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Special Series on COVID-19

This is one of a series of notes produced by the Monetary and Capital Markets Department to help members address the COVID emergency. The views expressed in this paper are those of IMF staff and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Main Operational Aspects for Macroprudential Policy Relaxation

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This note covers the main operational aspects for macroprudential policy relaxation as part of the overall policy response to COVID-19 and thereby complements previous notes in this series. The note discusses the main objectives of macroprudential policy relaxation, which tools can be relaxed, and how a relaxation should be sequenced and communicated to address trade-offs that may arise. Finally, the note examines how a macroprudential policy relaxation can complement and interact with other policies to provide a more efficient policy response to COVID-19.²

KEY PRINCIPLES

- In response to the COVID-19 shock, many countries have relaxed macroprudential policy tools on banks and other credit institutions, and such a relaxation can be in line with the IMF's existing framework for macroprudential policy (IMF 2013, 2014).
- Policy action should be geared toward helping the banking system to absorb stresses and support the provision of vital credit to the economy, thereby avoiding adverse macro-financial feedback effects that may weaken the financial system and reduce welfare.
- Depending on which existing macroprudential constraint is thought to be binding on the provision of credit, easing can focus on balance sheet constraints, such as the countercyclical capital buffer (CCyB), or sectoral tools, such as loan-to-value (LTV) caps.
- A relaxation can also be subject to trade-offs, depending on the size of existing buffers, the overall economic outlook, and the availability of other policy tools to help the economy through the COVID-19 shock. In some instances, a gradual approach to relaxation may be useful, and in some, the required policy space may not be available.
- There are strong complementarities across policies. Relaxation is more likely to be effective in sustaining the provision of credit as part of a broader policy package, also involving monetary and fiscal support for the corporate and household sectors, including credit guarantee schemes (CGSs).

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² The focus of this note is on relaxation of macroprudential tools that are enforced on banks and other credit institutions.

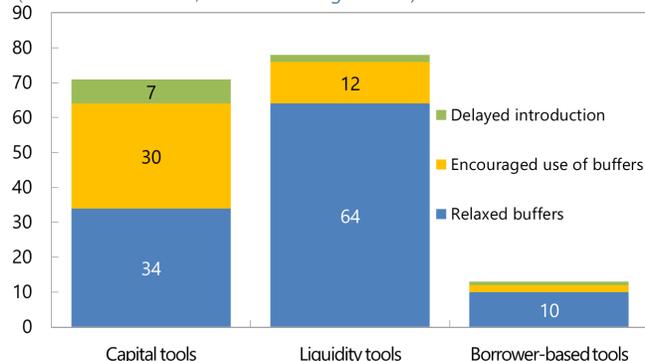
THERE HAS BEEN A STRONG MACROPRUDENTIAL POLICY RESPONSE TO COVID-19

In response to the COVID shock, many countries have relaxed macroprudential policy tools to enable banks to absorb expected losses and support the continued provision of credit to the real economy.

Many countries have relaxed capital and liquidity tools, or encouraged banks explicitly to use such buffers, while in some countries the plans for a phase-in of new requirements have been delayed. The main motivation for easing macroprudential policy has been to enable banks to continue to provide credit to the real economy through the current period of stress. There has been a recognition in particular that the COVID-19 shock has resulted in the need for bridge financing for firms, and release of macroprudential buffers should help banks meet that demand. Some countries have also relaxed borrower-based tools to support access to credit for small business owners and households that are experiencing temporary financial distress.

Relaxation of Macroprudential Policy Tools¹

(Number of countries, data to end-August 2020)



1. Liquidity tools include reserve requirements. For borrower-based tools: blue, yellow and green reflect a relaxation of LTV, D(S)TI, and other tools, respectively. Sources: IMF Policy Tracker, IMF Financial Regulatory Measures database, staff calculations.

WHAT IS THE RATIONALE FOR MACROPRUDENTIAL POLICY RELAXATION?

Such a policy relaxation can be in line with the IMF Macroprudential Policy Framework, which recognizes the importance of preventing a disruption to credit provision that can have adverse economic effects. Indeed, macroprudential policy is defined as the use of primarily prudential tools to limit systemic risk, where systemic risk is “the risk of disruptions to the provision of financial services that is caused by an impairment of all or parts of the financial system, and can cause serious negative consequences for the real economy” (IMF [2011](#), [2013a](#); [FSB-IMF-BIS 2011](#)).

Under the IMF framework, two circumstances can warrant a macroprudential policy relaxation. Such a relaxation can be useful when underlying systemic vulnerabilities dissipate—and relaxation will then likely be guided by the same indicators that were used for the buildup of buffers, such as the credit-to-GDP gap. It can also—in a case more relevant to the current circumstances—be considered when financial conditions tighten, and systemic risk materializes. It is then likely to require swift action, guided by high-frequency indicators that capture financial stress ([IMF 2014](#)), since the objective is then to forestall procyclical dynamics from macroprudential constraints becoming binding.

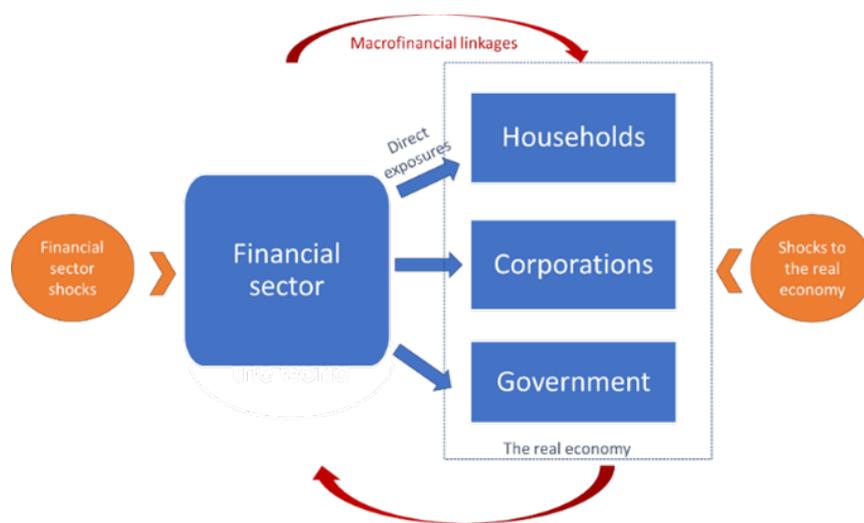
Three conditions should be satisfied for a relaxation of macroprudential policy to be useful in periods of stress (IMF 2014, 2017): there need to be (1) buffers in place, (2) evidence of financial stress, and (3) an expectation that the relaxation will work to relieve financial stress and support the provision of credit to the economy. Even as relaxation will typically face trade-offs (as discussed further below), where all three conditions are met, there will tend to be a strong case in favor of relaxing macroprudential tools.

Requiring buffers to be in place aims to balance macroprudential and microprudential perspectives that are likely to be in tension when it comes to relaxing macroprudential tools (IMF 2013). For some tools, the macroprudential buffer may be set explicitly above the microprudential minimum, which is not meant to be relaxed. For other tools, such as a cap on a LTV ratio, what is required is that the macroprudential settings are sufficiently tight that a relaxation is considered safe in an economic downturn (IMF 2014).

The benefit of relaxation is that it can lean against detrimental macro-financial feedback. In principle, detrimental linkages can emerge as a response to shocks within the financial sector (as was the case for the global financial crisis (GFC)), or in the real economy (as in the case of COVID-19). In both instances, the macroprudential policy objective is to reduce the extent to which the original shock is amplified through adverse feedbacks between the real and financial sectors.

As a result of the COVID-shock, such adverse feedbacks are emerging between weakening corporate and financial sectors.

Lockdowns have resulted in large losses of operating income for corporates across a wide range of sectors, and in many countries unemployment has increased sharply and household incomes have declined. Borrowers' ability to service existing debt has therefore diminished, in turn raising banks' exposure to credit risk, and reducing their willingness to provide new loans. At the same time, businesses are in need of bridge financing to tide them over from temporary income losses. Without such bridge financing, the economic recession would be more protracted, leading to increased corporate defaults and bankruptcies, causing more unemployment, and ultimately even larger losses for the banking system.



A range of additional amplification effects may also be at play, depending on country circumstances. In the context of large capital outflows from emerging market and developing economies (EMDEs), the corporate and banking sectors may experience liquidity pressures in domestic or foreign currencies. This can create detrimental feedback in particular where currency mismatches are common and exchange rate depreciations are large. Real estate sectors are also likely to be strongly affected, in particular if the crisis is more protracted, potentially leading to amplification from falling asset prices.

A relaxation of macroprudential policy can mitigate some of these transmission channels, thereby inducing positive aggregate externalities and reducing systemwide losses.³ A macroprudential relaxation intends to dampen a procyclical cut in credit and the ensuing adverse macro-financial feedback that arises when macroprudential constraints become binding. In contrast to a micro-prudential approach, it takes into account the positive aggregate externalities that arise when continued lending by an individual bank contributes to reduce liquidity pressures, increase economic activity, and augment the likelihood that other banks will be repaid. Therefore, ideally, a relaxation of macroprudential policy not only improves macroeconomic outcomes, but also reduces systemwide losses compared to the counterfactual of no macroprudential relaxation.

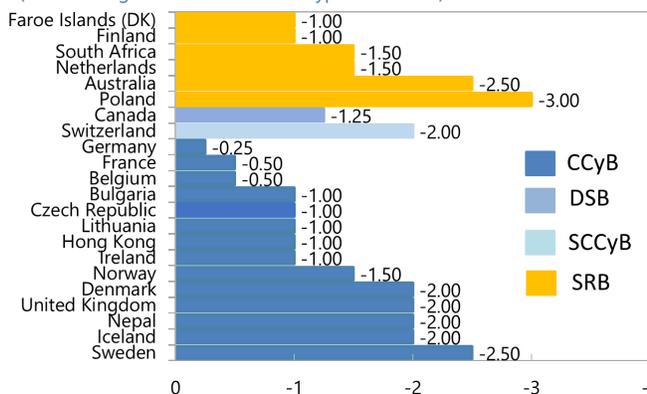
³ Similar arguments can be made about borrower relief measures, such as payment moratoria, that are being used in a number of countries to help a restructuring of existing debt obligations. For further treatment of these measures as well as their regulatory treatment, see <https://www.worldbank.org/en/programs/financial-sector-advisory-center#4> and [BCBS](#), as well as guidance issued by the [European Banking Authority](#).

WHAT MACROPRUDENTIAL POLICY TOOLS CAN BE RELAXED?

Many countries have already relaxed their CCyB. A relaxation of capital tools such as the CCyB can help the banking system absorb losses while creating balance sheet space for additional credit to bridge households and firms through the period of economic disruption. Accordingly, among the countries that had activated the tool prior to the COVID-19 crisis, most countries have by now released their CCyB, either partially, or indeed in most cases, fully, with the required buffer rate returning to zero (see Box 1 for a further discussion of the quantitative effect). Unfortunately, however, many economies had not activated the CCyB, or had chosen relatively modest buffer rates, which reduces the current policy space for those countries.

Relaxation of Macroprudential Capital Buffers

(In Percentage Points for Different Types of Buffers)



Sources: IMF Policy Tracker, MCM FR's database, Yale Program on Financial Stability, country authorities' websites, staff calculations.

While the capital conservation buffer (CCB) is not a releasable tool, banks can make use of the buffer and may need to be encouraged by supervisors to do so. The CCB is meant to reflect that banks may on occasion, including as a result of an economic downturn, need to eat into a capital cushion without being in breach of minimum requirements. The CCB is available across the range of countries that have adopted Basel III standards, and a number of those countries have actively encouraged banks to make use of the buffer in the context of the COVID crisis. However, the use of the CCB comes with conditions that can induce procyclical behavior: as banks draw down the CCB, they may be required to provide supervisors with plans to replenish the buffer, and will face progressively tighter restrictions on distributions (dividends and share repurchases) the deeper they dip into the buffer ([Basel framework, Chapter RBC30](#)). Because banks may be reluctant to face such supervisory pressures, or may fear a market stigma when other banks are not subject to them, they may opt to deleverage instead of using the CCB, which could potentially result in a credit crunch. Active encouragement for all banks within a country to use the CCB may make banks more willing to use it, and may be appropriate, in particular in the event of a large adverse shock, as in the current conjuncture. A temporary suspension of all payouts, irrespective of whether and how deeply banks dip into their CCB, can be a useful device to remove disincentives to using the CCB, adding to the more general benefits such payout restrictions can have in a crisis situation (and that are discussed further below).

The systemic risk buffer (SRB)—common in Europe—can also be relaxed, in particular when the risk it aims to mitigate materializes. This tool is available in Europe by virtue of the Capital Requirements Directive, and Denmark (in the Faroe Islands), Finland, the Netherlands, and Poland, have already relaxed their SRBs, while Israel also relaxed a designated buffer to be used in time of crises. Outside of Europe, [South Africa](#) has a conceptually similar SRB that the authorities recently relaxed. And Australia's relaxation of regulatory expectations for additional capital beyond the Basel minimum can also be considered as a reduction of a "SRB-like" buffer (see text box on [Australia](#)). In some instances, these countries had introduced the SRB due to their heightened exposure to external or other macroeconomic shocks, mindful of the vulnerabilities arising from being a small open economy. In the context of the COVID-19 crisis, a relaxation of the buffer aims to provide banks with enhanced capacity to absorb expected losses stemming from a macroeconomic shock, as well as to support the continued provision of credit to the real economy.

Some countries have in place additional capital requirements on top of the Basel minimum, and those may be candidates for easing if they have the role of systemic add-ons. Several EMDEs have not implemented Basel III and therefore have no CCB. However, many of these jurisdictions have additional capital buffers in the form of higher risk weights or capital requirements substantially above international standards, such as the Basel minimum of 4.5 percent CET 1 (see the country examples discussed in IMF 2014: [Considerations for Low-Income Countries](#) and [the 2019 Bahamas FSAP](#)). An important distinction is whether those additional buffers reflect institutional weaknesses—such as low quality of banks’ risk management or weak ability to enforce claims—or whether they are macro-financial in nature—for example, reflecting systemic vulnerabilities to external shocks. While they are best viewed as necessary from a microprudential perspective in the former case, a macroprudential easing could be considered in the latter (see IMF 2014: [Considerations for Low-Income Countries](#)). Where macroprudential leverage requirements are becoming binding, their relaxation can also be considered, as discussed below.

“APRA is advising all banks today that, given the prevailing circumstances, it envisages they may need to utilise some of their current large buffers to facilitate ongoing lending to the economy. This is especially the case for banks wishing to take advantage of new facilities announced today by the Reserve Bank of Australia to promote the continued flow of credit.”

Australian Prudential Regulation Authority
March 19, 2020

Capital buffers on systematically important institutions (SIFI buffers) are mainly used to address the “too big to fail” issue and as such are less usable for relaxation in response to aggregate shocks. The main objective of these buffers is not to cushion aggregate shocks but to reduce the probability and impact of the individual failure of these institutions. The drawback of a release of these buffers would therefore be an increase in the likelihood of individual failure and the fiscal cost incurred in the event of such failure. When contemplating a release, this increase in fiscal cost would need to be weighed. If such buffers are still being phased in, it may make sense, however, to delay the process as a time of widespread stress is not the right time to build buffers (IMF 2014).

Liquidity buffers can be used or explicitly relaxed, depending on the type of tool. The liquidity coverage ratio (LCR) in the Basel III framework is a usable buffer, so in times of stress banks can make use of the high-quality liquid assets (HQLA) they are required to hold. However, banks are normally subject to more monitoring and need to provide supervisors with plans for again fulfilling the LCR if they make use of the buffer. Again, explicit encouragement from supervisors to make use of the LCR can make the buffer more effective ([ECB](#), Hong Kong SAR, [Norway](#), United States). Some countries have introduced additional LCR buffers, in particular in major foreign currencies and can either allow banks to make use of the buffer (see text box on [Sweden](#)) or explicitly relax it. Finally, a number of countries have reserve requirements (RRs) and liquid asset requirements (LARs) in both domestic and foreign currency, that can also be relaxed (Brazil, Ghana, UAE). This may be particularly important where FX liquidity pressures are mounting (see Box 4 in [IMF 2017](#), for the experience of Croatia from relaxing such requirements in 2009). A relaxation of a loan-to-deposit ratio can also be considered (Aruba), if it is becoming binding, as can a delay in the implementation of the net stable funding ratio (as in India).

“Given the current circumstances, FI would like to clarify that it will temporarily allow banks to fall below the liquidity coverage ratio (LCR) for individual currencies and total currencies. The objective of this measure is to ensure that limitations in the liquidity requirement’s design do not make it difficult for banks to maintain sound financing operations given the current conditions.”

Swedish Finansinspektionen
March 16, 2020

Sectoral tools can also be relaxed to reduce financial distress and facilitate debt restructuring.

For instance, Israel has relaxed a LTV cap to allow small business owners to withdraw equity from their housing to use to get through a temporary period of income loss, and New Zealand also relaxed their LTV cap to remove an obstacle to the flow of credit in the economy (see text box on New Zealand). Such a relaxation can be considered in particular if the LTV is calibrated relatively tightly, such that even after a relaxation the LTV offers appropriate protection (IMF 2014), and can then also support the restructuring or refinancing of existing loans. Sectoral capital buffers can also be released where the risk they are meant to mitigate is materializing. For instance, [Switzerland](#) has released a sectoral CCyB as the authorities expect the COVID-19 crisis to adversely affect the housing market. Similarly, where risk-weight floors have been drawn in or higher risk weights (add-ons)

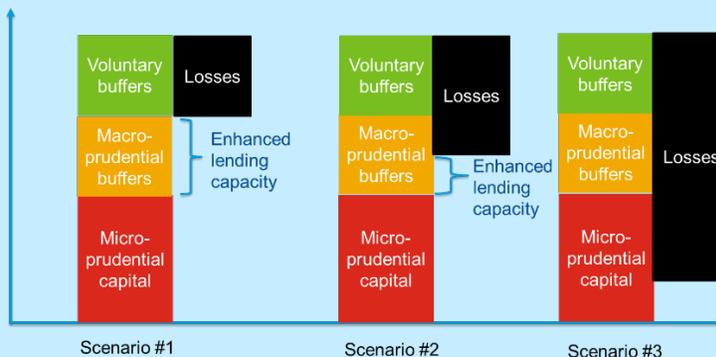
introduced countercyclically for macroprudential reasons, an increase over and above the relevant microprudential standard can be relaxed (as in Israel, the Netherlands, Poland, and Russia).

“Given the current uncertainty around the economic outlook, the Reserve Bank considers that it is unlikely that banks will weaken lending standards to high risk borrowers. The more likely risk is that banks are overly cautious with lending to credit-worthy borrowers, [...] removing LVRs now does not weaken the resilience of the system. Rather, removing LVR restrictions now supports financial stability by removing one potential obstacle to the flow of credit in the economy, helping to soften the downturn.”

Reserve Bank of New Zealand
April 30, 2020

Box 1. Quantitative Assessments on Relaxation of Capital Buffers

While it is certain that relaxation of macroprudential capital buffers can enhance banks’ balance sheet capacity, quantitative assessments of how much new lending it can support are highly uncertain. This reflects uncertainty about—among other things—the size of banks’ losses, as well as the degree of risk aversion toward new lending, and the effectiveness of other policies. If bank losses are no greater than the voluntary buffers banks hold on top of micro- and macroprudential requirements, the relaxation of macroprudential capital buffers can all be used to enhance banks’ lending capacity (scenario #1 in box figure), although it would remain uncertain how much actual lending would take place. However, if losses eat into macroprudential buffers, the relaxation would provide less capacity to support continued lending to the real economy (scenario #2). Finally, if losses entail breaching the minimum microprudential requirements, banks would be subject to supervisory action that discourages new lending.



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The most extensive quantitative assessment on how much new lending capital buffers might support—taking into account COVID-19 induced losses—is [Lewrick and others \(2020\)](#). They use a global sample of 5,600 banks from 142 countries and find that potential buffers were approximately US\$2.7 trillion at the end of 2019. They compare two adverse scenarios, with the more severe being similar in magnitude to the GFC. They find that US\$800 billion (US\$270 billion) would be left to support new lending in the adverse (more severe) scenario, which could support US\$5.3 trillion (US\$1.1 trillion) of new loans, if banks’ balance sheet composition were to remain unaltered—and also includes marketable assets. However, if enhanced balance sheet capacity would solely go toward absorbing losses and supporting new loans (that is, not other assets), the amounts close to double. Finally, they find that if 20 percent of new loans benefit from a public guarantee, the capital buffers could support US\$11.5 trillion (US\$2.6 trillion) in new loans. This compares to US\$83.5 trillion in total loans at the end of 2019, which is close to nominal world GDP.

HOW SHOULD MACROPRUDENTIAL POLICY RELAXATION BE SEQUENCED AND COMMUNICATED?

There is no preset sequencing in regard to the types of tools to be relaxed. In general, those tools that can be expected to reduce most directly the type of financial stress identified should be relaxed first: capital buffer requirements should be relaxed in response to incipient losses, since in the absence of a relaxation, losses can lead to a procyclical cutback in lending. Similarly, liquidity tools should be used where there are signs that systemwide liquidity is tightening. [IMF SGN 2014](#), especially its Table 2, provides further discussion of indicators relevant for different types of stress.

More generally, it is useful to consider relaxing those macroprudential constraints that are becoming binding, and therefore risk impeding the provision of credit to the economy. The tools that turn out to become binding are likely to differ across countries and depend on circumstances. For instance, while a cap on bank's leverage is usually conceived as a backstop to risk-weighted capital requirements, the experience is that market dislocations can render such a constraint binding when banks—in a sudden flight to safety—experience an unexpected inflow of deposits that expands their balance sheets. In response, several jurisdictions in March and April allowed banks temporarily to remove treasury securities and/or central bank reserves from the calculation of the leverage ratio, so that banks could invest the additional funds in those assets and maintain balance sheet space for the provision of credit (for example, [US Federal Reserve](#), [Canada](#), [European Union](#), [Switzerland](#)).

Communication should clearly set out the objectives of the policy decision, while seeking to maintain confidence. To this end, communication of the policy step should (1) be clear about the macro-financial objectives of the relaxation; (2) emphasize the existing balance sheet strength of the financial sector, as evidenced for instance by stress test results; (3) point out that relaxation is accompanied by continued and strong monitoring and supervision of individual firms (see [Bank of England \(BoE\) example](#)). For the relaxation to achieve its objective—to encourage banks to make use of the buffer—it is important for communication to also emphasize that the lower setting will remain in place for an extended period, and that a return to steady state levels will be gradual and begin only after the economy has returned to health.

Relaxation of capital buffers should be accompanied with payout restrictions. An accompanying policy on distributions should at a minimum convey the supervisory expectation that payouts to shareholders—in the form of share repurchase and dividend programs—should not accelerate relative to precrisis plans (see [BoE example](#)). This can ensure that banks do not behave opportunistically by using their released capital to pay it to shareholders (IMF SGN 2014; Detailed Guidance, para 21). Consideration can also be given to going further, by instituting an outright, but temporary, moratorium on such distributions to shareholders. The advantage is that all available capital buffers, including both macroprudential buffers and voluntary buffers that banks carry over and above the microprudential requirements, remain fully available to absorb losses and support lending.

WHAT POLICY INTERACTIONS ARE RELEVANT FOR MACROPRUDENTIAL POLICY RELAXATION?

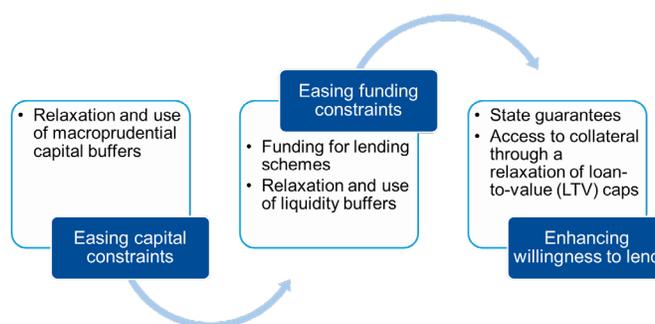
Macroprudential easing can complement monetary policy. By reducing the effects of the shock on credit and output, a macroprudential relaxation can serve as a useful complement to a monetary policy response. It can enhance the ability of monetary policy to support economic activity by removing regulatory constraints that may otherwise impede transmission of the desired monetary policy accommodation. In countries that need to tighten monetary policy (for example, to limit the inflationary effects of an exchange rate depreciation), a simultaneous relaxation of macroprudential policy can help reduce potential stresses from the domestic tightening.

Macroprudential easing can strengthen the effects of fiscal support and substantial synergies that arise with public credit guarantee schemes (CGS). Such schemes have already been drawn up by various countries affected by the COVID-19 crisis (for example, Singapore, Switzerland, the United Kingdom, the United States). They indemnify the bank in the event of a default of the corporate borrower, up to a percentage (typically between 70 and 90 percent), thereby reducing the bank’s loss given default (LGD). From a macroprudential policy perspective, a guarantee scheme can usefully counter banks’ reluctance to lend to corporate borrowers in an environment of heightened uncertainty and risk for the lender (see Box 2 for a discussion on key considerations for setting up a CGS).

Targeted provision of liquidity by the central bank can support the effectiveness of a CGS by complementing the available capital relief. For instance, the Swiss National Bank (SNB) created a COVID-19 refinancing facility (CRF) allowing banks to obtain liquidity against federally guaranteed loans, which is provided at the SNB’s policy rate. Alternatively, by purchasing outright a portion of the loans extended by lenders, central banks can combine the provision of liquidity support with a participation in the credit risk of the loan, where such credit risk ideally is backstopped by the government (as under the US Main Street Lending Program).

Overall, macroprudential relaxation, government support schemes, and central bank liquidity backstops can be designed to form a mutually reinforcing policy package.

- The relaxation of macroprudential capital buffers can provide balance sheet capacity for banks to provide credit to the economy. Other macroprudential constraints, such as liquidity and leverage requirements that may come to impede the provision of credit in a procyclical way can also be relaxed.
- A government guarantee scheme can increase banks’ willingness to lend despite heightened credit risk. The relaxation of loan-to-value requirements can serve a similar role, by enabling collateral to function as an alternative or additional credit risk mitigant.
- A central bank backstop can remove funding constraints and provide liquidity, to further incentivize the private provision of credit to the affected sectors of the economy. Allowing banks to use macroprudential liquidity buffers also frees up liquidity for banks to use in providing credit.



The design of such a package should take due account of the available policy space as well as governance considerations. While the elements set out above are able, in principle, to increase the potency of the policy response, their design may depend on country circumstances, including monetary, macroprudential, and fiscal policy space, as well as institutional and governance considerations.

Box 2. Key Considerations in the Design of Credit Guarantee Schemes

The design of a CGS can build on experience gathered by many countries in the use of schemes to support small and medium size enterprises, where the private provision of credit tends to be subject to market failures from asymmetric information (see [EIB paper](#), [WB principles](#), [VI-CESEE paper](#)). It indemnifies the bank in the event of a default of the corporate borrower up to a percentage (typically between 70 and 90 per cent), thereby reducing the loss given default of the bank for qualifying loans.

Since such a scheme makes use of credit screening and processing technology available within the banking system and maintains skin in the game for the lender, the allocation of credit can be more efficient than the

outright provision of credit or grants by the government or a government agency. In addition, to reduce the risk of lending to unviable firms, it can be useful to require for eligibility that borrowers demonstrate that they were profitable and viable ahead of the COVID-19 crisis, and in need of resources as a result of a drop in operating income. At the same time, such schemes can be designed in a way that provides effective capital relief to the banking system, thereby increasing willingness to lend. In particular, when the guarantee is provided by the government, it does not typically attract a capital charge (see also [BCBS](#)) thereby complementing the capital relief provided by macroprudential relaxation.

From a fiscal perspective, a CGS will not typically involve a significant upfront outlay for the government, since it leverages instead the balance sheet of the banking system. This makes such schemes attractive also for those sovereigns who are unable to mobilize cash at short notice—for example, because their borrowing costs may be punitively high. Such a scheme will instead create a significant contingent liability for the government and the feasibility of this should be judged in the context of an analysis of the available fiscal space and the range of other new and existing fiscal risks (see also IMF note on [Public Sector Support for Firms](#)). Depending on country circumstances, consideration should also be given to the risk of funds flowing to politically connected sectors, or otherwise favoring certain businesses in inequitable ways.

However, in principle, guarantee schemes can have the potential to generate positive macroeconomic effects, so that the costs for the taxpayers due to default payments can be outweighed by the positive stimulating effects of the guarantees for the economy—such as by avoiding bankruptcies and maintaining employment.

WHAT TRADE-OFFS ARISE FOR RELAXATION?

The IMF framework recognizes that macroprudential policy easing in periods of stress necessarily involves trade-offs and requires careful judgement (IMF 2014). In periods of financial stress, while the macroprudential policymaker may want to relax macroprudential constraints for the reasons discussed earlier, the relaxation of macroprudential constraints needs at the same time to maintain confidence and ensure an appropriate degree of resilience against future shocks.

In the context of the COVID-19 crisis, trade-offs are likely to be shaped by uncertainty about the outlook and the extent to which this is endogenous to policy action. In most countries, the outlook is driven in large part by the public health measures that are needed to contain the spread of the disease. The stringency and expected duration of these measures will have a first-order effect on the depth and length of the recession. On the other hand, monetary and fiscal policy support may also affect the outlook, by reducing the depth of the downturn.

- Where relaxation of macroprudential measures is meant to support the provision of credit to the real economy, the expectation can be that the provision of additional credit, in concert with other policy efforts, will reduce the depth of the economic downturn, thereby ultimately reducing total banking system losses. Swift and decisive action then dominates a strategy of waiting that would lead banks to reduce the provision of vital credit to the economy, exacerbating the downturn.
- Where the full impact of additional credit on the real economy is reduced by the persistence of public health measures or other exogenous factors that continue to depress demand, the benefit of early macroprudential policy relaxation may be diminished. It can then be advisable to hold on to macroprudential buffers, so that they can be made available at a future time when losses result in the macroprudential constraint becoming binding. A later relaxation would then help forestall a more costly cutback in credit, at a time when bank lending is needed to support the recovery.

- In countries where the downturn is thought to be even more protracted, as a result of structural shifts in demand away from particular sectors or business models, the judgment could alternatively be that a sizable share of the existing credit, as well as the additional credit induced by a relaxation, may not be repaid. And while the new credit may still have a stimulating effect on the economy through the horizon, the increase in leverage allowed by a relaxation would weaken the banking system and increase the fiscal costs of recapitalizing it, thereby sharpening the trade-off for policymakers.

The benefits of decisive macroprudential policy action will be amplified where other forceful policy actions are taken to help the economy through the COVID-induced crisis. Where macroprudential policy forms part of a policy package that consists of mutually reinforcing elements (as described just above), this can argue for an early and decisive macroprudential relaxation. Where buffer space is available, the size of the initial relaxation should then provide substantial capacity for banks to engage in additional lending, while being consistent with the goal of maintaining confidence in the solidity of the financial sector.

Where a more gradual approach is chosen, continued monitoring should seek to ensure that action is taken before procyclical dynamics develop. Where a gradual approach is chosen the authorities should be ready to deploy available buffers quickly when banks are at risk of hitting regulatory constraints that could induce a procyclical cut in the supply of credit. This would require in turn that the authorities are able to monitor in real time indicators of such stresses (such as those presented in Table 2 of IMF 2014), so that they are in a position to take timely action before procyclical dynamics have set in.

Banks' reluctance to lend will tend to reduce effectiveness of relaxation, but also flatten intertemporal trade-offs. Banks' willingness to take risks can pull back sharply in periods of stress. Indeed, theory suggests that these procyclical swings in risk aversion are more pronounced than what is socially optimal. Since a relaxation of macroprudential tools on its own can only remove a constraint, while it will not be able to materially increase willingness to lend, increased aversion to risk reduces the effectiveness of relaxation. Where banks remain reluctant to lend, and demand for credit goes unfilled, this would typically lead to a reduction in welfare. On the other hand, also, reluctance to lend will flatten the intertemporal trade-off, since when banks do not draw on the capital made available through relaxation, there is no increase in leverage that would come to present a future drawback of having relaxed too early.

Trade-offs can also be shaped by the level of microprudential minima and fiscal space. Postcrisis reforms at the Basel level not only introduced dedicated macroprudential buffers, but also led to improvements in the quality of capital, augmenting its ability to absorb losses effectively. The reforms further included strong increases in the microprudential minimum level of capital, thereby bolstering the resilience of the banking system to shocks ([GFSR Chapter 2, October 2018](#)). Moreover, for the largest banks, the issuance of bail-in debt has become mandatory and increases the amount of total loss-absorbing capital (TLAC) available to recapitalize these banks. However, these developments may not pertain to all countries, and trade-offs can be sharper where microprudential minima have not been reviewed in the wake of the GFC. They can also be affected by a consideration of the fiscal resources available to recapitalize the system in the event an adverse scenario materializes, and should then be considered also in the context of other fiscal risks arising from the government's efforts to support the economy.

Assessing these trade-offs quantitatively is not easy and requires modeling the impact of policies. Although stress testing can shed some light, standard techniques may need to be adapted and based on more granular data to account for the impact of policies. For example, standard stress testing approaches would estimate banks' losses through the scenario based on historical correlations between losses and macroeconomic variables, such as GDP. They may then not take full account of how government support to households and firms can reduce defaults, either directly, by strengthening borrower balance sheets, or through

a macroeconomic feedback loop. In addition, the analysis would need to find ways of assessing the impact of the macroprudential measures themselves. While there have been important recent advances, see [BoE 2020](#), [ECB 2019](#), [Krznar and Matheson 2017](#), [Catalan and Hoffmaister 2020](#), this is an area where further work is desirable to guide policymakers effectively.