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Central bank bond purchases in emerging market economies

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Central bank bond purchases in emerging market economies

Key takeaways

- *In response to the Covid-19 shock, many central banks in emerging market economies have launched local currency bond purchase programmes to address bond market dislocations, signalling that they were willing to take the role of a buyer of last resort.*
- *Local currency bond yields fell significantly following the programme announcements, with little effect on exchange rates. These positive initial market reactions suggest that the programmes were successful in restoring investor confidence and did not lead to higher inflation expectations, eg due to perceived risks of fiscal dominance.*
- *Market reactions varied between countries, depending on initial conditions in each jurisdiction as well as on the scope, scale and communication of the bond purchase programmes.*

Emerging market economies (EMEs) felt the full weight of risk aversion when global investors recoiled at the shock of the Covid-19 pandemic. Local currency bond yields surged as investments were withdrawn (Graph 1, left-hand panel). At the same time, EME currencies depreciated sharply, starkly exposing the feedback loops between currency fluctuations and financial conditions in EMEs (Hofmann et al (2020)). Despite the currency depreciation, inflation rates in EMEs have generally remained low and within the target range of central banks (Table 1). And they are expected to fall reflecting the contractionary economic effects of the pandemic and lower commodity prices (IMF (2020)).

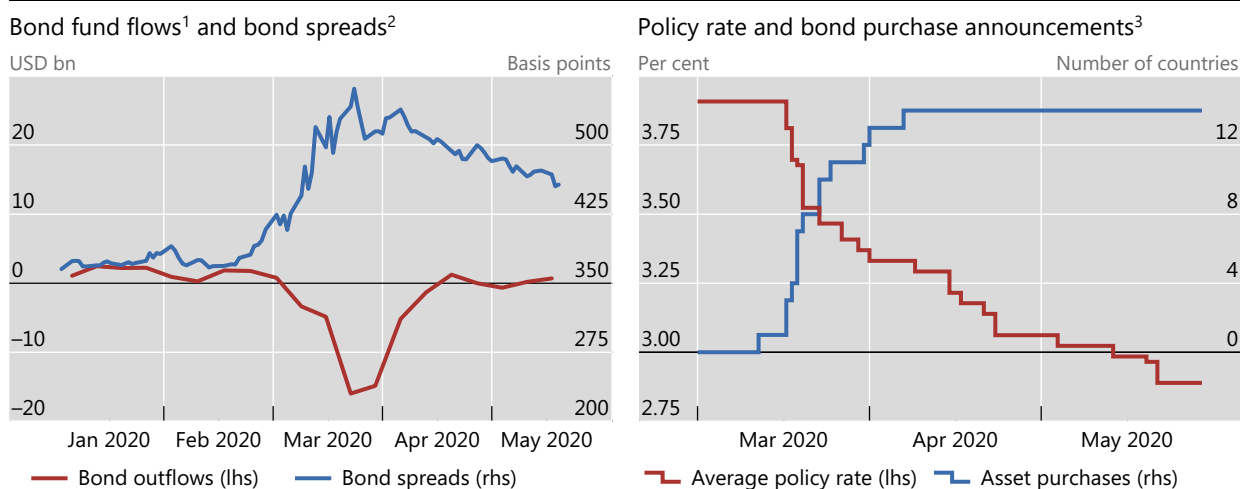
The policy response by EME central banks to the economic and financial fallout of the pandemic was multifaceted. They cut policy rates (Graph 1, right-hand panel), intervened in FX markets and provided extra liquidity by extending existing facilities or setting up new ones and by broadening eligible collateral for repo operations. Many launched local currency bond purchase programmes to counteract market dislocations (Graph 1, right-hand panel), acting as dealers or buyers of last resort.

While EMEs had already introduced various unconventional balance sheet policy measures to provide liquidity to domestic markets after the Great Financial Crisis (GFC) and the 2013 taper tantrum, local currency bond purchases were generally not used on these occasions.¹ That a large number of countries have launched such programmes in recent weeks has therefore expanded the policy toolkit for use in meeting the challenges from capital flow and exchange rate swings.²

This bulletin outlines these EME bond purchase programmes (BPPs), sketching their characteristics, assessing their market impact and discussing the implications for EME monetary policy frameworks.

¹ See eg BIS (2010) and Sahay et al (2014)).

² For a detailed discussion of monetary policy frameworks in EMEs, see BIS (2019).



¹ Weekly data across major emerging market economies (EMEs). Data cover net portfolio flows (adjusted for exchange rate changes) to dedicated funds for individual EMEs and to EME funds with country/regional decomposition. ² Spread between the yield of the JPMorgan GBI-EM Broad index excluding China, 7–10 years, over benchmark US Treasury yield. ³ Cumulative number of announcements, sum of measures taken in Chile, Colombia, Hungary, India, Indonesia, Korea, Mexico, the Philippines, Poland, Romania, South Africa, Thailand and Turkey; only the initial announcement during the Covid-19 crisis. For policy rates, simple average of the same economies.

Sources: EPFR; J.P. Morgan Markets; national data; BIS; authors' calculations.

Characteristics

The primary objective of recently announced BPPs in EMEs is to rectify market dysfunctionality and provide liquidity to domestic bond markets (Table 1). As almost all programmes take the form of outright purchases of bonds financed with reserves, they are not sterilised. In a few cases only, the programmes involve swap operations, financing bond purchases through sales of short-term paper. Few central banks have explicitly announced the size of their programmes. Where they have done so, the scale is relatively modest, ranging from 0.1% of GDP (Korea) to 2.8% (Chile). Most programmes focus on local currency sovereign bond purchases in secondary markets. Hungary and Colombia are also purchasing mortgage bonds and bank bonds, respectively, while the Central Bank of Chile is buying only bank bonds. Many EME central banks face legal constraints or even bans on bond purchases. In some countries, legislative initiatives are currently under way to grant the central bank new or extended powers to engage in bond purchases (Czech Republic), or have already been passed (Brazil).

The new EME BPPs are therefore very different in nature from the BPPs operated in advanced economies (AEs). The BPPs launched by AE central banks in response to the pandemic involve large-scale purchases of corporate and government bonds. They are designed to provide credit support for firms, keep bond markets functional and support monetary accommodation more generally as policy rates have reached their effective lower bound.³ By contrast, EME BPPs do not explicitly seek to provide monetary stimulus or credit support. Instead, they address market dislocations arising from investor risk aversion. By launching them, EME central banks signal that they are taking the role of dealers and buyers of last resort in the bond market, to reassure investors.

³ For an overview of recent monetary policy responses in AEs, see Cavallino and De Fiore (2020), who outline the monetary policy measures adopted by AEs in the wake of the pandemic. For an overview of unconventional monetary policies implemented in AEs in the wake of the GFC, including BPPs, see CGFS (2019).

Central bank bond purchase programmes in EMEs¹

Table 1

Country	Stated objective ² [Announcement date]	Size (%GDP)	Market ³	Type ⁴	Policy rate ⁵	Inflation [Target] ⁶
Chile	To contain the effects of high-volatility events in the fixed income market. [19/03, 08/04]	2.8	Bank	Outright	0.5	3.4 [2–4]
Colombia	To inject permanent liquidity in order to ensure the proper operation of financial markets. [23/03]	0.8	Gov. Bank	Outright	3.75	3.5 [2–4]
Hungary	To restore the stable liquidity position of the government securities market and to improve the long-term supply of funding to the banking sector. [07/04]	NA	Gov. Mortg.	Outright	0.9	2.4 [2–4]
India	To ensure that all market segments remain liquid and stable, function normally with adequate turnover. [18/03, 20/03, 23/04] ⁷	0.2	Gov.	Outright, Swap	4.4	5.8 [2–6]
Indonesia	To assist the government finance the handling of the COVID-19 impact on financial system stability if the market is unable to fully absorb the SBN issued by the Government. [01/04]	NA	Gov.	Outright	4.5	2.8 [2–4]
Korea	To stabilise the bond market, and to improve the supply and demand of KTBs by expanding the bond buying capacity of financial companies. [19/03, 09/04]	0.1	Gov.	Outright	0.75	0.1 [2]
Mexico	To promote the proper functioning of the government debt market. [21/04]	NA	Gov.	Swap	6.0	2.2 [2–4]
Poland	To change the long-term liquidity structure in the banking sector, ensure liquidity in the secondary securities market and strengthen the monetary policy transmission mechanism. [17/03, 08/04]	NA	Gov.	Outright	0.5	3.4 [1.5–3.5]
Romania	To consolidate structural liquidity in the banking system that should contribute to the smooth financing of real economy and the public sector. [20/03]	NA	Gov.	Outright	2.0	2.7 [1.5–3.5]
Philippines	To reassure market participants for demand for Government Securities (GS) should they need to liquidate their holdings, thus encouraging participation in the GS auctions. [10/04]	NA	Gov.	Outright	2.75	2.2 [2–4]
South Africa	To add liquidity to the market, to promote the smooth functioning of domestic financial markets, to enhance its Monetary Policy Portfolio (MPP). [25/03]	NA	Gov.	Outright	4.25	4.1 [3–6]
Thailand	To provide liquidity to and ensure normal functioning of government and corporate bond markets. [19/03, 22/03, 07/04] ⁸	0.6	Gov. Corp.	Outright	0.75	-3.0 [1–3]
Turkey	To strengthen the monetary transmission mechanism by boosting the liquidity of the government bond market. [31/03, 17/04]	NA	Gov.	Outright	8.75	10.9 [3–7]

¹ The table lists BPPs announced in March and April 2020. ² Excerpts from the policy announcements. ³ Gov: Government bonds. Bank: bank bonds. Mort: mortgage bonds. Corp.: Corporate bonds. ⁴ Outright: Outright purchases by the central bank. Swap: Bond purchases financed through sales of short-term paper. ⁵ In percent. ⁶ March inflation rates for India and South Africa, April inflation rates for the rest. With the exception of Korea, central banks target a range indicated by the two numbers in brackets. In percent. ⁷ Announcements in March were for outright purchases. In April, a swap operation was announced. ⁸ While the announcement was made on 19 March, the Bank of Thailand engaged in bond purchases from 13 March onwards.

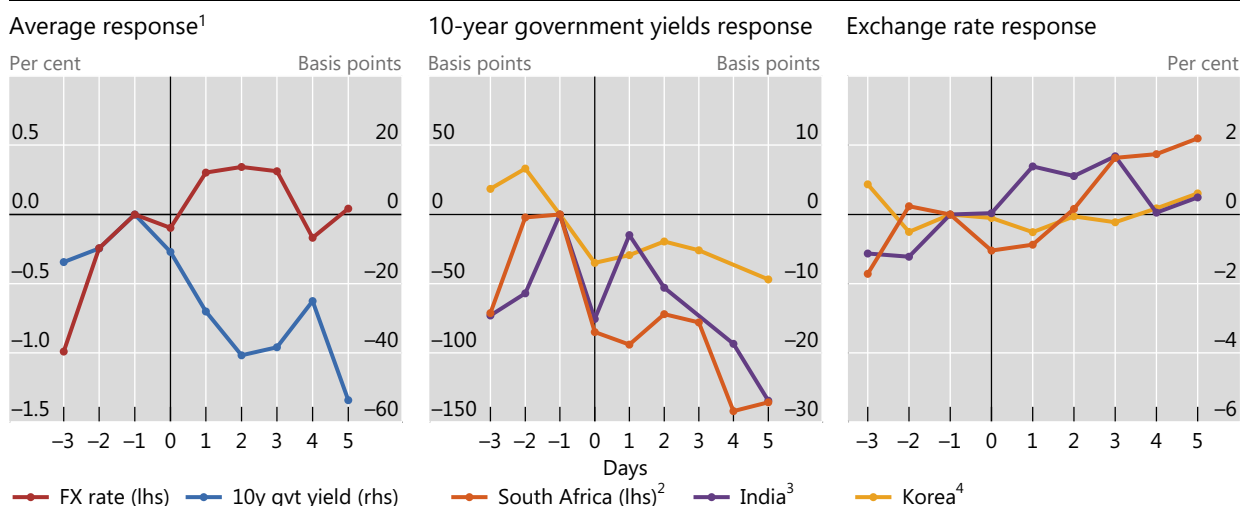
Sources: Central bank announcements; BIS.

Market reactions

To gauge initial market reactions to recent BPPs in EMEs, we use an event study approach. We look first at daily data and then use a high-frequency analysis to more cleanly identify the immediate impact. In the online appendix, we show that the results also hold in formal panel regressions controlling for various confounding factors.

Announcements reduce yields with little effect on exchange rates

Graph 2



Responses calculated as the cumulative difference (10-year yields) or growth (FX) relative to the day prior to the announcement. Day zero is the day of the announcement. An increase in the exchange rate denotes an appreciation of the US dollar.

¹ Simple average of the responses for announcements that did not coincide with interest rate changes for Chile, Colombia, India, Indonesia, Korea, the Philippines, South Africa, Thailand and Turkey. ² Announced on 25 March 2020. ³ Announced on 20 March 2020. ⁴ Announced on 9 April 2020.

Sources: Refinitiv; BIS; authors' calculations.

Focusing on those announcements that did not coincide with a change in policy rates, we find that, on average, bond purchase announcements reduced benchmark bond yields in a significant and persistent way (Graph 2, left-hand panel, blue line). On the day of the announcement, 10-year yields fell by about 10 basis points. In subsequent trading days, yields fell further, by up to 50 basis points after five days. However, these longer-horizon effects are confounded by other domestic and global developments, as well as news on subsequent days, and should therefore be assessed with caution. When controlling for some confounding factors in a fully fledged panel regression (see online appendix), the estimated immediate announcement effect is very similar while the estimated negative effect after five days is somewhat smaller, at 25 basis points.

At the same time, the announcements appear to have shored up the exchange rate (Graph 2, left-hand panel, red line). The domestic currency's bilateral exchange rate against the US dollar (measured in local currency units per US dollar) depreciated on the days prior to the announcement by 1% on average. On the day of the announcement, this depreciation trend was interrupted. Exchange rates stayed flat in the five days following the announcements. These results also hold in a panel regression setup, as reported in the online appendix. The finding that the announcements interrupted depreciation trends suggests that the measures have helped to restore the confidence of international investors.

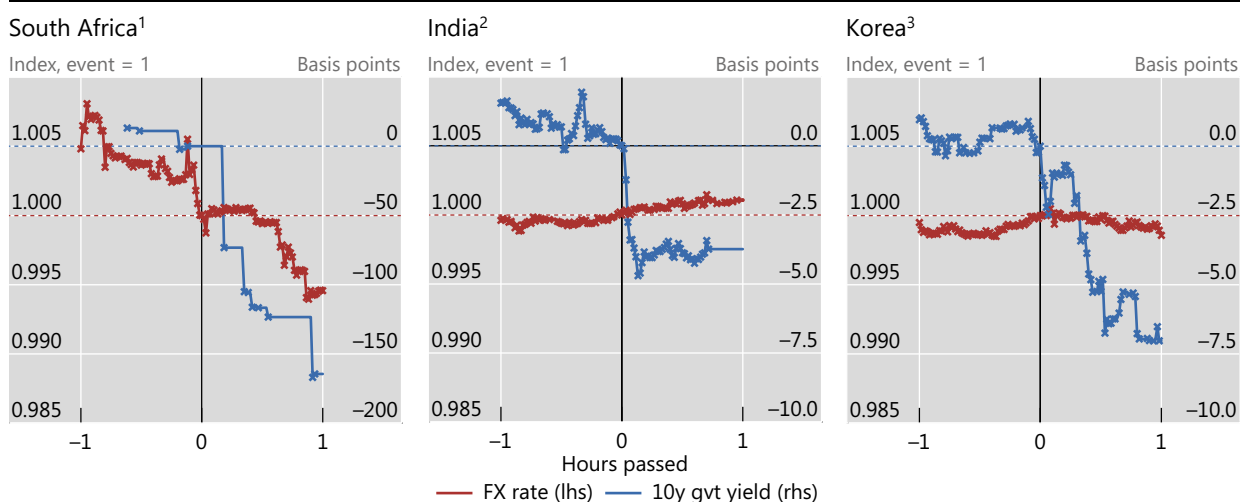
We next focus on specific BPP announcements in Korea, India and South Africa (Graph 2, centre and right-hand panels). Here, the respective bond purchase announcements did not coincide with interest rate decisions nor were other major central bank policy decisions announced on the same day. The results confirm those obtained when looking at the country averages, but also highlight large differences between

countries. In South Africa, 10-year bond yields dropped by 100 basis points on the announcement day. In India and Korea, the effects were smaller, but still considerable. Indian and Korean yields fell by 15 and 7 basis points, respectively, on the day of the BPP announcement (centre panel). At the same time, the bilateral exchange rate against the US dollar appreciated by 1% in South Africa and essentially remained unchanged in India and Korea on the announcement day (right-hand panel). In the subsequent days, all three countries registered further declines in their 10-year yields while the pattern of exchange rate dynamics was patchy. Yet, as mentioned before, these longer-horizon changes in yields and exchange rates after a BPP announcement are contaminated by other developments and news on subsequent days, and should therefore be interpreted with care.

Even the change of yields and exchange rates on the day of a BPP announcement may potentially be blurred by other news that came in on that same day. For better identification of the announcement effect, we conduct a high-frequency analysis for BPP announcements in Korea, India and South Africa. In these countries, the bond and FX markets are sufficiently liquid to track prices on an intra-day frequency. Specifically, we assess the impact of bond purchase announcements on the 10-year benchmark bond yield and on the bilateral exchange rate against the US dollar in a two-hour window around the time of the announcement.

High-frequency responses to bond purchase announcements

Graph 3



Exchange rates versus the US dollar are standardised to one, and 10-year government bond yields are standardised to zero at the time of the announcement. Crosses denote active quotes. An increase in the exchange rate denotes an appreciation of the US dollar.

¹ Announced on 25 March 2020. ² Announced on 20 March 2020 ³ Announced on 9 April 2020.

Sources: Refinitiv; authors' calculations.

The results of the high-frequency analysis confirm the insights from daily data. In South Africa, the announcement had a very large impact on bond yields and led to an appreciation of the currency (Graph 3, left-hand panel). In the hour after the announcement, 10-year yields fell by more than 150 basis points. At the same time, the South African rand appreciated by about 1% against the US dollar. In India and Korea, the effects are considerably smaller. Indian yields dropped by 5 basis points initially, while they fell in Korea by about 7 basis points in the wake of the announcement. The exchange rate remained essentially unaffected in both countries.

The difference in market reactions between countries may reflect a confluence of factors. For one, they may proceed from different initial conditions. In the weeks prior to the announcement, the 10-year bond yield increased by more than 400 basis points in South Africa, but by less than 50 basis points in the other countries. Another factor is the role of foreign investors. Compared with India and Korea, South Africa has a much larger foreign investor participation in its local currency bond market, which might have

increased the effect of the confidence-restoring signalling effect of the BPP announcement. Finally, the packages differed in size. The Korean and Indian BPPs were relatively small while the size of South Africa's programme was not specified. The strong market reactions to the latter may indicate that the programme's lack of specifics may have led some market participants to interpret it as potentially large, reflecting the central bank's determination to support market functioning.

Conclusions

Our analysis suggests that the measures did indeed help to stabilise bond markets when they were announced. But the actual market impact varied widely between countries, indicating an important role for initial conditions as well as for how the measures were designed and communicated. The lessons learned will be important for the further development of bond purchase tools in future EME policy frameworks.

Market reactions do not suggest that the launch of the new measures gave rise to perceived risks of fiscal dominance or large-scale monetary easing, which would have pushed bond yields up and exchange rates down, in contrast to actual developments. The absence of such effects probably reflects the clearly defined scope of the programmes, which explicitly aimed at restoring confidence in markets rather than at providing monetary stimulus, let alone the monetary financing of fiscal deficits. That said, by serving to contain the rise in bond yields, the measures also provided useful support to EME economies during the pandemic shock.

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