Ultra-low interest rates

How Japanese banks have coped

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Since the late 1990s, Japanese banks have been operating in an ultra-low interest rate environment in which spreads between funding and lending rates have been compressed. As a result, banks' net interest income has fallen over the past 15 years and banks have felt increasing pressure to reduce costs and find new sources of revenues other than domestic lending.

To make up for the contraction of their core business, banks expanded into Japanese government bonds (JGBs). The large-scale purchase of domestic government bonds allowed banks to continue de-risking, while keeping the size of the balance sheet constant or even expanding it. It has also helped banks to absorb the deposit inflow, while avoiding ventures into more risky assets.

Banks have adapted both the cost and income drivers of their business, as they were suffering from low interest margins and suppressed credit demand over a prolonged period of time. Profitability and efficiency gains have been limited though and masked by the efforts to digest bad loans since the bursting of the credit and asset price bubble in 1990.

— The larger city banks expanded overseas or into other business areas, such as trust business or securities services.

— Smaller and regional banks had far fewer options, expanding mainly into metropolitan areas, thereby increasing competitive pressures and squeezing margins even further.

— All banking groups have felt mounting pressure to absorb bad loans and increase efficiency. As a result, the Japanese banking sector has been going through an industry-wide phase of consolidation.

While Japanese banks have reduced their bad loan problem, they have also become increasingly exposed to their home sovereign – and the associated credit and interest rate risk. Risks from easy lending and a renewed credit and asset price boom are not yet acute, however. Moreover, Japanese banks' equity holdings are likely to offset any negative impact monetary policy might have on their JGB exposure.

* The author would like to thank Yoshinobu Yamada for his input and comments as well as Sebastian Camarero Garcia and Felix Karstens for their assistance in preparing this study.

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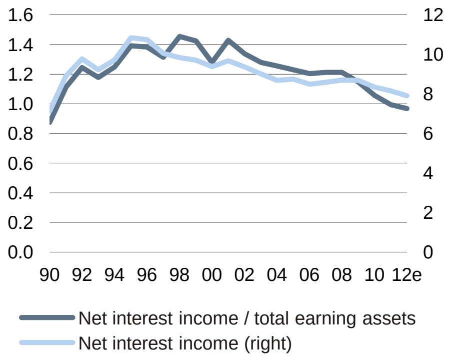
Banks' interest income and margin 1

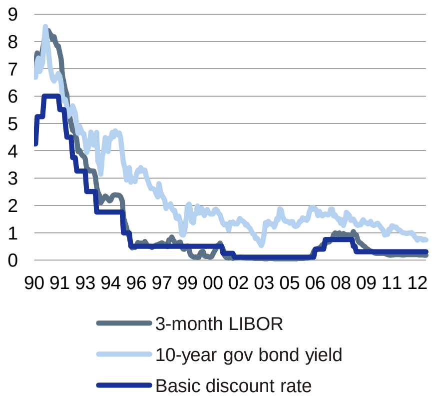
% (left), JPY tr (right)



Sources: Japanese Bankers Association, DB Research

Japanese interest rates 2

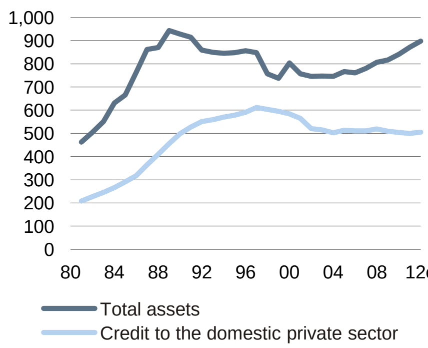
%



Sources: BoJ, ECB

Total assets and credit to the private sector 3

JPY tr



Sources: OECD, JBA, DB Research

Introduction

Since the late 1990s, Japanese banks have been operating in an ultra-low interest rate and deflationary environment in which funding and lending rates have been declining. As a result, banks' net interest income has fallen in Japan over the past 15 years (see chart 1). Loan demand stagnated during that time, so banks were not able to compensate for declining interest margins by boosting volumes. To make up for the contraction of their core business, banks expanded into Japanese government bonds (JGBs) and set out to find new sources of revenues other than domestic lending.

This study reviews how Japanese banks have responded to the adverse macroeconomic environment during the past ten to twenty years. The experience of Japanese banks provides some valuable insights into the effect of a prolonged phase of low interest rates on bank balance sheets and profitability. To the extent that euro-area banks face a similar environment in the coming years, the Japanese experience can serve as a useful source of information for policy makers and market participants alike.

Low interest rates weighed on interest margin

Following the stock market crash in 1990 and a collapse of the property market, the Japanese central bank lowered rates to support the domestic economy and stabilise the banking sector. Within five years, the basic discount rate came down from 6% in 1991 to 0.5% in 1995 and was further lowered by the Bank of Japan (BoJ) to 0.1% in 2001. Money market rates and bond yields adjusted accordingly (see chart 2).

Monetary easing had at first a twofold positive effect on bank profitability: lower interest rates drove up market prices of securities holdings and allowed banks to realise capital gains from their previous investments. Banks additionally benefited from a steepening of the yield curve. Short-term funding rates adjusted quicker than long-term lending rates, which allowed banks to widen interest margins. Both effects tended to increase bank profitability from the early to the late 1990s.

Net interest income started to deteriorate by the mid-1990s after credit growth had already slowed and official rates had been slashed for at least four years. It took another five years until net interest margins finally started to come down. In fact, the time lag with which bank interest income and margins responded to the fall in official rates is quite large if compared, for instance, with data for the US.[1]

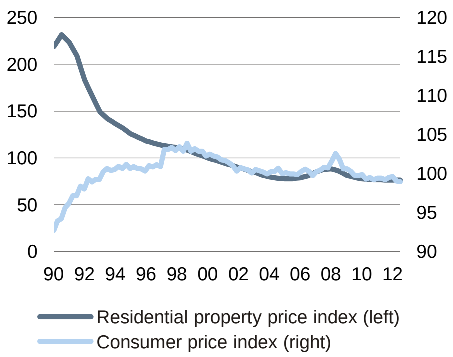
By the end of 2005 – almost five years after the Bank of Japan had introduced quantitative easing (March 2001) – deflationary pressures appeared to have been overcome. The Bank of Japan started to slightly raise rates between 2006 and 2008 against the backdrop of a benign macroeconomic environment. During that time, credit demand did not deteriorate further and banks' interest income improved marginally (compare charts 1 and 3). The Bank of Japan cut rates again in 2009, following the external shock from the financial crisis. Rates and margins have remained suppressed ever since, with net interest income and margins continuously declining until present times (see chart 1).

In the first quarter of 2013, average net interest margins reached historic lows (based on data for the major Japanese banks). While the yields on Japan government bonds and mortgages continue to fall, average debt funding rates, at 3%, have virtually no further room to decline. Interest margins are not

[1] See Schildbach and Lantz (2012).

expected to bottom out for some time, as the BoJ announced plans to recommence quantitative easing in April this year. Determined to bring inflation up to 2%, the BoJ aims to double the money supply within two years by adding government debt with one-year or longer maturities worth JPY 62 tr. This will further suppress bond yields and weigh on bank interest margins.[2]

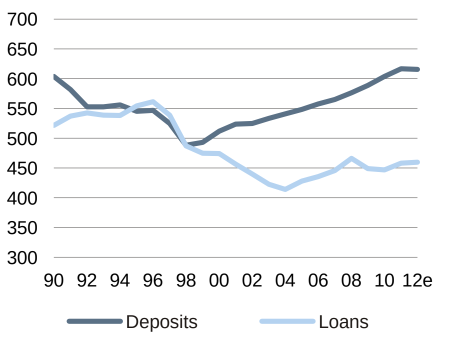
Japan price indices 4



Sources: OECD, BIS, DB Research

Deposit overhang 5

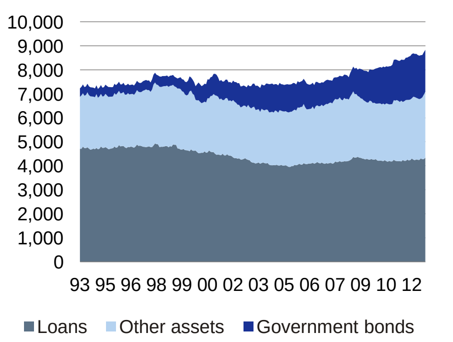
JPY tr, all banks



Sources: Japanese Bankers Association, DB Research

Assets of Japanese banks 6

JPY tr



Sources: Bank of Japan, DB Research

Deflation drove wedge between lending and deposit volumes

Banks' response to the low-interest rate environment must be viewed against the background of deteriorating economic conditions and falling asset and consumer prices in Japan (see chart 4). Despite low nominal interest rates, deflationary pressures have provided disincentives for private investors to take out loans. Real rates based on consumer price inflation stayed positive throughout the past decade, so the real value of repayment generally exceeded the amount initially granted.

Borrowers taking out loans for real estate investment faced a situation in which the value of the invested property generally declined as the loan matured. The decline in asset value was particularly pronounced in commercial and residential property markets. In addition to the higher real burden of servicing the loan, borrowers thus had to take a capital loss on their investment. The sluggish economic development and falling asset and consumer prices all tended to suppress loan demand in Japan from the mid-to-late 1990s. Loan demand has started to pick up only recently, under the view of economic recovery.

While loan demand remained suppressed over a prolonged period of time, deflationary pressures and economic uncertainty provided further incentive for corporates and households to increase savings. Despite near-zero interest rates, Japanese depositors could earn a positive yield in real terms.[3] By depositing their excess proceeds at domestic banks, corporates and households were also avoiding foreign exchange and interest rate risk. As a result, banks have been left with a structural overhang of deposits over loans (see chart 5).

Banks expanded into domestic government bonds

The expansion of Japanese banks into domestic government bonds (JGBs) – and to a lesser degree into corporate bonds – did not begin until the late 1990s, at the time when credit to the private sector started to contract (see charts 6 and 7). Credit growth had already slowed substantially since the bursting of the bubble. But when the gap between loans and deposits actually widened, banks started substituting public lending for private lending as a means to deal with the deposit overhang.

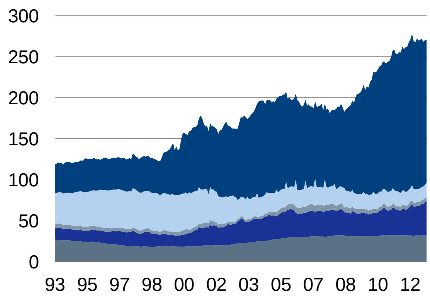
The large-scale purchase of JGBs allowed banks to continue de-risking their balance sheets, while keeping the size of the balance constant or even expanding it. The deposit-bond "carry trade" allowed banks to earn at least a positive return on their investment. This compensated partly for declining or negative returns in the traditional lending business. Of course, the rather narrow spread between government bonds and deposits could not compensate for the overall loss in profitability of the lending business.

In line with international standards, Japanese banks were allowed to assign zero risk weights to their government bond holdings that were purchased for investment purposes. Banks were thus able to expand their government bond exposures without raising their regulatory risk positions (i.e. maintaining the volume of risk-weighted assets) and without taking on counterparty or foreign

[2] See the analysis by our colleague Yoshinobu Yamada as of April 4, 2013.
[3] Note that many European bank customers currently face a negative real return on their deposits.

Securities holdings of Japanese banks 7

JPY tr

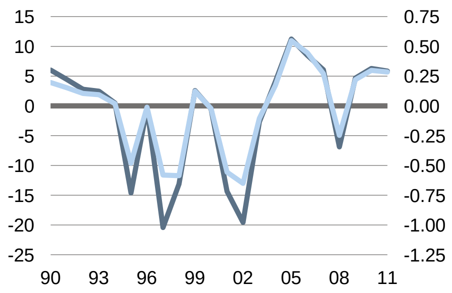


Corporate bonds | Foreign securities | Other | Stocks | Government bonds

Sources: Bank of Japan, DB Research

ROA and ROE of Japanese banks 8

%

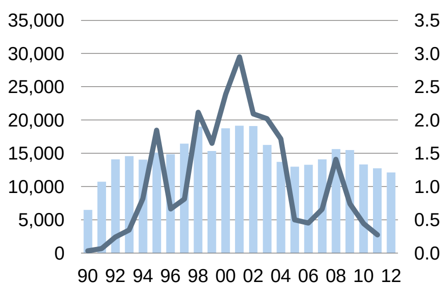


ROE (left) | ROA (right)

Sources: Japanese Bankers Association, DB Research

Bankruptcies and write-offs 9

Number of cases (left), JPY tr (right)



Corporate bankruptcies
Total written-off claims (right)

Sources: BoJ, JBA, DB Research

exchange risk. To the extent that zero-weight government bond exposure substituted for more risky lending business, banks could in addition improve regulatory capital ratios.

As their bond exposure grew, banks became more and more worried about interest rate risk. Banks began to increase the match of maturities between assets and liabilities in the mid-1990s. Average maturities on the asset side of bank balance sheets came down, as banks were trying to minimise exposure to a possible hike in rates. Average duration of government bond holdings is now estimated to have reached 2-3 years.[4]

Under the current quantitative easing scheme, the Bank of Japan (BoJ) is buying JGBs from the banks. Average yields on bank bond portfolios have declined as a result, making it increasingly less attractive for banks to further expand their JGB exposure, as there is no longer a major difference in yield for short-term JGBs and the BoJ's current account interest rates.

Bad loans hit bank profitability

An even more demanding aspect than the low interest rate environment, non-performing loans have challenged banks over an extended period of time. In fact, the ability to digest bad loans has been the most important factor in determining bank profitability and explains to a large extent the high volatility in bank returns (see chart 8).

Japanese banks were exposed to an overextended construction and real estate sector when the credit and asset price bubble burst in the early 1990s.[5] In the following years, credit quality deteriorated and economic activity slowed down. The Japanese authorities expected an economic recovery sooner rather than later. Through regulatory forbearance, they allowed banks to not fully reveal their NPLs, so that banks could avoid realising credit losses. By lowering interest rates, the Bank of Japan tried to boost credit supply and allow banks more time in dealing with the bad loan problem.

Indeed, banks continued to provide funding to overindebted companies (“zombie firms”) to prevent them from going bankrupt. However, this merely postponed consolidation within the banking and the real sector. As long as unrealised losses remained on both lenders’ and borrower’s balance sheets, banks were unwilling to provide fresh credit that could have restarted the economy. Despite continuously falling interest rates, Japan remained in a state of economic stagnation and price deflation throughout the 1990s. Banks were kept busy with writing off bad loans throughout this period and in the years that followed (see chart 9).[6]

After the 1997 Asian crisis and in the aftermath of some smaller bank insolvencies, the Japanese government began tackling the NPL problem more decisively. In particular, banks were asked to report loan quality in a more transparent and rigorous manner. The newly introduced classification requirements for impaired loans led to a sharp increase in reported NPLs and the realisation of credit losses. Around 2000, a number of government credit and financial support schemes were introduced with a view to halving NPL ratios within 3 years. Substantial loan guarantees were extended to limit losses and allow banks to stop lending to “zombie firms”. The share of non-performing loans increased as insolvent firms were now forced out of the market.

[4] Yamada (April 4, 2013). Note that average fixation periods of loans are now even shorter (3-4 months), as unlike in the EU most loans in Japan are floating-rate.
[5] See Kanaya and Woo (2000) as well as Kawa (2003) for a more in-depth analysis of the evolution of the Japanese asset price bubble and credit crisis.
[6] A more detailed analysis of the bad loan problem is provided by Fujii and Kawai (2010).

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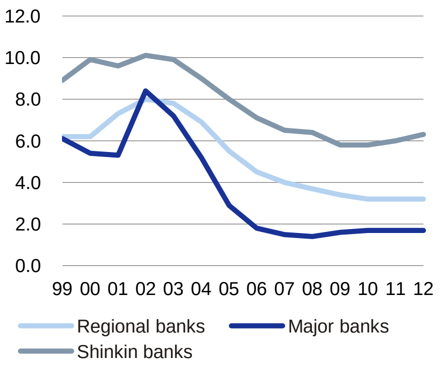
Non-performing loans (NPLs) 10

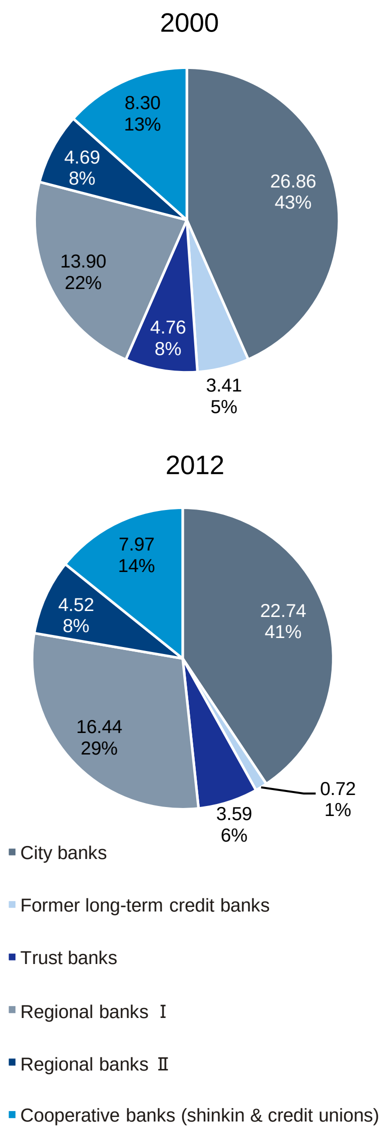
NPLs as % of total loans outstanding



Source: Financial Services Agency Japan

Market share by different types of bank 11

JPY tr, total credit



Sources: FSA, BoJ

By March 2002, average NPL ratios had peaked at more than 8% (see chart 10).[7] Public support programmes such as SME Revitalisation Support Councils and the Business Rehabilitation Alternative Dispute Resolution System (ADR) helped comparatively healthy and competitive companies to restructure their debt and hence to survive. Annual guarantees of about JPY 40 tr enhanced credit availability, especially for SMEs.[8] The subsequent decline of corporate bankruptcies after 2002 indicates that the clearing-up of bank balance sheets has helped eliminate uncompetitive firms and raise efficiency of the corporate sector. At the same time, the capital ratios of most remaining companies started to improve steadily as consolidation induced higher savings. That might explain why corporate demand for loans remained low during the 2000s (see chart 3).

At the end of that decade, Japanese banks had to take losses again following the financial crisis. In 2009, the ratio of nonperforming overseas loans increased from 0.5% to 1.5%.[9] However, compared to previous losses in the early 2000s and in view of the severe economic downturn, banks have weathered the financial crisis relatively well. Unlike their European counterparts, Japanese banks have had little exposure to the US mortgage market. Japanese banks had acted more cautiously and abstained from participating in the US housing boom after the experience of the US savings and loans crisis in the 1980s and the problems they had faced at home. The major banks seem to have improved

Main types of bank in Japan 12

The Japanese banking sector is characterised by its high concentration. There are about 2,000 deposit-taking institutions, most of them *shinkin* and regional banks, but the six city banks dominate the sector, holding more than 40% of Japan's banking sector assets (see chart 11). The main banking groups can be distinguished as follows:

Major banks

City banks are large commercial banks which inter alia serve the major Japanese corporates. They are engaged both in domestic and foreign markets and offer a broad range of products including commercial and investment banking services. The six city banks include the Bank of Tokyo-Mitsubishi UFJ, Mizuho Bank, Mizuho Corporate Bank, Resona Bank, Saitama Resona Bank and Sumitomo Mitsui Banking Corporation.

Trust banks focus on asset and wealth management. They also offer management services for institutional investors, e.g. pension funds.

Regional banks

Regional banks (Tier-I) usually focus on one region (e.g. one prefecture), where they serve as commercial banks for small and medium-sized enterprises (SMEs) or as retail banks. About 80% of loans are usually provided to SMEs, financed mainly by household deposits. As of March 2012, there were 64 banks of this type with about 7,500 branches across the country.

Tier-II regional banks are members of the Second Association of Regional Banks and are usually smaller than the Tier-I regional banks. Even though their historical origin varies from Tier-I regional banks they provide similar services. As of March 2012, there were 42 banks of that type with about 3,000 branches.

Cooperative banks

Cooperative banks, mainly *shinkin* banks but also credit unions, primarily manage capital and deposits provided by their owners. Cooperative banks focus on maintaining close relationships with their local business and private clients, for whom they provide consultation and a diversified, usually conservative product portfolio.

Japan Post Bank

Japan Post Bank is one of the largest banks worldwide, holding 25% of domestic deposits. It offers hardly any loan products except for secured overdraft lines.

Sources: IMF (2012), Loukoianova (2008), Japanese Bankers Association

7 See IMF country report (2012), pp. 14-20.
8 See also Iichiro, Koji and Yamashiro (2006).
9 See Bank of Japan's Financial Stability Report as of April 2012, p. 53.

Megamergers among city banks 13

A wave of mergers among the large city banks created four major banking groups in Japan:

Bank of Tokyo-Mitsubishi UFJ

— Merger of Bank of Tokyo-Mitsubishi Ltd. and UFJ Bank Limited in January 2006

Mizuho Financial Group

— Between May 2000 and April 2003, merger of Dai-Ichi Kangyo Bank (DKB), Fuji Bank and Industrial Bank of Japan (IBJ) to form Mizuho Holdings

— The banking business within that holding was split and reorganised into two city banks: Mizuho Bank and Mizuho Corporate Bank

Sumitomo Mitsui Banking Corporation

— Merger of Sumitomo Bank and Sakura Bank in April 2001

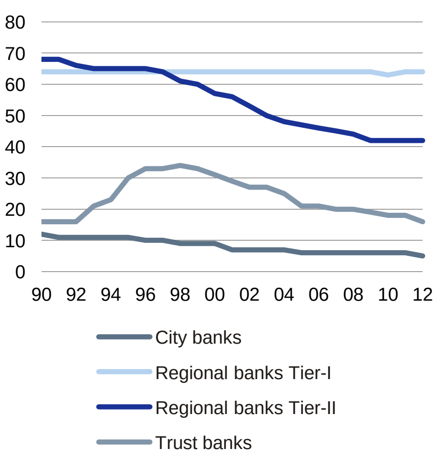
Resona Holdings

— Between October 2002 and March 2003, merger of Daiwa Bank and The Asahi Trust & Banking Co. Ltd to form Resona Holdings

— The banking business within that holding was split and reorganised into two city banks: Resona Bank and Saitama Resona Bank

Fewer banks 14

Number of banks



Sources: Deposit Insurance Corporation of Japan, FSA, DB Research

the quality of their loan portfolios – as low NPL levels and relatively modest losses from overseas exposures during the financial crisis of 2008 suggest.[10]

Consequently, in recent years Japanese banks have been able to improve their credit ratings relative to European and US competitors. Especially major banks could thus enhance their funding conditions as well as their lending power. In general, low interest rates appear not to have led to excessive risk taking at Japanese banks.

Industry-wide consolidation of the banking sector

The Japanese banking sector had long been characterised by a relatively high number of banks and rigid division of labour among the different banking groups. Part of this picture was the absence of any significant M&A activity in the Japanese banking sector from WWII until the 1990s. This pattern had changed markedly by the end of the 1990s, when Japan's major banks were suffering continued losses from the collapse of the inflated property and stock markets in 1990 as described above.

Although not a direct response to the low interest rate environment, consolidation among banks was regarded to be a viable strategy to counter mounting solvency problems in the industry. In most cases, larger comparatively healthy banks merged with banks in poorer condition. This development went hand in hand with financial deregulation, which was partly drafted with a view to facilitating consolidation of the sector. After a revision of the anti-monopoly law in 1997 and the amendment of the stock-swap system financial institutions were given more room for manoeuvre, which laid the foundation for a wave of mergers and acquisitions in the following eight years. Notwithstanding substantial consolidation of the banking sector an important characteristic of the Japanese system remained untouched: no significant merger was conducted across different bank types.

Mainly as a response to the crisis of 1990 and in order to prevent a collapse of the banking system, the Japanese financial authorities relaxed their supervisory standards and the government launched several programmes to provide banks with capital. Banks in turn continued to provide low-grade debtors with credit, as previously mentioned. In March 1998, the Japanese government bought subordinated debt securities and preference shares worth 1.9% of banks' risk-weighted assets (RWA) from 20 major banks. Despite these measures, the weakest banks remained severely undercapitalised. This led to a second round of capitalisation in March 1999, which benefited 15 banks that had been recapitalised before. This time, the amount was substantially higher, corresponding to 5.1% of banks' RWA. A third injection occurred in June 2003 when the government backed one of the big city banks, Resona, by injecting new capital worth 17.5% of its RWA.

System stability was also improved via privately initiated mergers. As a result of a number of megamergers among the major banks, the number of city banks fell from 10 in 1997 to 6 in 2005. Today there remain three large bank holding companies in addition to the somewhat smaller Resona Holdings and the investment bank Nomura (see box 13). The mergers provided the opportunity to exploit economies of scale by cutting down operating costs and – in the case of a stronger institution acquiring a weaker one – reducing the average exposure to non-performing loans.

The regional banking sector underwent structural change as well (see chart 14). While the Tier-I regional banks were relatively stable and thus able to maintain their status quo, the Tier-II regional banks induced a consolidation at the local

[10] The level of problematic loans at smaller banks is even higher than that at major banks.

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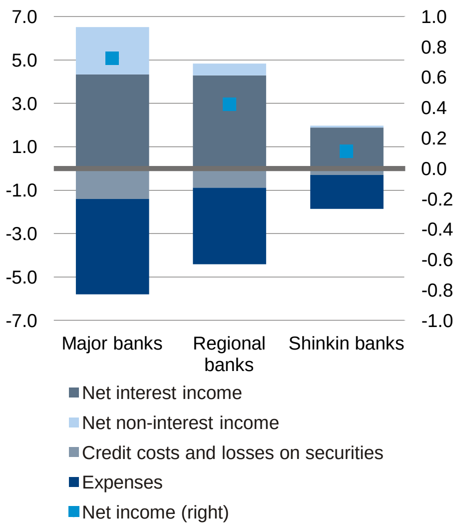
Income & expenses of Japanese banks 15

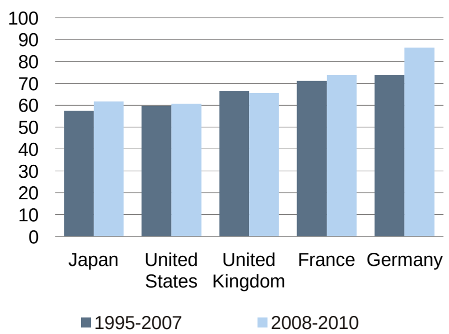
JPY tr, average 2002-2012



Sources: BoJ, DB Research

Banks' cost-income ratio in international comparison 16

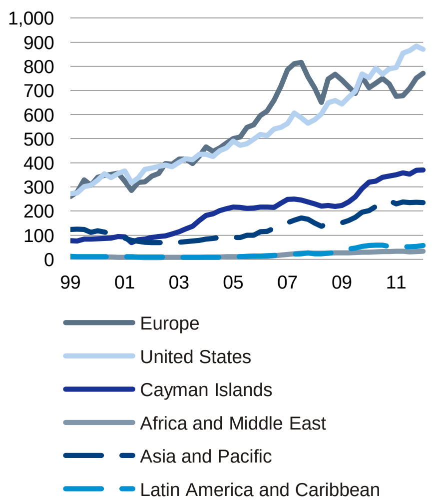
%



Sources: Worldbank, DB Research

Cross-border exposure of Japanese banks 17

USD bn, immediate borrower basis



Sources: BIS, BoJ

level aiming at their stabilisation. Due to failures and mergers of Tier-II regional banks their number decreased by 30% from 1997 to 2007. Despite promoting consolidation of the sector, the government took a more passive stance during the merger wave between 1999 and 2003 than in the decades before, when mergers were often induced by public authorities.

In addition to M&A activities, Japanese banks attempted to raise efficiency by cutting expenses and reducing the workforce. From 1997 to 2002 banks significantly reduced the number of their employees. General and administrative expenses declined by 11% from 1999 to 2004. However, these successes were short-lived as overhead costs rose again from 2005 until 2011.

Banks developed new sources of income

Japanese banks have traditionally been highly dependent on interest income related to core lending business – which accounts for about two-thirds of total income. In particular, smaller banks with a focus on regional clients rely on lending business to generate profits (see chart 15). Regional banks were thus hit particularly hard by falling interest margins, as they had fewer options to expand abroad or into new lines of business. However, interest income accounts for about 60% of total revenues on average also for major banks, making it hard to maintain operational profitability in a low interest rate environment.[11]

By international standards, Japanese banks have been quite efficient in their operational business when measured by the cost-income ratio (see chart 16). However, Japanese banks have had to deal with several waves of credit deterioration which weighed on overall profitability. In addition, banks had to continuously adapt both the cost and income drivers of their business in order to deal with falling interest rates, as discussed. All banking groups have thus tried to change their business models with a view to developing new sources of income.

The following paragraphs summarise the key strategies that Japanese banks have adopted to expand the scope and outreach of their business. While larger city banks expanded overseas or into other business areas, such as trust business or securities services, smaller banks had far fewer options, expanding mainly into metropolitan areas and adapting their asset portfolio and lending strategies.

Expansion outside core markets

In search of higher returns, banks expanded into growing markets abroad or into presumably more attractive regions at home. Especially the large holding companies and city banks have been attracted to markets outside of Japan, whereas regional and *shinkin* banks have largely been compelled to seek opportunities at home.

The large city banks and bank holding companies were able to build on their existing foreign branches and representations in order to expand their cross-border business – expanding in the US, Europe and the relatively fastest growing regions in the emerging markets. Exposure to the US has continued to climb steadily throughout the financial crisis until recent times (see chart 17). By contrast, exposure to Europe climbed initially but has stagnated since 2007.

[11] For an elaborate study of the differences in profitability among Japanese banks refer to Loukoianova (2008).

Major regulatory changes 18

Big Bang reforms (1996 - 2001)

Liberalising financial intermediary services, permitting a broader range of financial products especially in over-the-counter (OTC) markets to be traded and invested in:

— Liberalisation of overseas capital transactions, securitisation of loans, derivatives, and OTC insurance sales
— Liberalisation of financial market rules, permitting a broad range of OTC derivatives products, improving market infrastructure
— Revision of the Anti-Monopoly Law allowing holding companies to integrate line businesses into joint stock companies, thereby facilitating the consolidation of back offices
— Allowing banks to provide stock-brokerage services for their affiliated securities franchise
— Allowing bank-affiliated securities houses to engage in full range of equity-related business

Amendment to the Securities and Exchange Law (Apr, Dec 2004)

— Deregulation of the securities intermediary business, lowering the barriers to establishing securities companies and investment trust managers
— Allowing banks and other financial intermediaries to expand into securities intermediary business

Financial Instruments and Exchange Law (Sept 2007)

— Introduction of a single rulebook for securities houses, asset managers and futures traders regarding investor protection and the marketing of financial instruments

Overall exposure to the emerging markets is still small compared to the developed markets, but has likewise expanded during the past 10 years. In the latest fiscal year ending in March 2013, for instance, the five major banks expanded overseas loans by approximately 30% on average.[12] Among the fastest growing regions, above all China has attracted funds from Japanese banks. They have also started to enter new markets such as Latin America. The most dynamic development could be observed in Brazil, where Japanese city banks have financed, for instance, the modernisation of refineries and the construction of the metro system in Sao Paulo. Exposure to Latin America remains negligible though if compared to European or US exposures. The rising exposure to offshore centres such as the Cayman Islands reflects the venture into securitisations and structured products mainly by the large city banks.

Overseas investments, in general, have contributed positively to Japanese banks' income situation – especially during the crisis period of 2008/09 when domestic revenues contracted. Nevertheless, the shift in exposures from domestic to foreign markets has not been sufficient to compensate for the overall negative impact of falling returns in the domestic market.

Smaller banks could not benefit to the same extent from expanding abroad. They have sought to expand regionally into metropolitan areas neighbouring their home market. The decades-long separation of the banking market between the city banks active countrywide and the regional banks operating in usually not more than one province has begun to dissolve as a result. Traditionally, the regions have carried a structural overhang of deposits over loans, which had previously been channelled to the city banks through the interbank market. As regional banks started to enter the metropolitan areas, loans were made directly to clients in the metropolitan areas. Competition in the metropolitan areas increased as a result, which further depressed interest margins.

Geographical expansion hardly improved the profitability of smaller banks, as any increase in loan volumes was thwarted by further reduced margins.[13] Since smaller banks were limited in directly entering foreign markets, they sought to support their main customers, mainly SMEs, in developing export-oriented business models. The mutual benefits that were created in that way helped to foster the relationship between banks and their clients. Likewise, major banks increasingly focused on corporate clients from the export-oriented industries. Those clients were expected to have above-average financing needs as they were growing faster in comparison to those relying on domestic markets only.

Foreign banks have, on average, reduced their presence regarding both the number of branches as well as the total assets allocated to the Japanese markets. Both low interest margins and the increasingly competitive market environment have reduced their incentives to enhance activities in Japan.

Developing new business models

In addition to industry-wide consolidation and geographical expansion, Japanese banks have expanded their range of services, shifted investment strategies and established or acquired new lines of business.

Encouraged by the Big Bang reforms liberalising financial markets and the banking business, banks were able to offer a broader range of financial products and services (see box 18). The large banks stepped up their asset management services and expanded into market making or derivatives trading. In order to compensate for their limited possibilities to invest in foreign markets, especially

[12] For further details on current profitability of major Japanese banks, compare Yamada's report from May 16, 2013.
[13] See the Bank of Japan's Financial System Report as of October 2012, pp. 23-26.

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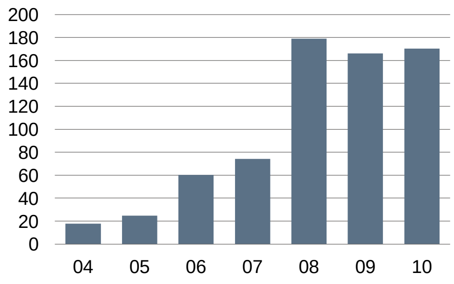
Loans to start-ups by regional banks 19

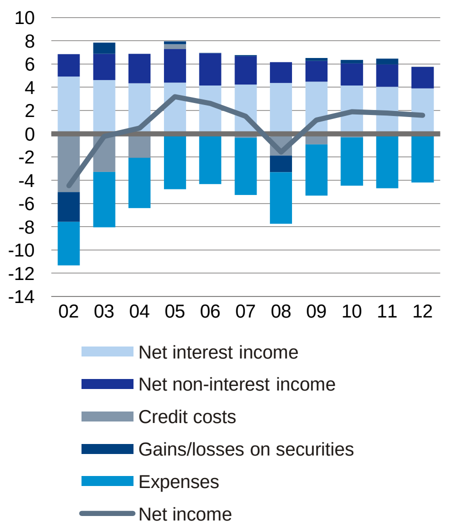
JPY bn



Source: BoJ

Income & expenses of major banks 20

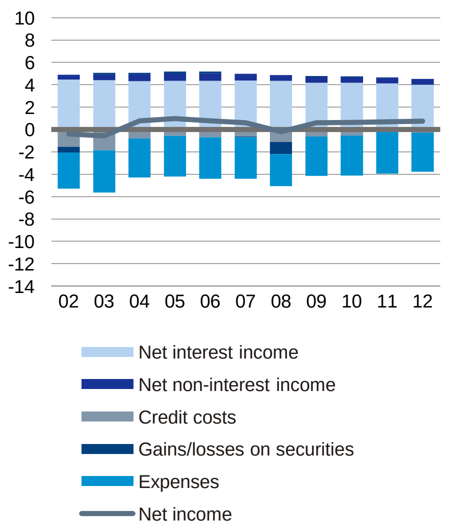
JPY tr



Sources: BoJ Financial System Report, DB Research

Income & expenses of regional banks 21

JPY tr



Sources: BoJ Financial System Report, DB Research

smaller banks used structured products and derivatives to prop up their investment portfolios. The collapse of Lehman Brothers and the global financial crisis did temporarily reverse this trend, however.

Having established a close relationship with their borrowers, banks were able to exploit their knowledge of corporate and private clients to develop new consultancy services and provide expertise beyond the traditional loan offer. For instance, banks started advising existing SME and other corporate clients on how to identify opportunities for growth and revitalise their client's business models or began to promote start-ups (see chart 19). Regional banks offered so-called business matching strategies in which they identified borrowing firms that fit well with other borrowing firms with a view to establishing joint ventures that might trigger new growth opportunities. Some banks also offered services for organising succession procedures within companies. Over time, financial institutions thus managed to steadily exploit and intensify their client networks. This benefited both the net fee and funding income of Japanese banks.[14]

Especially smaller, regional banks began to focus on the promotion of start-ups and innovative, young companies, as successful new enterprises promised above-average growth rates.[15] And given the regional banks' good knowledge of regional economic structures, the potentially higher risk associated with venture capital financing appeared to be manageable.

Interestingly, despite all the efforts to raise non-interest income the data do not show a notable trend in absolute terms (see charts 20-21). All one can say is that for the major banks the share of non-interest income has increased as a result of slightly falling interest income. For the smaller regional banks, the composition of income has not changed much. The most important factor in determining net income of banks seems to be the costs associated with bad loans as well as losses on securities holdings.

Conclusions

The data show that Japanese banks have been able to survive ultra-low interest rates for quite a long period, albeit at the cost of low profitability and increased vulnerability. Especially the large universal banks managed to compensate for the loss in profitability of the domestic lending business by venturing abroad or into new market segments. The banking sector has consolidated – very slowly and with a substantial time lag following the crisis of 1990 – and has finally started to provide improved services especially to SMEs.

The data also show that the ability to digest bad loans has been the most important factor for bank profitability and overall banking sector stability. It should be noted, though, that bank asset quality and the interest rate environment are mutually dependent. In Japan, low interest rates have not led to excessive risk taking, neither on the part of borrowers nor on the part of lenders. The general deflationary environment and the need to deal with bad assets have prevented banks from expanding their loan books. Instead, the public sector has levered up, with bank lending apparently risk-free credits to their home sovereign.

The response of Japanese banks to the ultra-low interest rate environment has helped improve capacities of the banking sector overall, but it has also increased systemic risk. Banks are now carrying large exposures of Japanese government bonds, which make them susceptible to a hike in interest rates and a deterioration of the sovereign's solvency. More recently, banks have shifted parts of their activities towards presumably riskier business, such as venture

[14] The Bank of Japan's report by Atsushi, Saiki and Nishioka (2013) provides further detail.
[15] See the Bank of Japan's Financial System Report as of April 2012, pp. 27-29.

capital and financing of SME growth. Also, risk associated with increasing loan exposures to foreign markets should not be disregarded. Japanese authorities have already emphasised the importance for banks to establish more sophisticated processes for screening and monitoring their customers, especially in overseas business.

With the Bank of Japan's new measures in place, banks face another round of declining interest margins. Even though the sector has become used to a low interest rate environment, renewed quantitative easing will pose new challenges to the Japanese banks' established business models.

Christian Weistroffer

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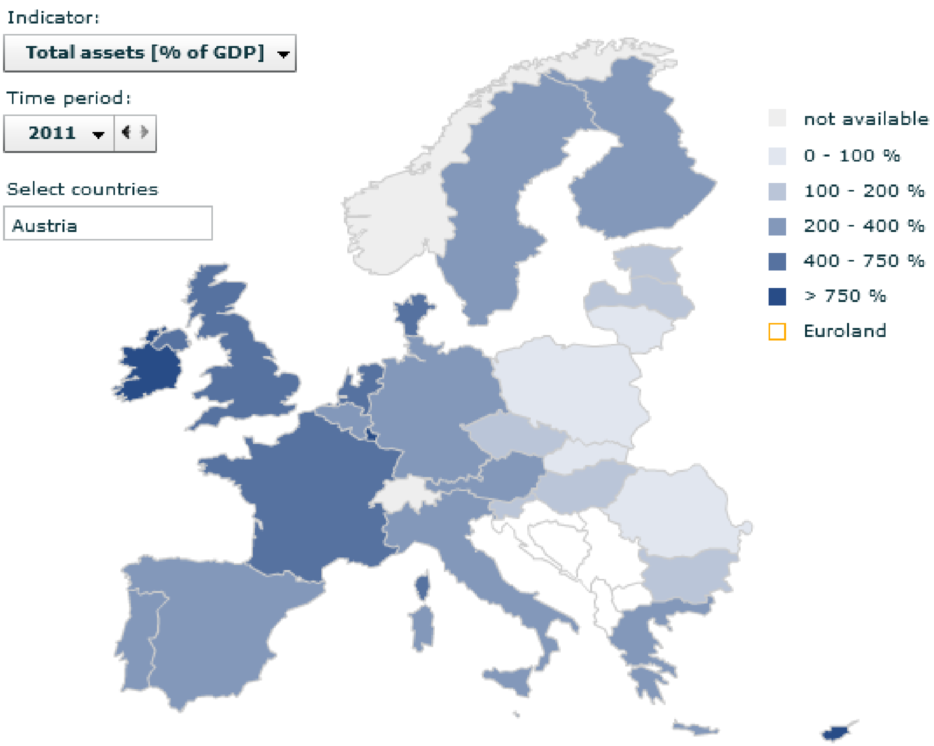

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