The COVID-19 outbreak has developed rapidly in 2020 with far-reaching implications. Across the globe, unprecedented measures taken to contain the virus, including mass quarantines, social distancing, border closures and shut-downs of non-essential services, have significantly curtailed economic activities. At the same time, governments have brought in considerable measures and commitments to provide financial support to affected businesses and individuals.

Back home, the Singapore economy is likely to see the deepest economic contraction since the country’s independence. Official forecasts from the Ministry of Trade and Industry is predicting a contraction by between 1% to 4% in 2020. In response to the economic and social consequences of COVID-19, stimulus packages totalling S$59.9 billion have been introduced over 3 budget announcements in less than 2 months. This is further complemented by a package of relief measures by the Monetary Authority of Singapore (“MAS”) to help ease the financial strain on individuals and SMEs caused by the pandemic, such as payment holidays on personal property loans and SME loans. More recently, various regulatory and supervisory measures to help financial institutions focus on supporting customers were introduced by the MAS - these include adjustments to capital and liquidity requirements, deferment of regulatory reforms, as well as extension of submission timelines for regulatory reports.

In this information analysis paper, we have highlighted the key financial and regulatory considerations for Singapore banks against the backdrop of these recent developments led by COVID 19. We have also outlined the key focus areas for banks as they chart out a recovery plan to ride out of this crisis.
COVID-19 has the potential to infect banks at various levels. As banks face income risk and grapple with deteriorating credit conditions, they must also deal with operational risks associated with disruptions in the workforce and service providers. Banks will also have to maintain sufficient capital to meet prudential requirements in light of higher RWAs from the uncertainty and heightened risks. The slow economic outlook may also increase fraud risk arising from pressures or stimulus for internal or external fraud.

**Impact on banks at a glance**

**Income decreases sharply**
- Extremely low interest rates due to further central bank interventions and “flight to safety” in the markets
- Economic uncertainty and slumps in financial results reduce demand/fees from investments and loans
- Slump in M&A and ECM fees and reduced issuing activity in DCM (plus pressure on margins)
- Decline in custody, administration and management fees in billing models based on asset values

**Impact in the investment portfolio deepens**

**Pressure from interbank and counterparty credit (or margin) effects and in wholesale funding increases**

**Risks for banks in case of a long-term pandemic**

**Growing default risk drives RWA increase**

**Uncertainty regarding fiscal and monetary policy responses and other policy measures (e.g. further isolation) persists**

**Service provider/ ecosystem partners disruption**

**Workforce not at full capacity**

**Covenant breaches, payment delays and defaults are increasing**
- Retail clients
- Commercial real estate
- Corporate clients
- Financial companies
- Business customers and SMEs
- Transport Finance (especially Aviation, Shipping, Rail)
We outline below a snapshot of the proposed focus areas and activities that banks should address on the way through the crisis, recovery and beyond – from immediate measures focusing on protecting public health and lives and supporting survival of SMEs to mid-term and long-term measures to reshape balance sheet and underlying business model paradigms. In the next few pages, we focus on asset quality and valuation in the context of financial reporting, as well as capital and liquidity considerations.

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<th>Medium to long-term recovery and value creation</th>
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<td><strong>Asset quality and valuation</strong></td>
<td><strong>Digitisation of customer interaction</strong></td>
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<tr>
<td>Coordinate and execute emergency measures, and develop internal and external crisis response</td>
<td>Review loan and trading portfolios, including counterparty risks and fair valuation</td>
<td>Accelerate digitisation efforts to strengthen digital capabilities in customer relationship, target marketing and sales processing</td>
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<td><strong>Business continuity and value preservation</strong></td>
<td><strong>Capital, liquidity and balance sheet management</strong></td>
<td>(Distressed) M&amp;A transaction</td>
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<tr>
<td>Maintain operational resilience, develop impact scenarios and preserve/increase liquidity</td>
<td>Review impact on capital and liquidity ratios (including regulatory reliefs), and overall asset-liability management</td>
<td>Screen the market for inorganic growth and diversification opportunities</td>
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<td><strong>Government and MAS support measures</strong></td>
<td><strong>Trigger event and business plan</strong></td>
<td>Review business and operating model</td>
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<td>Ensure relevant government scheme and support measures are provided to affected clients in a simple and fast way</td>
<td>Review of existing business plan assumptions and secure sustainable operating model</td>
<td>Consider business and operating model changes as response to learnings from the crisis, including potential derisking of balance sheet</td>
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<td><strong>Ecosystem &amp; data management</strong></td>
<td><strong>Review of operations related to ecosystem, monitoring and ensure crisis reporting</strong></td>
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| Today | ~ 6 months | ~ 18 months |
COVID-19 will impact many areas of accounting and reporting for all industries. For banks, additional challenges are likely to arise, and we set out below our insights into what we believe are the key financial and regulatory reporting considerations for banks in Singapore, taking into account the recent developments and actions taken by local authorities impacting the industry.

<table>
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<th>Area</th>
<th>Measuring expected credit losses (&quot;ECL&quot;)</th>
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<tr>
<td>Context</td>
<td>Under FRS 109 / SFRS(I) 9, ECL reflects an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes. Significant judgement will need to be applied in assessing the range of potential outcomes.</td>
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<td>At the same time, forward-looking information used to incorporate the impact of COVID-19 into the ECL estimate has to be reasonable and supportable, and available to the bank without undue cost or effort.</td>
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<td></td>
<td>Due to the unprecedented challenges posed by the pandemic, obtaining reasonable and supportable forward-looking information incorporating the impact of COVID-19 will be difficult.</td>
</tr>
<tr>
<td>Key Considerations</td>
<td>• An unbiased estimate is one that is neither overly optimistic, nor overly pessimistic. That said, there is little doubt that economic conditions have deteriorated and this should be reflected in the macroeconomic scenarios applied by the bank and their weightings. In some cases, the prior period downside scenario may be an appropriate starting point for the current base case.</td>
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<td>• Regulators including the MAS, Prudential Regulation Authority and IASB and have expressed the view that where banks make forward-looking forecasts about the impact of COVID-19, they should reflect the temporary nature of the shock, and fully take into account the significant economic support measures announced by fiscal and monetary authorities.</td>
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</table>
• MAS does not expect banks to maintain higher accounting loan loss allowances solely because COVID-19 relief measures are applied to these loans. Instead, banks should assess a borrower’s risk of default comprehensively, taking into account the mitigating effects of the relief measures, and the borrower’s ability to make full repayment based on the revised loan terms as well as its creditworthiness in the long term.

• To the extent that it is not possible to reliably model the impact COVID-19, post-model adjustments or overlays may be applied over the existing model. These overlays need to be carefully implemented and subject to proper governance and review, with due consideration to the rationale for the overlays and basis for release as the situation develops over time and more reliable information comes to light.

• Banks should provide meaningful disclosures to explain the critical estimates used in determining ECL, their credit risk exposures and the associated risk management practices.
Identifying significant increases in credit risk (SICR) and MAS 612 loan grading

A key element in determining ECL is the assessment of whether or not a SICR has occurred and hence whether a lifetime, rather than 12-month, ECL is required.

As COVID-19 crisis ripples throughout the global economies, it is inevitable that certain borrowers would have experienced an increase in credit risk. At the same time, banks in Singapore need to comply with the requirements of MAS Notice 612 in the grading of borrowers.

Hence, significant judgement is required in ensuring timely and accurate credit grading of borrowers in line with the requirements of FRS 109 / SFRS(I) 9 and MAS 612.

Credit Assessments

- Portfolio reviews should be undertaken focusing on the vulnerable sectors to identify potential downgrades and watchlists. These sectors include industries hit directly by the crisis as well as those with second order impact down the supply chain and wider economy. Adjustments may also be required to tighten the watchlist triggers to ensure timely identification of borrowers that require attention.

- Credit stress tests should also be performed in conjunction with this review to assess potential credit losses over the next 6-12 months and formulate risk mitigation measures.

- Where banks do not have sufficient timely data to update loan-level probabilities of default which are often a core element of assessing SICR, which may be the case for the purposes of Q1 2020 reporting, a more likely approach may be collective assessments of qualitative factors and overlays, focusing on vulnerable segments of the loan book.

Other MAS 612 considerations

- MAS 612 Para 4.2(c) considers a breach of any key financial covenants by the borrower to be a characteristic “Substandard” credit facilities. Given the current situation such breaches are expected to become more common. Banks will need to assess the severity of the breach, and consider whether such weakness, when considered singly and in combination with other weaknesses, would adversely affect the repayment ability of the borrower and result in a classified status.

- Separately, the MAS has also clarified that loans do not to be considered as “restructured”, and hence classified, just because there has been a change in loan terms (e.g. tenure, repayment schedule) due to relief measures. Rather, a “restructured” loan is one where the revised repayment terms are considered as “non-commercial”. An extension of relief measures may be considered as “commercial” if it does not result in substantial diminished financial obligation (e.g. due to material forgiveness of principal, interest or fees) and is intended only to address a borrower’s short-term cash flow needs.
Modifications and forbearance arising from relief programs

Under the package of measures announced by the MAS on 31 March 2020 to help to ease the financial strain on individuals and SMEs caused by the COVID-19 pandemic, banks and finance companies can defer both principal and interest payments for qualified customers with residential mortgages through 31 December. SMEs can also apply to defer principal payments on their secured term loans until the end of the year. Other relief measures include conversion of outstanding balances on unsecured credit facilities to term loans at a reduced rate of interest.

Prior to these, banks have also announced other relief measures to affected individuals and businesses, such as fee rebates and repayment moratoriums, on a voluntary basis.

Staging and SICR

- Loan moratoriums granted does not automatically indicate that the loan has suffered a SICR.

- Nevertheless, certain borrowers who have been granted such deferments may have suffered a SICR, so alternative ways of identifying this group would need to be considered. For Q1 2020, a starting point may be to use pre-COVID-19 risk ratings to determine which exposures were previously ‘closest to the line’ and hence are more likely to have suffered a SICR.

- The Basel Committee on Banking Supervision has also clarified that payment moratorium periods (public or granted by banks on a voluntary basis) relating to the COVID-19 outbreak can be excluded by banks from the number of days past due. This would address the rebuttable presumption under FRS 109 / SFRS(I) 9 that the credit risk of a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due.

Solely Payments of Principal and Interest (SPPI)

- Banks should consider whether such changes in repayment terms to existing loan facilities will meet SPPI tests in order to continue their current classifications in accordance with FRS 109 / SFRS(I) 9.

Modification gains or losses

- Banks should also consider the guidance in FRS 109 / SFRS(I) 9 to determine the impact of the change in terms, including those for determining whether the change to the terms is substantial and would lead to derecognition. Support measures that provide temporary relief to borrowers affected by the virus outbreak are unlikely to be considered substantial modification if the net economic value of the loan is not significantly affected.

- When a financial liability measured at amortised cost is modified without this resulting in derecognition, a gain or loss should be recognised in profit or loss. The gain or loss is calculated as the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate.
The Singapore Unity Budget 2020 was announced on 18 February 2020 which offered various support measures to businesses through grants and tax incentives. On 26 March 2020, a supplementary Resilience budget was announced, increasing the support to be provided by the Government in light of the COVID-19 global pandemic. This was further increased on 6 April 2020 in the Solidarity budget constituting a third tranche of COVID-19 support measures.

The Jobs Support Scheme is a temporary scheme introduced in the budget to help enterprises retain local employees. Under the Jobs Support Scheme, employees receive cash grants amounting to 25% of the gross monthly wages of eligible employees for the months of October 2019 to July 2020 (except April 2020), subject to a monthly cap of S$4,600 per employee. Higher levels of wage subsidy are applicable for sectors more directly hit by the outbreak. For the month of April 2020, all local employees will receive a wage subsidy of 75% of gross monthly wages, for the first $4,600 of wages paid in that month.

The Wage Credit Scheme is a scheme introduced in Singapore Budget 2013 (extended in Budget 2015 and 2018 and enhanced in Budget 2020) to help business alleviate business costs in a tight labour market. The Wage Credit will be paid to eligible employers for wage increases between 2019 and 2020.

**Job Support Scheme and Wage Credit Scheme**

- Applying FRS 20 / SFRS(I) 20 Government Grants, entities recognise as a receivable when there is reasonable assurance that the entity will comply with the conditions of the scheme and amount will be received (i.e. typically when the expenses are incurred)

- If the qualifying expenditures are treated as expenses, the benefit is recognised in the profit or loss as other income or offset against expenses over the periods necessary to match them with the related costs.

- If the qualifying expenditures are capitalised, the benefit is recognised in the profit or loss over the useful life of the related asset.

- Grants relating to income should be presented as a credit to the statement of comprehensive income, either separately or under a general heading such as “Other Income”. Alternatively, they may be deducted in reporting the related expense. Both methods are acceptable for the presentation of grants. However, this needs to be consistently applied.
Prudential ratios

Area

For the D-SIB banks in Singapore, they are subject to capital ratio requirements under MAS 637, liquidity coverage ratios (“LCR”) under MAS 649 and Net Stable Funding ratios (“NSFR”) under MAS 652.

In this challenging environment, the banks are likely to experience (i) lower earnings as well as higher loan provisions; (ii) increase in risk-weighted assets (RWA) given additional drawdown of credit lines by customers, deterioration of credit ratings and increased volatility on market RWA; (iii) lower liquidity buffer in excess of LCR due to lower HQLA, market value changes as well as lower credit ratings for any corporate securities held; and (iv) lower NSFR buffers due to increase in encumbered assets (due to move to collateralised funding).

It is critical that banks continue to provide essential funding to individuals and corporates to prevent a greater contagion impact. With this in mind, the MAS has announced adjustments to capital and liquidity requirements for Banks during this period and deferred the implementation of regulatory reforms, so as to allows banks to focus on more critical issues during this difficult period.

Capital ratios

Assess overall impact on capital ratios arising from COVID-19, with a view to tap on countercyclical capital buffers and capital conservation buffers as required.

Credit risk: Declining credit quality will increase credit risk adjustments and hence impacting CET1. Further, drawdown of credit facilities by customers will add to risk weighted assets, while ongoing sell-off in the capital markets may reduce collateral values. Portfolio stress tests to assess overall impact and identify potential weaknesses will allow for clarity on possible risk mitigation actions to be taken.

Market risk: Decline in asset prices and the corresponding increase in market volatility may impact market risk capital charges, albeit mitigated by hedging strategies undertaken by the bank or due to largely risk-neutral positioning for certain banks

Operational risk: While COVID-19 poses huge challenges for business continuity, capital charges for operational risk are marginally impacted given that all the D-SIBs apply the Standardised or Basic Indicator Approaches.
Key Considerations

Liquidity ratios
- Given the Banks’ healthy LCR above the regulatory requirements, there is no concern on the Banks not meeting them. However, LCR buffers above the regulatory requirements are likely to be reduced, and possibly result in internal monitoring triggers to be breached – the Banks may wish to consider if they view this as a temporary blip and taking into account that HQLAs are meant for utilisation (if required) in such situations.

- For NSFR, although the MAS has lowered the regulatory ratio requirement to provide relief, banks may continue to face pressure given the increase in funding costs which makes available stable funding more expensive whilst the move to collateralised funding may increase amount of encumbered assets.
Valuation of financial instruments

Financial markets have been a barometer for the global community mood and reaction to COVID-19. Interest rates have fallen significantly since the start of the year triggered by a series of rate cuts in response to the crisis, including 3 month SIBOR which dropped from 1.8% in October 2019 to around 1.0% as at late March.

Credit default spreads, including for banks and sovereigns increased significantly, while equity and foreign exchange markets have experienced extreme daily volatility. At the same time a significant decrease in demand for fuel and a failed OPEC deal has led to a sharp decline in oil prices.

With these events, a number of products have seen investors ‘opt out’ of the market - and this reduced liquidity has raised questions on whether quoted prices and transactions are reflective of fair value.

- Under IFRS accounting standards, “fair value” is the price at which an orderly transaction would take place between market participants at the measurement date.

- FRS 113 / SFRS(I) 13 provides a list of factors in determining whether there has been a significant decrease liquidity. In the current market a number of these factors would be relevant, i.e. wide bid-ask spreads and the significant decline in activity.

- In our view, under IFRS it would not be appropriate to adjust or disregard observable transactions or quotes purely due to reduced liquidity.

- Adjustments to quoted prices or transactions should be made when there is both reduced liquidity and it is established that the market is not orderly (i.e. reflective of forced sale type transactions).

- This is a high bar even in current conditions, though certain specific asset classes may meet both criteria. In general it they are more likely to be met for products where only quotes are available (without recent transactions) versus those where recent transactions exist, albeit in lower volumes.

- In the event that management do conclude that an adjustment is required - the objective of measurement remains the same - i.e. to determine fair value as at the measurement date (not another date where liquidity was higher).
While we have focused on the key issues relating to financial reporting in this paper, the uncertainty and fast changing conditions require business leaders’ attention on a wide range of issues from employees and customers engagement, operations and operational resilience, funding and financial risk management to strategy and value-creation, as summarised on page 3. We understand that this is a difficult time for many individuals and businesses. At PwC, our cross-functional team of experts stand ready to help.

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<th>Legal</th>
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<tr>
<td>Design and implement robust risk mitigation and contingency frameworks, identifying remediation activities and building capacity controls related matters.</td>
<td>Strengthen cybersecurity measures on top of regulatory compliance efforts, such as maintaining capital levels, appropriate review, supervision and surveillance, and anomaly reporting.</td>
<td>Consider whole-firm solutions, including staffing and resource planning, adjusting HR policies and setting up risk mitigation programs.</td>
<td>Develop an efficient and commercially viable solution, with early visibility of possible broader business issues and implications.</td>
<td>Review your COVID-19 response plan, crisis risks assessment, IA governance, resourcing options, IA staff training and embedding data analytics.</td>
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<th>Portfolio modelling and recovery review</th>
<th>Loan portfolio scenario analysis</th>
<th>Credit file review</th>
<th>Liquidity review</th>
<th>Capital review</th>
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<tr>
<td>Analyse loan portfolios and business / scenario modelling, review COVID-19/ forbearance measures and respective recovery strategies, as well as reassess the appropriate disposal strategy for the non core assets.</td>
<td>Stratify your loan portfolio and identify key segments / industries of concern. Analyse scenarios of the portfolio based on selected factors such as changes in repayment capacity, COVID-19 measures, usage of government guarantee, etc.</td>
<td>Perform detailed credit file reviews to corroborate the results of credit analysis performed at a portfolio level and identify potential future risk of losses based on selected loans.</td>
<td>Independent review on liquidity position and funding gap by stress testing current cash flow forecast, identifying risks and opportunities to cash and performing sensitivity analysis on key assumptions.</td>
<td>Stress testing and capital optimisation, such as conducting a review of areas where greater capital efficiency can be achieved.</td>
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