

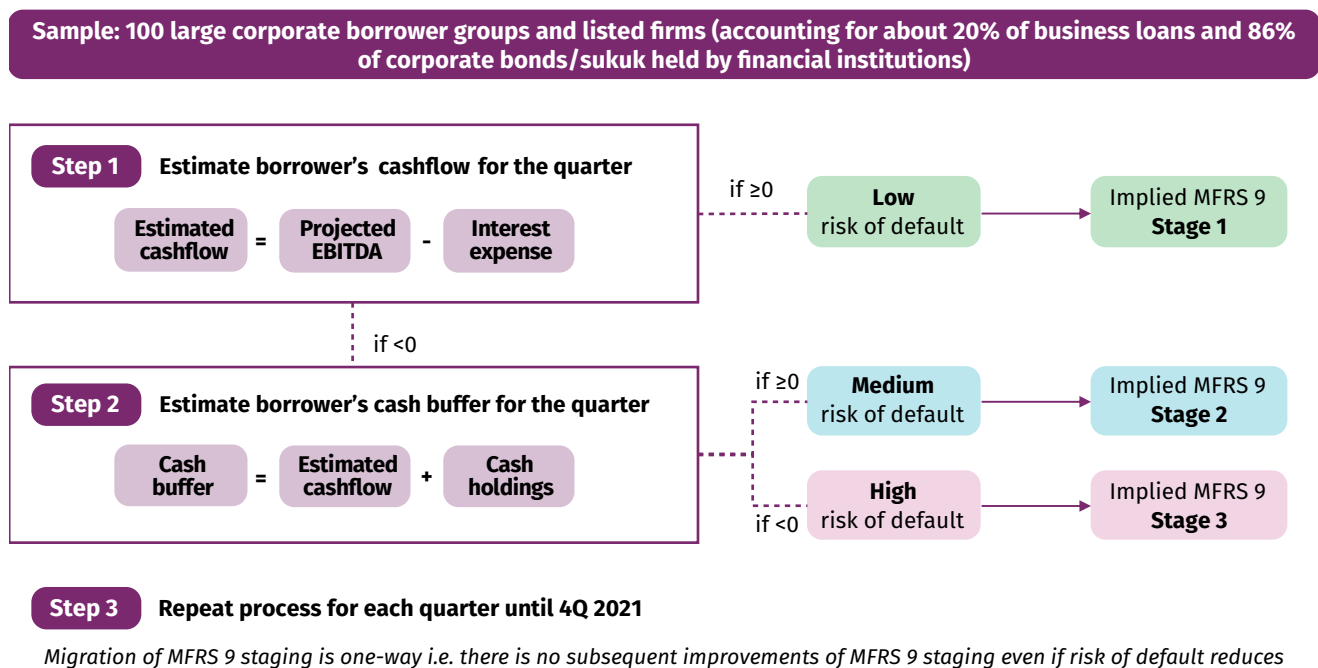
Forecasting Business Impairments: Two-pronged Approach

To simulate the potential trajectory of business sector impairments in the banking system for the macro simulation exercise, the Bank used two approaches, a cashflow deficit model for a sample of firms²⁰ with more accessible financial data and a sectoral profiling model for the remaining business exposures. This assessment also accounts for the risk profile of borrowers or borrower segments, repayment assistance extended by individual banks (based on experience during the early stages of the pandemic), and the effect of explicit government guarantees in mitigating losses.

(A) Cashflow Deficit Model

The cashflow deficit model determines a firm’s risk of default by estimating whether it has sufficient earnings or cash buffers to repay its interest obligations (Diagram 2.7). Quarterly earnings²¹ of a firm are projected up to end-2021 based on relationships established between sectoral GDP projections and firm-level financial data. These earnings are assumed to be used to service quarterly interest obligations during the period. In quarters where earnings are insufficient, the model assesses whether firms have sufficient cash buffers to draw on to honour interest obligations. Firms with sufficient earnings to service interest obligations are classified as “low risk of default” (MFRS 9 Stage 1), while firms that have to dip into their cash buffers are classified as “medium risk of default” (MFRS 9 Stage 2). This adds some degree of conservatism given that in practice, banks may continue to classify such exposures under Stage 1 if the borrowers have continued to service interest and coupon payments and there are no other evidence of a significant increase in credit risk. Finally, firms that have insufficient earnings and cash buffers are classified as high risk of default (MFRS 9 Stage 3). Stage 3 firms are assumed to default on all their exposures with financial institutions. Another layer of conservatism is applied to the model by assuming no reversion in the staging of firms, even if improvements in a firm’s earnings or cash buffers were observed in subsequent periods after it defaults.

Diagram 2.7: Cashflow Deficit Model



Source: Bank Negara Malaysia

²⁰ 100 large non-financial corporate borrower groups and listed firms. Large non-financial corporate borrower groups represent corporations with aggregate credit exposures (include direct financing and holdings of corporate bonds and sukuk) exceeding RM1 billion with Malaysian financial institutions.

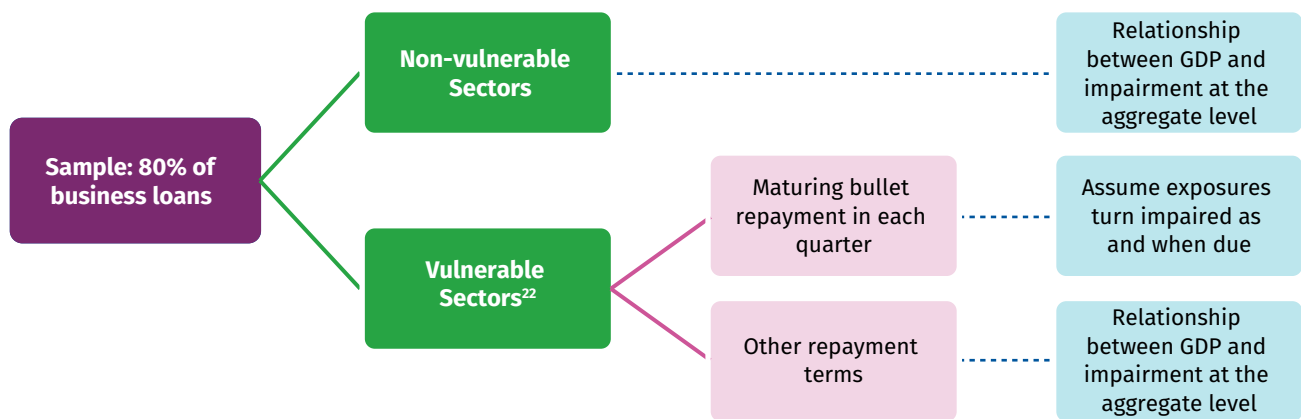
²¹ As measured by earnings before interest, tax, depreciation and amortisation (EBITDA).

(B) Sectoral Profiling Model

For businesses where firm-level financial data are not readily available, the sectoral profiling model is employed (Diagram 2.8). This model is premised on three key assumptions: (i) financing exposures of firms in the vulnerable sectors²² with bullet repayment terms will default²³ as and when they become due given the larger and immediate repayment obligations; (ii) impairments of other business exposures up to end-2021 are derived based on an established historical relationship between the annual growth of real GDP and business impairments at the aggregate level; and (iii) no SMEs are assumed to default before the end of the third quarter of 2020 due to the blanket loan moratorium in place between April and September 2020.

Reflecting a conservative approach taken in the estimations of business impairments, the model does not account for the effects of risk mitigants that could moderate the timing and magnitude of business impairments. These include (i) diversified revenue streams and available collateral for some of the larger borrowers; (ii) explicit credit guarantees by agencies such as Credit Guarantee Corporation Malaysia Berhad (CGC) and Syarikat Jaminan Pembiayaan Perniagaan Berhad (SJPP); and (iii) coordinated efforts by financial institutions, the Small Debt Resolution Scheme (SDRS) and the Corporate Debt Restructuring Committee (CDRC) to assist viable borrowers in restructuring and rescheduling loans.

Diagram 2.8: Sectoral Profiling Model



Source: Bank Negara Malaysia

²² Sectors that are deemed more vulnerable are those more exposed to the COVID-19 pandemic and those impacted by supply chain disruptions. These include the agriculture, mining & quarrying, manufacturing, construction, wholesale and retail trade, hotels and restaurants, transport and storage, and real estate sectors.

²³ Revolving credits are excluded as experience indicates that these exposures are typically rolled over.