and Basel II is made in Heid (2003) where it is argued that the feared increase in volatility of actual capital and output did not materialize under Basel I but most likely will occur under Basel II. Corcóstegui et. al. (2003) investigated internal rating systems and proposed solutions for the pro-cyclical bias in the New Accord. Altman and Saunders (2001) argued that the agency ratings could produce cyclically lagging rather leading capital requirements, resulting to instability in the banking system. Second, regarding other aspects of Basel II, Mori and Harada (2001) described a methodology that quantifies risk mitigation effects by insurance in Pillar 1 capital charges. The authors recognized that developing a rigorous methodology to incorporate insurance effects is critical for the purpose of making the regulatory framework risk sensitive.

To conclude, the banks that most likely will be the winners under Basel II (i.e. banks that will see their risk-weighted assets decrease and thus experience an improvement in capital adequacy ratios) will be banks which have substantial retail operations, with high shares of their total lending consisting of consumer loans, residential mortgages and loans to small- and medium-sized enterprises (SME's), banks which have adequate provisioning schemes for non-performing loans, and banks which have the resources to develop the (costly) internal rating systems (i.e. most likely the largest banks), as the IRB approach will lower capital charges compared with the standardized approach [See also Morgan Stanley (2003b)].

### **3. The Japanese banking sector**

#### **3.1 Overview**

The Japanese banking industry has been extensively discussed in a large number of studies [for some recent examples see: Hayami (2002a); Van Rixtel (2002); Basel Committee (2003c); Calomiris and Mason (2003); Credit Suisse First Boston (2003d); Hanazaki et. al. (2003); Van Rixtel et. al. (2003)]. In the context of this contribution, only its main characteristics will be described in order to assess the possible impact of the New Basel Capital Accord on the Japanese banking sector.

The structure of the Japanese banking system is characterized, firstly, by the presence of a very small number of very large banking groups and a very large number of very small institutions, and secondly by a sharp decline of the total number of institutions over the past years. The increased concentration in the Japanese banking sector, which is shown in Table 1, has affected in particular the city and Second Tier regional banks among the major banks, and smaller financial institutions such as *shinkin* banks, and credit, agriculture and forestry co-operatives. These institutions perform the following functions. The major banks in Japan are the commercial or ordinary banks, whose activities are set by the Banking Law. These

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<sup>8</sup> Where possible, studies focusing on Japan or conducted by Japanese authors will be presented.

banks consist of the city banks, regional banks, Second Tier regional banks and foreign banks. The city banks are the largest of all commercial banks; their funding consists basically of deposits, direct credit from the BoJ and borrowings from the inter-bank markets. The regional banks have their headquarters predominantly throughout the country in smaller cities, and mostly operate in local areas. The member banks of the Second Association of Regional Banks, or the Second Tier regional banks, are former *sogo* or mutual savings banks, all of which were changed in commercial banks in February 1989. Within the group of the so-called long-term financial institutions, the long-term credit banks or LTCBs have been the most important banks, of which originally three existed (only two left as of end-March 2003). The trust banks are also long-term financial institutions, and were, unlike the LTCBs, permitted to conduct both ordinary banking and trust business. In addition, financial institutions for small businesses exist which comprise of three groups, i.e. credit associations or *shinkin* banks, credit co-operatives and the Central Co-operative Bank for Commerce and Industry (*Shoko Chukin* Bank). Finally, the financial institutions for agriculture, forestry and fishery provide financial services to their respective members on a mutual base. The *Norinchukin* Bank acts as the umbrella organization for these institutions.

The city banks, one long-term credit bank, most of the trust banks and some regional banks and smaller financial institutions have organized themselves through an intensive merger process in seven bank conglomerates, of which the top four in particular dominate the Japanese market.<sup>9</sup> The most significant merger was the one between Fuji Bank, the Industrial Bank of Japan and Dai-Ichi Kangyo Bank in September 2000, to form a mega bank group called Mizuho Financial Group. This was followed by three other mega mergers involving its main competitors in April 2001. Bank of Tokyo-Mitsubishi, Mitsubishi Trust and Nippon Trust merged to form the Mitsubishi-Tokyo Financial Group. The second merger was between Sakura Bank and Sumitomo Bank which established the Sumitomo Mitsui Banking Corporation (SMBC). The third merger involved Sanwa Bank, Tokai Bank and Toyo Trust to set up the United Financial of Japan (UFJ) group. The most recent consolidation was in December 2001 when Daiwa Bank, Kinki Osaka Bank and Nara Bank merged. In March 2002, Asahi Bank joined them to form another financial group that was tentatively named Resona Holdings in October 2002; its main institution, Resona Bank, was rescued by the government in May 2003 (see section 3.2). Table 2 shows that, as of end-March 2003, the Mizuho Financial Group was the largest banking conglomerate in Japan with (consolidated) total assets of about Yen 131 trillion, deposits of Yen 67 trillion and loans of around Yen 70 trillion. The second largest group was Sumitomo Mitsui Financial Group with total assets amounting to Yen 101.5 trillion, followed by Mitsubishi Tokyo Financial Group, UFJ Group and Resona Holdings. The strategies of these groups can be summarized as follows. Mizuho has been focusing on integrating more closely its three main predecessor banks (Dai-ichi Kangyo Bank, Fuji Bank and Industrial Bank of

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<sup>9</sup> In official publications, the major banks are often interpreted as the following 11 large banks: Mizuho Bank, Mizuho Corporate, Mizuho Trust, Tokyo-Mitsubishi Bank, Mitsubishi Trust and Banking Co., UFJ Bank, UFJ Trust Bank, Sumitomo Mitsui

Japan).<sup>10</sup> Mitsubishi Tokyo Financial Group and UFJ Group have been paying more attention to their retail business, with the latter having established 24-hour access to ATMs. Finally, Sumitomo Mitsui has the largest non-performing loan portfolio and consequently has been known to give high priority to solve that problem in particular [Megabanks Series NNS, September 2003].

**Table 1 Financial institutions in Japan in 1991 and 2002**

Category	1991			2002			2003
	Number	Share in total deposits (%)	Total assets (in Yen trillion)	Number	Share in total deposits (%)	Total assets (in Yen trillion)	Number
City banks	12	31.1	376.6	7	23.9	363.1	7
Long-term credit banks	3	1.4	76.6	3 <sup>1</sup>	1.0	53.1	2
Trust banks	7	2.8	59.3	8	3.4	64.5	27 <sup>4</sup>
Regional banks	64	19.5	187.9	64	18.8	205.7	64
Second Tier regional banks	68	7.1	68.8	53	5.8	61.9	51
<i>Shinkin</i> banks	451	10.3	96.0	349	10.7	112.1	326
Credit co-operatives	407	2.8	24.1	247	1.6	18.3	191
Labour co-operatives/banks	47	0.9	7.5	39	1.3	13.4	21
Agricultural co-operatives	3,600	7.0	58.4	1,264	7.6	75.2	944
Securities companies	272 <sup>3</sup>		27.0	290 <sup>3</sup>		19.4	280
Life insurance companies	26		130.3	42		184.4	42
Non-life insurance companies	24		26.2	35 <sup>2</sup>		33.5	24
Postal life and annuity			51.8	24,778 <sup>2</sup>		124.8	
Postal savings		17.1		24,778 <sup>2</sup>	25.9		
Government institutions	11		92.9	11		159.4	9

Sources: Van Rixtel et. al. (2003), except last column which is from Japanese Bankers Association (2003b).

Note: Figures are as of the end of 1991, March 2002 and March 2003 (the end of the fiscal year).

1. Long-term credit banks include the Industrial Bank of Japan, Shinsei Bank and Aozora Bank.

2. The number is as of March 2001.

3. These figures include 52 and 49 foreign securities companies as of March 1991 and March 2002 respectively.

4. Of which 8 are full member of the Japanese Bankers Association.

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Banking Corporation, Resona Bank, Chuo Mitsui Trust and Banking, and Sumitomo Trust & Banking Co.

<sup>10</sup> Kashyap (2002) describes some integration problems such as the failure of Mizuho's computer systems on the first day of its operation.

**Table 2 Japanese financial groups in 2003 (on basis of consolidated accounts; end-March 2003)**

(in trillion of yen)

Group name	Established	Major financial institutions in group	Total assets (% change last year) <sup>7</sup>	Loans (% change last year) <sup>7</sup>	Securities (investment) (% change last year) <sup>7</sup>	Deposits (% change last year) <sup>7</sup>	Equity (% change last year) <sup>7</sup>
Mizuho Financial Group <sup>1</sup>	September 29, 2000	Mizuho Bank, Ltd., Mizuho Corporate Bank, Ltd., Mizuho Securities, Mizuho Trust & Banking Co.	130.9 (-11%)	69.9 (-18%)	24.1 (-1%)	67.3 (-14%)	3.9 (-32%)
Sumitomo Mitsui Financial Group <sup>2</sup> [SMFG]	December 2, 2002	Sumitomo Mitsui Banking Corporation	101.5 (-3%)	61.1 (-4%)	24.1 (+17%)	62.9 (-3%)	3.4 (-12%)
Mitsubishi Tokyo Financial Group <sup>3</sup> [MTFG]	April 2, 2001	The Bank of Tokyo – Mitsubishi Ltd., Mitsubishi Trust and Banking Corporation	95.6 (0%)	47.8 (-5%)	24.6 (+4%)	65.0 (+3%)	3.3 (-6%)
UFJ Group <sup>4</sup>	April 2, 2001	UFJ Bank, UFJ Trust Bank, UFJ Tsubasa Securities	78.1 (0%)	45.2 (-5%)	18.1 (+16%)	53.3 (-1%)	2.7 (-18%)
Resona Holdings <sup>5</sup>	December 12, 2001	Resona Bank, Resona Trust & Banking Co., Saitama Resona Bank, Kinki Osaka Bank, Nara Bank	41.0 (-6%)	29.5 (+8%)	6.6 (+7%)	35.5 (+3%)	0.6 (-56%)
Mitsui Trust Holdings <sup>6</sup>	February 1, 2002	The Chuo Mitsui Trust and Banking Company, Ltd.	14.9 (-6%)	9.7 (-2%)	3.4 (-9%)	12.7 (-1%)	0.3 (-38%)
Sumitomo Trust & Banking Co., Ltd.	1925	Sumitomo Trust & Banking Co., Ltd.	17.3 (-7%)	10.7 (-1%)	3.7 (-30%)	11.8 (-4%)	0.7 (-4%)

1. Established by the merger between Dai-Ichi Kangyo Bank, Fuji Bank and Industrial Bank of Japan. The name of the financial holding company is Mizuho Holdings Inc.
2. Established by the merger between Sumitomo Bank and Sakura Bank.
3. Established by the merger between Bank of Tokyo, Mitsubishi Bank, Mitsubishi Trust & Banking and Nippon Trust & Banking.
4. Established by the merger between Sanwa Bank, Tokai Bank and Toyo Trust & Banking.
5. Established by the merger between Daiwa Bank and Asahi Bank.
6. Established by the merger between Chuo Trust & Banking and Mitsui Trust & Banking
7. Numbers in brackets are the percentage changes from the figures as of end-March 2002.

Source: Fitch Ratings (2003), Van Rixtel et. al. (2003) and own calculations.

### **3.2 Current situation in the Japanese banking sector**

The most dominant problems in the Japanese banking sector are the continuing heavy burden of non-performing loans, other asset problems and low capital adequacy ratios. These problems have been ongoing since the burst of the “Bubble” economy in the early nineties and, although a careful recovery may be observed recently, convinced the IMF to conclude in its Financial System Stability Assessment published in September 2003 that “... the financial system remains fragile, and that a more comprehensive and accelerated approach is required to restore the health of the financial system” [IMF (2003), p.1]. It is clear that the actions of Japanese banks in the context of these problems are strongly intertwined with their reaction to the development and implementation of the New Basel Capital Accord, and therefore attention to the specifics of the current problems in the Japanese banking industry will be paid here [see also: Nakaso (2001); Oyama and Shiratori (2001); Spiegel (2002); Bank of Japan (2003d) and (2003f); Fitch Ratings (2003); Goldman Sachs (2003b); Hanazaki and Horiuchi (2003); IMF (2003); ING Financial Markets (2003); JP Morgan Securities (2003b), (2003c) and (2003d); Nikko CitiGroup (2003b)]. Because of limitations of space, in many instances we will refer largely to the relevant literature regarding the banking problems in Japan. This is also done against the background of providing additional information on the impaired banking system in Japan, which in our view is important to be able to assess fully the possible impact of Basel II on Japanese banking.

The problems in the Japanese banking sector become very clear when looking at the yearly growth rates of various balance sheet items of the seven large financial groups presented in Table 2. Basically all financial groups saw their total assets and loans fall from end-March 2000 to end-March 2003, and in particular their capital base (in terms of equity) was eroded significantly. In addition, five out of seven groups experienced a decrease in the total amount of deposits. Regarding securities’ holdings, as registered on their investment accounts, the picture is somewhat mixed, reflecting more bank-specific conditions and policies, as certain banks increased their positions (i.e. Sumitomo Mitsui, Mitsubishi Tokyo, UFJ and Resona), whereas the remaining banks, in particular Sumitomo Trust & Banking Co., decreased their securities investments. Another indicator for the soundness of a bank is its rating of financial strength such as published by various rating agencies. Such ratings published by Moody’s have been in the case of Japanese banks between D – and E+, whereas for the banking systems of the G-7 countries the average ratings have been between A – and C+ [source: IMF (2003), p.14].

#### **3.2.1 Problem of non-performing loans**

As is shown in Table 3, the absolute amount of non-performing loans for all banks as published by the Financial Services Agency (FSA) has been reduced significantly from Yen 43.2 trillion as of end-March 2002 to Yen 35.3 trillion as of end-March 2003, a remarkable decline of almost 19% in one year. However, this figure is almost the same as the 2001 figure, thus indicating that basically the net increase or flow in bad

loans that developed between March 2001 and 2002 has been eliminated, but that the high stock or level of bad loans reported two years ago still needs to be addressed.<sup>11</sup> Given this situation, Japanese banks will have to continue to take significant loan losses and make adequate provisions. Furthermore, Table 3 shows that the reduction in non-performing loans was heavily concentrated at the group of the major banks, and that bad loan disposal at regional banks basically did not reduce the stock of bad loans over the past three years. In addition, it should be kept in mind that the bad loan figures published by the FSA are not consolidated, and thus do not include non-performing loans on the books of banks' affiliated institutions such as credit recovery companies. The number of these companies increased from 6 at end-2000 to 13 at end-2002, and the amount of related bad loans at these firms increased in parallel from Yen 1.5 trillion to Yen 10.3 trillion [Fukao (2003), p.88]. On the other hand, some positive signals have been observed, for example by the Bank of Japan. The Bank noted in its report on the results of Japanese banks for Fiscal Year 2002, which was released in August 2003, that "... the level of non-performing loans removed by major banks was historically high, and the pace of removal was faster than that set by the government" [Bank of Japan (2003d), p.24]. Moreover, in October 2003 is observed regarding Japanese banks that "... their lending attitudes seem to be becoming slightly more accommodative in areas such as terms and conditions for loans" and "... the lending attitudes of financial institutions as perceived by firms in general are improving somewhat, although those perceived by small firms remain severe" [Bank of Japan (2003f), p.16]. More optimistic views (and effectively somewhat downplaying the concerns raised by the IMF and certain academic circles in particular) are to find among private sector banking and financial analysts in Tokyo, most of whom have revised their expectations upwards.<sup>12</sup> This optimism is based on reported declines of new bad loans, increased loan work outs and high growth rates of loan sales in the course of 2003. On the one hand, this development highlights a tougher attitude on behalf of the FSA – in particular regarding the major banks – and increased purchases of bad loans by the Resolution and Collection Corporation (RCC), on the other hand an increased willingness of banks to resolve their bad loan situation and re-pay public fund injections, partly in order to mitigate dependence on government support and the attached conditions of business restructuring and revitalization programs. The increased pressure of the FSA on banks under minister Takenaka, in combination with a change towards more independent auditing in Japan, have been emphasized as being the main factors behind the bail-out of Resona Bank in May 2003 [see Asian Wall Street Journal, 6 August 2003]. The collapse of Resona Bank was effectively initiated by its auditors, who could not accept the amount of deferred tax assets (DTAs) the bank had put on its accounts. As we will see later, these assets are a main part of Japanese banks' Tier 1 capital, and thus the auditors' rejection of Resona's calculated amounts of claimed DTAs forced it into insolvency and de-

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<sup>11</sup> The total amount of "non performing loans" in the Japanese financial was estimated at Yen 237 trillion by Goldman Sachs in 2002 [see The Banker (2003a)].

<sup>12</sup> According to figures published by Goldman Sachs, Japanese banks resolved more non-performing loans in the second half of fiscal year 2002 than in the full fiscal year 2001. For other (some somewhat more, others somewhat less) positive views, emphasizing that the resolution of Japan's bad loan problems is entering its final phase, see for example: Fitch Ratings (2003a); Goldman Sachs (2003b); ING Financial Markets (2003); JP Morgan Securities (2003d); Nikko CitiGroup (2003a).

facto nationalization.<sup>13</sup>

**Table 3 The status of non-performing loans for all banks according to the Financial Reconstruction Law<sup>1</sup> (end of period values; in Yen trillion)**

	Non-performing loans based on the Financial Reconstruction Law <sup>1</sup>		
	As of March 2001	As of March 2002	As of March 2003
<b>City banks, long-term credit banks and trust banks<sup>2</sup></b>	20.0	28.4	20.7
<b>Of which the major 11 banks<sup>2,3</sup></b>	18.0	26.8	20.2
<b>Regional banks<sup>4</sup></b>	13.6	14.8	14.7
<b>Total of all banks</b>	33.6	43.2	35.3
<b>Co-operative financial institutions</b>	9.4	9.2	9.2
<b>Total of all deposit-taking financial institutions</b>	43.0	52.4	44.5

1. Financial institutions that are declared bankruptcy are excluded; figures for “non-performing loans based on the Financial Reconstruction Law” are the sum of the assets classified as “bankrupt/de facto bankrupt”, “doubtful”, and “special attention”.

2. Figures of non-performing loans for UFJ Bank include those transferred to UFJ Strategic Partner Co., Ltd.

3. “Major 11 banks” stand for city banks, long-term credit banks and trust banks excluding Shinsei Bank and Aozora Bank.

4. “Regional Banks” include Saitama Resona Bank.

Source: Financial Services Agency, various issues of “The Status of Non Performing Loans as of end-March” (see <http://www.fsa.go.jp/indexe.html>).

Over the past 10 years, many initiatives have been developed by the Japanese authorities in order to solve the bad loans problem.<sup>14</sup> The most recent steps include the following, some of which have been interpreted as a signal of a toughening regulatory policy stance regarding the banks [Japanese Bankers Association (2003b); IMF (2003)]. The FSA introduced in October 2002 the so-called “Financial Revitalization Program” (or “Takenaka Plan” named after the minister for financial services) which main objective was to half the bad loan ratio by fiscal year 2004.<sup>15</sup> This program paved the way for the establishment of the Industrial Revitalization Corporation of Japan (IRCJ) in May 2003. Its main aim is to provide assistance to revitalize “revivable” corporations by purchasing the loans made to these corporations. Furthermore, the program introduced a new inspection scheme, addressed provisioning by banks and introduced discounted cash flow (DCF) methodology, and, in order to develop better governance at Japanese banks, proposed the audit of

<sup>13</sup> Resona’s collapse and subsequent bailout have been discussed extensively in for example Financial Times, 27 October 2003, Fitch Ratings (2003a), IMF (2003), JP Morgan (2003a), JP Morgan (2003b) and JP Morgan Securities (2003b).

<sup>14</sup> For an overview see Van Rixtel (2002), Chapter 6.

<sup>15</sup> For more specific details on this plan and the political dimensions see for example The Banker (2003a) and Credit Suisse First Boston (2002).

capital levels by external experts from fiscal year 2003 onwards. The adoption of the DCF method by all major banks and some regional and Second Tier regional banks in fiscal year 2002 has been strongly welcomed by the BoJ as a positive step "... to build a framework for more appropriate evaluation of loans" [Bank of Japan (2003d), p.23]. In the course of 2003, the FSA conducted so-called "special inspections" which resulted in specific actions being taken by individual banks such as accelerating their bad-loan disposal [see for example CSFB, (2003b)]. In April of the same year, the FSA announced measures for increased governance at banks receiving public support and set new guidelines for the conversion of preferred stocks [CSFB (2003a)]. In September 2003, the FSA announced to expand its budget for injections of public money into undercapitalized banks by Yen 2 trillion [NNS, 11 September 2003].

Based on the results from the special inspections and subsequent regulatory instructions, banks, which had received public funds in the past, disclosed their revised financial revitalization plans in September 2003 which set targets for profitability, capital adequacy ratios and restructuring until fiscal year 2006 [CSFB (2003c); Morgan Stanley (2003c); FSA (2003b)]. Subsequently, 626 regional banks and credit associations submitted business improvement plans to the FSA in October as well. Regarding developments at individual major banks,<sup>16</sup> Sumitomo Mitsui Banking Co., which has the largest bad debt burden of the major banks, announced in October 2003 to sell Yen 1 trillion of non-performing loans to an investment fund established by Goldman Sachs and other firms. UFJ Bank formed a joint venture with Merrill Lynch for the same purpose. The Bank of Tokyo – Mitsubishi reported that it had halved its bad-loan ratio to 4% at the end of September 2003, a year and a half earlier than the end-March 2005 target date set by the government under its financial revitalization program. The bank had announced in February its intention to raise capital through a public share offering, the first one of a Japanese bank in 13 years [The Economist (2003)]. Sumitomo Trust and Banking has made it clear to hope to be the second large bank to meet this target, and announced its intention to repay fast the Yen 200 billion capital injection which it received from the government in 1999. One of the two remaining long-term credit banks, Aozora Bank, announced its intention to sell Yen 400 billion in bad loans to the government over three years. The major banks in particular seem to speed-up the disposal of bad loans and the return of (not cost free) government capital injections in order to avoid higher interest rate payments and government interference with their business, and many of them have established specialized companies or units to dispose of bad loans.

### 3.2.2 Other asset problems

Another asset problem of Japanese banks has been their significant exposure to price developments in capital markets, in particular to stock and bond prices, resulting from their substantial holdings of both types of securities. Based on the figures presented in Table 2, it can be calculated that securities holdings (investment account) as a percentage of total assets at end-March 2003 for the four largest financial groups – Mizuho,

Sumitomo Mitsui, Mitsubishi Tokyo and UFJ – were 18.3%, 23.7%, 25.7% and 23.2% respectively. According to Table 4, as of end-March 2003, the total amount of stock-holdings of major Japanese banks was Yen 18.4 trillion, and their total combined bond portfolios amounted to Yen 62.2 trillion. Compared with end-March 2002, stock-holdings were down by 35% and bond-holdings up by almost 20%. A similar development, although less pronounced, can be observed for the regional and Second Tier regional banks. Their stock and bond portfolios were Yen 4.8 trillion and Yen 46.0 trillion, down 20% and up 7% respectively [see Table 5]. As the risk-weights for stocks are higher than for bonds, the reduction in stock-holdings and increase in bond-holdings during FY2002 significantly lowered the total amount of risk-weighted assets of Japanese banks, as is shown in Chart 1.

Due to the adoption of mark-to-market accounting, price changes affecting the valuation of stock and bond portfolios directly affect the banks' capital position [Van Rixtel (2002)]. Evidently, this is particularly a problem when stock prices fall and long-term interest rates rise at the same time. And, of course, even when interest rates fall, the gains on bond portfolios may be insufficient to compensate for stock losses. For example, during FY 2002, the net realized stock-related losses of Japanese banks totaled Yen 3.9 trillion yen, whereas net realized bond-related gains due to lower long-term interest rates amounted to Yen 0.8 trillion, a net difference in losses of almost Yen 3 trillion [see Bank of Japan (2003d), pp.16-17]. Furthermore, the amount of unrealized capital gains on securities holdings is important as well, for example given their relationship to Tier 1 and 2 capital (see section 4).

**Table 4 Assets of major banks**

	<b>FY 1998</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>
<b>Loans and bills discounted</b>	324.494 (-8%)	308.465 (-5%)	303.651 (-2%)	285.155 (-6%)	261.355 (-8%)
<b>Investment securities</b>	81.358 (-8%)	91.050 (12%)	122.989 (35%)	101.948 (-17%)	106.161 (4%)
<b>Government bonds</b>	18.328 (-10%)	29.220 (59%)	53.143 (82%)	43.326 (-18%)	53.144 (23%)
<b>Other bonds</b>	8.950 (-11%)	8.378 (-6%)	8.495 (1%)	8.509 (0.2%)	9.018 (6%)
<b>Stocks</b>	38.667 (-2%)	39.203 (1%)	36.974 (-6%)	28.409 (-23%)	18.438 (-35%)
<b>Securities loaned</b>	260 (-59%)	141 (-46%)			

Source: Bank of Japan (2003d)

Note: Other bonds include local government bonds and corporate bonds. Figures in brackets are annual percentage changes.

<sup>16</sup> Based on various reports obtained through the Nikkei Net System (NNS).

**Table 5 Assets of Regional banks and Second Tier Regional banks**

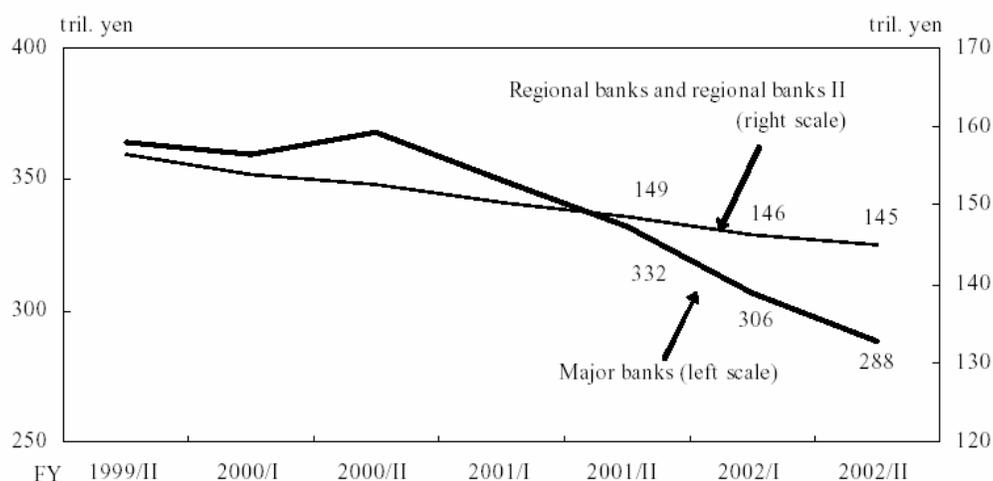
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
<b>Loans and bills discounted</b>	191.305 (0.0%)	184.895 (-3.4%)	182.591 (1.3%)	180.633 (-1.1)	178.303 (-1.3%)
<b>Investment securities</b>	44.761 (2.3%)	49.528 (10.7%)	56.008 (13.1%)	57.758 (3.1%)	60.429 (4.6%)
<b>Government bonds</b>	13.910 (8.3%)	16.769 (20.6%)	19.500 (16.3%)	21.928 (12.5%)	23.636 (7.8%)
<b>Other bonds</b>	19.028 (10.0%)	19.951 (4.9%)	20.849 (4.5%)	20.941 (0.4%)	22.323 (6.6%)
<b>Stocks</b>	6.312 (-3.5%)	6.212 (-1.6%)	7.390 (19.0%)	5.974 (-19.2%)	4.753 (-20.4%)
<b>Securities loaned</b>	97 (25.97%)	87 (-10.3%)	2 (-97.7%)		

Source: Bank of Japan (2003d)

Note: Other bonds include local government bonds and corporate bonds. Figures in brackets are annual percentage changes.

**Chart 1**

**Risk-weighted assets of Japanese commercial banks**



Source: Bank of Japan (2003d)

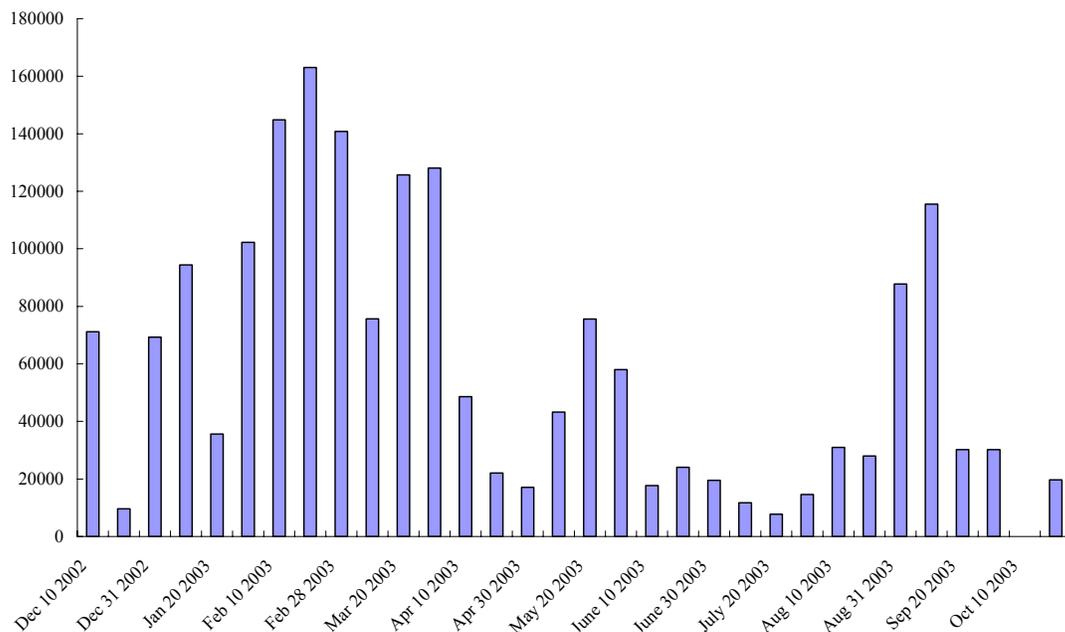
Regarding the exposure of Japanese banks to developments in the stock market, it has become official government policy to reduce the amount of stock holdings by banks. This mainly for two reasons: firstly, to reduce the effects of stock price fluctuations on banks' capital positions and, secondly, to unwind the extensive cross-shareholdings between banks and non-financial corporations that characterized for so long the Japanese economic system.<sup>17</sup> In order to achieve these goals, the following policy measures have been taken [among others: IMF (2003); Japanese Bankers Association (2003b)]. First, parliament passed a law in November 2001 that restricted stock holdings of banks to no more than their respective Tier 1 capital as of

<sup>17</sup> See Baba et. al. (2002) for data regarding the unwinding of cross-shareholdings in the Japanese economy. The importance of these holdings has been reduced substantially since the early nineties. JP Morgan (2003c) reported that the unwinding of cross-shareholding

end-September 2004, with a maximum grace period of two years. Second, under the same law, the government established in January 2002 the Banks' Shareholdings Purchase Corporation which main function was to assist banks in meeting the stock holdings restriction in time by buying their shares. The Law was amended in July 2003 to make it easier for banks to sell stocks to the Corporation by easing conditions, such as abolishing an 8% contribution (fee) requirement for banks to the stock purchases. These conditions attached to the Corporation's operations had made the scheme not very successful. Third, the Bank of Japan started its own stock purchasing scheme in November 2002, by acquiring stocks from banks with stock portfolios in excess of their Tier 1 capital (see Chart 2). In September 2003, the Bank announced the extension of its program by one year. As a result of the two share-purchasing programs, the major Japanese banks managed to reduce their stock holdings from Yen 28.4 trillion at end-March 2002 to Yen 18.4 trillion at end-March 2003 (see also Table 4). The major banks are also reducing their cross-shareholdings with regional banks, which could have strategic implications for the structure of the Japanese banking system. Chart 3 shows that banks had almost met the target of lowering their stock holdings to the amount of Tier I capital already at the end of fiscal year 2002 (end-March 2003). However, it has to be acknowledged, following the IMF, that this target "... is still an unusually large exposure for a bank to have to the equity market" [IMF (2003), p.18].

### Chart 2 Stock purchasing scheme of the Bank of Japan

(amounts purchased; billion of Yen)

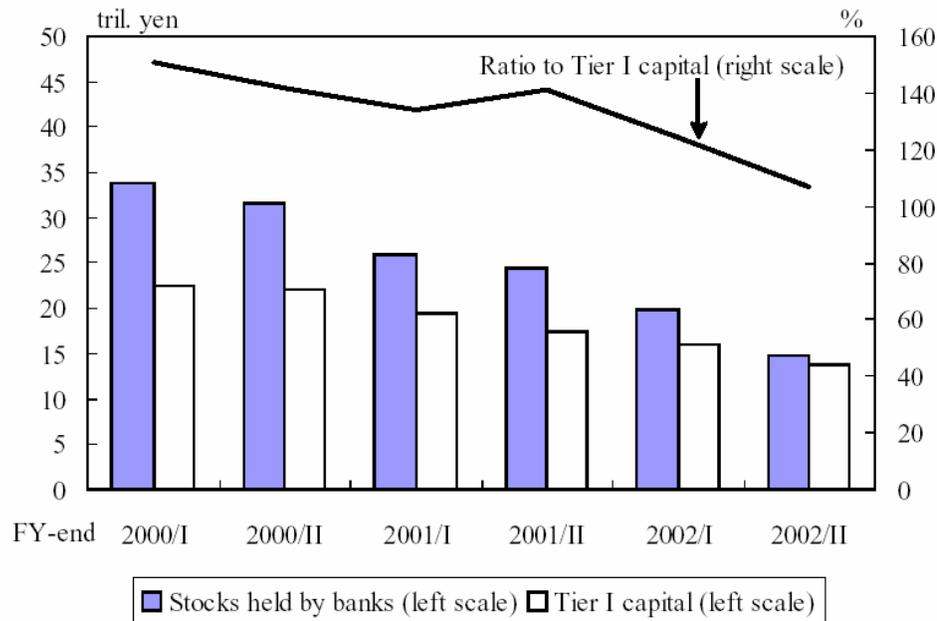


Source: Bank of Japan

had past its peak.

**Chart 3**

**Stockholdings and Tier I Capital of largest Japanese banks**



- Notes: 1. Twelve major banks except Shinsei Bank and Aozora Bank.  
2. Figures correspond to “balance of stock held for other purposes” (consolidated basis).

Source: Bank of Japan (2003d)

The reduction in Japanese banks’ exposure to the stock market that has been achieved, however, has not been effectuated for the bond market as well. As has been reported above, bond holdings by Japanese banks have been steadily increasing over the past years (see Tables 4 and 5). Thus, Japanese banks, in particular the major banks, have experienced a significant increase in their interest rate risk exposure. A positive factor in this respect has been the relatively low average duration of Japanese banks’ bond portfolios, which has been estimated by various investment banks between 3.5 and 4 years [Goldman Sachs (2003c); interview ING Financial Markets, October 2003]. Table 6 shows that the duration of the total bond portfolio as estimated by Goldman Sachs was the highest for Mitsui Trust Holdings with 6.4 years, and the lowest for Resona Holdings with 2.7 years. The average duration of the bond portfolios of the major Japanese banks was estimated at 4 years.

**Table 6 Estimated duration of bond portfolios of major Japanese banks (as of end-March 2003; number of years)**

	JGBs	Local govt. bonds	Corporate bonds	Others	Total
<b>Mizuho Financial Group</b>	3.7	6.1	3.5	5.5	4.3
<b>Sumitomo Mitsui Financial Group</b>	3.4	5.4	3.5	5.4	3.9
<b>Mitsubishi Tokyo Financial Group</b>	3.3	3.4	2.4	4.9	3.9
<b>UFJ Holdings</b>	3.4	6.3	3.9	4.7	3.8
<b>Sub-total</b>	3.5	4.9	3.3	5.1	4
<b>Resona Holdings</b>	2.6	5.3	2.3	2.8	2.7
<b>Sumitomo Trust &amp; Banking</b>	1.7	5	3.4	6	4.5
<b>Mitsui Trust Holdings</b>	6.3	4	3.1	7.6	6.4
<b>Mizuho Trust &amp; Banking</b>	3.6	5.4	2.9	3.7	3.7
<b>Sub-total</b>	3.6	5.1	2.7	5.6	4
<b>Total</b>	3.5	4.9	3.2	5.2	4

Source: Goldman Sachs (2003c)

Thus, the price sensitivity of bond portfolios of Japanese banks to interest rate movements can be interpreted as relatively low, and thus developments in bond markets will have relatively modest valuation effects in terms of unrealized and realized profits and losses. Although this is true, it has been reported by Standard & Poor's that Japanese banks have increased longer-term maturity bonds in their portfolios in order to achieve small improvements in their interest rate margins, given the very low levels of interest rates [Standard & Poor's (2003b)]. Thus, even if the duration of these portfolios has been low, it may have increased over the past two years compared to historic levels. On the other hand, it has to be acknowledged that bond market dynamics can change rapidly: for example, during April and May 2003, large banks were net sellers of long-term bonds and net buyers of short-term paper, effectively reducing the duration of their portfolios [JP Morgan Securities (2003a)].<sup>18</sup> As the experience of these months showed, the combination of high bond market volatility and high bond-holdings can lead to significant increases in risk-levels for Japanese banks, and endanger their capital position, forcing them to reduce their bond-holdings rapidly which may result in higher market volatility and interest rates.

The large combined stock and bond holdings of the major Japanese banks have resulted in significant equity and interest rate exposures. Stress testing in the context of the IMF's Financial System Stability Assessment showed that the Japanese banking system is quite sensitive to a combination of specific market developments. The IMF concluded that "... measured by the loss-bearing capacity of shareholders' equity,

<sup>18</sup> During the same period, regional banks and Second Tier regional banks were net buyers of long-term bonds, thus increasing their duration. Thus, between the various sectors of the banking system the degree of interest rate risk exposure may differ

the Japanese banking system is undercapitalized relative to the interest rate, equity price, and credit risks in the system” [IMF (2003), p.19].

### 3.2.3 Weak capital base but stable solvency ratios

The burden of non-performing loans and the related loan losses and provisions, and losses on securities’ holdings, in particular stock holdings, have eroded the capital base of Japanese banks [see for example: Hoshi (2001); Kashyap (2002); Van Rixtel (2002); Fitch Ratings (2003a); Hanazaki and Horiuchi (2003); IMF (2003)]. As is shown in Table 7, the capital levels of internationally active Japanese banks – i.e. the major Japanese banks – decreased from around Yen 47 trillion at the end of March 1999 (FY 1998) to almost Yen 25 trillion at the end of March 2003 (FY 2002), a decline of 47%. However, since their risk-weighted assets decreased by 45% during the same period, their risk-weighted capital adequacy ratios maintained relatively stable and significantly above 8%. The reverse situation can be observed at the smaller, i.e. not internationally active banks, which experienced a steady increase of both regulatory capital and risk-weighted assets. In terms of risk-weighted assets, the 26% decrease for the major (internationally active) banks in FY2002 and the 21% increase for the smaller (i.e. non-internationally active) banks in the same year is remarkable.

**Table 7 Risk based capital adequacy ratio – all banks**

	<b>FY 1998</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>
<b>Capital adequacy ratios (consolidated risk-based) of internationally active banks</b>	11.02%	11.79%	11.05%	10.63%	10.50%
<b>Regulatory capital</b>	46.617	43.369 (-7%)	40.700 (-6%)	33.677 (-17%)	24.671 (-27%)
<b>Tier I capital</b>	26.352	24.353 (-8%)	23.445 (-4%)	18.378 (-22%)	13.679 (-26%)
<b>Risk-adjusted assets</b>	422.789	367.697 (-13%)	368.125 (0%)	316.735 (-14%)	234.834 (-26%)
<b>Consolidated risk-based capital adequacy ratio of banks not active internationally</b>	6.70%	8.38%	9.57%	9.44%	8.52%
<b>Regulatory capital</b>	7.998	12.878 (61%)	14.625 (14%)	15.557 (6%)	17.033 (9%)
<b>Tier I capital</b>	5.934	8.907 (50%)	10.479 (18%)	10.966 (5%)	12.017 (10%)
<b>Risk-adjusted assets</b>	119.260	153.582 (29%)	152.818 (-0.5%)	164.729 (8%)	199.770 (21%)

*Source: Bank of Japan (2003d)*

*Note: For each period, figures for internally active banks and banks not active internationally at the time of the survey are compiled separately on a consolidated basis. Figures in brackets are annual percentage changes.*

An issue that received considerable attention has been was the importance of deferred tax assets (DTA’s) in Japanese banks’ Tier 1 capital [see for example: ING Financial Markets (2002); FSA (2003a); Fitch Ratings

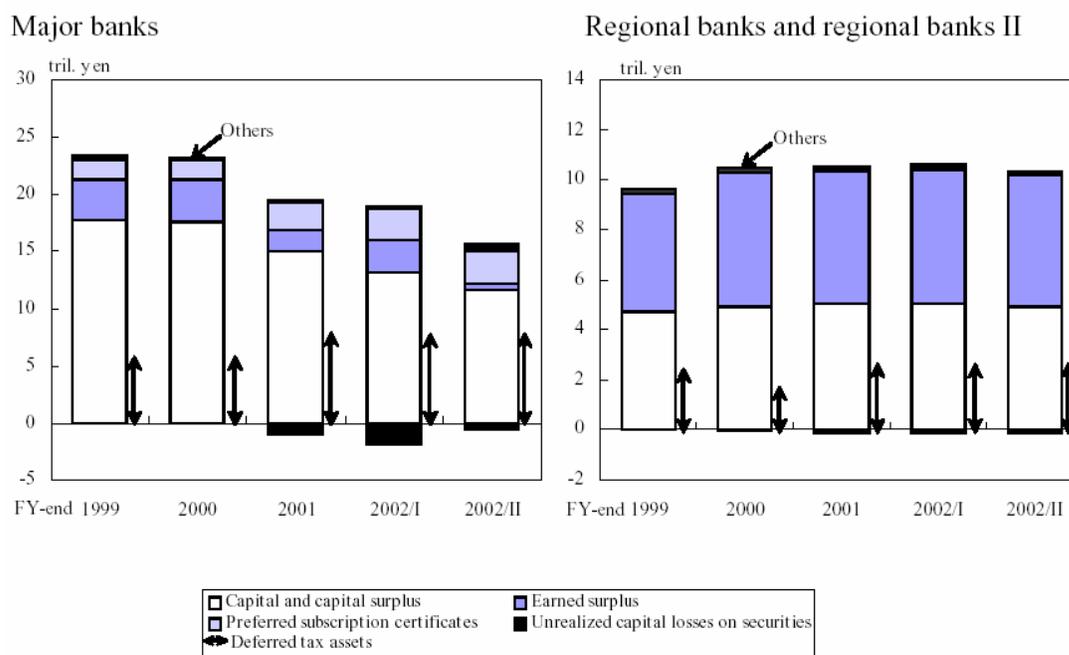
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significantly, which would seem to offer possibilities of risk-sharing mechanisms.

(2003a); Goldman Sachs (2003a); Hanazaki and Horiuchi (2003); IMF (2003); Risk (2003a); Standard & Poor's (2003a)]. This was not the least because of their role in the fall and subsequent bailout of Resona Bank and the widespread believe that if Resona's auditors' criteria would be applied to other major banks, most of them would instantaneously turn out to be undercapitalized or even insolvent. This because at the major banks, as is shown in chart 4, deferred tax assets account for more than half of their Tier 1 capital.

**Chart 4**

**Breakdown of Tier I Capital of Japanese commercial banks**



Source: Bank of Japan (2003d)

DTA's are basically tax credits against loan-loss provisions made for non-performing loans, and are based on the future reductions in taxes that banks will receive when the doubtful borrower will actually default. Thus the realization of DTA's depends on two crucial assumptions: first, banks must generate taxable income in the future – i.e. they must generate sufficient profits and thus have sufficiently high earnings projections – and second, the bad loans for which provisions have been made must actually go bad and become irrecoverable. Another structural weakness of DTA's as bank capital is their sensitivity to stock market developments. As has been reported in Goldman Sachs (2003a), just like unrealized losses on stock holdings result in deferred tax assets, unrealized gains on stock-holdings create deferred tax liabilities. In other words, rising stock-market prizes lead to lower net DTA's, and thus erode DTA's in the capital base of Japanese banks. In Japan, the government changed the accounting rules in March 2000 to allow banks to register DTA's on their accounts and to include them in their Tier 1 capital. Thus, as stated by Hanazaki and Horiuchi (2003), p.323,

“... as of March 2000, the banks’ capital had increased quite abruptly due to this accounting reform”. Given the high uncertainty surrounding the economic value of DTA’s, their effective use as bank capital has been questioned severely. In certain countries, such as Hong Kong and Korea, banks are not allowed to include DTA’s in their capital at all [Standard & Poor’s (2003a), p.1]. In the United States, the use of DTA’s in bank capital is restricted to the lower amount of 10% of Tier 1 capital or one year’s profits [IMF (2003)]. Under the guidelines of the Japanese Institute of Certified Public Accountants , the amount of DTA’s that can be used as Tier 1 capital is limited to expected profits over the next five years, and the extent to which they are actually used must be approved by the banks’ auditors. The Institute also requests in its guidelines that deferred tax assets be estimated with caution, thus giving considerable discretion to auditors in estimating a bank’s capital, and consequently raising the uncertainty about the amount of Tier 1 capital in the Japanese banking system. In reaction to the DTA discussion, the FSA has required that banks disclose the specific profit assumptions on which their DTA calculations are based. This was based on the conclusions of the Working Group on Regulation of Capital Adequacy Ratio, which focused on the use of DTA’s as bank capital in particular and published its findings in July 2003. Its most important conclusion was the “... broad agreement over the recognition that the ratio of deferred tax assets against capital should be reduced in the future” [FSA (2003a)].

#### **4. Lessons from the past: Basel I and Japanese banks**

The original Basel Capital Accord has been discussed extensively in Japan and some observers saw it as a conspiracy of certain Western banks in order to halt the international expansion of the relatively undercapitalized Japanese banks [see for example: editorial *Nihon Keizai Shimbun*, 9 June 2003]. According to the Accord, internationally operating banks would have to meet a capital to weighted assets ratio of eight percent by the end of 1992. The Japanese Ministry of Finance interpreted this date as the end of Fiscal Year 1992 (i.e. the end of March 1993), and that it would be applied to internationally operating banks only [see M.J.B. Hall (1992) and (1993)].<sup>19</sup> For domestic banks, i.e. banks with no international offices, the 8% requirement was later lowered by the MoF to only 4%. In the case of Japan, up to 45% of banks’ latent gains on securities holdings were allowed to be counted as Tier 2 capital. According to the Anti-Monopoly Law, Japanese banks could hold up to 5% of the equity of a single firm. Given the rise in share prices during the so-called “Bubble” period, these cross-shareholdings embodied substantial revaluation reserves, and consequently the unrealized gains on these securities holdings were included in Tier II capital [Frankel and Morgan (1992), p.588]. Since banks had acquired the stocks of corporations a long

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<sup>19</sup> The IMF has stated that all Japanese banks should be subject to the 8% requirement. The claim of Japanese authorities that the Basel Capital Accord applies to internationally active banks only is refuted by the Fund, as it states that this terminology is not defined in the Accord. See IMF (2003), p.23. Furthermore, the IMF argues that the practice of including provisions made for certain doubtful loans (loans that “need attention” and “need special attention”) in Tier 2 capital is not in line with the Basel Capital Accord.

time ago as part of maintaining long-term business relationships, unrealized capital gains were “hidden” from the balance sheet in accordance with Japanese accounting standards. However, the burst of the “Bubble” in the early nineties and the sharp drop in stock prices eroded this part of Japanese banks’ Tier II capital rapidly, raising concerns among Japanese and international supervisory authorities. The slump in the Japanese equity market caused equity portfolios increasingly to become a factor of instability for the banks’ financial health. From 1991 to 1992, the revaluation reserves were halved, resulting in a significant worsening of the solvency position of the Japanese banking sector. In addition, the drop in stock prices made it virtually impossible for Japanese banks to issue new equity (as a matter of fact, not a single Japanese bank has issued new stocks for the past 12 years). Furthermore, the stock market’s slide led to soaring unrealized losses on the banks’ balance sheets, which have to be deducted fully (100%) from Tier 1 capital. Japanese banks reacted by issuing substantial amounts of subordinated debt that counted as Tier 2 capital, and which were largely absorbed by connected Japanese insurance companies [Hanazaki and Horiuchi (2003); see also Pettway et. al. (1991)]. As we will see later, this process started to exacerbate “double gearing” problems, as banks and insurance companies increasingly provided each other with capital.

Regarding existing research on the effects of Basel I on Japanese banking, Ito and Sasaki (2002) concluded that the Accord had a significant impact on Japanese banking behavior, because as stock prices decreased, banks with low capital ratios decreased the provision of loans as well. As a result, the market for subordinated debt became increasingly important. Montgomery (2001) argued that the stricter capital adequacy requirements that were introduced caused a contraction in loan growth in the Japanese economy. Using a panel of Japanese banks balance sheets for the fiscal years 1992 to 1999, this study found that the minimum capital requirement of 8% increased the sensitivity of total loan growth to capitalization for international banks operating in Japan. However, this effect was not found for the domestically operating banks that had to comply with the 4% capital adequacy requirement. Horiuchi and Shimizu (1998) rejected the capital crunch hypothesis for Japanese banks, as they claimed that the issuance of subordinated debt compensated for declines in capital, helped by the existence of long-term relationships inherent to the structure of Japanese banking and economy. Investigating the stock market effects of the adoption of risk-based capital requirements on international banks in different countries, Cooper et. al. (1991) found mixed evidence – based on actual developments in banks’ stock prices – regarding the perceived effect by financial markets of Basel I on Japanese banks. This result was explained by uncertainty that may have existed among investors regarding the treatment of hidden reserves, and by substantial differences of opinion between market experts on the impact of the Capital Accord on Japanese banks.

Finally, against the background of the banking crisis in Japan over the past 10 years – a period when Basel I was effectively in place – some have questioned the effectiveness of the Basel framework

for countries that have banking systems characterized by the existence of long-term relationships. Hanazaki and Horiuchi (2003) claim that accounting indicators such as capital adequacy requirements are not that useful in relationship banking systems, because information asymmetries between insiders and outsiders make it for the insiders (i.e. the banks) relatively easy to disguise actual bad loan problems, thus bank loans become “opaque” and stated capital levels are in fact relatively meaningless. They point at the fact that the three major banks that collapsed at the height of the Japanese banking crisis – Hokkaido-Takushoku Bank, Long-Term Credit Bank of Japan and Nippon Credit Bank – had published capital ratios well above 8% just prior to their collapse (9.3%, 10.4% and 8.2% respectively). The same pattern can be observed in the case of Resona Bank, which, as we have seen, was rescued by the Japanese government in May 2003. As a matter of fact, it has been argued by many that the existence of various types of long-term relationships in the Japanese economic system, such as relationship banking (“Main Bank” system) and the large informally organized industrial conglomerates (“Keiretsu”), made it relatively easy for Japanese banks to hide bad loans in various affiliated companies and promote non-transparency to the maximum extent possible [see Van Rixtel (2002)]. In this respect, it should be noted that non-transparency and non-disclosure has characterized for many years the banking system and supervisory behavior in Japan, which, at times, reinforced skepticism about the true value of official reported figures of bank health and performance.<sup>20</sup> Again, this pattern can be observed in the case of Resona Bank’s failure, as media reports have started to emerge that its actual problems are much larger than previously assumed [see for example Financial Times, 11/12 October 2003 and 27 October 2003].

## **5. The formal reaction of Japanese banks to the New Basel Capital Accord**

A large number of organizations, including individual banks, banking associations as well as rating agencies from major countries, have expressed publicly the view that the Basel Committee on Banking Supervision’s new proposals are very restrictive. In this section, a summarized overview of the major issues that have been raised by the Japanese banking industry and their representative bodies is presented. No attention will be paid to the specific comments on the proposed treatment of securitization under the New Capital Accord, which will be discussed in subsection 6.2.1. The official reactions of these organizations to the Basel Committee’s various consultative papers are listed on their respective homepages and the homepage of the Committee itself. Japanese institutions that provided comments over the past few years have been the following: Japanese Bankers Association, the Regional Banks Association of Japan, The Second Association of Regional Banks, the National Association of Shinkin Banks, the Shinkin Central Bank, the Norinchukin Bank, Sumitomo Mitsui Banking Corporation and the

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<sup>20</sup> See in this respect also the problems the IMF faced in conducting stress tests for its Financial System Stability Assessment of Japan in 2003 [Financial Times, 24 October 2003].

Japan Center for International Finance [see list of references for specific documents]. In the overview presented here, the focus will be on their responses to the Committee's Third Consultative Paper (CP3).

Regarding the comments on Pillar 1, one common opinion expressed has been that the new framework of the internal rating-based (IRB) approach should be simplified, so that banks can implement the regulatory requirements more efficiently. The Norinchukin Bank expressed that the requirements should be translated into more flexible schemes that can be used to evaluate risk measures taken within the actual operation of banks' internal rating methodologies. The bank mentioned stress testing as one specific effective tool to deal with pro-cyclicality concerns. The Japanese Bankers Association argued in favor of simplifying the credit-risk framework and adopting a more flexible interpretation that takes into account the actual (high) costs of developing computer systems and altering operational procedures. More in general, it has been highlighted that banks have to manage considerable swings in capital requirements due to business cycle developments and will face increased volatility in their capital charges because of certain restrictions which the New Accord imposes upon the use of capital management tools. Thus, the general pro-cyclicality criticism that Basel II does not smooth cyclical effects regarding capital requirements is supported [Financial Times, 12 September 2003; The Banker, 1 October 2003]. Furthermore, Japanese banks expressed concerns regarding the significant burden imposed by transitional measures and the requirements regarding the stipulations for estimating loan given default (LGD) and exposure at default (EAD) under Pillar 1. The minimum holding periods of seven years for both LGD and EAD related data and five years for probability of default (PD) data have been claimed to be excessively long, particularly at the beginning of the implementation of the New Accord.

As regards Pillar 2 of Basel II, Japanese banks argued that the supervisory review process imposes a significant burden on bank capital requirements. In addition, the inclusion of the second pillar, as emphasized by Norinchukin Bank, may lead to an increase in overall regulatory capital needs. It is feared that after the proposed measures under Pillar 2 have been implemented, the authorities may raise capital requirements, which could even contradict or invalidate calculations of capital needs made under Pillar 1.

In addition, Japanese banks and their organizations stressed the need for further simplification of Pillar 3. They acknowledged that the scope of the third Pillar has been considerably narrowed in CP3 in comparison with the Second Consultative paper (CP2). However, it is argued that some disclosure requirements continue to be defined vaguely, which constitute important legal and operational uncertainties for the banks involved. Regarding Pillar 3, further simplification, including taking into account the work in this respect of the International Accounting Standards Board (IASB), is proposed.

Finally, Japanese banks have been protesting against the capital requirements stemming from the explicit inclusion in Basel II of operational risk. This basically because of their alleged better functioning back-offices and superior qualifications of their staff. For example, Risk (2001c) quotes Mr. S. Masunaga

of Chuo Aoyama Audit Corporation as follows: “Banks in Japan think that the [capital] charge is too high and that they have a lower exposure to operational risk compared with banks in the US and elsewhere because of the quality of their personnel”.

## **6. The tactical and strategic implications of the New Basel Capital Accord for Japanese banking**

This section investigates the likely impact of the development and implementation of the New Basel Capital Accord on Japanese banks’ business practices and the structure of the Japanese banking system. The main source of information for this analysis is formed by the series of 21 interviews conducted during the period September – November 2003, augmented by information from academic and policy-institutions’ research, industry reports and media sources.

The analysis distinguishes between so-called tactical and strategic implications of Basel II on Japanese banking. Tactical implications relate to the day-to-day business operations of Japanese banks and how their operational framework may be affected (micro dimension). The investigation has generated as possible main tactical consequences of the new Capital Accord the adoption of a new business model based on risk management tools, the erosion of the “Main Bank” system and relationship banking, the re-orientation of retail and wholesale banking activities, the acceleration of the disposal of bad loans, the negative impact on the competitiveness of Japanese banks in derivatives business and a possible positive impact stemming from the use of ratings published by Japanese rating organizations. Strategic implications focus on the structure of the banking system as such, the development of financial markets and services, and the overall functioning of the economy (macro dimension). The analysis concludes that Basel II – in its current form – could hamper the development of securitization in Japan, will be a catalyst for the development of the Japanese syndicated loan market, will also function as a catalyst for the further development and use of risk-transfer instruments, could put pressure on smaller financial institutions in the segmented Japanese banking system, might be a catalyst for the emergence of more market-based credit markets and could have macro-economic consequences that might have profound consequences for the Japanese banking system. All in all, most interviewees expected that Basel II predominantly will function as an important catalyst and that its main impact will not be so much felt in the short run (1-2 years), due to the priority of tackling the bad loan and undercapitalization problems first, but much more, and significantly so, in the medium run (3-4 years, i.e. just before and around implementation of the New Accord) and the long run (after implementation).

It is clear that this analysis is surrounded by a significant degree of uncertainty. First, the definite and steady-state form of the New Basel Capital Accord is – as of November 2003 – not clear yet. Industry reactions to CP3 have been quite numerous and often critical in substance and thus may lead to more or

less important changes of the Accord. Second, Basel II allows for a considerable degree of national discretion in defining and applying specific elements of the Accord, and it is not certain yet how Japanese supervisory authorities will use this discretion. Three, it is also not fully clear yet which specific option for assessing credit risk under the New Accord – i.e. the standardized approach or one of the two internal ratings-based (IRB) models - Japanese banks will adopt. Most likely, as expected by market analysts, several major banks will opt for the advanced IRB option, but the majority of Japanese banks will follow the standardized approach.

Regarding the overall impact of the New Basel Capital Accord on Japanese banking, according to the summarized testing results of the 66 Japanese banks participating in QIS3 which have been published by the Financial Services Agency (FSA) and Bank of Japan (BoJ), it is not to be expected that the Accord will affect significantly the capital adequacy levels of Japanese banks [see Bank of Japan (2003c) and (2003d)]. The results show that under the standardized approach the risk weighted assets of these 66 banks will likely be reduced by 2% and their capital adequacy ratio will improve by around 0.1% [see: Bank of Japan (2003i)]. This basically because of the mutually offsetting effects of on the one hand higher capital requirements for non-performing loans and on the other hand lower capital charges for retail activities (i.e. for consumer loans, mortgages and loans to small and medium-sized enterprises). Furthermore, capital charges stemming from operational risk requirements will be relatively modest for Japanese banks, given their low net operating revenues. These effects estimated by the supervisory authorities are supported by private sector research. Estimates of Morgan Stanley show that for the four large financial groups (Mizuho, MTFG, SMFG and UFJ), risk-weighted assets could decrease between 0.5% and 2.2%, and capital adequacy ratios may improve between 0% and 0.2%.<sup>21</sup> For five large regional banks (Chiba, Fukuoka, Shizuoka, Suruga and Yokohama) the impact could be larger: risk-weighted assets may decrease between 1.8% and 8.4%, and capital ratios could improve between 0.2% and 0.9%. So, all in all, these projections show that the direct overall impact of Basel II on risk-weighted assets and (risk-based) capital adequacy ratios of particularly the largest banks may be relatively modest.

## **6.1 Tactical implications**

### **6.1.1 Adoption of a new business model**

The possible impact of the New Basel Capital Accord on Japanese banking that was mentioned the most frequently by interviewees was that it would function as a very important catalyst for the further introduction of a new business model. This model would be in line with more sophisticated market-conform and incentive compatible business models based on risk-return considerations and incorporating state-of-the-art risk management tools. In this sense, the Accord will function as a catalyst for further

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<sup>21</sup> Preliminary results provided by Mr. Hideyasu Ban, Equity Research Japan (Banks), Morgan Stanley, October 2003.

reform of day-to-day business operations, particular in the sense of greater emphasis on risk-management considerations, in addition to the guidance from the FSA and BoJ and pressure from financial markets. In the past, specialized credit officers often looked at one specific risk only, but, partly due to Basel II, this is changing now, and a much more integrated approach of the various risks is followed. Thus, the New Accord will accelerate risk management on a consolidated basis. Japanese banks have often been criticized for not paying sufficiently high attention to risk-management aspects, but several interviewees were strongly convinced that this will fundamentally change under the looming introduction of the new Capital Accord. It is clear that under Basel II, banks that will have the most advanced capital and risk-management tools and modeling capabilities will be among the winners, as they will be able to use the advanced IRB approach. However, some interviewees stressed that the large banks in Japan, which are the most likely candidates to adopt the advanced approach, are facing considerable data-problems, particular regarding loss given default (LGD) that is difficult to estimate under Japanese bankruptcy proceedings. Furthermore, under relationship banking and the “main bank” system (see next subsection), also the probability of default (PD) may be difficult to estimate. This could frustrate the adoption of the advanced approach by the major Japanese banks. Nevertheless, several other interviewees were convinced that the four large financial groups would finally adopt the advanced IRB model, given international competitive pressures.<sup>22</sup>

Information on the specific preparations of Japanese banks in their business models for the introduction of the New Accord is relatively scarce and hard to specify. Some interviewees stated that most major Japanese banks have started to hire significant numbers of external, often foreign, consultants to develop risk-management systems, and are spending considerable amounts of resources on this. Others were more skeptical in this respect and pointed at the, in their view, generally relatively worrying state of computer and database systems at Japanese banks.<sup>23</sup> Regarding specific preparations, it was reported in January 2003 that the UFJ Group intended to introduce a leading edge internal rating system in order to benefit from the specific credit risk approaches proposed under Basel II [NNS, 23 January 2003]. With respect to other preparatory actions, some interviewees pointed at investigations currently undertaken by various large financial groups on which specific amount of capital could be saved by further consolidations of business activities of the various groups’ subsidiaries. Regarding the operational risk requirements under the new Accord, interviewees stressed that these have become a major consideration for most Japanese banks only during the past few years, mainly because of the development of the Basel II framework.

Regarding day-to-day business, some interviewees expressed the view that Japanese banks may be forced to allow for greater autonomy in credit decisions of local branches, and thus adopt a more

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<sup>22</sup> One interviewee believed that only one financial group would choose the advanced approach, and expressed serious doubts if the three others would be ready in time.

decentralized decision-making framework, due to greater emphasis on risk-return considerations .

#### 6.1.2 Expected erosion of the “Main Bank” system

A clear majority of interviewees expressed their conviction that the introduction of the New Basel Capital Accord will lead to a gradual erosion of the “Main Bank” system in Japan. Under this informally organized system, Japanese banks have been operating as monitors – also on behalf of other lenders – of large numbers of commercial firms. Even firms that do not belong to one of the large industrial groups that dominate the Japanese economy (Keiretsu) normally maintain an informally based relationship with a (large) commercial bank [see Aoki et. al. (1994)]. In other words, following the terminology of Diamond (1984), the “Main Bank” system functions as a delegated monitor for the Japanese capital market as a whole. It has been claimed that this function is especially relevant when borrowers are in situations of severe financial distress [Sheard (1994), p.86], although more recently the specific importance of the “Main Bank” system has been disputed [see Miwa and Ramseyer (2001)]. Basically, the system can be interpreted as a more extreme version of relationship banking [see Boot and Thakor (2000); Risk (2001d)]. Kobayashi et. al. (2002) documented very clearly that so-called “forbearance lending” took place in Japan after the collapse of the “Bubble” economy, under which banks were very reluctant to write off bad loans as they were concerned about the possible negative effects on long-term customer relationships, even when there was little prospect that the loans could still be recovered. Brewer III et. al. (2003) showed that (long-term) banking relationships in Japan have apparently been so important that the failure of several banks at the height of the banking crisis not only affected their client firms but the rest of the Japanese economy as well. However, a number of interviewees highlighted that under the “Main Bank” system, maintaining long-term relationships with borrowers – apparently sometimes at high costs – resulted often in inefficient and basically economically unsound lending decisions from the perspective of risk-return considerations. Therefore, this custom will most likely, slowly but steadily, become less significant as a result of Basel II, in combination with other factors such as the decreasing importance of cross-shareholdings in the Japanese economy in general and the reduction of stock-holdings by the major banks in particular, and the advance of new lending models in the Japanese banking industry (for the latter see subsection 6.2.5). The decreasing emphasis on long-term relationships could also reduce the practice of “double gearing” involving mutual capital stakes between banks and (life) insurance companies, effectively hampering the possibility of banks to issue subordinated bonds which count as Tier 2 capital.

The likely impact of the New Basel Capital Accord on “Main Bank” relationships and relationship banking involves also important political economy aspects. In a paper published on its website in March 2003, the FSA strongly emphasized the need to maintain long-term banking relationships for smaller banks with respect to small and medium-sized enterprises (SME’s). On the one

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<sup>23</sup> For both views see also Risk (2001d).

hand, this would be a relatively cheap way for the banks involved to obtain important credit-related information that would facilitate estimating credit risk in the more risk-based credit decision-making framework under Basel II. On the other hand, several market analysts argued that it would mitigate political concerns that SME's would be squeezed, in particular when the new Accord would be implemented.

#### 6.1.3 Greater emphasis on retail banking

Not surprisingly, several interviewees expressed the view that the development and introduction of Basel II will increase the focus on retail banking, given the relatively favorable treatment of this activity under the New Accord. This could lead to a substantial increase in the level of competition in the Japanese banking sector, not only between individual banks, but in particular between the various banking segments as well. As has been discussed in section 3, still considerable degrees of specialization in Japanese banking exist between various sectors. Some interviewees were convinced that when the bad loan situation is resolved, the major banks will try to capture important market shares of the regional banking business, with its dominance of retail activities in specific geographical regions. A strong winner here could be the Mitsubishi Tokyo Financial Group, given its strong balance sheet and its well-established ties with several regional and Second Tier regional banks. Over the past two years, retail banking activities such as consumer and housing loans have been growing substantially in Japan, whereas wholesale banking such as lending to major corporations has been on a steady downward trend. It has been reported that the combined loans of the around 160 largest banks to individuals were above Yen 100 trillion for the very first time as of 30 September 2002, and that also housing loans have increased quite substantially [NNS, various reports]. Although it is rather difficult to specify to what extent Basel II is playing a role here, some interviewees believed that also here it could be playing the role of catalyst.

#### 6.1.4 Acceleration of the disposal of bad loans

As has been explained in section 2, the New Basel Capital Accord will have huge implications for the capital adequacy ratios of banks with large amounts of non-performing loans. That is, the capital ratios of these banks may decline significantly, particularly in cases where insufficient provisions have been made. Dependent on the degree of provisioning, the risk weight for problem loans will increase: the lower the degree of provisioning, the higher the specific risk weight applied. For example, the risk weight of problem loans will increase to 563% when no provisions for these loans have been made at all. The study conducted by the FSA and BoJ for a sample group of 66 banks showed that the average risk weight applied to their problem loans is around 157% [NNS, 25 August 2003]. According to the same study, for some individual banks their overall risk-weighted assets may increase by 10 to 20% as a result of the implementation of Basel II [NNS, various reports].

This leads to the rather straightforward conclusion that Japanese banks better accelerate the disposal of their bad loans and have them reduced substantially before the implementation of the New Accord. Various interviewees stated that this is exactly what Japanese banks are doing now (as discussed in section 3), and that Basel II is playing a role. Of course, several other forces play an important role here as well, such as the increased pressure of the FSA on the major banks to resolve their bad loans and the aim of Japanese banks to limit government interference with their business, which was the price they had to pay for receiving public capital injections. In this respect, it should be noted that the BoJ, regarding the results of the study involving 66 banks which showed a very modest impact of Basel II on risk-weighted assets and capital ratios, has clearly stated that these results are conditional on the banks' bad loan disposal: "It is expected that Japanese banks will not face any difficulties with respect to the implementation of the New Capital Accord if they are committed to deal with the disposal of their non-performing loans by the end of fiscal year 2006" [own translation, Bank of Japan (2003i)].

#### 6.1.5 Negative impact on competitiveness of Japanese banks in derivatives business

Finally, the last tactical implication of Basel II on Japanese banks that has been identified was the possible negative impact of the treatment of foreign exposure (counterparty risk) on derivatives business. Credit risk exposures of foreign banks to Japanese banks could be charged with higher risk weights, both under the standardized approach and the IRB approach. This because these weights are related to the ratings of Japanese banks as one option under the former and may be even higher in the internal risk ratings of foreign banks under the latter approach [JP Morgan Securities, (2001)]. Given the importance of inter-bank credit exposures in the derivatives business, this could to some extent affect negatively the competitiveness of Japanese banks in derivatives.

#### 6.1.6 Possible positive impact of the use of ratings from Japanese rating agencies

One private sector analyst expressed that Japanese banks could have a competitive advantage because of the enhanced importance of ratings from private sector rating agencies under Basel II. Namely, it has been claimed that the ratings of the two main domestic Japanese rating agencies, i.e. JCR and R&I, have been more lenient for Japanese banks than the ratings from the main international operating agencies such as Moody's, Standard & Poor's and Fitch Ratings [see also JP Morgan Securities (2001a)]. Because banks may use the highest rating in case there are two or more ratings available, this could lead to reduced capital needs for Japanese banks.

## **6.2 Strategic implications**

### 6.2.1 On the one hand: In general, hamper the development of securitization in Japan

The New Basel Capital Accord introduces internationally harmonized regulations regarding the supervisory treatment of securitization activities. These activities have developed enormously since the introduction of the original Capital Accord. Under Basel I, banks often used securitization to lower effective capital requirements, whereas at the same time credit risk was not reduced [Jones (2000); Deutsche Bundesbank (2001); Federal Reserve (2003)]. This practice of regulatory arbitrage (see section 2) will be frustrated severely by Basel II, as in the proposed framework the rules for securitization will become much stricter.<sup>24</sup>

As regarding the perceived impact of the New Basel Capital Accord on the securitization market in Japan, a significant majority of interviewees agreed that its development could be hampered by the implementation of Basel II. This, first, because of certain legal and practical peculiarities of securitization in Japan, which in the view of several interviewees are not satisfactory taken into account in the Basel II proposals. Second, interviewees emphasized that the market for securitization in Japan is still in its early stage (“infant industry” argument), and that the necessary catch-up with the major overseas markets may be thwarted by the implementation of the New Accord. Third, the concern was raised that the treatment of securitization under Basel II will provide non-banks, i.e. in particular foreign non-banks, a competitive edge vis-à-vis banks in Japan. Finally, interviewees feared that the stipulations concerning securitization may frustrate significantly the development of related new financial instruments and techniques (financial innovations) [see also Rodriguez (2002)]. To a large extent, the concerns raised by the interviewees, of whom many were not employed by Japanese banks, follow the official comments on securitization of Japanese banking institutions and organizations on the various consultative papers published by the Basel Committee. Therefore, the published reaction of Japanese banks on the securitization proposals will be discussed first. Subsequently, an overview of the Japanese securitization market will be presented. Then, the possible consequences of the Basel II proposals are analyzed for the various segments of the securitization market in Japan.

The Japanese Bankers Association (JBA) and six overseas financial industry groups submitted proposals in August 2003 to the Basel Committee aimed at mitigating concerns about the negative implications of the New Capital Accord for the securitization market [See Seven Market Organizations (2003)].<sup>25</sup> Under the current proposals, banks active in securitization could be faced with a rather

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<sup>24</sup> Of course, it needs to be seen to what extent financial innovations will undermine in practice the goal of Basel II of effectively reducing regulatory arbitrage. Because of the greater use of securitization instruments, such as certain derivatives and asset-backed securities, and the related increase in certain risks, some have argued that capital ratios of 8% are too low to effectively cover for these risks [see Gup (2003)]. Regarding the impact of risk-based capital requirements on the development of securitization, Jagtiani et al. (1995) could not find a consistent impact of these requirements on the speed of diffusion across banks’ off-balance sheet activities. See also Donahoo and Shaffer (1991).

<sup>25</sup> See in this respect for example Risk (2003d), which quotes D. Jenkins of the American Securitization Forum as follows:

substantial increase in their risk-weighted assets and consequently their capital adequacy rules could fall. In addition, separately the JBA discussed securitization aspects in its formal and published reactions on the various consultative papers published by the Basel Committee, which was also done by the Norinchukin Bank and Sumitomo Mitsui Banking Corporation. Their main concern was the “infant industry” argument mentioned above, i.e. the asset securitization market in Japan is still under-developed, so that Basel II could adversely impact its future development. The issues raised by these institutions addressed mainly six requests: lowering of the risk weights for securitization instruments, permission to use private ratings, more favorable treatment of liquidity facilities under Asset Backed Commercial Paper (ABCP) programs, less severe treatment of banks that provide so-called “implicit recourse”, adoption of a more positive approach towards the securitization of own-bank assets, and the permission of early amortization.<sup>26</sup> The first request entails that the risk weights for securitization instruments need to be reduced, since the risk weights of these instruments that hold the same credit rating as corporate instruments are higher, both under the standardized approach and the internal rating based (IRB) approach. Especially the criteria regarding below-investment grade (BB+ or below) securitization instruments differ substantially from those for corporate instruments, and therefore it is requested that these risk weights are lowered. Regarding the second request, it is argued that private ratings (i.e. non-disclosed ratings) should be permitted in parallel to public ratings, which is against the current proposal of the New Accord that private ratings do not qualify. Although the JBA agreed that there are differences between published and non-published ratings, it argued that there is no essential difference in the calculation and monitoring processes of these ratings themselves. This view is supported by Rating & Investment Information (R&I), one of the two leading local rating agencies in Japan [R&I (2003)]. This company stated that historically, few individual financial transactions have been published in Japan. Therefore, it proposed that in Japan private ratings and published ratings should be treated equally until the further development of financial markets has been established and the general use of public ratings is accepted. As regards the third request, i.e. the more favorable treatment of liquidity facilities under ABCP programs, under the 1988 Basel Capital Accord, a bank that supports ABCP conduits (i.e. Special Purpose Companies (SPC) or Entities (SPE) involved in the securitization process), and of which it has guaranteed the payment of principal by providing liquidity support, does not have to make risk-related provisions. However, this will change under the New Basel Capital Accord, as risk weights applied to liquidity enhancements of ABCP conduits

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“There is still a bias against securitization – that part hasn’t changed in CP3”.

<sup>26</sup> The treatment of securitization under Basel II is a highly technical exercise beyond the scope of this chapter. A very good overview of the issues is provided in Kothari (2003a). Regarding Japan, only the main issues will be described briefly. Implicit recourse occurs when a bank provides credit support beyond its contractual obligation to one or more of its securitizations. A bank that provides this non-contractual support does so to preserve its reputation and its future access to securitization markets. However, by protecting investors from losses, the bank is exposed to higher levels of credit risk and liquidity risk. See FDIC (2002). Early amortization events are credit enhancing features outlined in the prospectus of securitization deals. When triggered, for example by supervisory actions, they can result in the termination of the revolving period of the transaction and may lead to liquidity or earnings problems. See Deutsche Bank (2003a) and OCC et. al. (2002).

will be generally be set at 100%. Sumitomo Mitsui Banking Corporation (SMBC) requested in its official comments that this application of a uniform risk weight of 100% should not be adopted. The Norinchukin Bank regarded the treatment of liquidity facilities as excessively stringent and asked for a review based on the actual risks related to these facilities. The JBA criticized the treatment of eligible liquidity facilities under the IRB approach, since the assignment of risk weights is different. All in all, the concern of these organizations is that, since in Japan securitization is still in the development stage, Basel II should not hamper the development and market position of the specific securitization instruments and practices which are currently used most predominantly. The other requests are explained briefly. As regards the issue of implicit recourse, applying excessive penalties to banks which are found to have provided implicit recourse was deemed to be harmful to the development of the market. From the perspective of being the originator of a securitization product, Japanese banks requested that the securitization of a bank's own assets should at least not increase the bank's regulatory capital requirement. It was also emphasized that under loan participation practices in Japan, the removal of assets from a banks' balance sheet is recognized as an off-balance sheet item under Japanese accounting standards. Furthermore, Japanese banks criticized the stipulation under Basel II that early amortization in the context of securitization should not be allowed, because they regard this as discriminatory treatment. For example, credit-linked notes and similar products do have provisions for early amortization, for example because of prepayment of the underlying assets [see Kothari (2003a)].

Most requests mentioned above are views related to banks being active in securitization transactions as originators and sponsors. However, requests and questions regarding the treatment of banks being investors in securitization products were also raised by Japanese banking organizations. For example, the Norinchukin Bank requested that the higher risk weights applied to securitization assets acquired should be brought in line with the treatment of corporate bonds.

Regarding the actual development of the securitization market in Japan, it is clear that this market has been growing quite rapidly during the past several years and is now the third largest market in the world. However, in terms of size, as is shown in Table 8, it is still far behind the US and European Union (for reference purposes the syndicated loan market, another relative new market in Japan, is shown as well).

**Table 8 Comparison of issuance activity in the securitization and syndicated loan markets in 2002**  
(in Yen trillion)

	Securitization market	Syndicated loan market
Japan	5	15
The United States	334	116
European Union	20	64

Source: Bank of Japan, Market Review, "Kurejitto Sijyo Kaikaku to Nihon Ginko no Torikumi," ["Credit markets reform and the achievement of the Bank of Japan].

Note: ABCP is excluded from the figures for the securitization market

The differences in size can be explained by the fact that the various more advanced segments of credit markets such as the syndicated loan market, non-recourse loan market,<sup>27</sup> securitization market and credit derivatives market were until recently not very well developed in Japan. New issuance of securitization products in Japan in 2002 amounted to about Yen 5 trillion, which is much smaller than the Yen 334 trillion in the same year in the United States. However, the size of the Japanese market has been growing steadily during recent years, which is shown in Tables 9 and 10. Residential Mortgage Backed Securities (RMBS) and Collateralized Debt Obligations (CDOs), which mainly consist of Collateralized Bond Obligations (CBOs) and Collateralized Loan Obligations (CLOs), appear to hold the greatest promise among the various market segments. Furthermore, products related to the real estate sector, such as Commercial Mortgage Backed Securities (CMBS), could also see increased activity as a result of the securitization of non-recourse loans. In addition, government-affiliated financial institutions are expected to make greater use of securitization techniques as well [Deutsche Bank (2003b)]. Issuance volume in the first half of 2003 has clearly been supported by the CDO sector, mainly by originating banks which have been using them to reduce their risk-weighted assets [NNS, 23 July 2003]. The share of banks' issuance in the total amount of securitized products issued rose to 42% in 2003, from 26% one year earlier (see Table 10). This process will be discussed in more detail in the next subsection.

<sup>27</sup> Non-recourse loans are loans secured by collateral, but the lending bank is only entitled to repayment of the loan from the profits generated from the project that this loan funded and not from other assets of the borrower, if the borrower defaults on the loan.

**Table 9 Japanese securitization products (according to underlying assets)**  
(in percentages)

	Equipment Leases	Credit Receivables	Consumer Loans	RMBS	CMBS	CDO	Others
<b>Jan.-Dec. 2001</b>	0.242	0.161	0.153	0.14	0.174	0.068	0.062
<b>Jan.-Dec. 2002</b>	0.187	0.1	0.132	0.206	0.127	0.143	0.104
<b>Jan.-Sep. 2003</b>	0.125	0.111	0.059	0.184	0.088	0.307	0.127

Source: Deutsche Bank Group

**Table 10 Japanese securitization market (by sector)**

	Consumer Credit	Leasing	Banks	Life Insurance	Govt. affiliated	Consumer Finance	Other Finance	Non-Life Insurance	Others, N/A
<b>Jan.-Dec. 2001</b>	0.243	0.221	0.113	0.059	0.062	0.042	0.036	-	0.224
<b>Jan.-Dec. 2002</b>	0.169	0.155	0.258	0.097	0.104	0.057	0.036	0.002	0.123
<b>Jan.-Sep. 2003</b>	0.129	0.115	0.42	0.044	0.091	0.022	0.061	-	0.118

Source: Deutsche Bank Group

However, despite its attractiveness as a financing tool and a vehicle to improve balance sheets, securitization is not still widely used in Japan [see for example Deloitte & Touche (2002)]. As is stated in Kanda (1998), there are both legal and non-legal factors inhibiting the securitization market in Japan. As legal obstacles can be mentioned, first, that compliance with the legal requirements for perfecting an asset transfer is costly, and second, that this requires notarial certification of individual loans. Furthermore, the regulatory structure of the securities industry in Japan is complex and rigid, reflecting a long political history in which various ministries had jurisdiction over specific industries. Non-legal obstacles to the further development of the market for securitization in Japan that can be mentioned are specific regulatory characteristics, political factors, interaction among the various ministries involved and fragmentation of financial markets [see for more details: Ohgaki (1996); Kanda (1998)]. One positive development has been that recently it has become cheaper to set up a Special Purpose Entity (SPE), which now requires a minimum amount of capital of only Yen 100,000.

Given that the securitization could play a much more important role in financing and risk-hedging activities in Japan, the BoJ has started to support actively the development of this market. In order to contribute to smooth corporate financing, the BoJ has recognized ABCP as eligible collateral and has started purchasing ABCP from February 2002 [Bank of Japan (2003g); see also Shimizu et. al. (2002)]. From July 2003, the BoJ expanded the range of eligible assets and added asset-backed securities (ABS)

backed by housing loan credits and real estate to its eligible collateral [see: Ishiga et. al. (2003); Sugihara et. al. (2003); BoJ (2003a) and (2003c)]. Although the BoJ's purchases of ABCP and ABS aimed to promote further growth in the use of these instruments as well, it is feared that the New Basel Capital Accord may thwart this attempt. There are serious concerns that the ABCP market might be downsized due to the implementation of Basel II [NNS, 26 September 2003]. This is because under the New Accord, there are some notable changes to the risk weightings applied to ABCP, which are regulatory securitized products in Japan. Under the New Accord, these assets can have a maximum risk weight of 200%, compared with 0% under Basel I. One market participant expected that after the envisaged implementation of Basel II at the end of 2006, due to these heavy weights, the ABCP market in Japan could be halved. In its present proposal, the Basel Committee follows the line that so-called liquidity support to ABCP conduits might actually be serving as a credit enhancement mechanism [Kothari (2003a)]. Unless this treatment has been modified, it is to be expected that the Japanese ABCP market will be affected negatively by the implementation of the New Capital Accord.

In reaction to the proposed treatment of ABCP under Basel II, Mizuho Corporate Bank has issued Yen 100 billion in ABCP without back-up lines, and also other banks have started to plan issuing ABCP without repayment guarantees [NNS, 8 July 2003]. This because under the New Capital Accord, some part of the commercial paper issued by banks with repayment guarantees will be considered being risk-weighted assets, and thus lower banks' capital adequacy ratios. Furthermore, the BoJ announced in October 2003 that it would review the specific problems of the Japanese securitization market in order to promote its growth, and to that purpose, it established a study-group (so-called "Securitization Forum") in November 2003 [Hirata and Shimizu (2003); NNS, 26 October 2003].<sup>28</sup> Thus, it seems that not only market participants, but possibly the supervisory authorities as well, are concerned about the negative impact of Basel II on the development of the securitization market in Japan.

All in all, there was widespread concern among both interviewees and the banking institutions which reacted formerly to the Basel Committee's proposals that, given the underdeveloped nature of the securitization market in Japan and, as was discussed above, the existing legal and non-legal problems that obstruct its rapid development, the introduction of the New Capital Accord could seriously hamper the expansion and deepening of the market for securitized products in Japan. Thus, because of the relatively underdeveloped nature of securitization in Japan, Basel II could turn out to be a heavy blow to this young market.

The strong growth of the securitization market in Japan in the course of 2003 has been heavily influenced by the use of credit-risk related securitization instruments by banks to reduce their risk-weighted assets and credit-risk exposure in the context of resolving their balance sheet problems (see

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<sup>28</sup> The Forum concluded in November 2003 that the major obstacles in the securitization market in Japan are a lack of liquidity due to a limited number of investors, a cumbersome process of transferring assets to SPVs and the existence of certain high costs

Table 10 and in more detail subsection 6.2.2). In this respect, there is a clear and direct connection with the bad loan problems. It has been argued by many that securitization could be an excellent tool to solve or mitigate the non-performing loan problems in Japan [see for example: Herr and Miyazaki (1999); Deloitte & Touche (2002); Euromoney, 15 May 2002].<sup>29</sup> Thus, if the New Basel Capital Accord would affect negatively the market for securitization in Japan, then the contribution of this instrument to resolving the bad loan problems would be affected negatively as well. Of course, it is difficult to calculate the net effect, as the use of securitization instruments under the proposed framework of Basel II will be more heavily charged with capital. Thus, on the one hand, securitization could mitigate capital needs by reducing bad loans and risk-weighted assets; however, on the other hand, most likely the use of these instruments itself would lead to higher capital charges.

#### 6.2.2 On the other hand: More specific, catalyst for the development of risk-transfer instruments

Contrary to the general negative impact of the New Capital Accord on securitization, in the view of a considerable number of interviewees the use of specific securitization instruments which aim at the transfer of credit risk could actually be promoted by the Accord, because of the greater emphasis on (capital) risk-management and credit risk considerations in Basel II. As expressed by one interviewee, the key-word for Japanese banks in the context of Basel II is risk-transfer, which is now possible due to the introduction of new technologies and financial engineering. This applies in particular to the use of credit derivatives, but also to various kinds of Collateralized Debt Obligations (CDOs) which were discussed in the previous subsection.<sup>30</sup>

Regarding the use of credit derivatives in the Japanese banking sector, the total amount of credit derivatives' contracts increased from USD 13.95 billion at end-December 2002 to USD 22.91 billion at end-June 2003, a staggering increase of 64% in six months (see Table 11). This was fully due to the growth in the use of credit default swaps with 75%, in particular the amount of contracts bought which increased by 87%. Thus, Japanese banks have been buying protection against credit risk exposure in particular, in the context of their considerable balance sheet problems [see also various reports, NNS, 2003]. Some market analysts expressed the view that Basel II considerations could have played a role, although minor, as well. Although the use of credit derivatives may be affected negatively by Basel II as

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for securitization practices [NNS, 13 November 2003].

<sup>29</sup> Specialized securitization products have been developed by (foreign) investment banks which aimed at contributing to resolving the bad loan situation. An example is the introduction of non-performing loan backed commercial mortgage-backed securities (NPL-backed CMBS), see JP Morgan (2001).

<sup>30</sup> Credit derivatives are swap, forward and option contracts that allow one party (protection buyer or originator) to transfer credit risk of a reference asset, which it may or may not own, to one or more other parties, without actually transferring the ownership of the underlying asset [Kothari (2003b); Kiff and Morrow (2000), p.3]. The three major types of credit derivatives are credit default swaps (CDS), which are the most important category, total return swaps and credit-spread put options. In addition, they can be embedded in credit linked notes, which are a securitized form of credit derivatives. See also Merrill Lynch (2003) and Barclays Capital (2003). See for Japan: Ito and Harada (2003).

well, which is related to the specific definition that will be used in the case of default,<sup>31</sup> the expectation is that the combined impact of the resolution of the bad loan problems in Japan in parallel with the implementation of Basel II will stimulate the further development of these instruments.<sup>32</sup> This particularly so given that credit derivatives could be used as effective buffers to mitigate procyclicality concerns, which may be relevant for Japan (see subsection 6.2.6).

**Table 11 The use of credit derivatives in Japan**  
(in millions of USD)

Credit Derivatives	Jun-99	Dec-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03
<b>Total OTC Contracts</b>	11,159	16,538	14,691	13,281	14,309	17,432	16,363	13,951	22,914
									(64%)
<b>Credit Event / Default Swaps (Sold and Bought)</b>	10,230	12,831	12,248	11,698	12,815	15,127	14,442	12,446	21,727
									(75%)
<b>Credit Event / Default Swaps (Sold)</b>	5,173	3,388	3,259	3,599	4,275	4,357	6,250	4,557	6,973
									(53%)
<b>Credit Event / Default Swaps (Bought)</b>	5,057	9,443	8,989	8,099	8,540	10,770	8,192	7,889	14,754
									(87%)
<b>Total Return Swaps (Sold and Bought)</b>	338	2,707	1,630	956	888	1,269	973	443	377
<b>Total Return Swaps (Sold)</b>	65	1,289	459	0	19	175	175	411	0
<b>Total Return Swaps (Bought)</b>	273	1,418	1,171	956	869	1,094	798	32	377
<b>Credit Spread Products (Sold and Bought)</b>	36	16	0	0	0	0	6	15	21
<b>Credit Spread Products (Sold)</b>	36	16	0	0	0	0	3	8	10
<b>Credit Spread Products (Bought)</b>	0	0	0	0	0	0	3	7	11
<b>Credit-Linked Notes (issuance and purchase)</b>	502	921	731	561	550	1,024	887	992	734
<b>Credit-Linked Notes (issuance)</b>	270	629	591	561	144	0	0	0	0
<b>Credit-Linked Notes (purchase)</b>	232	292	140	0	406	1,024	887	992	734
<b>Others (Sold and Bought)</b>	55	55	82	67	55	12	55	55	55
<b>Others (Sold)</b>	55	55	55	55	0	6	0	0	0
<b>Others (Bought)</b>	0	0	27	12	55	6	55	55	55

Source: Bank of Japan. Historical Data Series on 'The Results of the Regular Derivatives Market Statistics in Japan (Yoshikuni Statistics)'

Note: Figures for credit derivatives are available from end-June 1999. Credit derivative figures are not collected by the BIS on a global basis as part of the Yoshikuni Statistics. Figures in brackets are annual percentage changes.

Regarding the use of other instruments that may be used to reduce credit risk exposure of Japanese banks, the use of Collateralized Debt Obligations (CDOs) has been discussed in the previous subsection. One interviewee feared that possibly the negative effects of Basel II on this type of securitization instrument would be more severe than for credit derivatives, which could have some impact on the further development of this market segment. In Japan, the use of Collateralized Loan Obligations (CLOs), which are formally a subset of CDO's, has been growing quite substantially in the course of 2003 in Japan as well, parallel to the growth in credit derivatives, as they provided substantial capital relief for Japanese banks [IFR (2003); NNS, various reports].<sup>33</sup> Table 12 shows that the cumulative issuance volume of CLOs during the first half of 2003 was almost 110% higher than during the first half of 2002. The increase use of CLOs started in the fall of 2002 when Mizuho Corporate Bank used this instrument to

<sup>31</sup> In CP3, the Basel Committee mitigated to a considerable extent these concerns: "The Committee has decided to make a significant change to the credit risk mitigation framework after extensive and fruitful consultation with the industry".

<sup>32</sup> Hiwatashi and Ashida (2003) emphasized the need for more effective risk transfer methods, which are being developed by insurance companies. These new products could be used to cover a wide range of operational risks.

<sup>33</sup> CDOs can be classified according to the various kinds of underlying assets in which they invest such as Collateralized Loan Obligations (CLOs) which are CDOs of leveraged bank loans, Collateralized Bond Obligations (CBOs) which are CDOs of high yield and investment grade bonds, and bank balance sheet CLOs which are CDOs of investment grade bank loans. See Barclays Capital (2003).

remove Yen 1.3 trillion worth of loans from its balance sheet. This was followed by similar actions by Sumitomo Mitsui Banking Corporation and UFJ, although smaller in size [NNS, 3 February 2003]. Table 12 also shows that CBOs play a very minor role in Japan and that, although small in size, synthetic CBOs increased dramatically by more than 550%.<sup>34</sup> Japanese banks have been assisted in this by the Development Bank of Japan, which underwrote Yen 2.24 trillion of these contracts in FY2002 [NNS, 28 March 2003].

**Table 12 Collateralized Debt Obligations (CDOs) in Japan** (*Yen Million*)

	2002		2003
	Full year	January-July	January-July
CLOs	374,542	143,800	300,888
CBOs	49,200	49,200	14,000
Synthetic CBOs	280,900	20,900	137,000
Non-performing loans	19,100	9,600	0

*Source: Nikko CitiGroup (2003b)*

### 6.2.3 Catalyst for the development of the syndicated loan market in Japan

Several interviewees expressed the view that Basel II will stimulate the syndicated loan market in Japan because of the increased attention for so-called concentration risk under the New Accord. That is, higher risk weights will be applied to large credit exposures to individual borrowers than for smaller borrowers. Thus, banks may want to limit their lending to individual corporate borrowers, which can be very well achieved in the form of syndicated loans, as they allocate various shares in the total loan among a large number of lenders. Syndicated loans would also be attractive from the view that they allow banks to maintain customer relationships, which may be squeezed under Basel II, but remove the related loans largely from their books.

The amount of syndicated loans extended in Japan in the first half of fiscal 2003 increased by almost 36% from a year earlier to USD 64.3 billion, which made the Japanese syndicated loan market the third fastest growing market in the world, behind France and Germany [Goldman Sachs (2003d)]. As is shown in Table 13, Mizuho Financial Group has been leading the market and its amount of syndicated loans reached USD 22.4 billion in the first half of 2003, followed by Sumitomo Mitsui Financial Group with USD 20.9 billion during the same period. The four major banks had a combined total amount of

<sup>34</sup> Synthetic CDOs can be interpreted as credit derivatives which transfer risk on entire credit portfolios, and thereby have been very useful for Japanese banks to mitigate their balance sheet problems. See Merrill Lynch (2003). However, one market analyst expressed the view that the boom in synthetic CBOs was fully related to capital adequacy fears of major banks between September 2002 and March 2003 and was, as of October 2003, basically over. Mizuho Bank introduced Yen 14 billion of collateralized bond obligations in March 2003 [NNS, 31 March 2003].

syndicated loans of USD 56.7 billion, or 65.9% of the total Japanese market during 2002.

**Table 13 Amount of syndicated loans at the four major Japanese banks (USD Million)**

Amount	2002 1H	2003 1H	Year on year	2002 full year	as % of 2002
Mizuho	18,510	22,412	21.1	36,038	62.2
SMFG	14,090	20,888	48.3	25,592	81.6
MTFG	6,084	9,590	57.6	17,562	54.6
UFJ	3,067	3,785	23.4	6,795	55.7
Total	41,751	56,674	35.7	85,987	65.9

Source: Goldman Sachs (2003c)

The main factors that promoted the syndicated loan market, in addition to a possible catalyzing role of the New Capital Accord, have been as follows. First, major banks saw this market as an interesting opportunity to collect fees, being the arranging bank, while reducing their loan concentration risk at the same time. According to the Bank of Japan, the major banks reported a significant increase in fees and commissions during FY2002, which largely came from loan syndication and commitment lines as well as mutual fund business and some other activities [Bank of Japan (2003a)]. The main participants in these syndicated loans organized by the major banks have been the regional banks and institutional investors, who used this opportunity to establish business relations with borrowers who had been difficult to approach on an individual basis, and broaden their profit capability [Hayami (2002b)]. The participation of regional banks is an extremely important development, as it established a much needed increase in the amount of risk-sharing between various Japanese banking sectors. As was discussed in section 3, the situation of regional banks in terms of balance sheet strength generally has been much better than that of the major banks, and so the growth of syndicated loans has established a much more balanced and sound allocation of credit risk in the Japanese financial system. Second, for companies whose credit ratings are at BBB or below, syndicated loans have been a cheaper way to obtain funds rather than issuing corporate bonds, which allowed them to diversify their corporate financing. A possible third factor that can be mentioned is the announcement of the BoJ to consider purchasing syndicated loans as eligible collateral for its lending operations. As syndicated loans to SME's had been increasing, the BoJ has been studying the possibility of accepting syndicated loans as eligible assets in order to enhance corporate financing and to foster the development of the syndicated loan market [Bank of Japan (2003f)].

#### 6.2.4 Pressure on the segmented structure of the Japanese banking system

In the view of a considerable number of interviewees, the New Basel Capital Accord may be an important impetus for structural reform in the Japanese financial system, as the Accord is expected to promote

further consolidation in the banking sector. As was discussed in section 3, the Japanese financial system is still characterized by significant degree of market segmentation, with for example specialized financial institutions for small businesses and agriculture financing. Given the likely move towards greater attention for retail banking activities at the large banks, the smaller banks may get squeezed in the process and feel themselves forced to reconsider their activities and strategies. Various market analysts observed considerable concerns at smaller banks in this respect, although the ultimate net impact may be somewhat mitigated because these banks will also benefit from the lowered risk weights for their traditional business areas such as SME financing. Basel II may also inhibit the further diversification of activities by the large financial groups, which currently do not possess major insurance operations, and may put existing informal relations with the insurance sector under pressure. It has been argued by many that the New Accord will frustrate the continuation of the universal banking and bancassurance models, to a considerable extent because of the introduction of capital charges for operational risk [see for example: Morgan Stanley (2003a) and (2003b); JP Morgan Securities (2001a) and (2001b)]. As result, the practice of “double gearing”, i.e. banks and life insurance companies providing each other with capital, may have to be reduced significantly.<sup>35</sup>

#### 6.2.5 Catalyst for more market-based credit markets

Furthermore, interviewees saw the introduction of the New Basel Capital Accord as a welcome opportunity to promote in Japan the move towards more emphasis on market-based credit pricing and thus ultimately towards a more efficient allocation of credit at the macro-level. This mainly because under Basel II banks will have to differentiate credit risk much more importantly at the level of the individual borrower than was the case under Basel I. Smith (2002) has shown that loan spreads in Japan are substantially lower, on average, than in the US and major European countries. This study also concluded that Japanese banks reflected differences in credit risk much less in their rates than foreign banks in the Japanese market, i.e. they were “... willing to offer lower-priced loans to a riskier set of Japanese borrowers”, and did not distinguish between good and bad risks. Peek and Rosengren (2003) demonstrated that Japanese banks extended an increasing share of their loans to troubled borrowers, in order to keep them afloat and by doing so avoiding to have to report more bad loans (plus related provisions) which would affect their capital adequacy ratios negatively. They claim that the resulting misallocation of credit inhibited the needed restructuring of the Japanese economy and adversely affected the long-run prospects for growth. It is difficult to predict to what extent exactly the New Accord will result in credit risk and credit costs being reflected much more accurately in Japanese lending rates. This would also require a better relationship between the pricing (i.e. economic value) of a loan and the value

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<sup>35</sup> The important mutual capital links between Japanese banks and life insurance companies have been criticized in Fukao (2002), BIS (2003) and IMF (2003).

of the underlying collateral, in other words would require an improvement in collateral management by Japanese banks. In this respect, an important question is whether banks can move from collateral-based lending, in Japan often characterized by insufficient considerations for fundamental economic values, towards lending more based on risk-return considerations. The need for improvement of lending practices in the Japanese market has been identified clearly in various reports published by the Bank of Japan. For example, Miyauchi (2003) discussed the need for the adoption of a new lending model by Japanese banks, as various factors such as a lack of covenants in loan agreements, credit management based on loan continuation, unclear loss-sharing rules and underdeveloped secondary markets for loan assets, in combination with existing provisioning rules, hinder Japanese banks from acting swiftly against deteriorating loans. Bank of Japan (2003b) also argued in favor of the need to change the traditional lending practices of Japanese banks and the importance of discounted cash flow (DCF) methods for establishing the economic value of loans, which Japanese banks started to adopt in FY2002. All in all, several interviewees expressed a careful optimism that the introduction of the New Basel Capital Accord will promote this development towards a more market-oriented lending model in the Japanese credit markets.

#### 6.2.6 Macro-economic impact of the New Basel Capital Accord

Finally, in addition to the effects on the functioning of the Japanese lending markets and the allocation of credit, there could be other macro-economic implications stemming from the introduction of Basel II by Japanese banks. The impact of risk-based capital adequacy ratios on macro-economic variables such as aggregate lending and economic activity has been extensively discussed in the academic community, in particular after the development of Basel I in the second half of the eighties.<sup>36</sup> Regarding the possible effects of Basel II in this respect, it has been argued that the IRB approach will lead to increased volatility and cyclical sensitivity of the minimum capital requirements of banks that choose for this methodology, suggesting the need for dynamic provisioning and capital buffers in order to avoid capital constraints during periods of deteriorating economic conditions [see ECB (2001b), pp.64ff]. This could pose a significant challenge indeed in the case of Japan, given the high degree of concentration in the Japanese banking market in general and the large market share of the Big Four financial groups in particular. If the IRB approach were to be adopted by Japanese banks, it will be among the largest banks. Given their dominant position in the lending market, the increased pro-cyclical impact of the New Capital Accord could exacerbate economic downturns, as the increased capital needs of the banks that adopted the IRB approach may force them to reduce their lending even more. Furthermore, it has been argued, for example

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<sup>36</sup> For general studies of macro-economic implications of risk-based capital adequacy requirements and pro-cyclicality concerns see for example: Blum and Hellwig (1995); Corcóstegui et. al. (2003); Heid (2003). For more specific studies that investigate the impact of these requirements on aggregate lending (credit crunch studies) see: B.J. Hall (1993); Berger and Udell (1994); Brinkmann and Horvitz (1995); Peek and Rosengren (1995a); Thakor (1996). For investigation of capital crunch studies see for

by Allan Greenspan, that due to the limited capability of Japanese capital markets to provide back-up financing when Japanese banks cannot perform their intermediation role, the Japanese financial system is relatively vulnerable to shocks [Greenspan (1999); see also Weinstein and Yafeh (1998)]. As has been documented extensively elsewhere, the Japanese financial system is still characterized by a dominance of bank-based financing [see for example: ECB (2001a)]. Although the published BIS Q&A mimeograph of the Bank of Japan downplayed the risk of credit-crunch type of situations in relation to Basel II, it needs to be seen what the actual impact will be. In any case, the Japanese Bankers Association seems to be more worried in this respect, as it argued that Basel II "... will amplify the effects of the business cycle" [Risk (2001d)].

## 7. Conclusions

This chapter has asserted that the New Basel Capital Accord is an important catalyst in shaping the business practices and structure of the Japanese banking industry in the years to come. This in parallel with other factors such as the resolution of the bad loan problems, the economic recovery and related performance of the stock market, the political climate and the proliferation of political interests, the process of financial innovations and the significance of international competitive forces. Generally and publicly, Japanese banks seem to be less worried about the effects of the New Accord on their business than they were at the time of the development and implementation of the Original Accord.<sup>37</sup> However, it has to be said that most Japanese banks are quite reluctant to discuss the issue of Basel II. For example, a large number of non-Japanese bank related private sector analysts expressed in personal interviews that they simply do not know what the exact position of most individual Japanese banks on the New Capital Accord is, and that Japanese banks hide behind perceived "vagueness" on the side of the FSA in this matter: as long as they do not know the specific Basel II related guidelines of the FSA, they do not have to take a position. This attitude could be interpreted somewhat positively as observed ambivalence which could be explained by the fact that the Accord does not have an impact on the definition of capital, as the numerator of the capital adequacy ratio is not changed. However, as was shown in section 3, the capital position of Japanese banks is still weak and needs to be strengthened substantially.<sup>38</sup> If Japanese accounting firms were to adopt the same tough stance as Resona Bank's auditors, and lower significantly the amount of DTA's in Tier I capital, one would have to fear for the solvency of several major Japanese banks. That is, the discretionary power of Japanese accounting firms to apply accounting rules strictly or

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example Peek and Rosengren (1995b).

<sup>37</sup> A notable exception is Mr. R. Masunaga of the Japan Centre for International Finance (JCIF) who declared that "... the Basel reforms could lead to the reappearance of the Japan Premium (in interbank markets)" [Risk (2001d)].

<sup>38</sup> Fitch Ratings (2003b) calculated that as of end-March 2003, the "pure" Tier I capital of Japanese banks, correcting for DTA's, public funds and preferred instruments, was actually negative.

not hangs as Damocles' sword over the Japanese banking industry. Furthermore, it has to be said that Japanese banks are not out of the danger zone in terms of the current development of the New Capital Accord, as regarding the definition of capital under Basel II the door seems not to be fully closed yet. In the September 2003 issue of the Federal Reserve Bulletin, it is explicitly stated that "... however, the definition of regulatory capital under Basel II remains under consideration by the Basel Committee" (footnote 5, p.398). The adoption of a stricter capital definition would lower the solvency levels of most of the major Japanese banks dramatically, almost overnight and most certainly, below 8%. It also needs to be emphasized that as long as the credit costs of Japanese banks are higher than their earnings capacity, their capital base will continue to erode. Thus, for a fundamental solution of Japanese banks' problems, it is of the utmost importance that they improve significantly and fundamentally profitability [see also Deutsche Bank (2003c)].

Furthermore, the implementation of the New Capital Accord may increase to some extent financial stability concerns in the Japanese financial system. For example, the "Bubble" economy was to a large extent caused by increased competition between various sectors in the Japanese financial system due to financial liberalization and financial innovations: when certain groups of financial institutions became squeezed as a result, they engaged more and more in excessive risky lending activities. If Basle II were to effectively establish the same pressures, for example due to increased competition in retail banking activities between segmented industries and markets, attention will have to be paid to avoid that history repeats itself. Furthermore, as has been shown in section 6, the use of securitization and credit derivatives has grown very fast over a very small period of time. Several bodies, including the BIS, have warned for the inherent risks embodied in the use of these instruments for financial stability, in particular for the risks of credit default swaps [BIS (2003); see also FT, 30 September 2003]. One may hope that the price to be paid for short-term mitigation of credit risk exposure and banks' balance sheet restructuring will not be an increase in systemic risk in the long run.<sup>39</sup>

It is clear that Basel II will also have important consequences for the specific operation of national supervisors as well. Under the second pillar of the New Capital Accord – i.e. the supervisory review process – their role is enhanced substantially [see ECB (2001b)]. They will have to monitor closely the credit risk assessments of banks, which in certain cases will undoubtedly become much more complex, and intervene where deemed necessary. The supervisory authorities will be faced with substantially higher demands in terms of expertise and supervisory capacities in order to be able to exercise the role assigned to them under the second pillar.

Furthermore, it is clear that the IRB approach contains significant subjective elements, for example the calculation of the risk weights based on the banks own internal ratings which need to be

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<sup>39</sup> From a completely different perspective, J. Frye of the Federal Reserve Bank of Chicago argued that Basel II could propagate similar financial problems experienced by Japan after the collapse of its "Bubble" among countries. See Risk (2001b).

approved by the regulatory authorities. Given the high degree of subjectivity, the success of Basel II is directly linked to an objective application of the rules that would establish a level-playing field between banks, both nationally and internationally.<sup>40</sup> Based on information obtained from various interviews, the subjective character of Basel II is generally not favored by Japanese banks, which experienced a substantial degree of supervisory discretion during the height of the recent banking crisis, and see it as an important legal risk. One of the most important lessons from the Japanese banking crisis is that discretion and subjective regulation have serious drawbacks compared with rule-based and objective prudential supervision, as they easily establish supervisory frameworks of a rather opaque nature. This lesson should not be forgotten.

Furthermore, given the high degree of subjectivity and judgment under Basel II, it is clear why there is the need for the third pillar of market discipline. If the responsibilities and requirements under the first and second pillars are not effectuated in a correct manner, outside market participants such as rating organizations have to discipline both banks and supervisors. This requires adequate disclosure and transparency practices, and the elimination of discrete and informal legal frameworks which constitute considerable legal risks for the banks involved as well. For anyone who has been following Japanese banking, in particular during the past 10 years, the only conclusion can be that disclosure and transparency were often not promoted and not established effectively [Van Rixtel (2002)].<sup>41</sup> In the past years, the Japanese government in general and the FSA in particular have taken important steps in order to mitigate these concerns, but as has been argued quite persuasively by the IMF, there seems still room for improvement [IMF (2003)]. In this respect, it will be very interesting to see which specific initiatives will be developed in order to further promote compliance with market discipline, such as the frequency and content of disclosure by Japanese banks.

Finally and most essentially, the question arises why Basel II will work in Japan where Basel I seemed to have failed. That is, the 1988 Capital Accord did not prevent the banking crisis in Japan to emerge in the first place and failed to correct it in the second place. Of course, one could argue that this is too much to expect from a relatively limited regulatory framework that aimed rather exclusively on maintaining a certain level of solvency ratios. On the other hand, the criticism has been raised that Basel I, instead of mitigating the problems in the Japanese banking sector, rather exacerbated them. That is, the major Japanese banks started to focus predominantly on maintaining their capital adequacy ratios above 8% and in this process used every available trick of the book. Over the past 10 years, a continuous pattern of artificially under-reporting of non-performing loan problems and over-reporting of capital levels has

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<sup>40</sup> Rodriguez (1999), p.15, states that "... Basel II leaves so much discretion to national regulators that one could make the case that international capital standards have ceased to exist, even if there is still an international agreement on capital standards". See also Euromoney (2001).

<sup>41</sup> For example, Shrieves and Dahl (1998) concluded that during the period 1989-1996 the discretionary accounting behavior of Japanese banks was instrumental in enabling them to comply with the BIS capital adequacy rules.

characterized Japanese banks' reporting practices, often aided by discretionary changes in accounting rules and other ad-hoc policy measures. Actually, Japanese banks have been quite successful in this respect: basically all financial institutions that collapsed showed on the eve of their bankruptcy capital ratios perfectly in line with Basel I stipulations, i.e. well above 8%. The existence of extensive informal business networks between banks and non-financial corporations, aided by the "Main Bank" system and relationship banking, and of widespread mutual stakes of financial institutions in each other's affiliates made it possible to hide bad loans relatively easy from supervisory inspections. This lesson absolutely strengthens the case for much more disclosure in general and greater use of consolidated accounting practices in particular, for example with respect to reported figures on non-performing loans. It is clear that Basel II tries to address some of these shortcomings by introducing the second and third pillars which may be of considerable importance in the case of Japan. In this respect, the New Capital Accord is certainly a major improvement compared with its predecessor. Theoretically, it will provide Japanese banks with a much more balanced framework to take economically much better founded risk-return and portfolio decisions than under Basel I. Theoretically, it gives Japanese supervisors a considerably enhanced set of tools under the combined structure of three pillars to implement more effective policy decisions, as it does for other countries as well. Practically, in the end, it is also clear that if Basel II were to achieve its aims in Japan, important changes in Japanese banks' lending practices need to be achieved first, such as a much better reflection of credit risk in banks' interest rate spreads. It is to be hoped that the looming introduction of Basel II will function indeed as a strong catalyst in this respect.

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