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Japanese banks' credit profile pressured by deteriorating asset quality amidst prolonged periods of low-interest rates

by Ng Ziyan Derlyn

- **The NUS-CRI Agg PD demonstrates the worsening credit profiles of Japanese banks as a result of riskier foreign investments in search of higher returns not experienced in the domestic market**
- **The NUS-CRI Agg Forward 1-year PD demonstrates that the outlook for Japanese banks remain heightened before stabilizing in the long term**

In light of the recent announcement by the Bank of Japan to continue holding short-term interest rates at -0.1%, Japanese banks' asset quality has been put under pressure as the industry increases its exposure to worsening credit risk through lending and investing in global markets. A consequence of this low-interest-rate environment is Japanese banks' increased capital allocation to overseas markets in a bid for higher yield. As depicted in Figure 1a, the NUS-CRI Aggregate (median) 1-year Probability of Default (Agg PD) for Japanese banks has been steadily rising since Apr-2021, with the PD soaring past the BB+ upper bound, crossing the BB- upper bound in Sep-2021 when referenced to PDiR2.0[1] bounds. A culmination of reasons including the fourth wave of COVID-19 cases, a sustained negative interest rate environment, and deteriorating quality of their loan portfolios resulted in their PD inching up steadily since Apr-2021. Furthermore, the increasing exposure to the United States market[2] has led Japan's PD to move in tandem with the United States' equally-weighted Corporate Vulnerability Index[3]. The credit outlook of Japanese banks has also worsened, with the NUS-CRI Agg Forward 1-year PD (Forward PD[4]) demonstrating elevated credit risks as compared to Jan-2021 (See Figure 1b).

[1] The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation through mapping the NUS-CRI 1-year PDs to the S&P letter grades. The method targets S&P's historical credit rating migration experience exhibited by its global corporate rating pool instead of relying solely on the reported default rates.

[2] At the end of 2020, outstanding overseas loans and investments of Japanese banks with more than JPY 100bn in offshore assets reached a new high of USD 4.9tn, up 9% from a year earlier. Almost half of the USD 4.9tn went to US assets.

[3] CRI launched the Corporate Vulnerability Index (CVI), which is a suite of indices to produce bottom-up measures of credit risk. The CRI Probabilities of Default (CRI PD) of individual firms are used in the CVI to produce bottom-up measures of credit risk for economies, regions and portfolios of special interest. CVI is used as a credit-risk measure benchmarking tool, similar to other public indices like the S&P 500 etc.

[4] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similar to a forward interest rate. For example, the 6-month Forward 1-year PD is the probability that the firm defaults during the period from 6 months onwards to 18 months, conditional on the firm's survival in the next 6 months.

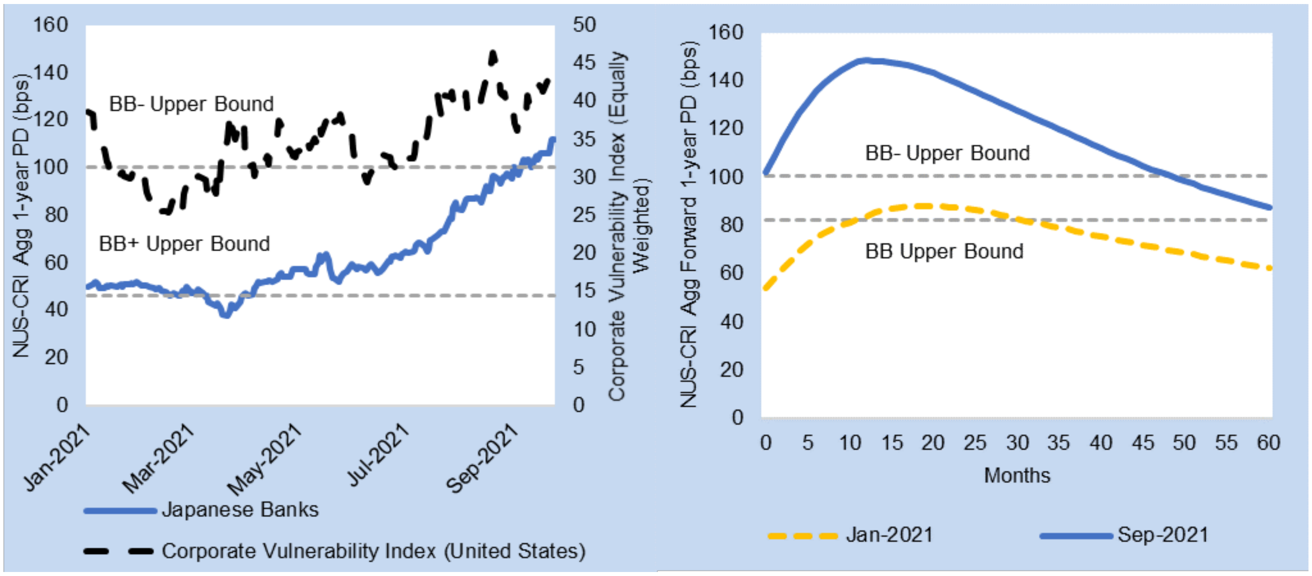

Figure 1a (LHS): NUS-CRI Agg 1-year PD for Japanese banks from Jan-2021 to Sep-2021 with reference to PDiR2.0 bounds (primary axis), and the equally weighted Corporate Vulnerability Index for Japan and the United States (secondary axis). Figure 1b (RHS): NUS-CRI Forward 1-year PD for Japanese Banks as of Jan-2021 and Sep-2021 with reference to PDiR2.0 bounds. *Source: NUS-CRI*

The amount of interest rate risk[5] associated with Japanese banks' JPY-denominated bond investments recently jumped to a record 19-year high in 2021, as Japanese banks have increased their holdings of domestic government bonds by 46% to JPY 89.9tn[6], the highest since Mar-2016. Moreover, Japanese banks have increased their risk-weighted assets[7] due to an increase in lending stimulated by peak deposits in Q2 2021. Furthermore, Japanese banks' Tier-1 Capital Ratios have been falling since Q1 2019 (See Figure 2a). As major Japanese banks are starting to move their capital into US Treasurys and other foreign high-yielding assets in anticipation of an interest rate hike in the US, the amount of Japanese banks' risk-weighted assets may continue to increase, weakening their capital position.

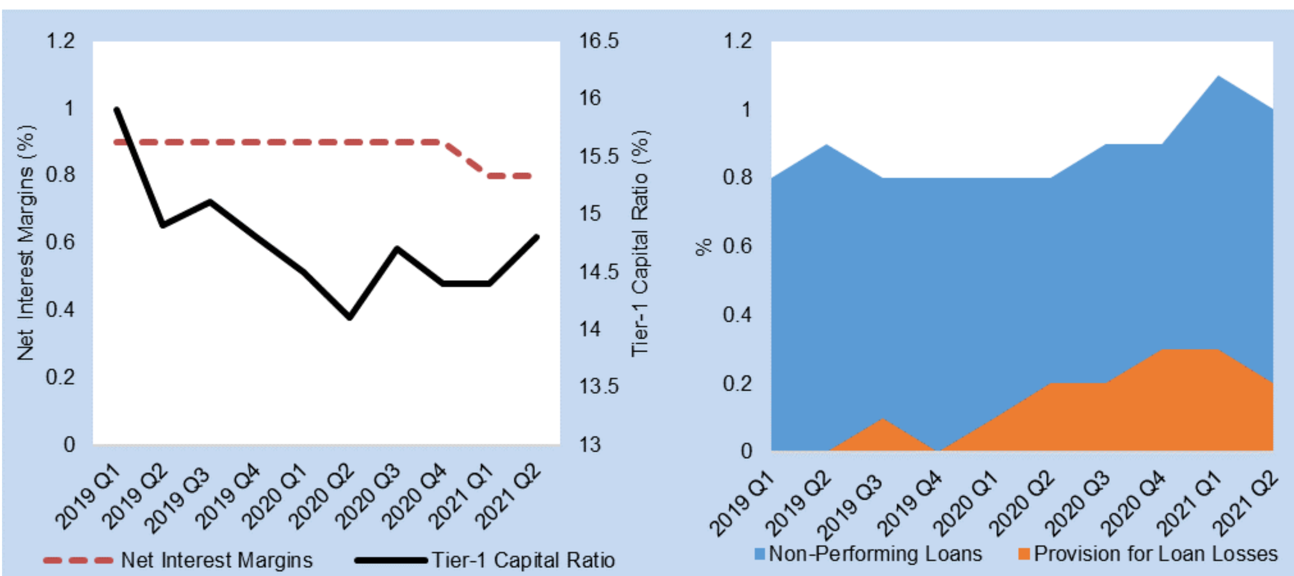

Figure 2a (LHS): Net Interest Margins (%) on the primary axis and Tier-1 Capital Ratio (%) on the secondary axis. Figure 2b (RHS): Loan Loss Provisions (%) against Non Performing Loans (%). *Source: Bloomberg*

[5] Interest rate risk is valued at 100 basis points. Data from the end Feb-2021 was used.

[6] Banks in Japan have been investing more of their deposits in JGBs than in US Treasurys as a result of the government's pandemic relief program, which allows banks to get interest-free loans from the central bank by pledging JGBs as collateral.

[7] Risk-weighted assets have grown marginally to roughly JPY 465tn in FY2020, from around JPY 440tn as a result of increased lending.

As a whole, Non-Performing Loans (NPLs) for Japanese banks have increased to around 1% in Q2 2021, up from 0.8% in Q2 2020. For regional banks[8], NPLs increased marginally from 1.70% in Mar-2020 to 1.78% as of the end of Mar-2021, amounting to JPY 5.3tn. Meanwhile, major Japanese banks[9] experienced a hike in their NPLs from 0.59% in Mar-2020 to 0.75% in Mar-2021, with total NPLs amounting to JPY 2.6tn. As a result of high exposure to the overseas market, there is added pressure on the quality of their loans, with NPLs for major banks increasing to a 3-year high. This is especially so for the three biggest Japanese banks[10], whose NPLs have surged to a 9-year high stemming from overseas NPLs increasing sharply. As a result, credit costs increased for major Japanese banks, with the credit cost ratio[11] increasing to 21bps in FY2020, up from 9bps in FY2019.

Regional banks have been heavily supported by the government's expansionary monetary policy to bolster the economy in the midst of the pandemic. However, with government support ebbing, cracks within the regional banks are set to become more prominent, as reflected by the Forward PD in Figure 3a. At the end of Dec-2020, more than half of regional banks have limited cushion against increased expenses, as their net interest income-to-operating expense ratios trail under 1.20. To make matters worse, 12% of the 34 regional banks saw their quarterly expenses surpassing their net interest incomes.

The negative interest rates in Japan also affect Japanese banks' profitability, contributing to the rise in the industry's Agg PD. Although loan yields for Japanese banks have grown slowly in recent years, Net Interest Margins currently stagnate between 0.8% and 0.9% (See Figure 2a), which is lower in comparison to banks of other developed Asian markets like Korean banks (1.81%) and Singaporean banks (1.53%) in Q1 2021. Under the protracted low-interest-rate environment, interest rate spreads on loans in Japanese banks' domestic loan portfolios continued falling to less than 1%.

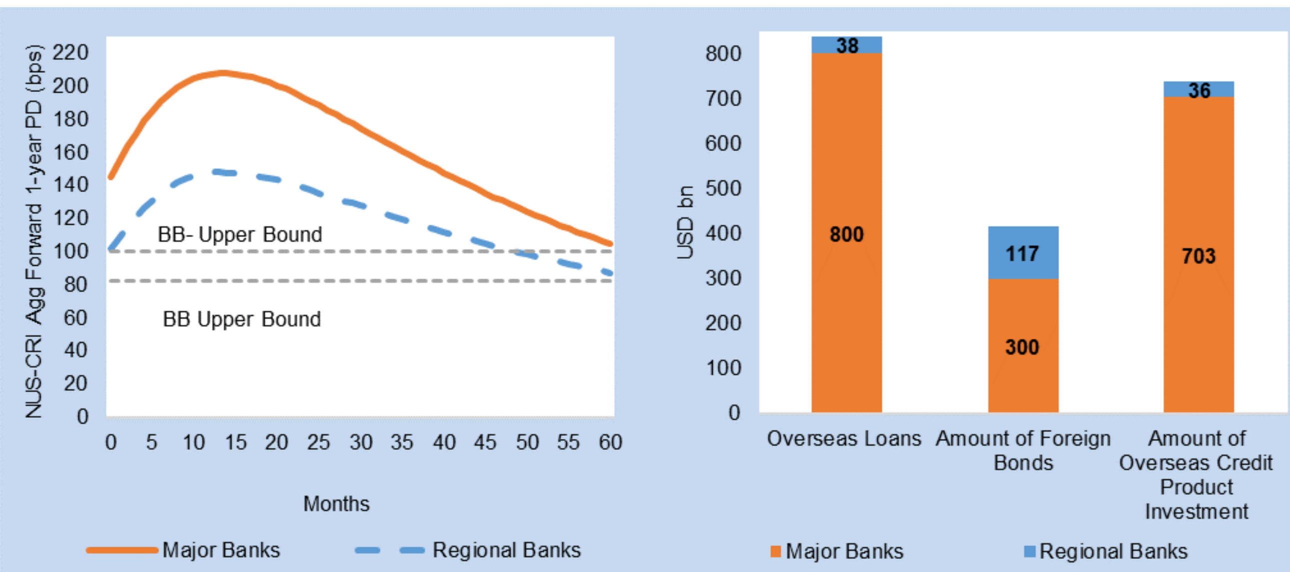

Figure 3a (LHS): NUS-CRI Forward 1-year PD for Major Banks and Regional Banks as of Sep-2021 with reference to PDiR2.0 bounds. Figure 3b (RHS): Exposure of Major Banks and Regional Banks to overseas assets and securities as of end Jan-2021. *Source: NUS-CRI, Bank of Japan*

At the end of Jan-2021, overseas loans amounted to about USD 840bn and accounts for 30% of Japanese banks' loans. According to the Bank of Japan, the quality of overseas loan portfolios worsened as a result of COVID-19's ongoing influence. As of Sep-2020, corporate loans amounted to nearly USD 700bn, accounting for roughly 80% of Japanese banks' overseas lending. Among these corporate loans, 30% are deemed non-

[8] These banks are those that are publicly listed in the Regional Banks Association of Japan.

[9] Major Japanese Banks are defined by the Bank of Japan in the Financial System Report published Apr-2021. The NUS-CRI sample contains 7 of the 10 Major Banks listed.

[10] The three biggest Japanese banks are Sumitomo Mitsui Financial Group Inc, Mizuho Financial Group Inc and Mitsubishi UFJ Financial Group Inc.

[11] The credit cost ratio is calculated by taking credit costs over the total loans outstanding.

investment grade. This may translate to a worsening of asset quality for Japanese banks should there be a rise in NPLs originating from this segment of their loan portfolio. With major banks having larger exposure to the overseas market (See Figure 3b), the breakdown of the Forward PD in Figure 3a demonstrates the heightened credit risk these banks may have to face, as it rises to a peak of 210bps. In contrast, regional banks' Forward PD peaks at only 150bps (See Figure 3a).

The hazards of increased overseas capital exposures were especially highlighted in early April when major Japanese banks were badly hit as a result of the collapse of Archegos Capital[12]. Nomura recorded a USD 2.9bn loss. Meanwhile, Japan's largest bank's securities arm, MUFG securities' net operating revenue fell 11% YoY partially because of their exposure to Archegos. In addition, as of Mar-2021, foreign securities amounted to 34% of Japanese banks' total securities holdings. Looking forward, Japanese banks may increase their holdings of Collateralized Loan Obligations (CLOs). Currently, Japanese banks' share in the global CLO market is estimated to be around 14% as of the end of Sep-2020. They are the largest investors of the USD 1tn CLO market, outside of the US. A rise in the Fed Funds rates would result in greater yields in the CLO market, which would be even more attractive for Japanese banks. However, there are downsides to increasing their exposure to the CLO market, especially if there are disruptions to economic recovery in overseas markets, which may increase CLO losses faced by Japanese banks, particularly given the minimal room for a further decline in overseas interest rate.

Amidst falling profits, a persistent challenge that Japanese banks continue to face is expense reduction. Six Japanese banks were ranked within the ten least efficient banks[13], with Japanese banks having the highest cost-to-income ratios across major Asian economies. Sustaining dividends for shareholders further cuts into banks' profitabilities. Low interest rates and structural factors will continue to put downward pressure on banks' profitability in the long term. Amidst an aging population, low economic activity in rural areas pushed many Small and Medium Enterprises to close, hindering demand for loans in rural areas. Even with investment into riskier assets, the returns have not been able to make up for the low and stagnating returns from loans. According to the Bank of Japan, as a result of Japanese banks' continued search for yield and the increasing connectivity of the global financial system, the Japanese banking system is now more susceptible to global market shocks.

[12] Archegos' failure to meet a margin call in March led to the ensuing fire sale of assets, which included high-profile US media equities at first, flooded the market, lowering returns for investment banks trying to unwind the hedge fund's position and recuperate their losses.

[13] Within the 39 largest Asia-Pacific banks by assets.

Credit News

China steps up efforts to ring-fence Evergrande, not to save it

Oct 4. To limit the contagion following the fast-approaching possible restructuring of Evergrande, Chinese officials met with financial regulators to persuade them to extend favorable credit terms for homebuyers and the property sector. They also bought a part of Evergrande's investment in a struggling bank. Their efforts were supported by the central bank, which injected USD 123bn into the financial system to ease liquidity pressures for the Chinese market. These moves signal China's willingness to support the property sector and rescue homebuyers while potentially not offering a direct bailout to Evergrande. This spells trouble for onshore and offshore bondholders of Evergrande, who were expecting some form of a bailout from the Chinese government. (Bloomberg)

Record junk-loan sales fuel dividend payouts

Oct 3. A strengthening economy and investors' thirst for higher-yielding assets has prompted US firms to issue a record amount of junk loans to fund dividends in 2021. This signals that companies are feeling more at ease with the economy's trajectory. Firms with high debt-to-earnings ratios usually issue leveraged loans, making them more vulnerable to the economy's trajectory. As economic forecasts improve, it helps mitigate the repercussions of issuing debt to fund dividends, which can harm the companies' credit ratings and borrowing capacities since funds raised are not used for operations. This year, US companies have also issued a record amount of junk bonds, while leveraged loan sales are on track to break 2017's high of USD 503bn. Some firms have already begun to pay dividends. Besides dividends, more than USD 294bn of junk-rated loans have been sold to finance M&A, beating the record of USD 275bn in 2018. (WSJ)

Markets await outcome for opaque bond tied to Evergrande

Oct 3. Evergrande has fallen behind on several payments, with no indication that it paid two recent dollar-denominated coupons. Now, the world's most indebted developer faces additional liquidity pressure – a dollar note with the effective due date Oct. 4 issued at an initial amount of USD 260mn by Jumbo Fortune Enterprises, guaranteed by Evergrande. Non-payment of the principal constitutes a default as the note has no grace period, and poses a risk of cross-default for Evergrande's other bonds. Uncertainty over the full extent of Evergrande's debt load, beyond the over USD 300bn reported, remains. The broader risks of opaque obligations loom over the Chinese credit markets, with the rise of shadow banking and cross-guarantees posing problems due to difficulties in determining the size of obligations. (Bloomberg)

Private equity trio borrow USD 15bn of debt for massive buyout

Oct 1. Private equity groups Blackstone, Carlyle, and Hellman & Friedman will borrow around USD 15bn on Thursday. Funds raised are currently planned to help acquire a majority stake of USD 34bn in the family business Medline, one of the largest medical device manufacturers in the US. Ignoring the high debt levels and weak covenants underlying the deal, investors have taken on the debt and instead focus on the strength of the underlying business, especially after the pandemic boosted demand for products like face masks. This fundraising underscores the breakneck pace of deals this year, facilitated by easily accessible capital markets, as private equity groups leverage investor demand to acquire companies at high values using cheap bonds. So far this year, buyout groups have made a record of more than 10,000 acquisitions. The value of the deals has already surpassed the all-time high of over USD 800bn in 2007 (FT)

In bond market rout, investors see overdue correction

Sep 30. The yield on 10-year US Treasuries has surged to over 1.5% from a low of 1.173% at the start of August. The surge in yield came after the Federal Reserve's meeting on Sep 22, where the Fed indicated that they would begin tapering its purchase of Treasuries and mortgage-backed securities in November while highlighting the possibility of raising short-term interest rates sooner than expected. Rising yields usually indicate forecasts for growth and inflation; however, analysts believe the bond selloff is in response to an expected correction in the bond market, though retail sales reports in September have been more encouraging than in August. Analysts project that the 10-year yield could rise further to 1.75% or 2% by the end of the year. However, it isn't expected to go over its neutral rate of slightly below 2%. (WSJ)

Evergrande shock makes corporate bond traders focus on liquidity (Bloomberg)

Huarong to consider USD 10.9bn bond issue to raise cash (Bloomberg)

A USD 100bn month of U.S. High-Grade bond sales is on deck (Bloomberg)

Regulatory Updates

European banks narrow gap on meeting Basel III capital rules

Sep 30. As a result of dividend restrictions imposed during the pandemic, Europe's banks have narrowed the gap towards meeting the new global capital standards applicable from 2028. A report published by the European Banking Authority details that 99 EU banks will have to increase their Tier-1 capital by EUR 3.1bn by 2028 to comply with Basel III standards. This gap, which is based on capital positions as of December 2020, has been drastically lowered compared to December 2019, when the 106 banks had a shortfall of EUR 9.6bn. (FT)

Libor deadline extension would be 'huge relief' for markets

Sep 29. Just three months before Libor is abolished, banks in UK and Japan appear to have gained vital breathing room. According to Financial Conduct Authority (FCA), the rate administrator will continue to publish artificial Libor figures until 2022. Firms in the pound and yen markets might be permitted to use that rate in any legacy contracts, except cleared derivatives. This underpins an unexpected move that could help many assets transit more smoothly. The FCA stated Wednesday that it could allow limited use beyond then for market-making and hedging purposes. If the FCA proposal goes ahead, the UK and Japanese markets will be able to rely on "synthetic Libor," created without the use of banks' trading data. However, there are concerns that the concession could deprive the incumbent Libor transition of momentum. (Bloomberg)

UK watchdog sets out plans for a 'synthetic' Libor rate (Reuters)

Fed's Harker says it will soon be time to begin tapering bond purchases (Reuters)

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