Weekly Credit Brief Mar 14 - Mar 20 2023

Fear of widespread bank runs catalyzes deterioration in US regional banks' credit risk outlook

by NUS-CRI Market Monitoring Team

- **NUS-CRI Forward PD of US regional banks indicates a deterioration in credit health as the banks face liquidity and solvency pressures, amidst mass deposit withdrawals**
- **Stress tests indicate that the median credit risk of US regional banks could increase close to 30bps should credit conditions and market sentiment continue worsening**

The unexpected closure of Silicon Valley Bank, Signature Bank, and Silvergate Bank, and rising distress amongst other commercial banks[1], has sent shockwaves through the US banking sector, sparking fears of a contagion-driven financial crisis. As seen from the NUS-CRI 1-year Aggregate (median) Probability of Default (Agg PD)(See Figure 1a), the aggregate credit risk of the publicly-listed US-domiciled banking sector has increased as the ongoing crisis unfolds. Within the broader banking sector, the market sentiment towards regional US banks[2] soured quickly, sparking an exodus of deposits to big money center banks, further exacerbating regional banks' liquidity position and pushing their credit risk higher. Regulators also rushed to support the sector by providing backstops and guaranteeing deposits of failed banks in a bid to assuage depositor fears. Despite these efforts, the situation remains precarious, as indicated by the NUS-CRI Aggregate (median) Forward 1-year Probability of Default (Forward PD[3]) for US regional banks increasing over the next 12 months as credit conditions worsen and market sentiment towards the banking sector sours.

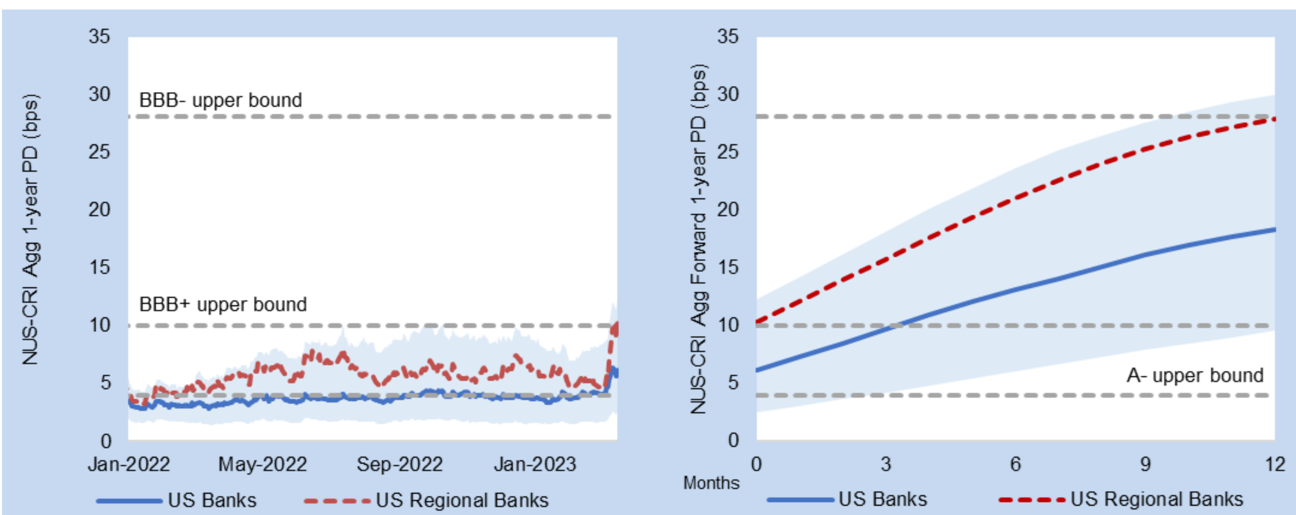

Figure 1a (LHS): NUS-CRI Agg (median) 1-year PD for all US banks, their interquartile range, and US Regional banks with reference to PDiR2.0[4] bounds. Figure 1b (RHS): NUS-CRI Agg (median) 1-year PD for all US banks, their interquartile range, and US Regional banks with reference to PDiR2.0 bounds. *Source: NUS-CRI*

The current crisis engulfing the US banking sector is a crisis of confidence. The rapid increase in interest rates by the Federal Reserve (Fed) to tame inflation over the past year has exposed a weakness in the banking sector and escalated the sector's credit risk. As a result of the Fed's tightening, US banks are sitting on unrealized

[1] For example, First Republic Bank was another casualty of the rapidly evaporating investor and depositor confidence. The bank found itself facing severe liquidity and funding issues as depositors withdrew capital, prompting big banks to step in with a USD 30bn capital infusion to stabilize the situation.

[2] The sample of US regional banks is constructed based on the constituents of the KBW Regional Bank index.

[3] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similarly 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 – this is conditional on the firm's survival in the next 6 months.

[4] 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.

losses of approximately USD 620bn on their holdings of investment securities, most of which comprise government and mortgage-backed debt securities. These unrealized losses could realize and negatively impact banks' profitability if the banks are pushed to sell these securities at current market value to fund deposit withdrawals. With the collapse of SVB, depositors have become fearful of similar risks in smaller regional banks, which have already manifested within the US economy in the form of mass depositor flight. The credit health of regional banks has thus been put in the spotlight, with the fall of SVB and Signature bank further highlighting the challenges they face in managing potential asset-liability mismatches and underscoring the importance of depositor base diversification.

Regional banks are now having to contend with rising funding pressure driven by the accelerated decline in their depositor base. To stem the outflow of deposits, regional banks may be forced to offer higher rates to depositors, further pressuring their profitability as their funding cost increases. The FRA-OIS spread, a key market-based indicator of funding stress in the US banking system, jumped to its highest level this year, pointing to difficult funding conditions for banks. On the revenue side, banks may be forced to rein in lending activities as they seek to maintain healthy liquidity levels and manage costs, hampering earnings potential moving forward. The current crisis has also brought into focus the regulatory standards for regional banks and has highlighted a gap in the oversight of regional banks. An expected increase in regulatory standards may further accelerate the tightening of lending standards, possibly reducing credit extended by regional US banks.

To lend support to US banks amidst the current crisis and to shore up depositor confidence, the Fed announced a backstop through an additional lending facility - the Bank Term Funding Program (BTFP) which allows banks to raise funds by keeping investment securities such as government bonds as collateral at par value. This facility will allow banks to better manage liquidity pressure and fund depositor withdrawals without risking complete insolvency. At the same time, additional funds acquired through the BTFP will provide regional banks breathing space to not realize large losses on their investment securities in the current macroeconomic environment. Additionally, the central bank also extended the same terms as its new facility to its discount window, essentially easing banks' borrowing costs. Although the facility does provide essential support and may help stabilize the contagion fear in the depositor base to some extent, regional banks are likely to continue to see a migration of deposits to big banks due to a loss in depositor confidence. This may especially be the case for deposits with capital above the USD 250,000 FDIC insurance threshold, should the FDIC not provide explicit guarantees for uninsured deposits above the threshold.

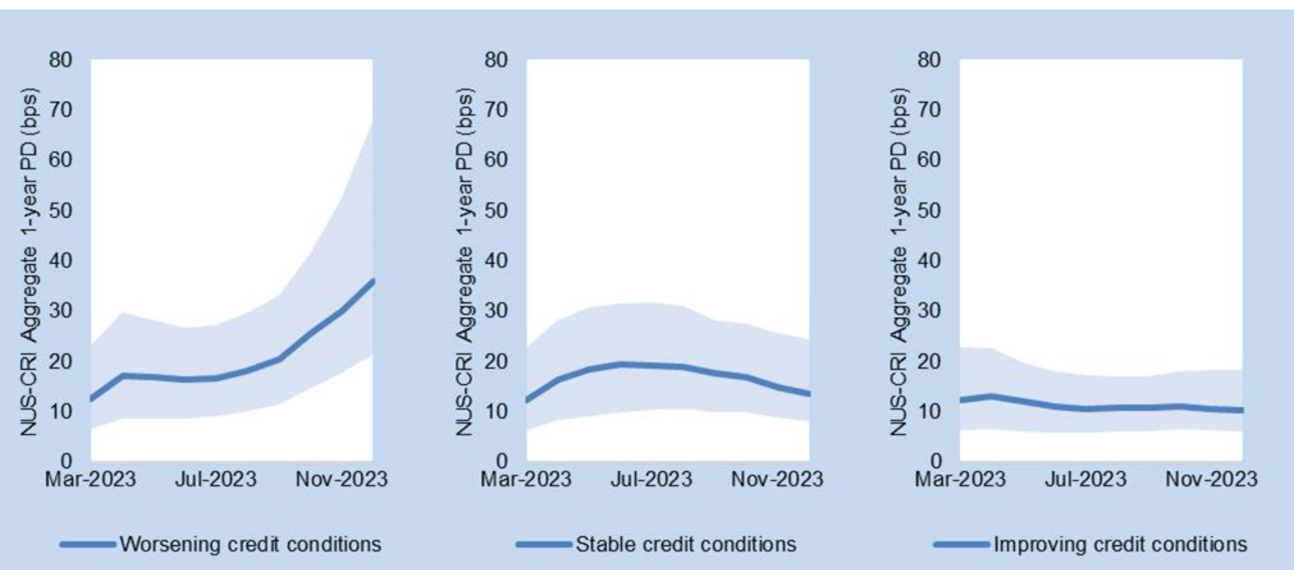

Figure 2: Stressed NUS-CRI Agg (median) 1-year PD for Regional US banks and its interquartile range based on stress tests conducted using US Banking CCI and US regional banking stock index return. *Source: BuDA v3.5.1*

Stress tests can be conducted to measure the sensitivity of Regional banks' Agg PD to differing credit conditions and market sentiments moving forward. Using the NUS-CRI Bottom-Up Default Analysis toolkit (BuDA Toolkit[5]), as seen in Figure 2, worsening credit conditions, as measured by an increase in the US Banking sector's credit cycle index (CCI), and worsening market sentiment, as proxied by a fall in the KBW Regional Banking Index, could lead to increase by 30bps in the median credit risk for regional banks over 2023. The effect is even more pronounced for vulnerable regional banks (those with PD above the 75th percentile), possibly due to the deteriorating credit conditions having a larger effect on their relatively weaker capital base and liquidity position.

[5] The Bottom-up Default Analysis (BuDA v3.5.1) is a credit stress testing and scenario analysis toolkit jointly developed by the Credit Research Initiative (CRI) team of National University of Singapore (NUS) and the International Monetary Fund (IMF).

The stress tests also show that under stable credit conditions, where the CCI remains unchanged and market sentiment gradually rebounds, there is set to be an initial deterioration in regional banks' Agg PD before improving in the latter part of 2023, possibly as the initial contagion effect wears off due to the Fed and FDIC intervention. In an improving scenario, should regulatory intervention lead to a faster return in confidence, and vis-à-vis, improve overall credit conditions, regional banks' Agg PD shows a marginal downward trend over the next nine months.

Going forward, as the crisis in the banking sector continues to rage on and as depositor confidence remains low, regional banks may have to brace for a difficult time ahead. Although bank fundamentals point to a stable capital base and favorable asset quality unless regional banks manage to regain depositors' trust, the upcoming quarters may lead to an overall deterioration in their credit health. To rebuild confidence and prevent migration of deposits from the regional banks, depositors will require a more direct solution such as guarantees for uninsured deposits, hints of which were provided by the US Treasury secretary, Janet Yellen. In the absence of a solution that directly alleviates depositor concerns, the credit risk of US regional banks may follow the trajectory indicated by the NUS-CRI Forward PD in Figure 1b.

Credit News

SVB Financial files for chapter 11 bankruptcy protection

Mar 17. SVB Financial Group, the parent company of Silicon Valley Bank, has filed for chapter 11 bankruptcy protection. However, Silicon Valley Bank, the technology-focused lender and SVB Financials' primary business is not part of the filing and is now operating as Silicon Valley Bridge Bank N.A. under the control of the Federal Deposit Insurance Corp. The bankruptcy filing is the largest stemming from a bank failure since Washington Mutual Inc. in 2008. Despite warnings from U.S. government officials that investors in SVB Financial may suffer losses, hedge funds and other asset managers have invested heavily in the bonds issued by the bank, hoping to profit from the sales of the bank's private wealth and other units. (WSJ)

UBS agrees to buy Credit Suisse for more than USD 3bn

Mar 19. UBS has agreed to acquire Credit Suisse for over USD 3bn in a takeover supported by regulators eager to stop a decline in confidence in the global banking system. The deal is the first megamerger of systemically important global banks since the 2008 financial crisis. The Swiss government will provide more than USD 9bn to support UBS if it incurs losses as a result of taking over Credit Suisse, and the Swiss National Bank will provide over USD 100bn to facilitate the deal. The investment banking business of Credit Suisse is a hot potato that will be trimmed by UBS or run separately by a former board member through a spinoff. (WSJ)

US mortgage market suffers fallout from bank failures

Mar 16. Traders in the USD 11tn US MBS market have been unnerved by recent bank failures, causing lenders to hold back on buying. Last year's rising interest rates put a strain on MBS spreads, which have grown 50bps, causing mortgage rates to rise and resulting in a low in home purchase applications. The collapse of Silicon Valley Bank highlighted the precarious state of the mortgage market, sparking fears that lenders could suffer losses if they were forced to dump their MBS on the market. The Federal Reserve has since announced a new facility to lend to banks against their liquid assets, including MBS, but it is widely believed that the primary factor in any sustained market recovery is a clear drop in volatility. (FT)

Hedge funds stung by bond market fallout from Silicon Valley Bank collapse

Mar 14. The collapse of Silicon Valley Bank has caused a significant disruption in government bond markets, upending one of the most popular hedge fund trades of recent years. This has sparked concerns that the US Federal Reserve may stop aggressive interest rate hikes to avoid putting the country's broader financial sector in distress. Both factors sent bond prices surging and contradicted a huge consensus trade in markets that interest rates would keep climbing to combat inflation and bond prices would continue falling. This has caught out some macro and computer-driven hedge funds, sending them rushing out of their speculative positions and amplifying the bond market move. (FT)

Wipeout of risky Credit Suisse bonds upends USD 275bn market

Mar 17. Holders of Credit Suisse's AT1 (Additional Tier 1 bonds) expect to lose the majority of the value of their investment. Bondholders have been getting irate over the Swiss regulator writing off these bonds to zero while maintaining shareholder value at USD 3.3bn. Investors in the bond are criticizing this phenomenon for not respecting the capital structure hierarchy of seniority to claims. However, some market participants also believe that the nature of AT1 bonds is to provide additional capital in the face of crisis, with the aim that taxpayer does not need to foot the bill of a liquidity crisis. The write-off of Credit Suisse's AT1 bonds brings additional scrutiny regarding the larger AT1 market, which many believe will remain muted for the foreseeable future. (Bloomberg)

Market stress snarls trading in US treasurys (WSJ)

China bond trades hit by suspension of pricing data (FT)

Redemption delay fears send yields on European banks' CoCo bonds spiking (Reuters)

Regulatory Updates

China cuts banks' reserve ratio for first time in 2023

Mar 17. The PBOC has cut its reserve requirement ratio (RRR) to boost liquidity and support economic recovery. The RRR for all banks will reduce by 25bps as of next week, except for those that have implemented a 5% reserve ratio. This move by the PBOC shows that the country is prioritizing the momentum of economic growth to boost the gradual, uneven recovery seen in the country. The move also highlights the central bank's vision of lowering funding costs to spur credit expansion, especially after the rout in the country's credit markets in 2022. The reduction in RRR follows a similar 25bps cut seen in Dec-2022, with the current RRR standing at 7.6%. The country aims to grow by 5% in 2023, following a cooling of close to 3% last year. (Nikkei)

ECB hikes rates by 0.5 percentage point despite financial turmoil

Mar 17. The ECB raised interest rates by 50bps, signaling to the market that its fight against inflation is taking precedence over the ongoing financial system crisis. The recent hike brings the deposit rate to the highest level since the global financial crisis in 2008, settling in at 3%. Inflation is expected to remain above its target of 2% over the next two years to 2025, though decreasing over time. Christine Lagarde believes that bringing inflation into control is the primary focal point of the ECB while maintaining that banks domiciled in the European Union have a robust capital and liquidity position. The combined effect of SVB's collapse across the Atlantic and the effect of Credit Suisse's ongoing struggle that saw the Swiss central bank backstop a liquidity facility to the distressed lender makes forecasting future interest rates difficult. (Nikkei)

OECD calls on central banks to keep raising rates (FT)

Indonesia’s central bank maintains benchmark rate as expected (WSJ)

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