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Prudential response to debt under Covid-19: the supervisory challenges

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Prudential response to debt under Covid-19: the supervisory challenges[1]

Highlights

- *In response to the Covid-19 pandemic, governments and banks have introduced public guarantees and payment deferrals to support struggling borrowers, while the Basel Committee on Banking Supervision (BCBS) and national authorities have provided guidance on how these relief measures should be considered in assessing credit risk in prudential frameworks.*
- *The regulatory relief measures introduced by the BCBS provide banks with flexibility in supporting the real economy. But they also raise supervisory challenges that become more pronounced the longer the relief measures remain in place, particularly if credit risks continue to mount on bank balance sheets.*
- *The greatest challenge for all prudential authorities is to decide how and when to exit from these regulatory relief measures. Acting too early may remove much needed credit to support economic growth, while waiting too long could undermine confidence in the post-crisis regulatory regime and heighten systemic risks. Making the right calls at the right time will require judgment.*

1. Introduction

The Covid-19 pandemic has led to catastrophic job losses that threaten to trigger loan defaults and bankruptcies, with severe consequences for society and financial systems. Banks are in the eye of the unfolding economic storm, given their role in providing credit to the real economy, while ensuring that they maintain sufficient capital to absorb future loan losses.

To alleviate strains in the financial system and the economy, jurisdictions have introduced credit guarantees and payment deferral programmes to support bank lending to businesses and households. Meanwhile, the BCBS and prudential authorities have unveiled extraordinary regulatory relief measures. Some of these prescribe how banks and their supervisors should consider debt relief programmes within the prudential framework. While these initiatives provide banks with sufficient scope to support the economy, they also raise supervisory challenges. Given their "safety and soundness" mandate, prudential authorities – through the supervisory review process – also need to determine how the various regulatory relief measures may affect banks' asset quality and regulatory capital metrics, which in turn drive supervisory risk assessments and follow-up actions.

This brief examines the credit risk-related regulatory relief measures introduced by the BCBS and prudential authorities and outlines their supervisory implications. Section 2 summarises key features of the public guarantees and payment deferral schemes. Section 3 specifies how Covid-19-affected borrowers granted debt relief are classified under the BCBS's prudential guidelines on problem assets; and how such exposures and the related expected credit loss (ECL) provisions are considered in calculating regulatory capital. Section 4 outlines the supervisory challenges arising from these relief measures, while Section 5 concludes.

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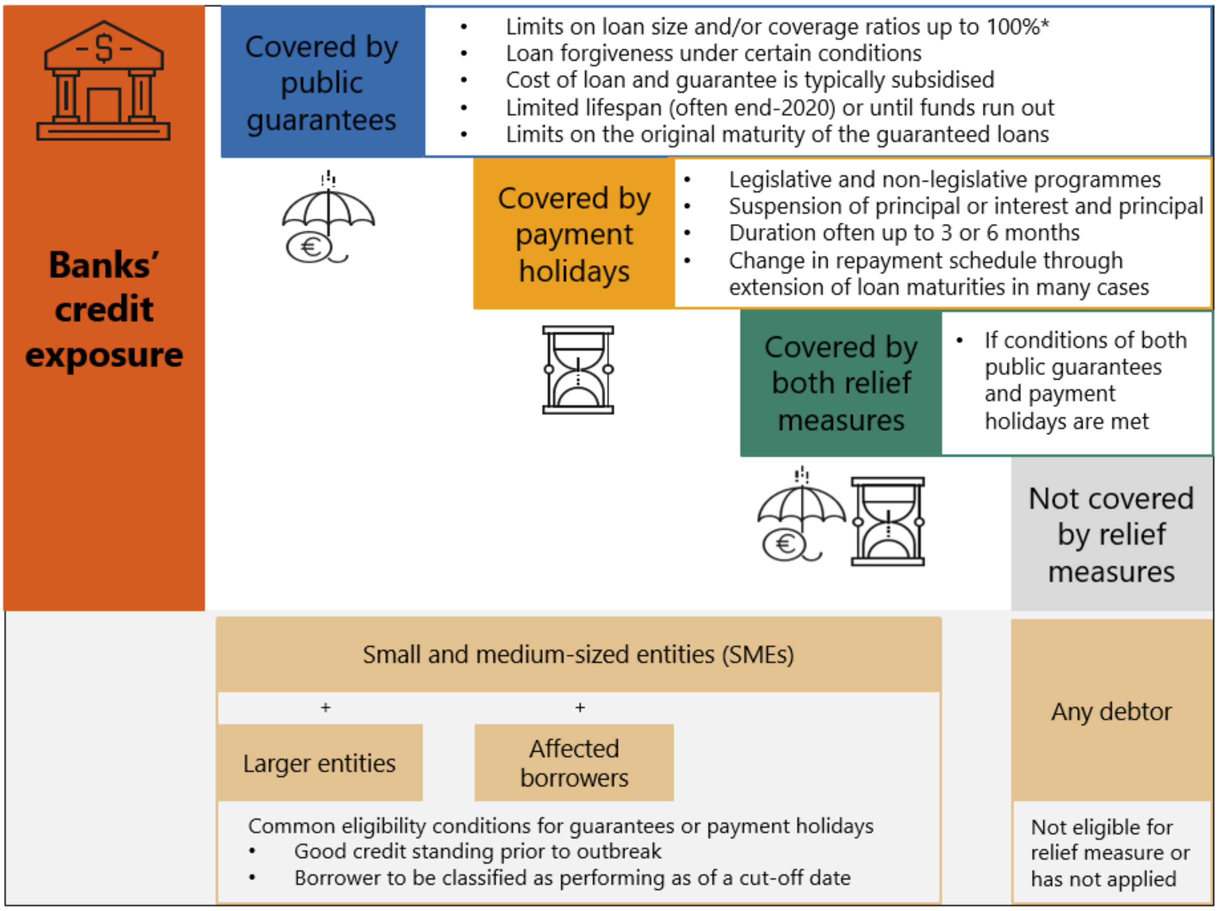
2. Pandemic-related borrower relief measures

Many jurisdictions have launched initiatives to support borrowers affected by Covid-19. Among them, some governments have guaranteed certain loans, while borrowers have been offered payment holidays. The key features of these relief measures vary and they apply to different, but sometimes overlapping, segments of banks' credit exposures (Chart 1).

Public guarantees are intended to preserve incentives for banks to lend by shifting risk to the public sector. They differ in the types of loan that can be guaranteed, their coverage and duration (Baudino (2020)). Payment deferral programmes provide financial breathing space to cash-strapped borrowers. While these programmes let borrowers take a temporary break from making payments, deferred payments must be repaid later, increasing future risks to borrowers and banks. Payment deferral schemes come in various forms. Some are legally mandated with mandatory bank participation, while others are voluntary and coordinated either by financial sector authorities or the private sector. They also vary in whether only principal, or both principal and interest, can be deferred; borrower eligibility criteria; and the length of the payment break (Coelho and Zamil (2020)).

Chart 1: Key features of pandemic-related borrower relief measures



* Coverage ratios may depend on company size (higher for smaller companies), and whether the loan is new or a renewal of a pre-existing one (higher for the former).

Source: Illustration by authors based on Baudino (2020) and Coelho and Zamil (2020).

3. Prudential treatment of pandemic-related debt relief measures

To support efforts by national governments to sustain credit flows to the real economy, the BCBS and several prudential authorities introduced a wide range of regulatory relief initiatives. Some of these prescribe how banks should treat borrowers that are subject to public guarantees and/or payment deferrals under applicable accounting and prudential frameworks. The accounting treatment of such exposures is beyond the scope of this paper, but was addressed in previous FSI Briefs.[2] This section summarises how Covid-19-affected borrowers that are granted debt relief are classified under the BCBS' regulatory definitions of "non-performing" and "forborne"; and how such exposures and their associated ECL provisions are reflected in the calculation of regulatory capital.

From a prudential perspective, identifying a bank's stock of problem assets and ensuring that it holds sufficient regulatory capital in relation to its low-quality assets have traditionally been the key indicators of an institution's overall financial health. During the Covid-19 pandemic, these prudential considerations may become subject to even greater public scrutiny. This is because the regulatory guidance must straddle a very fine line between encouraging banks' efforts to support the real economy, while continuing to foster trust and confidence in the health of banks and the financial system.

Identifying problem assets

BCBS guidelines on non-performing and forborne exposures

In 2017, the BCBS issued guidelines (BCBS (2017b)) for "forborne" and "non-performing exposures" (NPE). These categories are used for supervisory reporting, monitoring and assessment under Pillar 2 of the Basel Framework, and for public disclosure purposes. They also facilitate a comparison of key asset quality metrics across banks and jurisdictions.

NPE definition: Under the guidelines, an exposure is considered an NPE if it is past due for more than 90 days **or** the borrower is unlikely to repay (UTP).[3] The UTP criterion involves a broader, qualitative assessment of the borrower's repayment capacity that is *independent* of its delinquency status or the amount of collateral or guarantees it may provide.[4] To support banks and supervisors in their qualitative assessment of the UTP criterion, the BCBS guidelines provide various indicators for UTP, including, for example, when a bank agrees to a distressed debt restructuring.[5] Although some jurisdictions have not yet adopted the BCBS NPE definition, they have developed country-specific regulatory asset classification regimes that typically contain both quantitative (more than 90 days past due) and qualitative criteria ("borrower contains well-defined weaknesses that jeopardise the liquidation of the debt") that have some similarities with the BCBS NPE definition.[6]

Forborne definition: The BCBS defines forborne as when a borrower is experiencing financial difficulty **and** the bank agrees to a concession (modification of terms or conditions) that it would not otherwise consider. Forbearance can be extended to performing or non-performing exposures. If a bank grants forbearance on a performing loan, it is expected to assess whether the loan also meets the NPE

[2] See Coelho and Zamil (2020), Zamil (2020), and Borio and Restoy (2020) for further discussion on how Covid-19 debt relief programmes are considered in ECL methodologies under applicable accounting frameworks.

[3] In addition to these two criteria, the BCBS definition of NPE also includes all exposures that are defaulted under the Basel II framework; and all exposures that are impaired under applicable accounting standards.

[4] The exception is in cases where collateral affects a borrower's economic incentives to repay, under the UTP criterion.

[5] Under the guidelines, a distressed restructuring is an indicator of UTP and occurs when the measures taken are likely to result in the debtor's reduced financial obligation, due to material loan forgiveness or postponement of principal and interest payments.

[6] For details, see Baudino et al (2018).

criteria of more than 90 days past due or UTP. In regard to the latter, if the forbearance measures taken constitute a "distressed restructuring", they may meet the UTP criterion, and hence require an NPE classification.

Guidance and measures in the context of Covid-19

BCBS guidance to reflect impact of Covid-19: In April 2020, the BCBS clarified how Covid-19-related relief measures interact with the regulatory definitions of NPE and forborne (BCBS (2020)). Regarding an NPE, when counting the number of days past due, banks may exclude payment holiday periods. This means that, for the purposes of classifying and reporting an NPE exposure based on the 90 days past due criterion, a borrower will only become past due once the payment deferral period ends **and** if the borrower is subsequently unable to make the rescheduled payments in a timely manner. The BCBS, however, reiterated that banks should continue to assess whether such exposures warrant an NPE designation based on the UTP criterion by evaluating the borrower's likelihood to repay the *rescheduled* payments. With respect to the forborne designation, the BCBS has clarified that when borrowers utilise a payment holiday or a public guarantee, this should not automatically lead banks to classify exposures as forborne.

National authorities' guidance on Covid-19 relief measures and NPE designation: Several authorities have also issued clarifying guidance that broadly mirrors the BCBS stance, although their level of specificity varies. Some jurisdictions have stated that loans subject to payment deferrals can be reclassified to the regulatory asset classification category before the Covid-19 pandemic took effect (Central Bank of Brazil (2020)) or the regulatory classification can be kept at a standstill (Reserve Bank of India (2020)), thus excluding the debt moratorium period in determining the credit quality of an exposure for prudential purposes. Others have provided more general guidance, specifying only that payment holidays will not be treated as past due for regulatory reporting purposes (Australian Prudential Regulation Authority (2020a,b) and the US Federal Deposit Insurance Corporation (2020)).

In the European Union (EU), the European Banking Authority (EBA) issued detailed guidelines, clarifying the regulatory application of both the past due and UTP criteria for borrowers granted Covid-19 related debt relief. In particular, banks can exclude the payment deferral period in counting the number of days past due, but must continue applying the UTP criterion, without considering any guarantees in determining an NPE designation. In applying the UTP criterion, the EBA has clarified that this assessment should be based on the revised reschedule of payments; and that the Covid-19 related payment moratoriums that are general in nature are not considered "distressed debt restructuring"[7] (which in normal times is an indication of UTP, thus triggering an NPE classification).

National authorities' guidance on Covid-19 relief measures and forborne designation: Only a few jurisdictions have specified how payment deferrals impact the regulatory definition of "forborne", with the United States and the EU providing the most detailed guidance. The US agencies have specified that short-term loan modifications made to borrowers affected by Covid-19 who were paying as agreed prior to the debt modification would not be considered "troubled debt" restructuring for regulatory purposes (FDIC 2020)). Meanwhile, the EBA has argued that Covid-19-related relief measures are not borrower-specific as they aim to address systemic risks throughout the EU. As such, payment moratoriums that are not tailored to an individual borrower are not considered "forborne" for regulatory purposes. Avoiding a "distressed or troubled debt restructuring" regulatory designation may allow banks to get around an NPE classification that might otherwise apply, given that such restructurings are an indicator of the UTP criterion under the BCBS's NPE definition under normal circumstances.

[7] The EBA has specified that Covid-19-related debt moratoriums are not borrower-specific and target a wide range of borrowers thus precluding a forborne designation and by extension, a distressed restructuring. In this context, the EBA issued guidelines that a moratorium must fulfil for it to be considered "general". See EBA (2020a,b) for further details.

Calculating regulatory capital requirements

Credit risk accounts for the majority of banks' risk-taking activities and drives the amount of regulatory capital needed under the Basel Capital Framework (BCF). The most commonly cited regulatory capital measure is the Common Equity Tier 1 (CET1) ratio, calculated as CET1 capital divided by risk-weighted assets (RWAs). The judgments made on the quality of a bank's loan portfolio can materially affect the numerator and denominator of this ratio. At issue is how the various Covid-19 debt relief programmes and their associated ECL provisions are reflected in calculating the CET1 ratio, as discussed below.

$$\textbf{CET1 ratio} = \frac{\text{CET1 capital (common shares + retained earnings + other reserves)}}{\text{RWAs (credit + market + operational RWAs)}}$$

Numerator of CET1 ratio and treatment of ECL provisions

The ECL provisions taken – which is driven by the quality of a bank's loan portfolio – are charged against bank earnings and count towards the numerator of the CET1 ratio (via retained earnings). In general, as ECL provisions increase, net income decreases, which, in turn, has a negative effect on CET1 capital. While ECL provisions are driven by the application of accounting standards that are generally outside the control of prudential authorities, the stock of banks' reported NPEs and "troubled or distressed" debt restructurings – all of which are regulatory constructs – can be used as supplementary inputs into estimating ECL provisions (in conjunction with traditional accounting measures of impaired and expected losses). The extent to which NPEs and distressed forborne exposures are understated could affect the size of banks' ECL provisions they might otherwise hold. Beyond this, how ECL provisions are considered in the calculation of regulatory capital is within the remit of prudential authorities.

Denominator of CET1 ratio and treatment of credit RWAs

The denominator of the CET1 RBC ratio (RWAs) demands more regulatory capital for loans that are categorised as "past due" under the standardised approach (SA) for credit risk or as "defaulted" under the internal ratings-based approaches (IRB) to credit risk capital measurement (BCBS 2019)).

Under the current SA, a loan is classified as "past due" if the borrower is past due by more than 90 days.[8] Such loans receive a risk weight of between 100% and 150%, which is applied to the unsecured portion of the loan, net of specific provisions (SP).[9] For example, for an uncollateralised small business loan of 1,000 with SP of 550, the unsecured portion, net of SP is 450. For a performing small business loan, a risk weight of 75% is applied, resulting in capital requirements of 27. If classified as past due, capital requirements increase to 54. For guaranteed loans, the BCF allows SA banks to substitute the risk weight of the guarantor for the risk weight of the counterparty. The better the guarantor's creditworthiness, the higher the capital relief.

The BCF allows IRB banks that meet certain conditions to use their internal models to estimate credit risk, and therefore RWAs. In estimating the probability of default, banks are required to apply the regulatory definition of default (over 90 days past due[10] or unlikeliness to pay).

[8] The revised SA, which will become effective in January 2023, includes both more than 90 days past due and "unlikeliness to pay" criteria.

[9] The risk weight depends on the amount of specific provisions for a particular loan. When specific provisions are no less than 50% of the outstanding amount of the loan, supervisors have the discretion to reduce the applicable risk weight from 100% to 50%. See BCBS (2017a) for more detail.

[10] Under the IRB framework, in the case of retail and public sector entity obligations, supervisors can allow banks approved to apply the IRB approaches in their jurisdiction to use the 180 days past due figure for such exposures.

Guidance and measures in the context of Covid-19

BCBS guidance to reflect impact of Covid-19 on regulatory capital: In March 2020, the BCBS announced relief measures (BCBS (2020)) to reduce the cliff effects associated with banks' ECL provisions on regulatory capital; and to reflect the extraordinary support measures taken in member jurisdictions in RBC requirements. Collectively, these measures, if adopted by national authorities, will tend to increase reported CET1 levels (numerator), lower credit RWAs (denominator), and boost reported CET1 RBC ratios:

- Banks can add back into CET1 up to 100% of the provisions attributable to the application of ECL provisioning methodologies in 2020 and 2021. The "add-back" amount must then be phased out on a straight line basis over the subsequent three years.[11] If this option is exercised by member jurisdictions, it means that only accounting provisions related to incurred losses[12] will be reflected in the calculation of banks' CET1 measures in 2020 and 2021.[13]
- When determining a bank's credit risk requirement for loans that are subject to sovereign guarantees, the relevant sovereign risk weight should be used.
- Loans that are subject to Covid-19-related payment deferrals do not need to be counted as past due under both SA and IRB approaches to credit risk capital measurement. However, for the IRB approaches, the qualitative determination of "unlikely to pay" remains in effect and should reflect whether a borrower is unlikely to pay based on the rescheduled payments (ie on the likelihood of payment of amounts due after the payment holiday ends).

National authorities' guidance on Covid-19 relief measures on regulatory capital: Many prudential authorities have broadly followed the BCBS guidance and some have issued statements that add further detail. In Canada, for example, the Office of the Superintendent of Financial Institutions (OSFI) clarified that a loan taking advantage of a payment deferral will continue to be treated as a performing loan during the duration of the payment deferral (up to six months) and thus will not be considered "past due" under the SA approach or as "delinquent" when determining the probability of default under the IRB approach.[14]

In the United Kingdom, the Prudential Regulation Authority (PRA) noted that initial payment deferrals or subsequent payment deferral extensions (that are consistent with guidance provided by the Financial Conduct Authority) should not be counted as past due in determining regulatory capital requirements. They also specified that the use of initial or subsequent payment deferrals should not automatically be considered as "UTP" under the regulatory definition of default. In assessing UTP, when borrowers do not resume full payments due to Covid-19 issues, they stated that banks should distinguish between borrowers facing short-term liquidity problems and those with longer-term solvency issues.[15]

[11] These transitional arrangements are subject to appropriate disclosures, comparing the bank's regulatory capital ratios in relation to the bank's "fully loaded" capital ratios, had the transitional arrangements been not in place.

[12] Under the incurred loss approach, which preceded the ECL accounting methodologies, banks are only required to establish provisions if a loss event occurred as of balance sheet date. In general, this approach typically requires banks to establish lower accounting provisions than applicable ECL methodologies.

[13] For example, the US banking agencies have issued an interim final rule that allows banks which implement the current expected credit loss (CECL) model before the end of 2020 the option to delay for two years an estimate of CECL's effect on regulatory capital. In Europe, the European Commission has proposed an amendment to their capital requirements regulation, to allow banks in the EU to add back to their regulatory capital any increase in new expected credit losses provisions that they recognise in 2020 and 2021 for their financial assets, which have not defaulted.

[14] OSFI, however, clarified that while the granting of a six-month deferral should not, in isolation, drive changes to a borrower's probability of default (PD), it expects banks to consider and reflect other risk drivers when determining a borrower's PD, whether or not a borrower has been provided a payment holiday. See OSFI (2020a,b) for details.

[15] See Bank of England (2020a,b) for further details.

4. Supervisory challenges

The cumulative effects of the regulatory response to the Covid-19-related debt relief measures, together with the potential spike in credit losses once the payment deferral period ends, pose significant challenges in assessing the risk profile of banks. In particular, key prudential measures of asset quality and regulatory capital – which often drive supervisory risk assessments – may not necessarily provide an accurate snapshot of an institution's financial health, especially if banks delay loss recognition. Table 1 summarises how the regulatory measures taken to-date can impact two key prudential indicators of financial resilience. Supervisors use these metrics – in conjunction with other inputs – during the Pillar 2 supervisory review process, not only to assess a bank's financial strength, but also to take timely actions to address identified shortcomings.

Implications of regulatory relief measures on key prudential metrics — Table 1

Applicable regulatory metric	Purpose	Prudential relief measures taken	Impact on regulatory metric
Stock of NPEs	Most commonly used metric to assess asset quality	• Loans granted payment deferrals do not need to be counted in determining the over-90-days past due criterion; and in and of itself, does not signal "unlikely to pay"	May reduce reported level of NPEs
CET1 RBC ratio	Key barometer of financial health	• Sterilisation of ECL provisions (numerator) • Loans subject to payment deferrals do not need to be counted as past due under SA and IRB approaches (denominator) • For loans subject to public guarantees, the risk weight of sovereign replaces obligor risk weight (denominator)	May increase reported CET1 ratios

Source: FSI analysis.

In view of the above, prudential authorities can take a number of practical steps, where applicable, to enhance their supervisory risk assessments and to support banks' efforts to faithfully reflect credit risk in their reported regulatory measures. A number of these actions,[16] currently being considered by some prudential authorities, are noted below:

- *Ensure that banks proactively utilise the UTP criterion – independent of public guarantees – to determine the stock of reported NPEs.* As Covid-19-affected borrowers that are granted payment deferrals are (temporarily) not counted as past due in determining the NPE designation, the UTP criterion becomes essential in accurately identifying a bank's aggregate level of problem assets. In utilising the UTP criterion, supervisors need to ensure that banks do not use the existence of public guarantees as the basis to classify non-performing but guaranteed loans as performing exposures. Guarantees have no bearing on a borrower's abilty to repay, but are considered only if the borrower defaults.

- *Assess under Pillar 2, whether the minimum Pillar 1 credit risk capital requirements under the SA and IRB approaches are sufficient in relation to a bank's stock of NPEs and other low-quality assets.* For SA banks, the current BCF imposes more conservative risk-weights on the unsecured portion of loans that are past due over 90 days, without the possibility of using the UTP criterion as the basis to increase risk-weights to applicable borrowers. As loans under Covid-19-related payment deferral programmes are not counted as past due for credit-RWA purposes, supervisors should

[16] See also International Monetary Fund (2020) for its views on the appropriate regulatory and supervisory response to deal with the fallout from the pandemic.

use other mechanisms that are available under Pillar 2 to ascertain whether a portion of these loans require higher capital support. As for IRB banks, supervisors should ensure that banks continue to appropriately apply the regulatory definition of "default", which includes the UTP criterion, in determining their credit risk capital requirements.

- *Determine the cumulative amount and realisability of the "interest accrued but not collected" line item associated with borrowers granted payment deferrals.* Payment deferrals are not forgiven and must be repaid in future periods; and accounting frameworks[17] allow banks to recognise up front (in interest income) any deferred interest payments that would otherwise be due. In general, the longer the payment holiday period granted, the larger the amounts that are recognised in income and reflected on a bank's balance sheet. If the borrower is unable to repay at the end of the payment deferral period, the amounts that were previously recognised in bank earnings may need to be reversed.
- *Provide guidance to banks on how to reflect the impact of partial guarantees that may be provided to incentivise lending to affected borrowers, for the purpose of calculating RBC requirements*: Depending on country-specific situations, banks may be provided with partial credit guarantees to share the burden of future losses. These may include holding the first loss position before the public guarantees come into effect. Providing clarity to banks on how partial guarantees are treated in applicable RBC requirements can enhance confidence in the prudential regime.
- *Encourage banks to consider using, where appropriate, other forms of credit modifications, such as principal haircuts – rather than relying solely on payment deferrals that must be repaid – particularly for those borrowers that have already been identified as unlikely to pay their rescheduled debts.* While such approaches may result in the recognition of near-term losses, a reset of troubled borrowers' outstanding debt obligations may increase the longer-term likelihood that banks can recoup the revised principal and interest payments.

5. Concluding remarks

The extraordinary regulatory relief measures introduced by the BCBS and prudential authorities were designed to be temporary, in order to support broader government-led initiatives to help borrowers facing immediate difficulties. As long as the fallout from the pandemic continues, these temporary relief measures are likely to remain in the prudential framework, while credit risks continue to mount on bank balance sheets. This dichotomy poses risks to financial stability, particularly if credit losses materialise after the payment holiday period ends; and the regulatory relief measures can no longer prevent heightened credit risks from being fully reflected in a bank's reported level of NPEs and the CET1 RBC ratio, both of which are widely used benchmarks to assess the health of banks and national financial systems.

Going forward, the most consequential challenge for prudential authorities – similar to the conundrum faced by monetary policy – will be *how* and *when* to exit from these exceptional regulatory relief measures. Acting too early may be counterproductive and could exacerbate a credit crunch, while waiting too late may undermine confidence in the regulatory regime and threaten systemic stability. As with all difficult decisions in prudential supervision, making the right calls, at the right time will involve the use of sound judgment; and the judgments made, particularly in these unprecedented times, can have a ripple effect on the wheels that grease the global economy.

[17] This is the case for jurisdictions that have adopted International Financial Reporting Standards 9. In some jurisdictions (eg US and some Asian authorities), applicable regulatory guidance prohibits the interest income recognition of exposures classified as "non-accrual" assets.

References

Australian Prudential Regulation Authority (2020a): "Banking COVID-19 frequently asked questions", May.

——— (2020b): "Letter to authorised deposit-taking institutions: Treatment of loans impacted by COVID-19", July.

Awad, R, C Ferreira, E Gaston and L Riedweg (2020): "Banking Sector Regulatory and Supervisory Response to Deal with Coronavirus Impact (with Q&A)", International Monetary Fund, May.

Bank of England (2020a): "Covid-19: IFRS 9, capital requirements and loan covenants", March.

——— (2020b): "Covid-19: IFRS 9 and capital requirements – further guidance on initial and further payment deferrals", June.

Basel Committee on Banking Supervision (2017a): "Regulatory treatment of accounting provisions – interim approach and transitional arrangements", *Standards*, March.

——— (2017b): "Prudential treatment of problem assets – definitions of non-performing exposures and forbearance", *Guidelines*, April.

——— (2019): "RBC – Risk-based capital requirements. RBC20 – Calculation of minimum risk-based capital requirements", December.

——— (2020): "Measures to reflect the impact of Covid-19", April.

Baudino, P (2020): "Public guarantees for bank lending in response to the Covid-19 pandemic", *FSI Briefs*, no 5, April.

Baudino P, J Orlandi and R Zamil (2018): "The identification and measurement of non-performing assets: a cross-country comparison", *FSI Insights on policy implementation*, no 7, April.

Borio, C and F Restoy (2020): "Reflections on regulatory responses to the Covid-19 pandemic", *FSI Briefs*, no 1, April.

Central Bank of Brazil (2020): "Resolução No 4.782", March.

Coelho, R and R Zamil (2020): "Payment holidays in the age of Covid: implications for loan valuations, market trust and financial stability", *FSI Briefs*, no 8, May.

European Banking Authority (2020a): "Statement on the application of the prudential framework regarding default, forbearance and IFRS9 in light of COVID-19 measures", March.

——— (2020b): "Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis", Final Report on Payment Moratoria, April.

Federal Deposit Insurance Corporation (2020): "FAQs for financial institutions affected by the coronavirus disease 2019", May.

Office of the Superintendent of Financial Institutions (2020a): "OSFI actions to address operational issues stemming from Covid-19", March.

——— (2020b): "COVID-19 Measures – FAQs for federally regulated deposit-taking institutions", July.

Reserve Bank of India (2020): "COVID-19 – regulatory package", May.

Zamil, R (2020): "Expected loss provisioning under a global pandemic", *FSI Briefs*, no 3, April.