Box 4.1. SBP Relief Measures: Impact on Credit Riskiness and Solvency of the Banking Sector - A preliminary analysis

After the onset of COVID-19 in Pakistan, the SBP took several relief measures to insulate the financial sector and the economy from negative effects of the pandemic.[147] The evidence so far suggests that the interventions have not only safeguarded the profitability and solvency of the banks but have helped avoid corporate and household defaults, keeping firms and businesses afloat by providing concessionary finances to prevent unemployment, encourage capital investments etc.[148] In absence of these measures, the firms/households level defaults could have increased and, consequently, the banking sector's solvency and resilience could also have been adversely affected.

Segregating the exact impact of all the measures could be challenging; however, in this piece, an effort has been made to gauge the consequences of potential defaults for the profitability and solvency of the banking sector, particularly in absence of deferments and Restructure and Reschedule Loan (**RRLs**).[149] The analysis has been carried out using aggregate as well as firm level data on banking exposures.

A. Aggregate Credit Risk and Solvency

Under the schemes of principal repayment deferment and RRL (collectively **DRRL**), scheduled banks allowed relaxations of PKR 757.3 billion by the end of December 2020. On the other hand, the quantum of loans issued through COVID-19 related concessionary refinance schemes stood at PKR 245.6 billion at the end CY20.[150]

Considering the fact that total NPLs of banking industry stood at the level of PKR 805.8 billion at the start of COVID-19 in Pakistan (end-March 2020), the relaxations to the tune of PKR 757.3 billion in terms of DRRL have significant implications for credit risk in the medium term. First, had banking industry not been allowed the DRRLs, the asset quality would have witnessed considerable deterioration, leading to a significant rise in provisioning expenses of the banks. Second, if the third wave of COVID-19 turns out to be prolonged and widespread, requiring strict lockdowns, the potential defaults coupled with the erstwhile DRRLs might pose a formidable risk to the financial stability.

To analyze these issues, the level of GNPLR has been estimated that would have prevailed in absence of COVID-19 relief measures. More specifically, four scenarios were envisaged assuming that 25, 50, 75 and 100 percent of the amount of DRRLs could have gone into NPLs in absence of relief measures. Under these scenarios, the implied GNPLR is calculated as:

$$GNPLR = \frac{NPLs + DRRLs^{k}}{Advances - (TERF + RFCC + Rozgar)^{k}}$$

where, k represents one of the four assumed scenarios i.e. 25, 50, 75 and 100 percent of the DRRLs turning non-performing. Results show that by end-December 2020, under 100 percent and 50 percent scenarios, GNPLR would have risen to 18.07 percent and 13.57 percent, respectively. These numbers are substantially higher than the end-CY20 level of 9.19 percent. It is clear that these sharp increments would have substantially dented the profitability and capital adequacy of the banking sector in the absence of

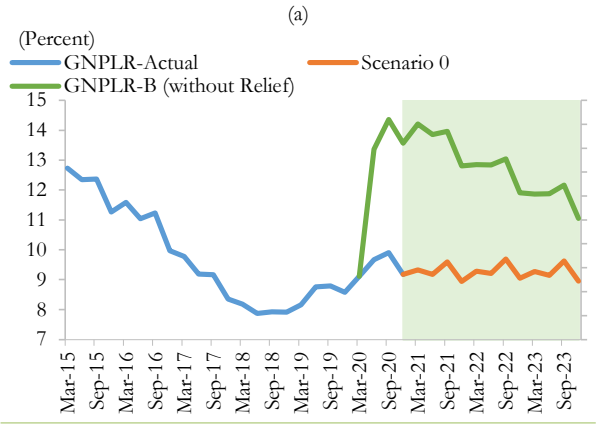
[147] For details, please see https://www.sbp.org.pk/COVID/index.html. Incidentally, the schemes for allowing deferments and rescheduling/restructuring expired on Sept 30, 2020 and March 31, 2021, respectively.
[148] For details, see https://www.sbp.org.pk/covid/index.html
[149] In a sense, we are estimating only a partial impact of some of the macro-prudential measures.
[150] Latest information on disbursements and outstanding amounts is available at https://www.sbp.org.pk/covid/index.html

relaxation measures. The CAR estimate at these assumed levels of defaults are estimated at 14.58 percent and 16.17 percent, respectively - substantially down from the existing 18.56 percent.

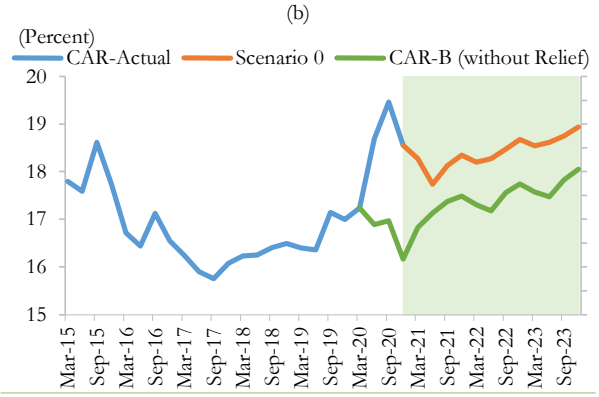
Assuming a counterfactual of 50 percent defaults – a path '*without relief measures*', the near term impact under the baseline assumptions of Chapter 4, is given in **Chart B4.1.1**. For comparison, projections under baseline (*S0*) are also included, which has been estimated '*with relief measures*'.[151]

With the revised initial conditions, the projected levels of delinquency rate (resilience level) would have, thus, remained much higher (lower) over the simulation horizon than the baseline projections with relief measures. The gaps, however, narrow as the assumed economic recovery takes hold. Specifically, after the initial higher levels of infections have been expensed out, the resilience strengthens over the projection horizon as the gap between the CAR levels under two scenarios narrows to 88 bps from 239 bps (Dec-20) while that of GNPLR subsides to 209 bps from 438 bps (Dec-20) towards the end of projection period. A quicker closing of the CAR gap indicates the strength of the banking sector in terms of not only withstanding the shock but its ability to regain the resilience.

Chart B4.1.1: Projected GNPLR and CAR under Counterfactual Scenario



Source: SBP Calculations



Source: SBP Calculations

B. Credit Risk Rating Migration – A borrower Level Analysis

Besides the aggregate impact, a borrower level analysis has also been carried out. The analysis stresses the obligor risk rating (**ORR**) of each borrower. The ORRs reflects the ability of obligor to fulfill their credit obligations.[152]

The onset of COVID-19 and the consequent economic slowdown has affected the repayment capacity of the borrowers, it can be expected that the banks/DFIs would have re-assessed and revised the credit rating of the affected borrowers downwards. However, under the announced regulatory relief, the banks/DFIs may postpone the downgrade of the credit facilities of borrower

[151] The projections are using the same assumptions as in the baseline scenario of Chapter 4.

[152] Banks/DFIs are required to assess and assign an ORR to a borrower in corporate/commercial portfolio, which comprises the corporate and SME loans. Borrowers are rated on a scale of 1 to 12, where 1 broadly reflects AAA credit rating assigned by external credit rating agency and 10, 11, and 12 represent D or default grade (see BSD Circular No. 08 of 2007)

who has approached the bank/ DFI to either defer the principle payments or restructure/ reschedule of the facility. This counterfactual scenario, therefore, assesses the impact on the profitability and solvency of any adverse migration in the ORR in absence of relief measures. The assessment has been carried for each quarter of CY20.

Modus operandi and Assumptions

1. The model *stresses* the ORR of borrower in corporate/commercial portfolio of the banks/DFIs, mainly comprising the corporate and SMEs loans.
2. The level of stress is based on the *sectoral risk* of the borrowers i.e., *low*, *medium* and *high*. Sectoral risk ratings of different economic sectors are based on judgment developed in consultation with various banks, which particularly takes into account the idiosyncratic factors and the ability of the sector to weather the ongoing pandemic. More specifically, the ORR of each borrower is *downgraded* by *one*, *two* or *three notches*, depending upon the level of risk of the sector to which a borrower belongs. Particularly, the higher a sector is exposed to and affected by the pandemic, the higher would be the level of adverse migration of that borrower.
3. On the basis of stressed ORRs, borrowers with final post-stress ORR of 10, 11 or 12 (default ratings) have been classified in Substandard, Doubtful or Loss category, and the prevailing provisioning requirements are applied.[153]
4. Loans already classified in Substandard or Doubtful categories have, however, been treated as Loss and charged to the capital at full value without accounting for the benefit of forced sale value of the collateral.
5. The eligible capital and risk-weighted assets of the banks/ DFIs are adjusted for the impact of *additional* provisions and NPLs, and their *post-shock* CARs have been estimated.

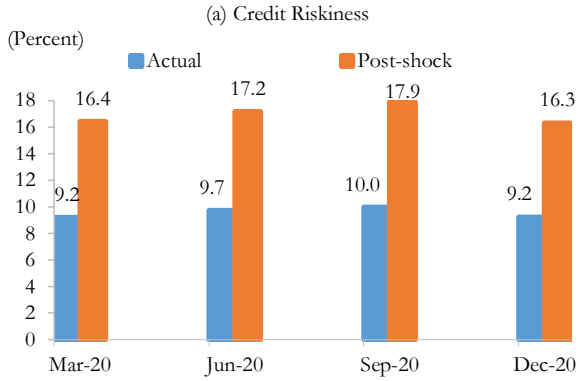
Results

Summary results from the exercise, based on end-quarter data for each quarter of CY20 are presented in **Chart 4.15**.

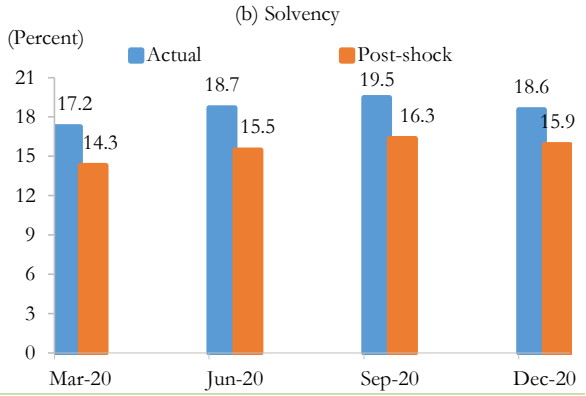
The results are in line with the findings under aggregate level analysis. The infection ratio of the banking sector may have significantly increased with substantial adverse implications for the solvency. However, given significant capital buffers, the system on aggregate basis could still withstand this shock as, despite non-trivial deterioration, the CAR would have remained above the local and global minimum of 11.5 percent and 10.5 percent, respectively.

[153] Provisioning requirements for loans classified as Sub-standard, Doubtful and Loss are 25 percent, 50 percent and 100 percent, respectively.

Chart B4.1.2: Impact of SBP Support Measures - Borrower Level analysis



Source: SBP Calculations



Source: SBP Calculations

The regulatory relief has thus helped the financial sector weather the pandemic related adversities by stemming the potential rise in delinquencies and the consequent infections, keeping credit risk in check, shielding sector's profitability, supporting the solvency and keeping resilience intact. Because, the loan losses and deterioration in solvency would have induced the banks to curtail the flow of credit, which in turn could have created a mutually-reinforcing downward spiral between economic downturn and delinquencies in loan portfolios. Given the uncertainties surrounding the re-emergence of pandemic and new variants of the virus, the banks should also continuously assess the situation, especially the repayment capacity of the borrowers, and may engage with the relevant stakeholders for any adjustments to facilitate smooth functioning of the sector.