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Japanese Banks and Rising Bond Yields

With yen bond yields nearing five-year highs and the Bank of Japan tightening monetary policy, Japanese banks face new questions about the impact of higher interest rates on earnings and balance sheets. Japanese banks are the top holders of government bonds (JGBs), and as a proportion of bank assets bond investments are sizeable. The fallout from rising bond yields, however, will likely prove to be minimal. Banks have stopped adding to their bond exposure, and the accounting treatment of unrealized bond losses should protect bank income statements. If the economy continues to grow, gains on equity holdings and lending margins could more than offset losses on bond investments. On the whole, Japanese banks look well-prepared to weather falling JGB prices.

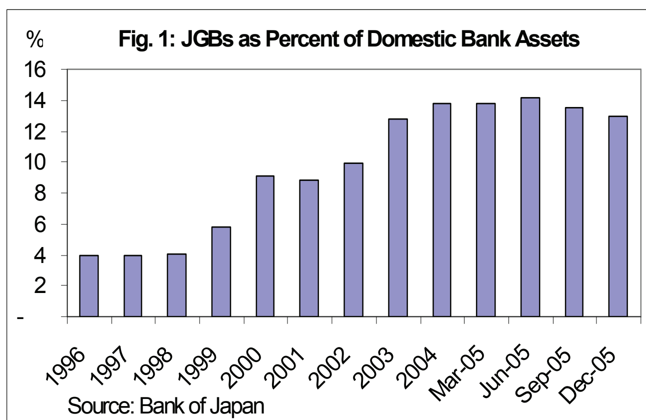
Reducing their exposure

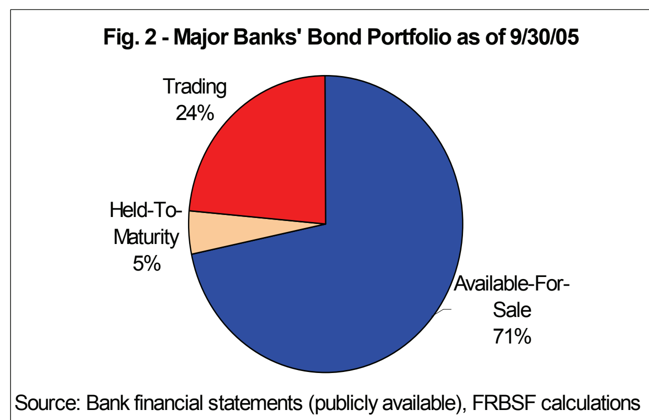
In the six years following the recession of 1998, government bond issuance soared, lending to the private sector fell and banks increased their JGB holdings dramatically. From 1998 to mid-2005, JGB holdings more than tripled in yen terms and, as a percent of total bank assets, climbed from 4.0 to 14.2 percent (Figure 1). Despite the low yields offered, banks bought JGBs due to the lack of loan demand.

Since mid-2005, however, banks have started reducing their exposure to JGBs. Anticipating tighter monetary policies, banks cut their JGB investments from June of last year to January this year by ¥7.9 trillion, or 1.3 percent of assets. Though modest, the reduction represents a clear reversal of the previous multi-year trend. Banks have placed much of the proceeds of their JGB sales and redemptions in other securities, including investment trusts and corporate and foreign bonds. In calendar year 2005, these holdings rose by 9.5 percent to 8.6 percent of bank assets, up from 7.6 percent of assets at end-2004. Although the new investments carry equivalent or higher price volatility than JGBs, they have enabled banks to diversify their risks. Corporate bonds and investment trusts often outperform JGBs in times of strong economic growth as default risk declines.

Favorable accounting treatment

The accounting treatment of possible bond losses should prove favorable to banks. Banks have placed only about 24 percent of their bonds in the Trading portfolio, with 5 percent classified as Held to Maturity and 71 percent as Available for Sale (Figure 2). According to Japanese (and U.S.) accounting standards, unrealized losses need to be





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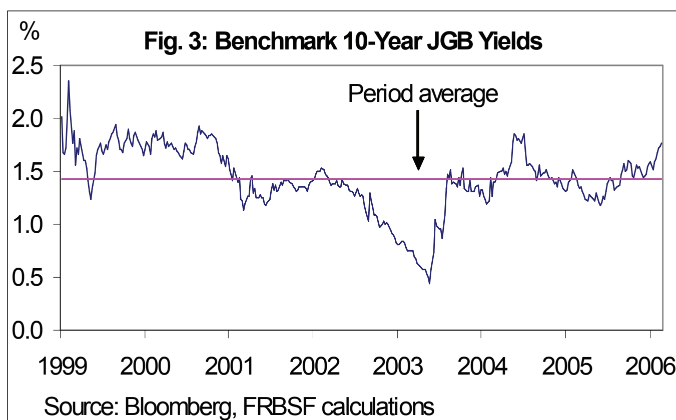
recognized in the income statement only for the Trading portfolio. No recognition is required of unrealized losses in Held to Maturity securities under normal circumstances, and unrealized losses on the large pool of Available for Sale bonds will appear only in the balance sheet. Banks are likely already carrying bond losses due to the large number of JGBs bought in the low-yield environment of 2003-2004 (Figure 3), but because Available for Sale securities are marked-to-market quarterly, all unrealized losses through December 2005 have already been registered in the balance sheet. Only further declines in Available for Sale bond prices from end-2005 levels will have a balance sheet impact. Cumulative gains and losses on these securities would only be recognized in income if banks were to sell them, which is unlikely. The financial system is awash with liquidity, and banks should be able to hold their Available for Sale securities – most of which are short-dated – until maturity.



Shortened duration

Duration management has reduced the risk to banks further. Over the past several years banks have shortened the duration of their bond holdings considerably, though bank mergers obscure the precise amount of the change. At present, the duration of the top three bank groups' bond portfolios ranges from only 1.8 to 2.4 years. Applying a formula that a 100 basis point rise in yields will cut the price of a bond by approximately 1 percent for each year of duration, we can estimate the impact of interest rate changes on banks. We calculate that unrealized losses on Available for Sale securities booked on the balance sheet from a 1 percent increase in yields – substantial by Japanese standards – would be between 0.6 and 1.2 percent of Tier 1 capital at the top three banks (Table 1). The impact on earnings would be similarly small. We calculate that a 1 percent rise in JGB yields would produce losses on the Trading portfolio equal to 0.7-3.3 percent of forecasted FY2005 net income at Mitsubishi UFJ Financial Group, Mizuho and Sumitomo Mitsui Financial Group (Table 2).

Past gains small

Banks' inability to book gains this year on bond holdings should not have much impact on earnings. In past years while yields remained low, banks booked profits on their bond investments, but the amounts were not large. Although other

Table 1: Estimated Balance Sheet Impact of 100 b.p. rise in JGB yields, AFS securities

	Current book value of AFS JGB holdings (¥ bn)	Portfolio duration	Estimated balance sheet losses (¥ bn)	Loss as % of Tier 1
MUFG	28,432	1.8 years	47.5	0.6
Mizuho	21,988	2.2 years	45.8	1.2
SMFG	11,383	2.4 years	25.7	0.7

Source: Bank interim financial statements (publicly available), FRBSF calculations. Data as of September 2005.

Table 2: Estimated Income Statement Impact of 100 b.p. rise in JGB yields, Trading portfolio

	Current book value of Trading portfolio JGB holdings (¥ bn)	Portfolio Duration	Estimated income statement loss in ¥ bn	Loss as % of consensus FY2005 net income forecast
MUFG	8,225	1.8 years	14.8	1.3
Mizuho	9,329	2.2 years	20.5	3.3
SMFG	1,590	2.4 years	3.8	0.7

Source: Bank interim financial statements (publicly available), FRBSF calculations. Data as of September 2005.

city banks have not provided a breakdown of bond gains, Mitsubishi Tokyo Financial Group's gains on debt securities the previous two fiscal years equaled only about 5 percent of ordinary profits. With so few gains having been registered in the recent past, year-on-year growth will suffer little if banks can book no gains going forward.

Offsetting equity gains

Equity holdings could provide an added buffer. From March to September last year, the six major Japanese banks reported unrealized losses on their bond holdings of 360 billion yen, but unrealized gains on equity holdings of 5.3 trillion yen. If accelerating economic growth continues to boost stock prices, additional equity gains could offset losses in bank bond portfolios.

Improved interest income

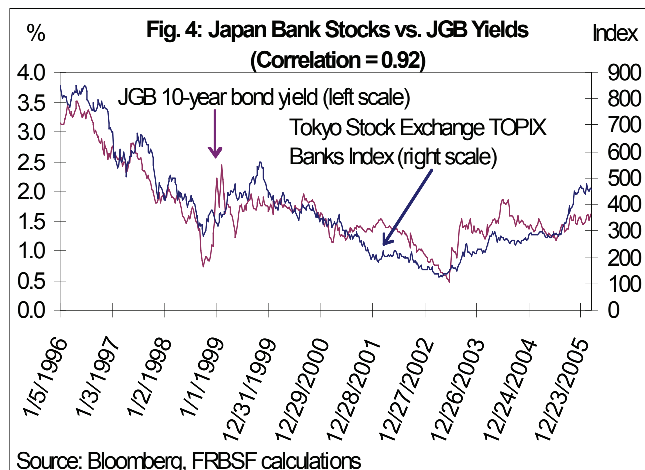
Improved interest income could offset bond losses much more. Under the current zero interest rate policy, the spread between the short-term prime lending rate and the regular deposit rate has averaged 1.37 percent. Historically, when short-term interest rates in Japan averaged one percent, banks' interest spread ranged between a much higher 1.85 to 2.5 percent. Most analysts and bankers expect that gains from wider margins will greatly outweigh losses on bond holdings if rates rise. Since rising bond yields typically reflect faster economic growth, improved loan volumes could add to the benefits of expanded margins.

Market perceptions

Historical stock market data indicates that investors believe rising yields benefit banks. Over the past ten years, the TOPIX index of Japanese bank stocks has displayed a strongly positive correlation with JGB yields (Figure 4). The high positive correlation likely reflects market expectations that increased yields will translate to improved bank profitability.

Risks lie elsewhere

Japanese banks still face significant risks. Fierce competition could keep margins in consumer lending tight, regulatory capital remains low by international peer standards and corporate loan demand has yet to fully recover. But bond markets pose a limited threat to banks despite their large JGB holdings. Wise management of bond portfolios, helpful accounting conventions and above all an improving macroeconomic environment should ensure that Japanese banks see little damage from higher bond yields.



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