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**Financial Stability:
Overcoming the Crisis and
Improving the Efficiency of
the Banking Sector**

**Randall S. Jones,
Masahiko Tsutsumi**

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**FINANCIAL STABILITY: OVERCOMING THE CRISIS AND IMPROVING THE EFFICIENCY OF
THE BANKING SECTOR IN JAPAN**

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by **Randall S. Jones and Masahiko Tsutsumi**

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ABSTRACT/ RÉSUMÉ

Financial stability: overcoming the crisis and improving the efficiency of the banking sector in Japan

Japanese banks largely avoided the direct impact from the global financial crisis thanks to their limited exposure to foreign toxic assets, the regulatory framework in Japan and the small role of securitisation. However, the sharp contraction in output and the plunge in equity prices did have adverse impacts on the banking sector. The authorities responded with measures to stabilise the financial market, inject capital in depository institutions and sustain lending to small companies. These emergency measures should be phased out to limit distortions once the recovery is in place. It is essential to upgrade the regulatory framework by improving the transparency of securitised products, credit rating agencies and capital adequacy regulations. It is also important to address chronic problems, including low profitability, particularly in regional banks, and increase the efficiency of the financial sector. This requires a number of steps, including privatising public financial institutions, enhancing the efficiency of banking services and expanding the range and quality of financial products.

This Working Paper relates to the 2009 *OECD Economic Survey of Japan* (www.oecd.org/eco/surveys/Japan).

JEL classification: Q28, Q54, Q56, Q58

Keywords: Japan; Japanese economy; financial sector; global financial crisis; banks; regional banks; capital markets; securitisation; capital adequacy regulation; Basel II; credit rating agencies; reverse mortgages; FSA; Bank of Japan; capital injections.

* * * * *

Stabilité financière : surmonter la crise et améliorer l'efficacité du secteur bancaire au Japon

Les banques japonaises ont été en grande partie épargnées par les effets directs de la crise financière mondiale, grâce à leur exposition limitée aux actifs toxiques étrangers, au cadre réglementaire en place au Japon et au rôle modeste de la titrisation. Néanmoins, la forte contraction de la production et la chute des cours des actions ont indéniablement eu des répercussions préjudiciables sur le secteur bancaire. Les autorités ont réagi en prenant des mesures pour stabiliser le marché financier, injecter des capitaux dans les établissements de dépôts et préserver le crédit aux petites entreprises. Ces mesures d'urgence devraient être démantelées progressivement afin de limiter les effets de distorsion qui en découlent, une fois que la reprise sera ancrée. Il est essentiel de moderniser le cadre réglementaire en améliorant la transparence des produits titrisés, le fonctionnement des agences de notation financières et les règles relatives aux fonds propres. Il importe également de remédier à des problèmes chroniques, dont la faible rentabilité des établissements financiers, en particulier des banques régionales, et de renforcer l'efficacité du secteur financier. Cela passe par diverses mesures, notamment par la privatisation des établissements financiers publics, l'amélioration de l'efficacité des services bancaires, et le renforcement de la diversité et de la qualité des produits financiers.

Ce Document de travail se rapporte à l'*Étude économique de l'OCDE du Japon*, 2009 (www.oecd.org/eco/etudes/japon).

Classification JEL : Q28, Q54, Q56, Q58

Mots clés: Japon ; économie japonaise ; secteur financier ; crise financière mondiale ; banques ; banques régionales ; marchés de capitaux ; titrisation ; règles relatives aux fonds propres ; Bâle II ; agences de notation financières ; prêts viagers hypothécaires ; FSA ; Banque du Japon ; injections de capitaux.

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FINANCIAL STABILITY: OVERCOMING THE CRISIS AND IMPROVING THE EFFICIENCY OF THE BANKING SECTOR

By Randall S. Jones and Masahiko Tsutsumi¹

The crisis that originated in mid-2007 in the United States and deepened in September 2008 is the largest peace-time disruption of financial markets since the Great Depression. It was triggered by a number of factors, namely the large amount of lending to subprime borrowers, the expansion of securitisation resulting in a disconnect between loan originators and final investors, the questionable assessments of credit rating agencies and the unprecedented resort to off-balance sheet vehicles. These developments took place during a traditional credit boom and reinforced the skyrocketing of asset prices, erosion of lending standards and under-pricing of risk. The crisis had serious repercussions worldwide, particularly in Europe, given the global nature of financial markets.

This paper begins by considering why the Japanese banking system was initially relatively resilient to the deterioration in the global financial system, although there were some secondary effects that are discussed in the following section. The third section outlines the emergency response of the Japanese authorities to the financial crisis, including quantitative measures by the central bank and other institutions and regulatory changes by the Financial Services Agency (FSA). At the same time, the authorities have taken steps to improve the regulatory framework. The fourth section goes beyond the crisis to consider policies to boost chronically low profitability in the banking sector. Measures to promote efficiency in the financial sector by upgrading capital markets and improving the range and quality of financial products are discussed in the following section. The paper concludes with recommendations, shown in Box 2.

Why did the global financial crisis have relatively little direct impact on Japan's banking sector?

While this financial crisis is unique in certain aspects, such as the important role of securitisation, it resembles other bubble episodes, including Japan's experience in the 1990s, in many respects. The direct impact on Japanese banks from this crisis has been small compared with banks in other countries. According to an IMF estimate in April 2009, Japanese banks and other financial institutions will lose \$149 billion in total due to the crisis (2% of their outstanding loans and securities), compared with \$1.2 trillion (5%) in Europe and \$2.7 trillion (10%) in the United States (IMF, 2009). One major reason was that Japanese banks in the first half of the current decade were preoccupied with recovering from the last crisis by increasing their capital and reducing non-performing loans (NPLs). Indeed, NPLs were cut by more than half between FY 2001 and FY 2004, while normal loans outstanding fell by 16% (Figure 1). A number of other inter-related factors enabled Japanese banks to avoid the worst of the crisis.

1. Randall S. Jones is head of the Japan/Korea Desk in the Economics Department of the OECD and Masahiko Tsutsumi is an economist on that desk. This paper initially appeared as a chapter in the *OECD Economic Survey of Japan* published in September 2009 under the authority of the Economic and Development Review Committee (EDRC). The authors would like to thank Rudiger Ahrend, Boris Cournède, Andrew Dean, Jørgen Elmeskov, Robert Ford and Vincent Koen for valuable comments on earlier drafts. Special thanks go to Lúcia Daniel for technical assistance and to Nadine Dufour and Lillie Kee for technical preparation.

Banks had limited exposure to subprime-related financial products

First, Japanese financial institutions directly or indirectly held a small amount of subprime-related products and were less involved in originate-to-distribute type activities. Indeed, the book value of banks' subprime-related products was 1 trillion yen at the end of March 2008 and declined by half by the end of March 2009, when it accounted for only 1% of their Tier 1 capital (Table 1), although the loss ratio was high at 72.8%. Holdings of securitised financial products other than subprime loans were much larger, at more than 18 trillion yen, but had a lower loss ratio of 14.5%.

Table 1. Securitised financial products held by deposit-taking institutions in Japan

| | End-March 2008 | End-March 2009 | Change |
|---|-------------------|-------------------|--------|
| A Amount in billion yen | | | |
| Tier 1 capital | 50 081 | 47 926 | -2 155 |
| Operating profit from core businesses | 6 093 | 3 896 | -2 197 |
| Valuation profits/losses for equity holdings | 5 781 | -390 | -6 171 |
| Book value of financial products related to subprime loans | 1 019 | 449 | -570 |
| Unrealised gains and losses | -125 | -93 | 32 |
| Realised gains and losses ¹ | -725 | -1 001 | -276 |
| Book value of financial products other than subprime loans ² | 22 793 | 18 483 | -4 310 |
| Unrealised gains and losses | -983 | -767 | 216 |
| Realised gains and losses ³ | -1 453 | -2 535 | -1 082 |
| B Share of Tier 1 capital in per cent | | | |
| Operating profit from core businesses | 12.2 | 8.1 | -4.0 |
| Valuation profits/losses for equity holdings | 11.5 | -0.8 | -12.4 |
| Book value of financial products related to subprime loans | 2.0 | 0.9 | -1.1 |
| Unrealised gains and losses | -0.2 | -0.2 | 0.1 |
| Realised gains and losses ¹ | -1.4 | -2.1 | -0.6 |
| Loss ratio ³ | -48.3 | -72.8 | -24.4 |
| Book value of financial products other than subprime loans ² | 45.5 | 38.6 | -6.9 |
| Unrealised gains and losses | -2.0 | -1.6 | 0.4 |
| Realised gains and losses ¹ | -2.9 | -5.3 | -2.4 |
| Loss ratio ³ | -9.8 | -14.5 | -4.7 |
| Reference | | | |
| Tier 1 capital to GDP (in per cent) | 9.7 | 10.0 | 0.2 |
| Tier 1 capital in billion US dollar | 425.3 | 511.4 | 86.0 |

1. Realised losses are cumulative amount in each financial year.

2. This includes various securitised products, e.g. CLOs, CDOs, RMBS, and leveraged loans, excluding subprime-related products.

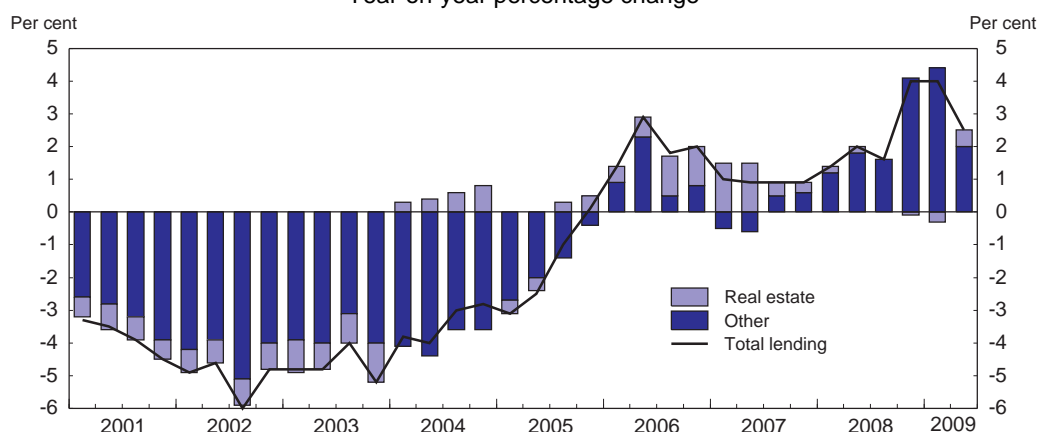
3. The loss ratio is defined as the sum of valuation profits/losses (as of end-March), additional provisions and impairment (from 1 April 2007 to 31 March 2009) as a percentage of the book value at the beginning of the period.

Source: Financial Services Agency.

Japan avoided a housing bubble

Second, Japan did not experience the run-up in real estate prices that occurred in many OECD countries. Between 2000 and 2008, the ratio of house prices to income in Japan dropped by 22 percentage points, in contrast to gains of 20 points or more in a number of OECD countries (Figure 2). The sharp drop resulted from the continued decline in land prices. After 15 consecutive years of decline, nationwide land prices stabilised in 2006-07, reflecting increases in Tokyo. However, the recovery was short-lived as nationwide land prices started to decline again in 2008.

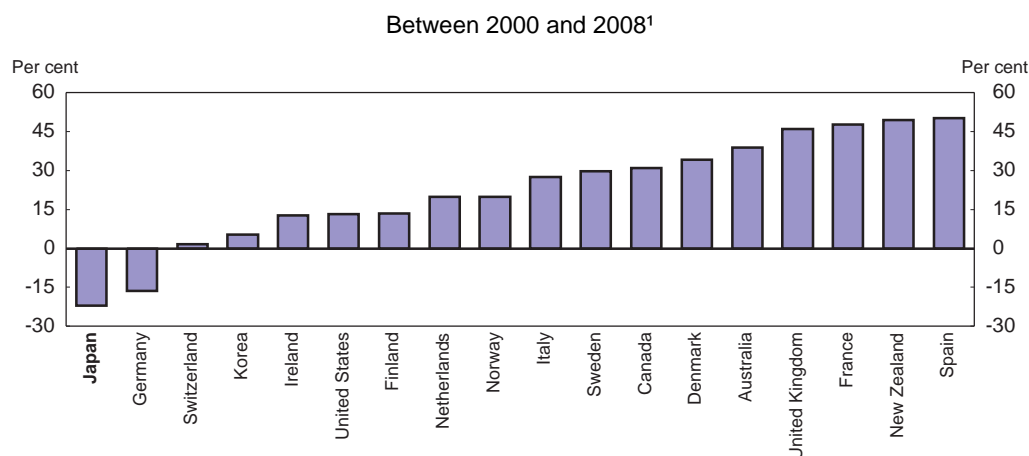
Figure 1. Loan growth and the contribution of the real estate sector
Year-on-year percentage change



Source: Bank of Japan.

Banks did expand their mortgage credits to households following the 2001 decision to gradually reduce new loans by the Government Housing Loan Corporation (GHLC) in preparation for its privatisation in 2007. Between FY 2001 and FY 2008, 20% of outstanding housing loans shifted from the GHLC to banks.² Overall loan growth turned positive in 2006, thanks in part to increased lending to the real estate sector.³ However, banks' prudent lending behaviour, in line with the FSA's guidelines, notably on the loan-to-value ratio, helped Japan to avoid a debt-driven housing price bubble. Moreover administrative guidelines issued in 2006 by the FSA helped to cool down the expansion in bank lending driven by the real estate sector. With non-recourse loans to real-estate funds, including private funds and real estate investment trusts (REITs), rising 30% (year-on-year) by late 2006,⁴ the FSA instructed banks to: *i*) ensure proper risk control, taking into account the sectoral concentration of loans outstanding; *ii*) carefully watch the corporate governance of management companies of REITs; *iii*) monitor the activities of securities companies, including their underwriting of REITs, offerings of private real estate funds and their screening processes in originating commercial mortgage-backed securities (CMBS). This administrative guidance was a factor in the stabilisation in bank lending to the real estate sector in 2007.

2. Non-banks (finance companies) also expanded outstanding housing loans at a 30% annual rate from March 2004 to June 2007, boosting their share from 2.3% to 5.3%.
3. The privatisation of the GHLC, renamed the Japan Housing Finance Agency (JHF), ended its direct lending. The JHF specialised in securitising housing loans by private lenders. The impact of this reform was similar to the additional regulation imposed on Fannie Mae and Freddie Mac in the United States, which opened the way for banks to move in on their market (Blundell-Wignall *et al.*, 2008). The new securitisation business of the JHF is similar to the role of Fannie Mae and Freddie Mac.
4. The FSA described the surge in bank lending to real estate trust funds in 2006 as symptomatic of a bubble (see www.fsa.go.jp/news/18/20061226-7.html). It noted that commercial land prices in the three large cities were rising after fifteen years of continuous drops, driven by a sharp increase in a district in the centre of Tokyo, suggesting that it was triggered by expectations of rising future rents. Furthermore, the book value of real estate outstanding in real estate funds more than doubled in 18 months.

Figure 2. Changes in the ratio of housing prices to income

1. For Finland, 2001-08.

Source: OECD, *OECD Economic Outlook*, No. 85, OECD, Paris.

The regulatory impact of shifting from Basel I to Basel II

Third, the implementation of Basel II, announced in 2004, reduced banks' appetite for risk, in contrast with other countries, notably the United Kingdom, where it encouraged banks to engage in mortgage loans and securitisation.⁵ The capital weight given to mortgages fell from 50% to 35% under the simplified Basel II to as low as 15% to 20% for banks under the more sophisticated internal ratings-based (IRB) version (Blundell-Wignall *et al.*, 2008). Greater concentration in low capital-weighted mortgages allows more lending against a given capital base, thereby improving a bank's overall return. In Japan, in contrast, moving to Basel II raised the minimum required capital of group I banks⁶ due to their large equity holdings (FSA and BOJ, 2006). Indeed, under the IRB version of Basel II, the weight of equities purchased after 2004 was increased. The higher minimum required capital more than offset the reduced risk weight on mortgage loans and other changes in the calculation of capital requirements.

An immature market for securitised products

Fourth, the relatively undeveloped securitised product market and the limited use of the originate-to-distribute business model helped to shield Japanese banks from the global crisis. The development of securitisation was boosted in the late 1990s by the creation of a legal framework with preferred tax treatment for securitisation to address the NPL issue. Still, the ensuing expansion over FY 2004-06 was from a low base, boosting the securitised product market from 1.1% to 1.7% of GDP (Table 2).⁷

5. Basel II shifted from a simple focus on capital adequacy toward risk-based banking supervision. Although the minimum capital requirement remained at 8%, the notion of risk-weighted asset was expanded to reflect not only credit risks, but also market and operational risks. In practice, Basel II allows financial institutions to apply an internal ratings-based approach for their mortgage loans and securitised products.

6. Large, diversified and internationally active banks with Tier 1 capital exceeding 3 billion euro.

7. The firewall regulation between banks and security companies, Article 65 of the Securities and Exchange Law, was similar to the US Glass-Steagall Act of 1933. Mutual entry through subsidiaries of parent banks or securities companies was allowed in 1993, followed by the liberalisation of regulations on establishing financial holding companies in 1998. The firewall regulation in the Financial Instruments and Exchange Act was replaced with an article requiring a management system that avoids conflicts of interest.

Residential mortgage-backed securities (RMBS) accounted for about half of the market, with the Japan Housing Finance Agency (JHF) playing a leading role (Panel B). The securitised product market contracted to only 0.8% of GDP in FY 2008, due primarily to the global crisis, with the administrative guidance discussed above and the introduction of Basel II also playing a role.

Table 2. Securitised product markets in Japan

| A. Issuance of securitised products by type of assets (in billion yen) | | | | | | | | |
|---|-------------------|-------------------|------------------|-------------------|----------------|-------|--------|-----------------|
| FY | RMBS ¹ | CMBS ² | CDO ³ | Leasing contracts | Consumer loans | Other | Total | Per cent of GDP |
| 2004 | 2 451.7 | 550.4 | 479.0 | 751.9 | 380.0 | 641.0 | 5254.1 | 1.1 |
| 2005 | 4 924.6 | 1 130.7 | 426.5 | 765.3 | 291.3 | 483.5 | 8021.9 | 1.6 |
| 2006 | 5 121.5 | 1 509.7 | 311.5 | 714.9 | 286.3 | 510.0 | 5453.8 | 1.7 |
| 2007 | 3 262.8 | 1 909.3 | 350.8 | 649.3 | 208.3 | 534.8 | 6915.3 | 1.3 |
| 2008 | 1 968.1 | 373.9 | 109.6 | 258.9 | 536.9 | 591.7 | 3839.0 | 0.8 |

| B. Issuance of RMBS by originator (in billion yen) | | | | | | | | |
|---|---------|----------------------|----------------|-------------------|-------|--------|-------------------------------|-----------------|
| FY | JHF | City and trust banks | Regional banks | Finance companies | Other | Total | Share of securitised products | Per cent of GDP |
| 2004 | 360.0 | 1 744.3 | 202.8 | 85.1 | 59.5 | 2451.7 | 46.7 | 0.5 |
| 2005 | 2 037.8 | 1 590.4 | 250.4 | 127.4 | 918.6 | 4924.6 | 61.4 | 1.0 |
| 2006 | 2 179.0 | 2 051.8 | 201.0 | 358.0 | 331.6 | 5121.5 | 60.6 | 1.0 |
| 2007 | 2 257.0 | 516.7 | 33.5 | 178.4 | 277.3 | 3262.8 | 47.2 | 0.6 |
| 2008 | 1 464.2 | 211.7 | 22.7 | 180.8 | 88.7 | 1968.1 | 51.3 | 0.4 |

| C. Issuance of CMBS by originator (in billion yen) | | | | | | | | |
|---|----------------------|---------------|-------------------|----------------|-------|--------|-------------------------------|-----------------|
| FY | Securities companies | Foreign banks | Finance companies | Domestic banks | Other | Total | Share of securitised products | Per cent of GDP |
| 2004 | 66.6 | 46.6 | 131.5 | 130.6 | 175.2 | 550.4 | 10.5 | 0.1 |
| 2005 | 87.0 | 46.7 | 123.1 | 127.2 | 746.7 | 1130.7 | 14.1 | 0.2 |
| 2006 | 866.7 | 86.2 | 218.8 | 38.4 | 299.6 | 1509.7 | 17.9 | 0.3 |
| 2007 | 782.7 | 102.3 | 698.1 | 254.2 | 72.0 | 1909.3 | 27.6 | 0.4 |
| 2008 | 21.7 | 135.3 | 36.4 | 76.6 | 103.9 | 373.9 | 9.7 | 0.1 |

1. Residential mortgage-backed securities.

2. Commercial mortgage-backed securities.

3. Collateralised debt obligations.

Source: Japanese Bankers Association and Securities Dealers Association.

Less incentive for managers to earn short-term profits

Fifth, the remuneration system and corporate governance in general in Japan do not promote risk-taking behaviour as they do in many countries, reflecting the weak link between total compensation and corporate performance.⁸ Indeed, 44% of total compensation of CEOs in Japan is linked either to corporate performance or stock options, compared with 71% and 87%, respectively in the euro area and the United States (JACD, 2007). In financial institutions in a number of countries, the remuneration system has not been closely related to the strategy of the company and its long-term interests (Kirkpatrick, 2009). Remuneration schemes can misalign incentives between banks' management and their shareholders, leading to excessive risk-taking. In particular, bonus plans that reward the short-term performance of managers encourage them to increase short-term returns, at the risk of greater losses in the future. The Financial Stability Forum (FSF) has encouraged financial supervisors to mitigate risks arising from inappropriate incentives (FSF, 2008), focusing on compensation systems that affect the behaviour of bank managers (FSF, 2009a). In Japan, the average salary of bank managers is less than in many other major

8. A study on the sensitivity of CEO compensation with respect to firm performance in Japan showed that the sensitivity decreased after the 1990s (Kubo and Saito, 2008).

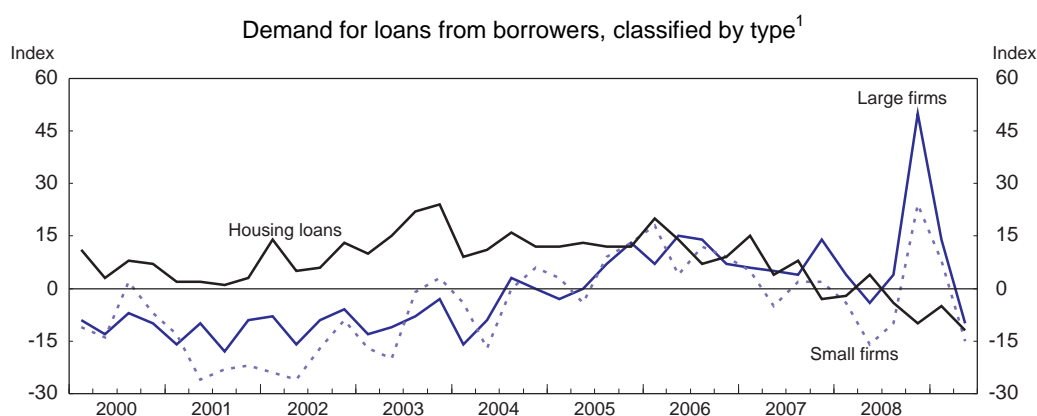
countries, owing in part to the legacy of the previous crisis. The pattern of internal promotions in Japanese financial institutions also encourages a cautious approach. While the pay and incentive structure has limited excessive risk-taking, it is also blamed for low profitability, less innovation and long delays in addressing the NPL problems in the 1990s.

Strong secondary shocks hit the financial sector

Although the direct impact of the global financial crisis on the banks has been relatively small, they have been adversely affected by turmoil in Japanese capital markets, the significant drop in equity prices and the sharp contraction in real economic activity, which increased credit risk. The decline in the risk appetite of investors and liquidity problems in capital markets made it difficult for large firms to issue commercial paper (CP) and corporate bonds without paying a large premium. Indeed, the issuance of new corporate bonds in October and November 2008 fell by 86% and 95% (year-on-year), respectively. The malfunctioning of capital markets forced firms to increase borrowing from banks, resulting in a surge in loan demand by large firms in the fourth quarter of 2008 (Figure 3). Consequently, loan growth in the fourth quarter of 2008 doubled to 4%, while loans to small enterprises fell, reflecting rising credit risk.

The sharp decline in equity prices led to significant erosion in bank capital, which was still somewhat fragile even before the crisis. Although banks had reduced equity holdings from over 8% of total assets in 1999 to less than 2% at the time of the crisis (Figure 4), well below the legal limit,⁹ equity prices still matter for the soundness of banks. Unrealised capital gains on bonds and equities, which reached 11 trillion yen in 2007, had turned to losses estimated at around 2 trillion yen for both major banks and for regional financial institutions by the first quarter of 2009 (Figure 5).¹⁰ With 45% of unrealised gains counted as capital, and unrealised losses deducted from capital, the equity price decline reduced banks' capitalisation.

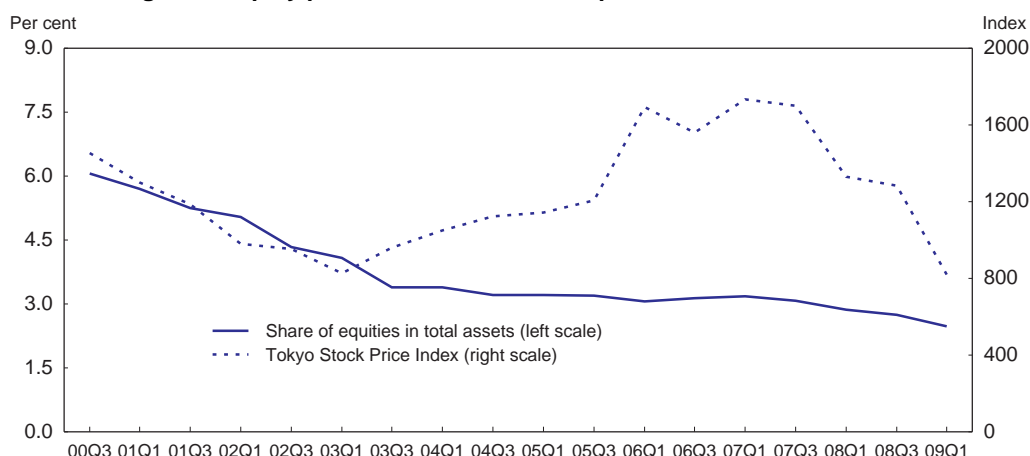
Figure 3. Senior Loan Officer Opinion Survey



1. Diffusion index for demand for loans = (percentage responding "substantially stronger" + percentage responding "moderately stronger" × 0.5) - (percentage responding "substantially weaker" + percentage responding "moderately weaker" × 0.5).
Source: Bank of Japan.

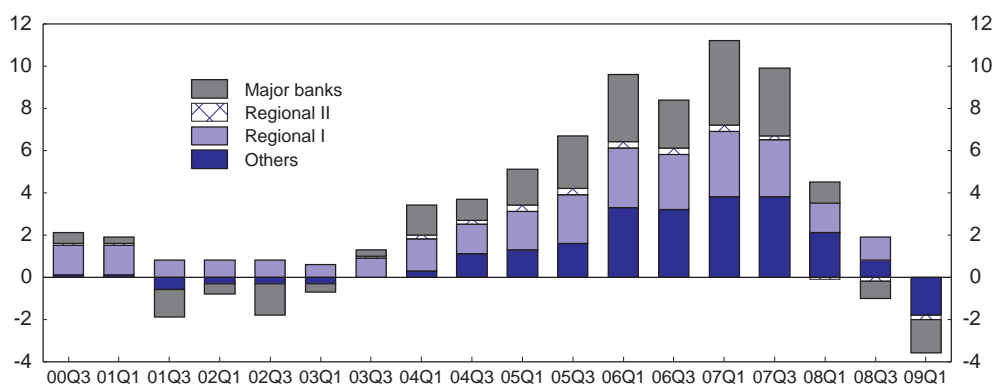
9. By law, banks' equity holdings are not to exceed their core capital, which amounted to 5.4% of total assets for major banks in FY 2007 and 4.5% for regional banks.

10. Based on the FSA's preliminary summary of banks' financial statements in FY 2008. For major banks, aggregate figures are available at www.fsa.go.jp/news/20/ginkou/20090529-4.html and for regional banks at www.fsa.go.jp/news/20/ginkou/20090529-2.html.

Figure 4. Equity prices and the share of equities in banks' total assets

Source: Bank of Japan and Datastream.

The ordinary profit of all banks fell into negative territory in FY 2008 for the first time in six years, as did the return on equity. The loss primarily reflects the impact of declining equity prices, while net business profits remained in surplus. Although the NPL ratio stayed constant, the disposal of NPLs rose from 1.1 trillion yen in FY 2007 to 3.1 trillion yen (0.7% of loans outstanding) in FY 2008, as a result of the increasing number of bankruptcies and worsening business condition of borrowers. The banking sector is likely to record additional losses in FY 2009 in the context of falling output and weakness in the corporate sector.

Figure 5. Banks' unrealised gains and losses on their securities holdings
In trillion yen¹

1. A moving sum of the preceding six months.

Source: Bank of Japan.

Japan's policies to mitigate the impact of the crisis on the financial sector

As the financial crisis hit Japan through trade and capital flows, the authorities responded with a number of policies to mitigate those shocks on the banks by focusing on sustaining credit flows rather than on banks' soundness. In contrast to the 1990s, the response has been prompt and forceful (Box 1). This

section focuses on the measures by the Bank of Japan (Table 3),¹¹ the FSA (Table 5) and other institutions (Table 6).

Measures by the Bank of Japan

The Bank has implemented a number of measures to stabilise financial markets and facilitate corporate financing (Table 3). The pace of outright purchases of government bonds (JGBs) was increased from a 14.4 trillion yen annual rate prior to December 2008 to 21.6 trillion yen (4% of GDP) in March 2009. In addition, the Bank facilitated bank lending to the corporate sector through its own purchases of CP and corporate bonds. By mid-2009, its outstanding outright purchases of CP and corporate bonds each amounted to around 0.2 trillion yen, a small fraction of the authorised amount. A more effective measure to support corporate financing was the introduction of “special funds-supplying operations” in January 2009. This scheme provides unlimited funds to banks at the policy interest rate (currently 0.1%), based on an expanded range of corporate financing instruments that are eligible as collateral. In practice, this puts downward pressure on the short-term lending rate. The outstanding amount rose to 7.5 trillion yen by mid-year.

In addition to measures to reduce market stress and risk premiums, the Bank launched policies to secure the stability of the financial system. The Bank resumed purchases of equities held by financial institutions in February 2009 and by the end of July 2009 had purchased 38.1 billion yen. In addition, it launched a new plan to provide subordinated loans to banks engaged in international operations to strengthen their capital base. The first such loan took place in June 2009.

Measures by the Financial Services Agency

Stabilising the stock market

Japan’s capital markets were severely hit by the global crisis, as the equity price index fell by half in a couple of months, forcing investors to deleverage their balance sheets. The FSA took six measures aimed at stabilising stock markets (Table 5), including easing regulations to allow firms to purchase their own equities and to curb perceived destabilising speculation by strengthening disclosure of positions and regulations on short selling, consistent with the IOSCO (2008) recommendations. To cushion the capital position of the banking sector, the FSA decided to have the government’s Banks’ Shareholdings Purchase Corporation (BSPC)¹² resume purchases of equities held by banks. The upper limit was raised to 20 trillion yen (4% of GDP) as part of the December 2008 economic package. As of the end of July 2009, however, purchases amounted to only 140 billion yen.

11. Monetary policy actions by the Bank of Japan are discussed in Chapter 1 of the 2009 *OECD Economic Survey of Japan*.

12. The 2001 Shareholdings Restriction Law required banks to reduce their equity holdings. There was concern that the release of a large amount of shares into the market at one time would affect the share values, with possible negative effects for the stock market and the stability of the financial system. In order to prevent such an outcome, the BSPC was established in 2002 to purchase shares held by banks. The BSPC purchases shares from banks and sells them at market values.

Table 3. Measures by the Bank of Japan**A. Financial market stabilisation policies**

| Measures | Date announced (expiration date shown in parentheses) | Amount outstanding ¹ (ceiling shown in parentheses) |
|--|---|--|
| 1. Expansion of the securities lending facility | 16 Sep 2008 (30 Oct 2009) | |
| 2. Introduction and expansion of U.S. dollar funds-supplying operations | 18 Sep 2008 (1 Feb 2010) | \$18 billion (unlimited) |
| 3. Expansion of the purchases of JGBs with repurchase agreements | 14 Oct 2008 (indefinite) | 6.3 trillion yen |
| 4. Introduction of the complementary deposit facility | 31 Oct 2008 (15 Jan 2010) | |
| 5. Expansion of outright purchases of JGBs | | |
| a. Increase in outright purchases of JGBs to 16.8 trillion yen per year | 19 Dec 2008 | 45.2 trillion yen |
| b. Increase in outright purchases to 21.6 trillion yen per year | 18 Mar 2009 | |
| c. Expansion in the range of JGBs accepted in outright purchases | 19 Dec 2008 (indefinite) | |
| d. Introduction of outright purchases of JGBs from specific brackets classified by bond type and residual maturity | 19 Dec 2008 (indefinite) | |
| 6. Inclusion of the Development Bank of Japan as a counterparty in operations such as CP repo operations | 19 Dec 2008 (31 Mar 2010) | |
| 7. Expansion in the range of eligible collateral | | |
| a. Acceptance of debt instruments issued by real estate investment corporations as eligible collateral | 22 Jan 2009 (indefinite) | |
| b. Inclusion of government-guaranteed dematerialised CP in eligible collateral | 19 Feb 2009 (indefinite) | |
| c. Expansion in the range of eligible collateral for loans on deeds to the public sector | 7 Apr 2009 (indefinite) | |
| d. Acceptance of US, UK, German and French government bonds as eligible collateral | 22 May 2009 (temporary) | |
| 8. Provision of sufficient funds over the year-end (calendar and fiscal) | | |
| B. Measures to facilitate corporate financing | | |
| 1. Increase in the frequency and size of CP repo operations | 14 Oct 2008 (indefinite) | 2.8 trillion yen |
| 2. Expansion in the range of asset-backed CP as eligible collateral | 14 Oct 2008 (31 Mar 2010) | |
| 3. Introduction and expansion of special funds-supplying operations to facilitate corporate financing | 2 Dec 2008 (31 Dec 2009) | 7.5 trillion yen (unlimited) |
| 4. Expansion in the range of corporate debt as eligible collateral | 2 Dec 2008 (31 Mar 2010) | 10.9 trillion yen |
| 5. Introduction of outright purchases of CP | 19 Dec 2008 (31 Dec 2009) | 0.2 trillion yen (3 trillion yen) |
| 6. Introduction of outright purchases of corporate bonds | 22 Jan 2009 (31 Dec. 2009) | 174.4 billion yen (1 trillion yen) |
| C. Measures to secure the stability of the financial system | | |
| 1. Suspension of sales of stocks held by the Bank of Japan | 14 Oct 2008 (indefinite) | |
| 2. Resumption of the Bank of Japan's purchases of stocks held by financial institutions | 3 Feb 2009 (30 Apr 2010) | 25.7 billion yen (1 trillion yen) |
| 3. Provision of subordinated loans to banks | 17 Mar 2009 (31 Mar 2010) | (1 trillion yen) |

1. As of 30 June 2009. Upper limit is shown in parentheses.

Source: Bank of Japan.

Box 1. Lessons from Japan's experience in resolving its financial crisis in the 1990s

Following the burst of the asset bubble in the early 1990s, Japan struggled for over a decade to normalise its banking sector. The reasons for the bubble in land and equity prices and its subsequent collapse are well-known, beginning with monetary policy. Low interest rates fuelled the run-up in asset prices and its collapse of the bubble was triggered by interest rate hikes that in hindsight appear to have been too large and followed by cuts that were too small and/or slow. The pro-cyclical effect of Basel capital adequacy rules also played a role, reflecting banks' large holdings of equities. The surge in equity prices created capital gains, 45% of which counted toward bank capital, that were subsequently erased by the plunge in the stock market, leaving banks under-capitalised. The accompanying collapse

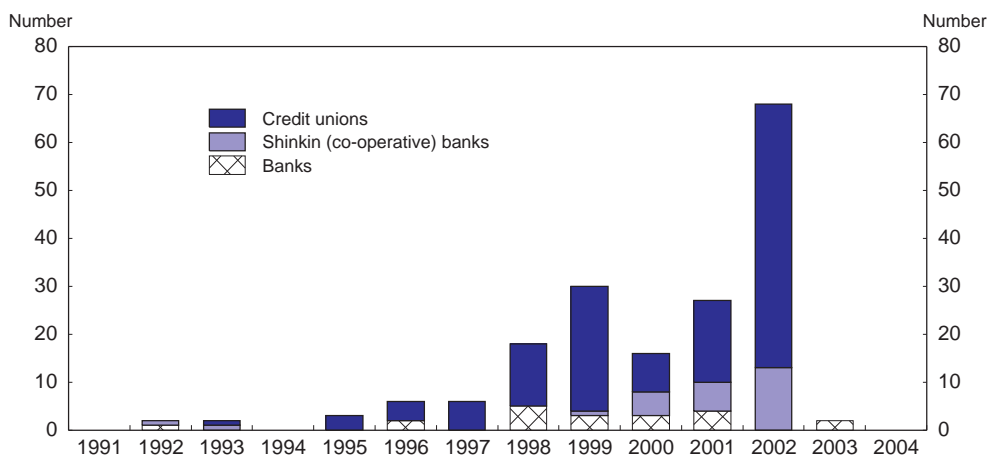
in land prices reduced the value of collateral underlying many bank loans to below principal, leading to a rise in NPLs.

Why did Japan take so long to solve the problem?

A number of intertwined factors explain the slow response of the Japanese authorities to the 1990's financial crisis (Nakaso, 2001). *First*, it took a long time to overcome the legacy of Japan's traditional "convoy system", a wide set of regulations that restrict competition within the financial sector to keep the laggards from falling behind and required healthy institutions to assist weaker ones. *Second*, officials and financial institutions expected that the fall in land prices would be only temporary, making it better to wait for an economic rebound to resolve the NPL problem. *Third*, public opposition to using public funds to recapitalise banks and buy impaired assets prevented decisive actions. *Fourth*, high officials in the Banking Bureau of the Ministry of Finance rotate every few years, encouraging them to postpone the resolution of politically difficult problems (Fukao, 2007). *Fifth*, public disclosure of the NPL problem was limited as managers of banks with large NPLs were allowed to cover up the extent of the problem to keep their banks open. The general weakness in corporate governance also delayed public disclosure (Hanazaki and Horiuchi, 2003). *Sixth*, the lack of transparency extended to banks' capital ratios, thus delaying needed capital injections. The latter two factors reflect weak supervision of financial institutions.

The inertia that encouraged the strategy of forbearance was gradually overcome as Japan faced the high cost of dealing with the failure of deposit-taking institutions beginning in the mid-1990s (Figure 6). In 1998, two of the largest banks collapsed and, in 1999, 26 institutions failed. The key step forward was the creation in 1998 of the FSA, which was gradually equipped with the necessary legal and administrative tools to deal with the crisis. In 2002, the FSA launched the Financial Revival Programme to resolve the NPL problem. The programme called for: *i*) more rigorous evaluation of bank assets; *ii*) increasing bank capital; *iii*) strengthening the governance of recapitalised banks; and *iv*) a numerical target for cutting the NPL ratio, thus allowing the FSA to strengthen their inspections of major banks. A second landmark event was the injection of public money in the Resona Group in May 2003, which changed market sentiment and led to a surge in the share prices of major banks, although the rescue was criticised for creating moral hazard by bailing out existing equity holders. By March 2009, the government had spent 47.2 trillion yen (9.8% of GDP) to support the financial sector through grants for losses, injections of capital and purchases of assets. About half of these outlays have been recovered (Table 4). The amount of bad debt written off reached 21% of GDP.

Figure 6. Number of failed deposit-taking institutions



Source: Deposit Insurance Corporation.

What are the lessons from Japan's experience?

Japan's experience highlights a number of lessons that are relevant to the current financial crisis (Sato, 2008).

- Prompt and accurate recognition of losses is essential. In the early 1990s, Japan did not have an effective framework for disclosure and provisioning of NPLs, giving financial institutions incentives to postpone addressing the NPL problem. Japan subsequently improved disclosure requirements, clarified the rules on write-downs and provisioning, put in place a prompt corrective action scheme, and established an early warning system enabling supervisors to better monitor banks before they become undercapitalised. In order for supervisors to act promptly, the regulatory framework should allow them to make judgments in an

objective manner and the framework should keep up with changes in financial transactions and technology.

- Toxic assets must be taken off the balance sheet to break the negative spiral. It is difficult to restore market confidence if NPLs are left on the balance sheet, given the risk of additional losses on those assets. In Japan, the FSA strongly encouraged major banks to take NPLs off their balance sheets and the Resolution and Collection Corporation (RCC) purchased the NPLs. Taking impaired assets off the balance sheet is also a priority during the current crisis.
- Undercapitalisation of financial institutions needs to be corrected, injecting public funds if necessary. Prompt and sufficient recapitalisation is needed for institutions that become undercapitalised, in part as a comfortable capital position may strengthen banks' resolve to cut credit to non-viable firms. If a sufficient amount of capital cannot be raised on a market basis, an injection of public funds is necessary. While capital injections put taxpayer money at risk, there are upside gains if the bank is successful. Recapitalisation is another priority during the current crisis.
- Exceptional measures, such as blanket guarantees of bank deposits and temporary nationalisation of banks, may be necessary in serious crises. Japan introduced full protection of bank deposits in 1996 as a temporary measure through the end of FY 2001. However, the full protection of regular savings and current accounts continued until the end of FY 2004.
- Short-term measures and medium-term reform of the regulatory framework to prevent a recurrence of a similar crisis need to be implemented in a balanced manner. If policies lean too much toward crisis management, it could cause moral hazard or distort the system in the long run. On the other hand, hasty implementation of medium-term measures could make crisis management even more difficult. Striking an appropriate balance is therefore a challenge for all countries affected by the crisis.

Table 4. Government support to the financial sector
From 1992 through the end of March 2009

| | Spent (trillion yen) | Per cent of GDP | Recovered (trillion yen) | Recovery rate (in per cent) |
|--------------------------|-------------------------|--------------------|-----------------------------|--------------------------------|
| Grants for loss coverage | 18.9 | 3.9 | -- | -- |
| Capital injection | 12.5 | 2.6 | 10.8 | 86.2 |
| Purchase of assets | 9.8 | 2.0 | 9.7 | 99.4 |
| Others | 6.0 | 1.2 | 4.9 | 80.9 |
| Total | 47.2 | 9.8 | 25.4 | 53.8 |
| Total excluding grants | 28.3 | 5.9 | 25.4 | 89.6 |

Source: Deposit Insurance Corporation.

Reactivating the scheme to inject public capital in depository institutions

The 2004 Act on Special Measures for Strengthening Financial Functions, which provided a framework for the injection of public capital in depository institutions, expired in March 2008. It was reactivated in December of that year and revised to encourage banks to apply for capital injections by relaxing the conditions. Indeed, only two banks had applied for injections under the old version, for a total of 41 billion yen, because bank managers were afraid of being penalised if they failed to achieve the numerical targets that accompanied the injections. The total budget for injections was raised from 2 trillion yen to 12 trillion yen. As of July 2009, three banks had received injections under the revised law, amounting to 121 billion yen. Another change in the new act is that it allows the injection of public funds in the Central Financial Organisations (CFOs) of financial co-operatives.¹³

13. The Shinkin Central Bank, the Shinkumi Federation Bank, the Rokinren Bank and the Norinchukin Bank.

Table 5. Measures taken by the Financial Services Agency and self-regulatory bodies

| A. Measures by the FSA | | Status |
|---|--|--|
| <i>I. Stabilising the equity market</i> | | |
| 1 | Temporarily relaxed market restrictions on listed corporations' purchases of their own stocks. | Implemented (in effect until end-October 2009) |
| 2 | Facilitated stock purchases by Japanese-style employee stock-ownership plans by: (a) promoting the active use of the plans. (b) clarifying that purchases can take place on two or more dates per month. | The JSDA Implemented this request by the FSA |
| 3 | Enhanced daily disclosure of the following information concerning short selling: (a) aggregate price of short selling for all securities. (b) aggregate price of short selling by sector (33 in total). | Implemented |
| 4 | Strengthened restrictions on short selling in addition to the "uptick rule requirement" that prohibits short selling at prices no higher than the latest market price: (a) Ban on naked short selling (in which stocks are not borrowed at time of sale). (b) Requirement of reporting and disclosing short-selling positions taken at or above a certain threshold (in principle, 0.25% or more of outstanding stocks). | Both measures are temporarily implemented until end-October 2009 |
| 5 | Allowed bank shareholding to exceed their Tier I capital with FSA approval. | Implemented |
| 6 | Resumed the activities of the Banks' Shareholdings Purchase Corporation (up to 20 trillion yen) and permitted more flexibility in their operations. | Implemented until end-March 2011 |
| <i>II. Reactivating the scheme to inject public capital in depository institutions</i> | | |
| 7 | Ensured smooth financing in local economies, including SMEs, by boosting the capital base of financial institutions through capital injection by the government | Implemented until end-March 2012 |
| 8 | Expanded public funds for capital injection from 2 trillion yen to 12 trillion yen under the revised Act. | Implemented (for FY 2009) |
| 9 | Injected 121 billion yen of capital in three regional banks under the revised Act. | March 2009 |
| <i>III. Enhancing bank lending to small and medium-sized enterprises</i> | | |
| 10 | Narrowed the conditions under which loans to SMEs with adjusted terms must be classified as NPLs, considering that room for drastic restructuring is limited. | Implemented |
| 11 | Clarified that changes or forbearance of financial covenants does not automatically result in rescheduled loans, which are classified as NPLs, if they do not involve a reduction/exemption of interest and/or forbearance of principal repayment. | Implemented |
| 12 | (a) Carry on dialogues with financial institutions on their efforts to promote lending. (b) Conduct on-site inspections of their financial intermediary functions. | (a) Being conducted (b) April to June 2009 |
| <i>IV. Relaxing capital adequacy requirements for banks</i> | | |
| 13 | For internationally-operating banks, valuation profits/losses from bonds without credit risks are not required to be included in calculating capital adequacy. | Implemented |
| 14 | For domestically-operating banks, valuation losses of securities in general are not counted in calculating capital adequacy ratio. | Implemented |
| <i>V. Improving transparency and reliability of credit rating</i> | | |
| 15 | Introduced new registration requirements for credit rating agencies | Implemented |
| B. Measures by the Accounting Standards Board of Japan (ASBJ) | | |
| <i>Applying appropriate accounting standards</i> | | |
| 1 | Clarified that the use of valuation techniques, such as model-based techniques, is appropriate to calculate fair value where there are few market transactions or the bid-ask spread is large. | Implemented in October 2008 |
| 2 | Allowed the reclassification of debt securities from the trading and/or available-for-sale category to the held-to-maturity category. | Implemented in December 2008 (in effect until March 2010) |

Source: Financial Services Agency.

Encouraging bank lending to small and medium-sized enterprises

Bank lending to small enterprises has been falling, in contrast to loans to large firms. While the FSA is principally charged with ensuring the soundness of the banking sector, it also wants to avoid declines in bank lending that would choke off economic activity. In this regard, the FSA has taken steps to limit the perceived risk of pro-cyclicality in bank regulations. In particular, it altered the conditions under which adjustments of loans to SMEs lead to classification as NPLs. Changes to financial covenants that do not reduce interest payments or forbearance of principal repayment would not automatically be identified as rescheduled loans and thus as NPLs. In addition, the FSA is using consultations, including on-site inspections, with banks to encourage them to sustain their lending activities.

Temporary relaxation of capital adequacy requirements for banks

The calculation of bank capital has been relaxed until March 2012 so as to prevent excessive fluctuations in the capital adequacy ratio from hampering bank intermediation. In particular, the treatment of valuation profits and losses of bonds with zero risk weights for internationally-operating banks no longer have to be included. For domestically-operating banks, unrealised losses from equities and corporate bonds are not counted in capital.

Other actions

In addition to the FSA and the BOJ, certain public financial institutions – Japan Finance Corporation (JFC), Development Bank of Japan (DBJ) and Shoko Chukin Bank – have been providing emergency loans and guarantees to borrowers since the crisis began (Table 6).¹⁴ These institutions, now in the process of privatisation and consolidation, are expanding their lending and purchases of corporate bonds and paper. The total new lending amounts to around 4 trillion yen (0.8% of GDP). In addition, the stimulus packages expanded their credit guarantees for lending to SMEs and eased the conditions.

The government also revised the 1999 Law on Special Measures for Industrial Revitalisation to help large troubled non-financial institutions through equity investment by the DBJ together with insurance provided by the JFC. Firms meeting certain conditions are eligible to submit a revival plan to the relevant ministries and to request equity investment from the DBJ. The conditions are: *i*) a rapid deterioration of their business condition due to the crisis; *ii*) a need for new equity investment in addition to loans; *iii*) the risk of a serious macroeconomic shock to Japan in the absence of additional investment; and *iv*) additional loans and equity investment would be received if the designated financial institutions provide investment. As of the end of June 2009, one semiconductor company had been accepted for investment under this scheme for a total amount of 160 billion yen. By the end of August 2009, the DBJ had purchased preferred stocks valued at 30 billion yen, with the JFC insuring 80% of any equity loss.

There have also been a number of accounting changes to ease the impact of financial turbulence on the calculation of capital, which would constrain the capacity of banks to lend. The Accounting Standards Board of Japan (ASBJ), an independent, self-regulatory body, has taken the lead in this regard in conjunction with the FSA. In particular, the ASBJ stated that the use of fair value calculated using model-based valuation techniques, rather than market prices, would be appropriate where, *inter alia*, there are few transactions in the market or the bid-ask spread is extremely large (ASBJ, 2008a). Also, the ASBJ allowed

14. The JFC was established in October 2008 by the merger of four large public financial institutions (National Life Finance Corporation, Agriculture, Forestry and Fisheries Finance Corporation, Japan Finance Corporation for Small and Medium Enterprise and Japan Bank for International Cooperation) and is owned by the government. The JFC law requires it to respond to a crisis by providing credits to designated institutions. Such a crisis could be a disruption to the financial system or a major disaster.

the reclassification of debt securities from trading and/or available-for-sale to hold-to-maturity under certain conditions (ASBJ, 2008b).¹⁵ This latter change will reduce valuation losses from holding securities by 630 billion yen (about 8% of the changes in total profits and losses of securities in FY 2008, according to a study by the Bank of Japan [2009]). Moreover, the changes in accounting rules, the conditions under which adjustments of loans to SMEs lead to classification as NPLs and the loss recognition in calculating capital adequacy ratios discussed above would boost the pre-tax net profit of banks by 390 billion yen (about 22% of the net profits of 1.8 trillion yen in FY 2008). In addition, it would increase the capital adequacy ratio by 0.3 percentage point for major banks and by 0.5 point for regional banks.

Table 6. Measures taken by other agencies

| | Amount outstanding (end-June 2009) ¹ | Number of cases | Budget allocation ¹ |
|--|--|--------------------|-----------------------------------|
| A. Two-step loans ^{2,3} | 2368.1 | | |
| Sub-total of loans ³ | 2017.1 | | 124 000 |
| Development Bank of Japan | 1827.1 | 448 | |
| Shoko Chukin | 190.0 | -- | |
| Purchase of CP ³ (Development Bank of Japan) | 351.0 | 66 | 2 000 |
| B. Insured loans ^{3,4} | 883.6 | 11 907 | |
| Development Bank of Japan | 163.1 | 10 | |
| Shoko Chukin | 720.5 | 11 897 | |
| C. Safety net loans ⁵ | 2 625.9 | 158 716 | 12 000 |
| D. Emergency guarantees by Credit Guarantee Associations ⁶ | 10 017.3 | 487 226 | 30 000 |
| E. Emergency assistance for foreign operations through JBIC ⁷ | 812.1 | 70 | 3 000 |
| For developing regions | 135.8 | 38 | |
| For developed regions | 676.3 | 32 | |

1. In billion yen.

2. "Two-step loans" are a scheme to provide loans to borrowers from JFC via designated financial institutions.

3. Figures are total of designated financial institutions.

4. JFC insures 80% for small firms and 70% for medium-sized firms.

5. Loans originated by JFC directly. Figures are as of 16 June 2009.

6. JFC underwrites insurance for credit guarantees by CGA. The emergency guarantee scheme targets 781 types of business, covering more than 80% of SMEs.

7. Supplies credit and investment assistance.

Source: Ministry of Finance, Cabinet Office, Japan Finance Corporation, Development Bank of Japan and Shoko Chukin Bank.

Potential costs stemming from emergency measures

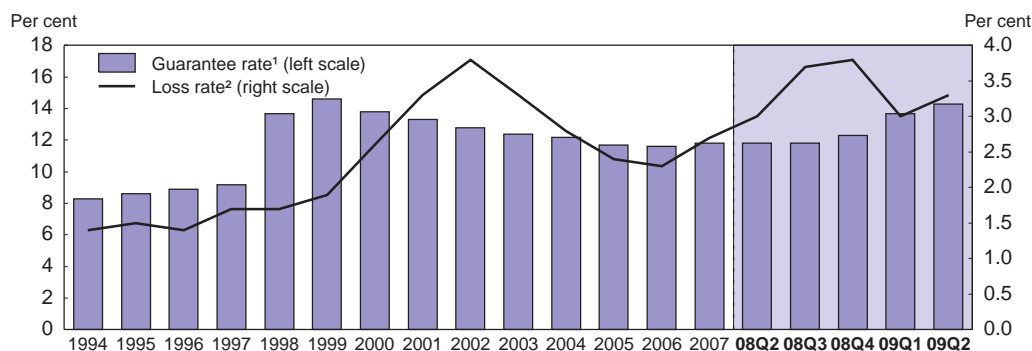
Although the large scale and diversity of emergency measures by the Bank of Japan, the FSA and other institutions have helped stabilise the financial and corporate sectors, maintaining them too long would distort resource allocation and delay restructuring. Such measures, include lending by public financial institutions, thus need to be scaled back as the recovery takes hold. Moreover, measures to tamper with share prices should be avoided as they distort investment and financing decisions. In addition, such policies may reduce the sense of urgency for banks to reduce their equity holdings and fuel demands for measures to limit future declines in stock prices. The pressure on banks to sustain lending and the regulatory forbearance on loans to SMEs should be avoided as they may lead to NPL problems in the future. Changes in accounting standards also raise concerns as artificially boosting reported capital could

15. This follows the "Reclassification of Financial Assets (amendments to IAS 39 Financial Instruments: Recognition and Measurement and IFRS 7 Financial Instruments: Disclosure)" by the International Accounting Standards Board issued on 13 October 2008. The classification determines the amount of loss or gain at settlement, as debt securities held in the trading account are evaluated at mark-to-market price while those in the hold-to-maturity classification are evaluated at the acquisition price.

result in solvency problems. As for the Bank of Japan, its interventions have been relatively modest compared to other major central banks, reflecting less severe strains. Indeed, liquidity provision and other support by the central bank in Japan amounts to less than 3% of GDP compared with 8% in the United States and 14% in the United Kingdom (Horton *et al.*, 2009). However, the Bank of Japan should limit the provision of subordinated loans to banks, as this appears more appropriate as a fiscal measure and increases the risk on the Bank's balance sheet.

Public guarantees on lending are a concern. The stock of credit guarantees for SME loans soared during the previous banking crisis, from 8% of outstanding loans in FY 1994 to 15% in FY 1999 (Figure 7). Guarantees unwound only partially during the following decade. Economic stimulus packages have already pushed the ratio back up to 14% by March 2009. While there is some evidence that credit guarantees improve the profitability of supported firms,¹⁶ it is important to take account of the potential cost for the government. Guarantees now amount to 7% of GDP. It is essential to reduce the share of loans that are guaranteed from the current level of 80% and to raise the price of guarantees to reflect expected credit losses. A higher price would also encourage beneficiaries to stop requesting government guarantees as financing conditions improve, thereby facilitating the withdrawal of guarantees.

Figure 7. Credit guarantees for small and medium-sized enterprises



1. The guarantee rate is defined as the ratio of the outstanding amount of credit guarantees to the outstanding amount of loans to SMEs by banks. The definition of SMEs and the coverage of financial institutions in the BOJ statistics and the range of credit guarantees provided by the credit guarantee associations are not perfectly identical.
 2. The loss rate is the ratio of subrogation payments (by the insurer) to outstanding loans. Quarterly figures are annualised.
- Source: National Federation of Credit Guarantee Corporations and Bank of Japan.

Beyond the crisis response: reforms to improve the regulatory architecture

As the economy recovers, emergency measures to support financial markets should be phased out. Japan should focus on improving the regulatory framework in banking and other financial services to contain systemic risk in the future and limit the financial sector's vulnerability to crisis. Striking the right balance between short-term stabilisation and longer-run reform to address weaknesses in the financial sector is necessary to strengthen confidence. While Japanese banks are less affected by the current crisis, revisions in the international regulatory framework would also affect them as well. Given the fact that the current global financial crisis was caused by a nexus of poor regulation and the failure to adequately apply regulations in place, reform should focus on the issues discussed below.

16. A study of the effect of credit guarantees between 1998 and 2001 (Uesugi *et al.*, 2006) confirmed that programme participants significantly increase their leverage, especially of long-term loans, and become more efficient (with the exception of high-risk firms).

Securitised products

The Basel Committee on Banking Supervision proposed to strengthen the Basel II framework, in part by raising the risk weights on securitised products, given their prominent role in the crisis (BCBS, 2009a).¹⁷ Although the amount of securitised products in Japan is not large, this change would affect some securitisation schemes currently available. In addition, the proposal would require banks to have a comprehensive understanding, on an ongoing basis, of the risk characteristics of their individual exposures to securitised products, both on and off-balance sheet. More specifically for re-securitisation, banks should have information not only on the underlying securitisation tranches, such as the issuer name and credit quality, but also on the performance of the underlying pools.

The new initiative by the Japan Securities Dealers Associations (JSDA), which took effect in June 2009, enhances the transparency of securitised products. The JSDA created new rules for originating and distributing securitised products that aim at increasing the traceability of those products, thereby reducing uncertainty (JSDA, 2009). The self-regulatory rules require JSDA members to properly communicate information to investors concerning risks, including those not reflected in the credit rating of the underlying assets of the securitised products they distribute. Although the complexity of securitised products has not resulted in problems in Japan that are as serious as those in the US market, the JSDA considered it important to take pre-emptive steps to enhance transparency and help revive transactions in securitised products.

Credit rating agencies

Credit rating agencies (CRAs), especially in the United States and Europe, played a role in the crisis by giving unwarrantedly optimistic ratings to complex and risky products. The “issuer pays” model of rating has led to the under-pricing of risk, suggesting a market failure in the form of a captive market (OECD, 2009a). The 2009 revision of the Financial Instruments and Exchange Act created a registration system for agencies and reformed the regulation of them based on the four points listed in the IOSCO code of conduct: *i*) duty of good faith; *ii*) establishment of control systems to prevent conflicts of interest; *iii*) prohibition of ratings in cases where analysts/CRAs hold shares in the rated entities; and *iv*) disclosure of information on the rating policy (FSC, 2008). The FSA will be allowed to inspect registered CRAs and to order their reform if necessary. Furthermore, the FSA has addressed the issue of over-reliance by banks, investors and financial regulators on credit ratings by making clear that CRAs are private service providers that investors can use if they wish. Rather than rely excessively on external ratings, banks should assess the risks themselves when appropriate and feasible. Credit ratings should be progressively removed from financial regulation.

Capital adequacy regulation and pro-cyclicality

One of the most controversial issues in bank regulation is the pro-cyclicality of capital ratios. During economic upswings, the ratios are high, encouraging lending and amplifying the build-up of bubbles. During downturns, they are significantly lower, forcing deleveraging and leading to credit squeezes and asset dumping. There have been a number of proposals to limit the pro-cyclicality of capital requirements and thus reduce volatility. In the United Kingdom, for example, the Turner Review proposed strengthening the qualitative and quantitative requirements of Basel II (UKFSA, 2009). It suggested raising the Tier I capital ratio from 4% to 8%, introducing a buffer of around 2% to 3% of risk assets during upturns and improving the quality of capital by raising the core Tier I capital ratio from 2% to 4%. The Financial

17. The January 2009 reform package covered a number of other issues: *i*) trading book exposures, including complex and illiquid credit products; *ii*) certain complex securitisations in the banking book (*e.g.* CDOs of ABS); and *iii*) exposures to off-balance sheet vehicles (*i.e.* asset-backed commercial paper conduits).

Stability Forum (FSF) also suggested a revision of capital requirements to increase the quality of the capital base and the buffers above the regulatory minimum during periods of strong earnings growth so that banks are better able to absorb losses in stressful environments (FSF, 2009b). In addition, the FSF proposed a reform of loan-loss provisioning, including thorough analysis of fair value, expected loss and dynamic provisioning approaches. Finally, the BCBS suggested a revision of the risk appraisal method related to trading accounts and wider usage of leverage indicators in supervision (BCBS, 2009a and 2009b).

Equity holding by banks

Equity holding is an important issue in Japan as banks held equities valued at 25.6 trillion yen (5% of GDP) at the end of FY 2007 (Table 7). Given the large fall in equity prices during FY 2008, banks' unrealised total gains fell by 7 trillion yen, equivalent to 70% of their adjusted own capital at the end of FY 2008. This implies that banks need to strengthen their capital base.¹⁸ Although the grandfather clause in Basel II that allows banks to apply a 100% risk weight to previously acquired equities does not expire until 2014, the FSA should take measures to promote an earlier effort by banks to strengthen their capital.

Table 7. Adjusted own-capital of all banks

| FY | Equity market value | Equity book value | Own capital | Deferred tax assets | Additional allowance ¹ | Public funds | Adjusted own capital ² | Nikkei average |
|-------------------|---------------------|-------------------|-------------|---------------------|-----------------------------------|--------------|-----------------------------------|----------------|
| | A | B | C | D | E | F | G | |
| 1996 | 54.1 | 42.9 | 28.5 | 0.0 | 15.0 | 0.0 | 20.2 | 18 003 |
| 1997 | 50.8 | 45.7 | 24.3 | 0.0 | 4.9 | 0.3 | 22.2 | 16 527 |
| 1998 | 47.1 | 42.7 | 33.7 | 8.4 | 4.0 | 6.4 | 17.5 | 15 837 |
| 1999 | 54.5 | 44.4 | 35.6 | 8.2 | 5.8 | 7.0 | 20.7 | 20 337 |
| 2000 | 44.5 | 44.3 | 37.6 | 7.1 | 7.5 | 7.2 | 15.9 | 13 000 |
| 2001 | 34.4 | 34.4 | 30.2 | 10.6 | 6.8 | 7.4 | 5.4 | 11 025 |
| 2002 | 23.2 | 23.2 | 24.8 | 10.6 | 5.4 | 7.4 | 1.4 | 7 973 |
| 2003 | 28.5 | 28.5 | 29.0 | 7.2 | 5.7 | 9.3 | 6.8 | 11 715 |
| 2004 | 27.7 | 27.7 | 31.4 | 5.7 | 6.9 | 8.5 | 10.3 | 11 688 |
| 2005 | 33.2 | 33.2 | 37.3 | 2.3 | 8.3 | 6.5 | 20.2 | 17 059 |
| 2006 | 33.9 | 33.9 | 40.0 | 1.3 | 9.4 | 3.5 | 25.8 | 17 287 |
| 2007 | 25.6 | 25.6 | 34.8 | 3.6 | 10.2 | 3.4 | 17.6 | 12 525 |
| 2008 ³ | 18.7 | 18.7 | 29.0 | 5.6 | 10.4 | 3.1 | 9.9 | 8 109 |

1. The additional allowance is the estimated necessary allowance minus the actual allowance. The estimated necessary allowance is derived by the following formula focusing on the credit classification and corresponding default risk:
 necessary allowance = Type I * 1% = Type II * 20% + Type III * 70%+ Type IV * 100%.

2. Adjusted own-capital equals C + (A - B) * 0.6 - D - E - F.

3. Figures are based on the preliminary financial statements of all banks and thus may be revised.

Source: Fukao (2008a), Deposit Insurance Corporation and OECD Secretariat calculations.

Addressing weak profitability in the banking system

While the banks have overcome the 1990 bubble collapse and have thus far weathered the 2008 global financial crisis, thanks in part to the government's prompt response, they are challenged by consistently

18. Fukao (2008b) examined the soundness of banks' capital base by excluding some fragile components used in BIS ratios. It showed that after improving for four straight years, Japanese capital adequacy ratios fell by 2.6 percentage points in FY 2007, with the erosion in unrealised gains on securities caused by falling share prices a major factor. Through FY 2007, 49 of 124 banks nationwide had ratios under 2%, the level regarded as sound in this definition, including three that were insolvent by this definition.

low profitability. Following some improvement between FY 2002 and FY 2005,¹⁹ the return on equity declined by one-half by FY 2007 to a level well below that in the United States and Europe (Table 8), as has typically been the case over the past few decades. The problem is most pronounced in regional banks, which have recorded an NPL ratio at least twice as high as major banks in recent years (Table 9). While core ROE for the major banks has improved somewhat, that for regional banks has remained consistently low, with no notable improvement (Hattori *et al.*, 2007). Most regional banks are subject to lower capital adequacy requirements compared with banks engaged in international business. Indeed, the FSA applies a two-tier supervisory approach that distinguishes regional banks from major banks, based on the premise that their business models differ. Regional banks are said to pursue “relationship banking”, focusing on long-term relationships with borrowers rather than on a market-oriented approach with short-term horizons. The important role of regional banks in supporting regional economic activity is a key rationale for their preferential treatment.

Table 8. Comparison of Japanese banks with those in other countries

| Japan¹ | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 |
|---------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| NPLs ² /total loans | 7.4 | 5.8 | 4.0 | 2.9 | 2.5 | 2.4 | 2.4 |
| Stockholders' equity/assets | 3.3 | 3.9 | 4.2 | 4.9 | 5.3 | 4.5 | 4.2 |
| Return on equity (ROE) ^{3,4} | -19.5 | -2.7 | 4.1 | 11.3 | 8.5 | 6.1 | -12.2 |
| United States⁵ | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| NPLs/total loans | 1.5 | 1.2 | 0.9 | 0.8 | 0.8 | 1.3 | 2.9 |
| Equity capital/total assets | 9.2 | 9.2 | 10.1 | 10.3 | 10.2 | 10.2 | 9.4 |
| Return on average equity (ROE) | 14.5 | 15.3 | 13.7 | 12.9 | 13.0 | 9.1 | 1.6 |
| Europe⁶ | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| NPLs/total loans | 2.5 | 2.3 | 2.4 | 2.1 | 2.4 | 2.2 | |
| Equity capital/total assets | 3.1 | 2.9 | 3.8 | 3.9 | 3.9 | 3.9 | |
| Return on equity (ROE, after tax) | 9.0 | 11.3 | 13.5 | 12.5 | 14.8 | 11.4 | |

1. Data for FY 2008 refer to end-March 2009 for non-performing loans and to end-September 2008 for others.

2. NPLs are based on figures reported under the Financial Reconstruction Law.

3. Net income as a percentage of stockholders' equity (no adjustment for preferred stocks, etc.).

4. For FY 2008, the figure is estimated by doubling the net income in the first half of FY 2008 (from April to September 2008).

5. FDIC-insured commercial banks.

6. Fifty largest European banks. Data availability may restrict coverage to less than 50 banks for specific indicators.

Source: IMF (2009), *Global Financial Stability Report*, FDIC and Financial Services Agency.

Increasing profitability depends, in part, on achieving adequate interest margins on lending to absorb risks. However, banks have found it difficult to raise lending rates in the context of weak demand and deflation and the loss of strong firms to capital markets. Low lending rates also reflect a mismatch between the size of deposits and loans (Hoshi and Kashyap, 1999). In making loans from their abundant deposits, banks lose negotiating power to borrowers, leading to small margins. Households continue to concentrate their savings in deposits, an advantageous strategy during deflation as the real rate of return rises as prices decline. In sum, boosting bank profitability depends in part on realising a stable environment with moderate inflation in which households allocate a larger share of assets to financial products and less to deposits. In addition, policies to address problems in the banking sector are also important.

First, consistently low margins suggest that Japan has an overbanking problem. One factor is the important role of public financial institutions, which increased their share of outstanding loans from 25%

19. The October 2002 “Programme for Financial Revival: Revival of the Japanese Economy through Resolving Non-Performing Loan Problems of Major Banks” achieved its goal of halving the NPL ratio of major banks from its March 2002 level of 8.4% (see www.fsa.go.jp/en/policy/pfr.html).

in FY 1990 to a peak of 41% in FY 2000. Competition from public financial institutions pushes down lending rates for banks, thus hurting profitability. Moreover, the efficiency of public financial institutions tends to be undermined by other policy objectives that they are expected to fulfil, thus increasing the burden on taxpayers and distorting the allocation of capital. Recognising the challenges of such competition for private lenders, the share of public financial institutions fell to 31% in FY 2008 as a number of them were privatised and consolidated. However, with the onset of the global financial crisis, as noted above, these institutions have played an emergency role in providing credits to non-financial institutions. Subsequently, the privatisation of DBJ and Shoko Chukin Bank were postponed and will be reconsidered at the end of FY 2011. The government should proceed with privatisation, thereby scaling back the size of public lending.

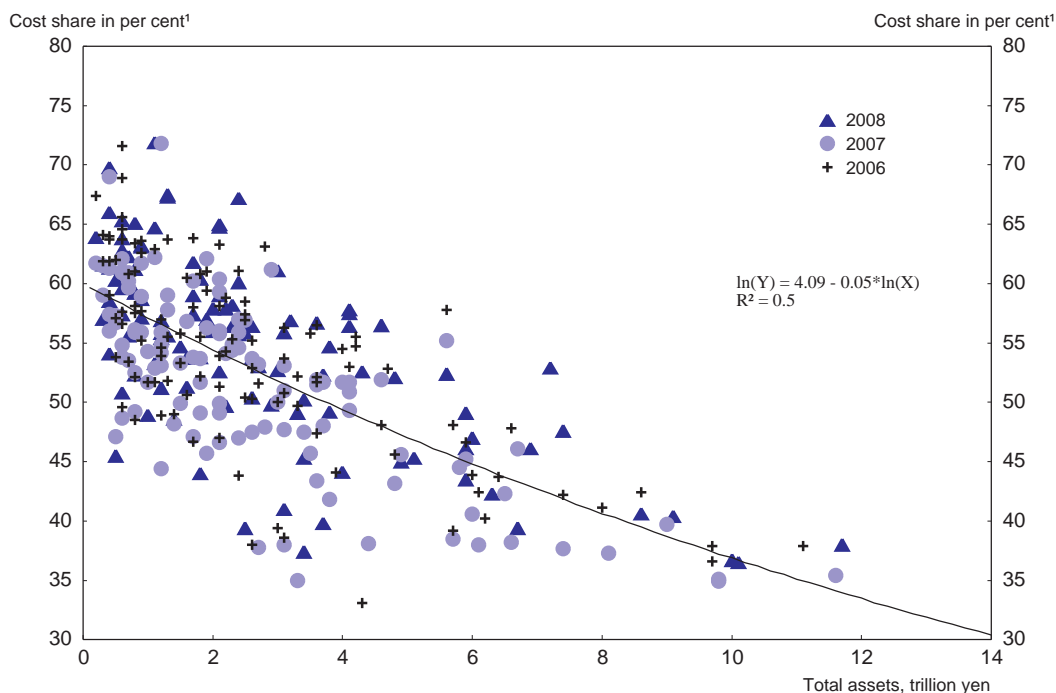
Table 9. Comparison of major and regional banks in Japan

| | FY2001 | FY2002 | FY2003 | FY2004 | FY2005 | FY2006 | FY2007 | FY2008 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| All banks¹ | | | | | | | | |
| NPLs ² /total loans | 8.4 | 7.4 | 5.8 | 4.0 | 2.9 | 2.5 | 2.4 | 2.4 |
| Stockholders' equity/assets | 3.9 | 3.3 | 3.9 | 4.2 | 4.9 | 5.3 | 4.5 | 4.2 |
| Return on equity (ROE) ³ | -14.3 | -19.5 | -2.7 | 4.1 | 11.3 | 8.5 | 6.1 | -12.2 |
| Number of banks | 133 | 134 | 131 | 129 | 126 | 125 | 124 | 123 |
| Major banks⁴ | | | | | | | | |
| NPLs ² /total loans | 8.4 | 7.2 | 5.2 | 2.9 | 1.8 | 1.5 | 1.4 | 1.6 |
| Stockholders' equity/assets | 3.5 | 2.7 | 3.5 | 3.9 | 4.7 | 5.1 | 4.1 | 3.8 |
| Return on equity (ROE) ³ | -20.3 | -34.9 | -1.3 | 2.6 | 14.3 | 10.7 | 7.3 | -17.5 |
| Number of banks | 14 | 13 | 13 | 13 | 11 | 11 | 11 | 11 |
| Capital adequacy ratio ⁵ | 10.8 | 10.1 | 11.1 | 11.6 | 12.2 | 13.3 | 12.3 | 12.4 |
| Regional banks⁶ | | | | | | | | |
| NPLs ² /total loans | 8.0 | 7.8 | 6.9 | 5.5 | 4.5 | 4.0 | 3.7 | 3.4 |
| Stockholders' equity/assets | 4.6 | 4.3 | 4.4 | 4.7 | 5.2 | 5.5 | 5.0 | 4.5 |
| Return on equity (ROE) ³ | -6.1 | -3.3 | -4.7 | 6.0 | 6.8 | 5.0 | 4.4 | -3.1 |
| Number of banks | 118 | 118 | 115 | 113 | 112 | 111 | 110 | 109 |
| Capital adequacy ratio ⁵ | 9.3 | 9.1 | 9.0 | 9.4 | 9.8 | 10.4 | 10.3 | 10.5 |

1. All banks cover major banks, regional banks and other banks except new banks, e.g. Seven Bank and Orix trust banks.
2. NPLs are based on figures reported under the Financial Reconstruction Law.
3. Net income as a percentage of stockholders' equity (no adjustment for preferred stocks, etc.). For FY 2008, the figure is estimated by the preliminary financial statements by the Japanese Bankers Association.
4. The major banks are city banks (excluding Saitama Resona), trust banks (excluding Nomura Trust, Chuo-Mitsui Asset, and Resona Trust) and other banks (Shinsei and Aozora).
5. Weighted average of non-consolidated base.
6. Saitama Resona is included from FY 2002 onward.

Source: Financial Services Agency, Japanese Bankers Association and OECD Secretariat calculations.

Second, there is a need for consolidation, notably among regional banks. Although regional banks are said to be engaged in “relationship banking”, they invest more heavily in securities, including equities, than major banks. Indeed, regional banks’ investment in securities increased from 20% of deposits in FY 1998 to 32% in FY 2005, before dropping to 28% in FY 2007. Moreover, regional economies tend to have a skewed industrial structure making it difficult to diversify lending risks. Expanding their business territory through M&As and/or business coalitions is one option to diversify risk and cut costs. Indeed, the costs as a share of income for regional banks are negatively correlated with the size of their total assets (Figure 8), indicating that M&As would improve profitability. The FSA should promote consolidation of the banking sector by easing the segmentation among different types of banks, e.g. city, regional, and various types of co-operative banks. Reducing the preferential treatment accorded to regional banks would also help to reduce segmentation and promote rationalisation, while reducing the risk of creating moral hazard problems and increasing NPLs.

Figure 8. Operating cost and asset size in regional banks

1. Defined as general and administrative expenses divided by ordinary income excluding other income.
 Source: Japanese Bankers Association and OECD Secretariat calculations.

Third, banks are largely absent as lenders in some sectors, such as agriculture. Agricultural co-operatives provide financial services jointly with other services to their members. Moreover, there are several credit subsidies to cover interest payments that favour the role of co-operatives and public lending programmes, including zero interest rate loans, which limit the potential role of banks, in addition to reducing allocative efficiency. Reforms, including changes in land regulations and the decision to allow the creation of agricultural corporations, are creating an opening for banks in this sector. However, deregulation of financing is needed to allow banks a larger role in agriculture. The government should abolish credit subsidies and liberalise the lending market. Reforming the financing role of agricultural co-operatives, which were originally created to help farmers compete with large firms in obtaining credit, would enhance efficiency and soundness, while strengthening competition.

Policies to increase efficiency in the financial sector

Efficiency in the financial sector would be enhanced by policies to expand and improve capital markets. A second priority is to expand the range and quality of financial products. Reverse mortgages, which are important in the context of rapid ageing, and defined contribution pension schemes, which would help increase labour mobility, are discussed below.

Upgrading capital markets

The turmoil since September 2008 noted above has revealed the vulnerability of Japan's capital markets to external shocks. Although banks filled the gap through their intermediary role, thanks in part to government measures, it is important to upgrade capital markets by addressing fundamental structural problems. One of the reasons for vulnerability is the small number of market participants, which weakens the pricing mechanism. Increasing the number of participants requires improving the taxation of financial income and promoting financial education.

Simple and fair taxation is one key to boosting the number of market participants. A uniform tax rate of 20% was introduced in FY 2003 for interest, capital gains on listed stocks and dividends from listed stocks and investment trusts. However, the temporary reduction in the rate on dividends and capital gains on listed stocks to 10% was extended again until the end of 2011 in the context of the financial crisis. The lower rate should be phased out to ensure neutrality in the taxation of capital income. As for loss offsets, the tax code allowed capital losses on listed equities and trusts to offset capital gains on those assets. Beginning in 2009, losses are allowed to offset dividend income, which should encourage investment in equity. The use of offsets should be further extended to interest income.

Another measure to encourage investment in securities is to promote financial and economic literacy.²⁰ Surveys show that a significant share of respondents know little about basic financial issues such as risks related to investment, measures of consumer protection or interest rates. In 2008, 72% of the respondents to the Consumer Survey on Finance said that they had almost no knowledge about risks related to investment in equities and bonds. The FSA and the Ministry of Education, Culture, Sports, Science and Technology have strengthened the teaching of finance and economics in schools. However, the lack of practical financial knowledge among older generations needs to be addressed, in part through the involvement of non-profit organisations and business associations. Better understanding of finance and economics could benefit consumers by improving their investment and savings decisions.

Improving the range and quality of financial products

Encouraging the use of reverse mortgages would ease liquidity constraints facing the elderly in the context of rapid ageing and the reform of the pension system. The home ownership rate among households living primarily on annuities and pensions exceeds 90%. Moreover, tangible assets account for more than half of total assets of the elderly, suggesting they have substantial wealth in housing.²¹ However, there were only 626 such loans in all of Japan as of March 2008, reflecting several factors. *First*, banks tend to demand a large amount of real estate as collateral to avoid risk, especially in the context of the steady decline in land prices between 1990 and 2005. *Second*, the elderly tend to leave real estate to their heirs due to preferential inheritance taxation. *Third*, the market for existing homes is not sufficiently developed to dispose of collateral assets. The authorities could encourage the provision of reverse mortgages by banks by reducing preferred inheritance tax treatment of real estate relative to financial assets, promoting the development of a market for existing homes and reducing the risks embedded in reverse mortgages (*i.e.* changes in longevity, interest rates and collateral value) through a public insurance system.²²

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20. In Japan, the Central Council for Financial Services Information (with the Bank of Japan serving as its secretariat since 1952) is responsible for such education. The OECD established the International Gateway for Financial Education (IGFE) to provide: *i*) sound and comprehensive information on financial education issues and programmes worldwide; *ii*) a reliable source of dissemination and comparison of this information; and *iii*) a tool to exchange information on best practices between governmental representatives and key stakeholders.
21. An analysis of the situation of the elderly (Ishikawa and Haji, 2009) found that: *i*) at current spending levels, outstanding assets would sustain the average household beyond the age of 100; *ii*) income disparity among the elderly is large, with about 10% of households receiving only small pensions and holding insufficient assets; and *iii*) the pension system fails to address the diversified lifestyle of the elderly.
22. The Home Equity Conversion Mortgage in the United States is a reverse mortgage programme enabling those aged 62 or older to withdraw equity in their home and pay insurance premiums to the FHA through financial institutions.

Defined-contribution (DC) pension plans have expanded significantly since their introduction in 2001.²³ The DC approach is more suitable for a flexible labour market than a defined-benefit (DB) scheme. While the financial crisis raised questions about their design, DC plans allow policy holders to allocate assets among various products, thus helping to avoid losses in net wealth.²⁴ Appropriate taxation and expansion of coverage is a key to promoting DC plans. The government raised the ceiling on the tax-deductible amount to stimulate the economy and encourage voluntary saving for retirement.²⁵ Further expansion of DC plans should be part of a rebalancing of alternative pension schemes, including DB schemes, the retirement allowance system and private saving schemes, including insurance. At present, public employees, employees whose employers provide corporate pension schemes other than DC plans and spouses of employees are excluded from DC plans. The law should be changed to allow spouses to join, provided that their preferred status in the basic pension system is abolished. For public employees, a DC plan should be introduced while reforming the current DB scheme.

Conclusion

A well-functioning financial market is essential to sustaining economic growth, both to support activity in the short run and to allocate resources efficiently over the longer run. Japan's banking system has largely withstood the global financial crisis, thanks in part to the emergency measures implemented by the government and the Bank of Japan. As the economy stabilises, these measures should be phased out to avoid distortions, while shifting attention to improving the regulatory framework to enhance the resilience of banks. In addition, chronic problems in the Japanese financial system should be addressed to improve long-run efficiency. Recommendations to accomplish these challenges are summarised in Box 2.

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23. At the end of 2008, the number of employees in DC schemes (corporate type) was 2.7 million, a 24% increase from a year earlier, while the number of employees in DC schemes (personal type) was 93 000, a 16% increase.
24. In FY 2007, 36% of total assets were allocated to securities, 42% were in deposits or savings accounts, and 21% were insurance products. Two-thirds of assets were thus not directly exposed to financial market risks.
25. The tax deductible ceiling varies between the four types of DC plans covering: *i*) employees whose firms do not provide other pension schemes; *ii*) employees whose employers do provide them; *iii*) employees in personal type pension schemes; and *iv*) the self-employed. For the first group, for example, the ceiling was raised from 46 000 yen per month to 51 000 yen.

Box 2. Recommendations to overcome the crisis and improve the efficiency of the financial sector

Emergency measures taken in response to the crisis should be phased out as the economy normalises

- Reduce credit guarantees on SME loans, while curtailing their coverage and raising their premiums.
- Scale back loans by public financial institutions.
- Reduce purchases of equities using public money that are aimed at supporting the stock market.

Improve the regulatory framework to increase the resiliency of the banking system against shocks

- Upgrade the corporate governance of financial institutions through improved supervisory guidelines.
- Enhance the transparency of securitised products to promote the stability of these markets.
- Improve quality and fairness in the rating process by credit rating agencies, in part by rules that prevent conflicts of interest.
- Reform rules on capital adequacy to reduce their pro-cyclicality without unnecessarily harming banks' growth potential.
- Strengthen the stability of the financial system by reducing equity holdings of banks.

Increase the efficiency of the financial sector

- Improve the taxation of financial income and upgrade financial education to promote the development of capital markets.
- Accelerate the privatisation of public financial institutions to reduce distortions and over-banking.
- Encourage economies of scale in regional financial institutions to reduce costs and improve profitability.
- Abolish entry barriers to financial institutions in agriculture to boost efficiency in finance and agriculture.
- Ensure that preferential regulatory treatment of regional financial institutions does not result in moral hazard.
- Remove obstacles to the use of reverse mortgages to reduce liquidity constraints facing the elderly.
- Promote defined contribution pension schemes, which would remove obstacles to labour mobility and enhance financial autonomy.

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