MONETARY AND CAPITAL MARKETS

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Unconventional Monetary Policy in Emerging Market and Developing Economies

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This note discusses the use of unconventional monetary policies (UMPs) in emerging market and developing economies (EMDEs) with a focus on two objectives: (1) increasing monetary policy space to help central banks meet their output and inflation goals and (2) mitigating limitations to monetary transmission that may hamper the provision of credit where it is most needed. The use of unconventional measures to support liquidity in financial markets or expand fiscal space is covered in two separate IMF notes.[2]

KEY POINTS

- In EMDEs constrained by the effective lower bound, UMP may help create monetary policy space to cushion the impact of the COVID-19 crisis and support the recovery. Under certain preconditions, central banks may also intervene to ensure the functioning of monetary transmission channels and support companies more directly.

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[2] See notes on "Central Bank Support to Financial Markets in the Coronavirus Pandemic" and "Central Bank Direct Financing of Government and Monetary Instability" (forthcoming).

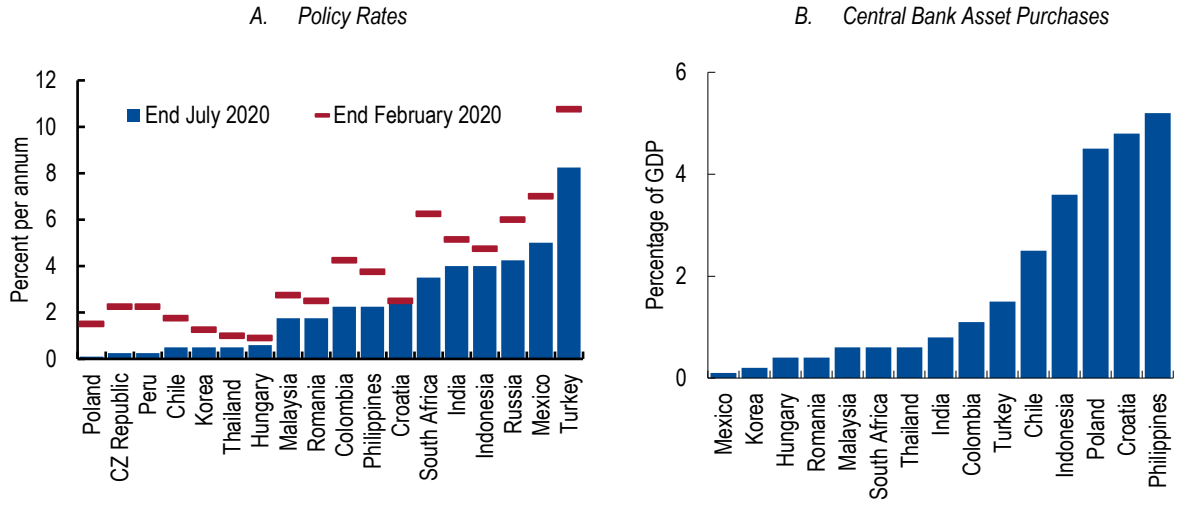
- Credible monetary policy frameworks and good governance are prerequisites for effective UMP. In their absence, UMPs carry substantial risks and can lead to fiscal dominance. Ill-judged use of UMP can trigger depreciation pressures and increase risk premiums.
- EMDEs with more developed capital markets and effective transmission via interest rates can benefit more from UMP. Nevertheless, benefits are likely to be smaller than in advanced economies (AEs).
- Quantity-based quantitative easing (QE) programs seem better suited to most EMDEs than price-based programs.
- Scope for UMP to lower longer-term rates in countries with high risk premiums is likely to be limited.
- UMP have a better chance of success when they are deployed in concert and complemented by a coherent package of other policies to increase their credibility and impact.
- Central banks should also clearly communicate concerning the use of UMP.

OVERVIEW

The COVID-19 pandemic represents a deep crisis with unique features. For instance, stimulating economic activity is challenging, if not unfeasible, under the physical lockdown constraints during the first phases of the pandemic. Targeted fiscal and financial support measures are often best suited to addressing the paralyzing effects of the COVID-19 pandemic and their uneven impact across industries.

Monetary policy, however, can—and should—play an important complementary role.[3] In this context, UMPs—which have played a key role in AEs over the past decade—may be a desirable option for the small but growing number of EMDEs constrained by the effective lower bound. Some EMDEs with policy rates well above the lower bound but that would like to limit the effects of elevated term or risk premiums may also be tempted by UMP. Some EMDEs have already deployed UMP in the form of QE (Figure 1).

Figure 1: Monetary Policy Developments in Selected Emerging Market Economies



Sources: Bloomberg Finance, L.P.; J.P. Morgan; national sources; Thomson Reuters Datastream; and IMF staff estimates.

[3] See also note "Monetary and Financial Policy Responses for Emerging Market and Developing Economies."

Note: Estimates of central bank asset purchases since March 2020. Asset purchases include both government and private sector bonds. In Hungary, Indonesia, and the Philippines, data include both primary and secondary market purchases. For a detailed analysis of the specific features of the purchases in these countries (size, timing, market) see Chapter 2 of the October 2020 *Global Financial Stability Report* (forthcoming).

Any role for UMP in EMDEs should be examined with an eye toward recognizing the ways that they differ from AEs (see Annex for detailed discussion). Indeed, as in the case of conventional monetary policy, the channels of transmission of UMP in EMDEs are potentially different from AEs. The interest rate channel is often weaker in EMDEs, including due to lower financial development. There may thus be less scope for lower long-term yields—which UMPs typically target—to boost asset prices and aggregate demand. Instead, the exchange rate channel will likely play a more prominent role in UMP effectiveness than it typically does in AEs. UMP could also be difficult to implement in some EMDEs because of the limited availability of high-quality domestic assets, especially so in countries where fiscal adjustment is required.

Though UMP can be a potentially useful addition to the policy toolkit for some EMDEs, as in AEs, they can carry substantial risks such as a loss of central bank's credibility, fiscal dominance, increased depreciation pressures if the country is facing current account vulnerabilities, and rising risk premiums. The balance of benefits and risks needs to be considered carefully on a country-by-country basis.

In all circumstances, it is critical that the central bank conducts any UMP in pursuit of its own core objectives and mandate (that is, to control inflation, manage real activity, ensure financial stability). Also, the governance framework of the central bank needs to ensure that the unwinding of UMP when economic circumstances demand it is unquestioned—that is, that credibility is there. In countries that lack key preconditions for UMP, for instance when the central bank is insufficiently independent or lacks credibility, pursuing UMP will generally not be desirable.

UMP OPTIONS TO PROVIDE MONETARY STIMULUS

For EMDEs wherein UMPs are both feasible and warranted, key options, pros and cons, and design principles are discussed below.

Negative Policy Interest Rates[4]

In AEs that have implemented negative interest rate policies (NIRPs), the experience so far suggests that transmission to market interest rates, exchange rates, and lending has been effective, while potential financial stability risks have been contained. Lowering interest rates below zero thus appears to be a useful policy tool for some AEs and might also be considered in EMDEs.

However, even AEs have reduced interest rates to only modestly negative levels, and it seems likely that the effective lower bound is somewhat higher in EMDEs than in AEs. The effective lower bound (the rate below which further rate cuts become counterproductive in reducing borrowing rates, or generate

[4] A forthcoming IMF paper on "Negative Interest Rates: Taking Stock of the Experience so Far" reviews in detail the experience with negative interest rate policies.

significant financial stability risks) is likely higher in EMDEs due to lower financial inclusion, more widespread use of cash, and high currency substitution and capital outflow risks.

Hence, the scope for EMDEs to boost activity and inflation through NIRP seems somewhat limited. In addition, because the lower bound is partly determined by policy measures, central banks should take into consideration the structure of intermediary balance sheets (including micro- and macroprudential regulations) and the profitability of the banking sector when deploying NIRPs. To mitigate potentially adverse effects on bank profitability, they could consider implementation approaches such as tiering reserve regimes, namely remunerating a share of reserves at a rate higher than the policy rate.

Quantitative Easing

QE for Economies Constrained by the Effective Lower Bound

When short-term policy interest rates are constrained by the effective lower bound, large-scale asset purchases provide a tested way to help lower risk- and term premiums, flatten the yield curve, and ease funding conditions.[5] In such situations, QE policies may be desirable given the large output gaps and disinflationary pressures EMDEs may be facing.[6] However, as mentioned above, aggregate demand in EMDEs might be more sensitive to interest rates at the short-end rather than long-end of the yield curve, and exchange rates may play a more important role in the monetary transmission. These factors could somewhat limit the monetary stimulus provided by QE policies in EMDEs compared to AEs.

QE for Economies with Policy Rates Well above the Lower Bound

For some EMDEs with interest rates that are well above the effective lower bound, using conventional monetary policy space by lowering policy rates further may not be desirable. These countries typically have greater fragilities than those constrained by the lower bound. They are more prone to face capital outflow pressures and large depreciations, with associated risks of unanchoring of inflation expectations and spikes in risk premiums. Some of these central banks might be tempted to embark on QE to exert control over the long end of the yield curve, even when their short-term policy rates remain substantially above zero.[7] This could seem attractive for those countries whose long end of the yield curve is particularly sensitive to swings in global risk appetite. Three caveats, however, are in order.[8] First, as

[5] See Chapter 2 of the forthcoming October 2020 *Global Financial Stability Report* for evidence in the EMDE context.

[6] QE corresponds to the expansion of the central bank balance sheet via purchases of various type of assets with an objective to ease financial conditions.

[7] For example, the US Federal Reserve's so-called QE2 (or "Operation Twist") principally aimed to lower longer-term interest rates without affecting short-term rates. The Reserve Bank of India has also conducted several such operations in the last couple of years, both before and after the COVID-19 pandemic. In Hungary, new tools were introduced to ensure amble liquidity in the banking system at the beginning of the pandemic, while money market rates were effectively increased. Asset purchase programs of government securities, mortgage bonds, and corporate bonds were also announced, which contributed to lower long-term interest rates and flatten of the yield curve.

[8] The discussion here, as elsewhere in the note, focuses exclusively on monetary policy objectives and abstracts from central bank interventions that aim to address severe market disruptions, such as occurred in the early phases of the COVID pandemic. Such interventions, if they are time-bound and targeted, can be useful—and, indeed, may

mentioned, longer-term yields play a less central role in most EMDEs than they do in AEs. Second, and more importantly, the same fragilities behind higher short-term rates are likely to limit the scope for lowering longer-term yields. Third, such interventions—if prolonged—may weaken market signals on the intertemporal allocation of capital and the pricing of risk and distort savings and investment decisions.

Considerations for Implementation of QE Programs

In general, QE programs should be temporary in nature. The central bank should have a coherent exit strategy and clearly communicate to the markets both the reasons for implementing the programs and the conditions under which they would end.

QE programs should rely on purchases of high-quality assets. In practice, this means mostly government bonds. Relying on high-quality assets limits credibility concerns and credit risk for central banks. The operational feasibility of such purchases is also higher. In countries where domestic capital markets are sufficiently deep and liquid, central banks could extend the range of eligible assets for QE programs to bonds of large blue-chip nonfinancial firms. Bond purchases should preferably be made in secondary markets, as purchases in the primary market disrupt the price discovery process.

The effectiveness and macroeconomic impact of QE will depend on country-specific factors, such as the structure and liquidity of capital markets, the availability of high-quality domestic assets, and the presence of a well-developed financial sector that can pass on changes along the yield curve to consumers and companies. Therefore, the design of QE programs should aim to affect and lower yields in those segments of the yield curve that serve as an effective pricing benchmark, so as to maximize the transmission to the real economy.

Besides their direct effect on the prices of assets purchased (for example, in the case of government bonds the sovereign yield curve), QE policies may affect a broader range of asset prices through the portfolio balance channel (see for example, Joyce and others 2012, and Krishnamurthy and Vissing-Jorgensen 2011, for discussions in the AE context). By lowering the available supply of the purchased high-quality assets, QE could incentivize market participants to purchase securities in riskier markets, which would lower yields in those assets. Therefore, QE should consider whether investors have the ability and desire to allocate their investments in other domestic asset classes, or would rather replace their securities within the same asset class but at different maturities. Moreover, both foreign and domestic investors might choose to exit their country position altogether, which could increase the sensitivity of the exchange rate to QE policies. This may be a welcome outcome in countries with robust frameworks; strong fundamentals; and deep, sophisticated financial markets. In other EMDEs with currency mismatches in private sector balance sheets, however, excessive depreciation of exchange rates could at least partly offset the stimulatory effect of QE policies by tightening overall financial conditions. The policy might also backfire and *raise* spreads.

sometimes be critical—including for countries where interest rates remain well above the lower bound. Such interventions are discussed in a separate note.

Design of QE Programs: Quantity vs. Price-Based

Central banks should ensure high transparency and accountability of asset purchase actions to minimize credibility risks—especially in countries with weaker institutional frameworks. It will therefore generally be preferable to design QE programs that are limited in time and scale, with a preannounced schedule.

Accordingly, quantity-based QE programs, which specify the volume of securities the central bank will purchase, will likely be more appropriate—and generally easier to implement—than price-based programs such as yield curve control. Although the latter may seem advantageous in sending a more direct signal about the intended monetary stimulus, and enable a credible central bank to target yields with fewer asset purchases, yield curve control also implies that the central bank commits to potentially buying an unlimited amount of securities, which may be problematic. In EMDEs with relatively small bond markets, this policy could end up increasing substantially the role of the central bank as a market maker in bond markets, impairing the price discovery process.[9] It may also inflate the central bank's balance sheet and complicate the future exit from the policy. For instance, the reduction of the volume of available assets (such as long-term government bonds) or their returns could lead to institutional and nonresident investors exiting the long end of the market. Therefore, when yield curve control policy ends, the government may face challenges in regaining the appetite of those investors, which could complicate governments' debt management and the financing of deficits.

Risks of QE

Though a potentially useful addition to the policy toolkit for some EMDEs, asset purchases, as in AEs, can also carry substantial risks that need to be considered carefully on a country-by-country basis. QE programs may weaken central bank credibility (especially if it is not strong to begin with) by creating undue perceptions about monetary financing. They may also pose risks to central bank balance sheets by increasing central banks' exposure to maturity and credit risk. Moreover, the increased exposure to long-term debt may raise concerns about the central bank's willingness to raise interest rates in the future when conditions warrant. In particular, the prospect of larger balance sheet losses may make the central bank more reticent to cross the Treasury if the latter argues against raising interest rates, so that QE may heighten the risk of fiscal dominance. With regards to corporate bond purchases, limited market depth and negative repercussions for financial market development could make this option less feasible or desirable for the majority of EMDEs. Governance challenges can also be prohibitive, with the risk of the central bank (being seen as) favoring some firms at the expense of their competitors.

Purchases of Foreign Assets

When EMDEs begin to recover from the crisis, some may face a return of capital inflows and exchange rate appreciation, which may add to lingering disinflationary pressures. If still constrained by the effective lower bound, central banks facing these conditions could consider easing through the purchase of foreign currency assets. This policy will be particularly relevant in countries where the availability of domestic assets limits the scope of QE programs. Foreign asset purchases can be used to contain appreciation of

[9] On the other hand, the smaller market size could also make it easier for EMDE central banks to achieve their yield target. Nevertheless, on balance, the case for quantity-based programs in EMDEs seems stronger.

the domestic currency to help boost inflation and inflation expectations while also supporting output by strengthening net exports and lowering real interest rates.

Large-scale foreign asset purchases, however, pose difficult communication challenges and carry risks of encouraging speculation especially when an exchange rate floor is set, testing the credibility and effectiveness of the intended policy objectives.[10] Therefore, their implementation should be carefully crafted and—as for QE—preannounced quantity-based programs are preferable to price-based ones. Although potentially effective in the case of a single country, spillovers need to be considered as such interventions can amount to a beggar-thy-neighbor policy and their widespread use may not be desirable.

Forward Guidance and Complementarity of Policies

In advanced economies, different types of UMP have frequently been deployed in concert as these policies have mutually reinforcing effects. The benefits of complementarity stem from persuading market participants about the intended size and duration of UMP. For EMDEs too, it can be advantageous to use UMP measures jointly and, possibly, as part of a broader macroeconomic policy package to maximize their macroeconomic effects.

Forward guidance about both the policy-rate path and QE programs could be an important complementary part of QE or NIRPs and raise their effectiveness by guiding the expectations of market participants and strengthening the signaling channel of UMP. Committing to future monetary policy actions over the medium term, however, requires a credible central bank with a strong operational framework and a well-developed communication policy. Moreover, EMDEs' exposure to volatile capital flows implies a non-negligible risk that the central bank may need to renege on a promise to keep rates low in the event of exchange rate pressures. Thus, most EMDE central banks may not be able to utilize the long-horizon time-dependent forward guidance used in AEs. This time-consistency problem may require state-dependent forward guidance policies that clearly specify appropriate escape clauses—for example, for cases of greater risk of capital outflows and/or financial stability. It seems unlikely, however, that such state-dependent commitments would be as effective in providing stimulus as the long-horizon forward guidance used in AEs.

Foreign exchange (FX) interventions, macroprudential policy measures, and, in crisis- or near-crisis situations outflow capital flow management measures, may also be deployed if warranted by country-specific circumstances to complement UMPs and increase their credibility and impact.[11] As discussed earlier, EMDEs' vulnerability to capital outflows and associated pressures on the exchange rate may dent the credibility of the UMP from the onset. A well-calibrated use of FX interventions and macroprudential policy measures may help contain risks and boost the credibility of the central banks' actions. The effectiveness of joint use of these policies will depend on the effectiveness of each individual tool, and regular and prolonged use of these additional instruments could raise their own set of credibility and communication issues.

[10] Communication challenges arise in particular for inflation targeting central banks that will need to explain how the foreign asset purchase policies serve their ultimate inflation objectives, and do not constitute a change in anchor.

[11] See also IMF Institutional View on the Liberalization and Management of Capital Flows.

In all cases, when deploying UMP, central banks should clearly communicate principles concerning their use: (1) how these measures are consistent with their mandate, (2) the objectives and expected outcomes, (3) the risks involved, and (4) a clear timeline and/or strategy for their removal.

USE OF UNCONVENTIONAL MEASURES TO ADDRESS LIMITS IN MONETARY TRANSMISSION

Although broad monetary support may help to cushion the economic impact of the pandemic, the immediate concern in many economies is to ensure that nonfinancial firms have access to financing to meet their financial obligations and working capital needs. Although physical pandemic mitigation measures make financing more difficult for many firms, small- and medium-sized enterprises are often the worst hit. These companies usually lack collateral that can be used to secure additional financing, the value of their collateral is more sensitive to external shocks, and they have limited financing options outside of (collateralized) bank loans.

While targeted fiscal support is the most appropriate tool to address such needs, it may not be available or mobilized in time. In such cases, central banks may intervene specifically to address impairments in bank lending that block the nonfinancial sector from access to credit, so as to ensure the effectiveness of the monetary transmission channel. A few key crisis-related policies are discussed below.[12]

Funding for Lending

Under *funding-for-lending* schemes, central banks provide collateralized long-term funding to financial intermediaries to support the provision of new credit to specific earmarked sectors of the economy. Chile and Poland, for example, have done this recently, creating liquidity facilities conditional on banks' on-lending to firms and households. Compared to direct purchases of corporate debt, such schemes have the advantage of allowing the central bank to effectively support lending to smaller-sized borrowers. They may also be less distortive than direct asset purchases as they preserve and support the intermediation function of the banking system. Given collateralization, these schemes also reduce central banks' direct credit risk exposure—even as considerable indirect credit exposures will remain. Even so, these programs may expose central banks both to heightened credit risk and to greater political economy challenges insofar as the central bank plays a larger role in credit allocation. Protecting central bank independence requires strong governance as well as appropriate fiscal backstops to cover the central bank's credit risks. Moreover, such schemes could distort price signals and favor the allocation of capital to favored sectors, potentially exposing the central bank to lobbying and political pressures.

Direct and Indirect Lending to Nonfinancial Firms

In countries where bank-based finance is dominant, special purpose vehicles created by central banks could be used to support private sector firms' access to financing, with the central bank acquiring corporate loans extended by banks. By doing so, these vehicles can be effective in providing bridge loans and credit guarantees to firms facing liquidity shortages. It would be generally desirable for banks to keep part of the loans in their balance sheet so that they have "skin in the game." However, such risk sharing may in turn risk straining financial institutions, both on the liquidity and the solvency side. A separate note

[12] For a more in-depth discussion of support schemes to businesses see the notes "Considerations for Designing Temporary Liquidity Support to Businesses," "Are Macro and Credit Policies Enough?" and "Public Sector Support to Firms."

on "Banking Sector Regulatory and Supervisory Response to Deal with Coronavirus Impact" covers policies to prevent protracted financial sector instability.

Central banks in some EMDEs may additionally consider providing direct credit to nonfinancial firms. However, such lending could easily lead to credit misallocation, especially in countries particularly prone to connected lending and political-economy distortions. As highlighted in the previous section, it is generally also not desirable for central banks in EMDEs to take on substantial credit risk, and direct lending faces many associated governance challenges (for example, difficulty reversing such policies and compromising central bank independence). Therefore, such a policy will be generally undesirable except in dire circumstances. In any event, support should aim at solvent firms. Indeed, equity injections by the government, rather than loans from the central bank, may be needed to tackle insolvency, and the fiscal costs and risks should be properly recognized. Moreover, given that it is difficult to determine whether firms are insolvent or illiquid at the time of the crisis, the governments should be ready to help cover potential credit losses to central bank balance sheets arising from any such support schemes.

ANNEX: EMERGING MARKETS AND DEVELOPING ECONOMIES—SOME KEY CHARACTERISTICS

Macro-financial circumstances and institutions in EMDEs often differ from those in advanced economies, and these differences may matter for the suitability of UMP. While the following discussion points will apply to different countries in varying degrees, EMDEs may differ from AEs along the following dimensions.

- **Market development.** Financial markets in most EMDEs are considerably less developed and liquid than those in AEs. Often, domestic benchmark bonds and yield curves are missing or do not act as an effective pricing benchmark. Corporate debt markets are often nascent or underdeveloped, and equity markets typically play a much more limited role compared to AEs.

- **Transmission via interest rates**. The transmission mechanism of monetary policy in most EMDEs differs from AEs. Shallower financial markets and lower use of financial services weaken the impact of monetary policy on real activity. Banks often engage less in lending to small business. While the interest rate channel can be important in EMDEs with more advanced monetary policy frameworks, the exchange rate channel is usually a much stronger component of monetary transmission compared to AEs (Brandao and others 2020). Monetary transmission in EMDEs can also be limited because of structural constraints, such as lack of competition in the banking sector, financial repression, fiscal dominance, and collateral frameworks.

- **Anchoring of inflation expectations.** Owing to weaker central bank credibility, inflation expectations are often less well anchored, causing a higher degree of exchange rate pass-through, which can lead to surging (rather than falling) inflation during crises.

- **Balance sheet risks.** Owing to underdeveloped domestic capital markets or very limited exchange rare flexibility, EMDEs often have substantial currency mismatches in public and private sector balance sheets. Therefore, a sharp depreciation of the exchange rate may have a contractionary (rather than expansionary) impact on economic output.

- **Currency substitution and capital outflow risks.** In AEs during risk-off (flight to safety) episodes, investors flee into domestic government bonds, which are considered safe assets. This is not true for most EMDEs, where economic agents rather seek safety in foreign assets. This can lead to capital outflows and additional pressures on the exchange rate.

- **Governance.** Governance frameworks in the public and private sectors are often weaker in EMDEs, which can inhibit their ability to credibly pursue complex policy options with high risks of mismanagement or abuse.

- **Central bank credibility.** The independence of EMDE central banks and the strength of their policy frameworks are often weaker than in their AE counterparts. This may imply a higher risk of political pressures and violations of the de facto independence.

- **Operational frameworks**. In many EMDEs, central banks' operational frameworks lack features instrumental for implementing UMP, for example, the capacity to remunerate central bank reserves.