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Coronavirus Risks May Substantially Impact a Bank's Liquidity and Profitability

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As we continue our generation's first battle against a coronavirus pandemic, the question remains, what challenges might banks face as a result of potential systemic and structural changes to the economy and financial markets in the aftermath of the virus.

Whereas the great financial crisis of 2008 started in the financial sector and spilled over into the main street economy, the current situation has its roots in a rare simultaneous shock of both supply and demand.

This shock was triggered by the halting of economic activity as a result of an unprecedented effort to "flatten the curve" and stop the spread of SARS-CoV-2, which causes the coronavirus disease 2019 (commonly referred to as COVID-19, or simply coronavirus). This article provides a qualitative study that uses fundamental balance sheet mechanics and lessons learned from other crises to forecast the impacts of the coronavirus on a bank's liquidity and profitability.

Funding and Liquidity

During the last financial crisis, we saw an early liquidity issue in the market. This liquidity crisis magnified small initial losses within the real estate sector into a full-blown financial collapse. Liquidity spirals which were driven by capital and liquidity requirements caused sales in already illiquid markets. Many institutions found themselves with increased liquidity costs and deteriorated capital, which led to a vicious cycle and fire sales. As of today – even after a major market disruption - we have not (yet) seen liquidity problems of a similar magnitude even though the flight to high-quality assets, and associated liquidity, was observable over the past few weeks.

The Libor Overnight Indexed Swap (OIS) spread serves as an indicator for bank liquidity and can be seen below.

Figure 1 – Daily LIBOR OIS Spread

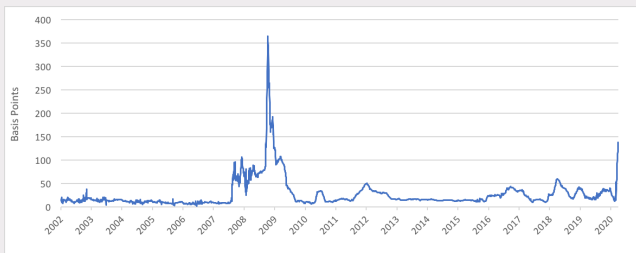


Figure 1 - The Libor OIS Spread serves as a banking sector liquidity gauge. A recent spike is observable, but we are far from 2009 values - at least for now. Liquidity models and early warning indicators need to be more closely tracked to safely navigate an institution through the rough waters ahead.

(Source: Bloomberg – LIBOR OIS Spread)

A combination of quick Federal Reserve Board (FRB) measures providing liquidity and a more structurally resilient funding of the banking system seems to have been able to dampen those shocks early on. After a decade of stress testing and more stringent liquidity requirements, it would appear that these enhanced frameworks passed their first true test. Additionally, as Congress passed stimuli to counter the impact of the virus, the market almost immediately rebounded by more than 20% and ended the shortest bear market in history (3 days). We will have to monitor whether these gains are permanent or a brief reprieve from the market decline that has ensued due to the coronavirus impact.

Despite the market’s initial course reversal, adequate liquidity management will be a key challenge and opportunity for banks. Liquidity coverage ratios will need to be more closely monitored as lines of credit are drawn, market volatility impacts collateral haircuts and funding sources start to dry up. As such, liquidity risk management will be model-driven, and these models will need continuous recalculation as bank contingency funding plans are enacted.

Profitability and Net Interest Income

Unlike the liquidity aspects of this stress event, the implications for the capital base will take longer to fully manifest. The coronavirus could impact the profitability of the whole banking sector by changing the complex interplay of rates, balances and defaults, which result in changes to net interest income and ultimately impacts the banks’ capital base over time.

In the years immediately following the financial crisis we saw a spike in default and delinquency rates which has subsequently declined well below the historic long-term average in recent years. The next downturn (forecasted by many researchers) will naturally be accompanied by increasing default rates for all lending including those of leveraged loans and Collateralized Loan Obligations (CLOs), exposing a vulnerability in the balance sheets of financial institutions. A spike in defaults will eventually impact a bank’s profitability via many channels including increased loan loss allowances via Current Expected Credit Loss (CECL) models (regardless of any short-term implementation delay relief provided).

Figure 2 - Delinquency Rate on All Loans, All Commercial Banks

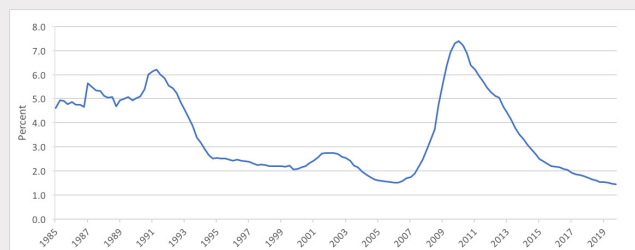


Figure 2 – Loan delinquencies and defaults are below their historic average. The potential recession on the horizon will push the credit default rate above the historic average.

(Source: FRB - DRALACBS)

In an immediate effort to support the economy, the FRB decreased their benchmark interest rates. This decrease breaks the four-year trend of increasing interest rates.

Figure 3 - US Treasuries 3 Months Rate

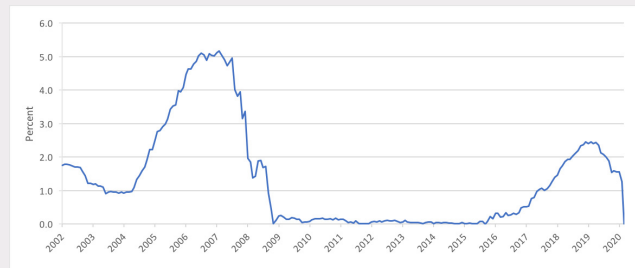
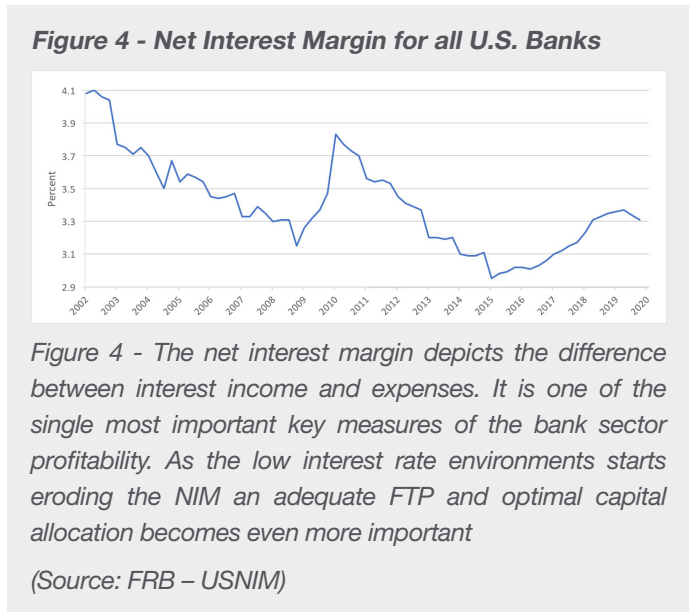


Figure 3 - The recent increase of rates was only of short duration. The U.S. treasuries yield curve plummeted sharply as the FRB started to cut rates and launched the biggest quantitative easing program in history. This sharp drop in interest rates threatens a bank’s net interest income, increases its market risk and challenges hedging strategies.

(Source: U.S. Treasury - <https://home.treasury.gov/policy-issues/financing-the-government/interest-rate-statistics>)

A bank that has a shorter-term structure on the liability side will therefore initially profit from a decrease in rates. The interest rate decrease will initially ease the funding pressure of banks. However, low rates for the long-term environment eventually lead to net interest margin (NIM) compressions. Such a compression of NIM could be seen in the U.S. during the last decade and perhaps even more prominently in the negative interest rate environment of Europe. Business models that are mainly interest income driven as well as businesses with balance sheet compositions that are more interest rate sensitive will be especially exposed to such a NIM compression. A proper hedging strategy and a diverse revenue stream will be key to maintain a bank's profitability.

Consumer behavior is severely impacted by the coronavirus. This includes behavioral modifications for the prepayment of loans, the drawing of deposits and the execution of refinancing options in loans, all of which puts additional pressure on bank NIM, interest income and the traditional banking business model.



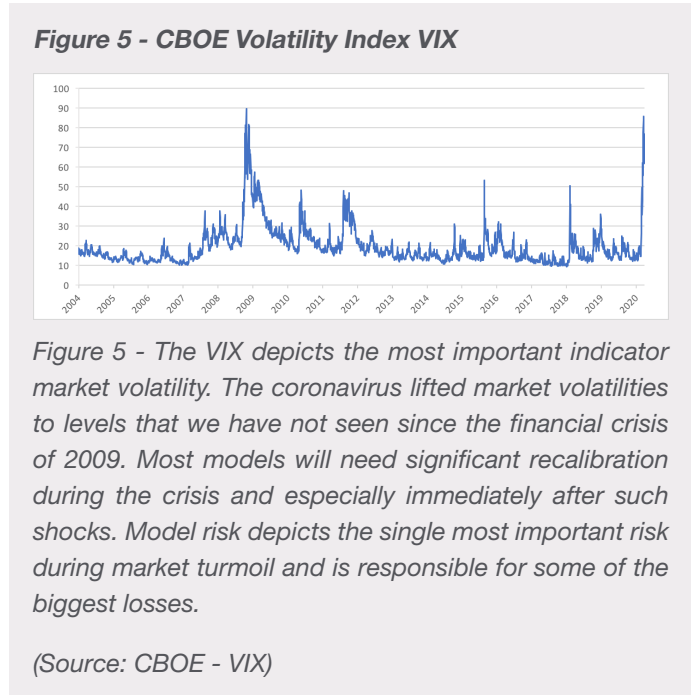
Banks need to quickly adapt to the challenges ahead. An optimal capital allocation orchestrated through proper asset and liability management tools is more important than ever. Funds transfer pricing (FTP) models play an integral part and will need to be revisited early on. Moreover, models that price products with significant implicit optionality such as deposits and loans should be re-evaluated. Hedging programs and their efficiencies need to be reassessed as well and adapted if needed.

SOURCES

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Model Risk

Effective model risk becomes even more important in these environments, yet also more challenging. Model risk materializes most prominently during times of crisis when volatility and asset correlations increase dramatically. Banks experienced Value at Risk (VaR) models and backtest failures because of spikes in volatility, hedging strategies turn rogue because formerly negative correlated asset classes suddenly correlate strongly, and diversification among supposedly independent assets disappear.



Many of the biggest losses during a crisis are due to model errors. Therefore, it's crucial to answer with an increase in model risk management activities. Ongoing monitoring activities such as challenging the model assumptions, outcomes and limitations will need to be done more frequently to keep up with the changes in the market environment, business strategy and balance sheets.

DHG understands the urgency of action required to respond to this ever-changing environment. DHG Risk Advisory has the experience to help manage through these challenges and is prepared to help our clients during this time of significant change in the financial markets. For additional information, please contact riskadvisory@dhg.com.