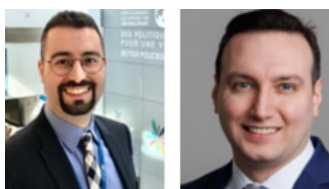


Fear (no more) of Floating: How emerging market central banks avoided a currency meltdown during the pandemic despite purchasing local-currency assets*

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Keywords: Asset purchases, exchange rate, conventional monetary policy.

JEL codes: E62, E63, G21.

We assess whether central bank asset purchases of local-currency government bonds in emerging-market economies (EMEs) could help absorb the government bond sell-off by foreign lenders during periods of financial distress, allowing conventional monetary policy to remain focused on price and output stability. To this end, we use an estimated small open economy macroeconomic model with a banking sector facing currency mismatches. We find that EME central banks' local-currency asset purchases ease financial conditions and increase commercial banks' external borrowing capacity. They therefore mitigate the impact of government bond sell-off shocks, which are amplified by financial market developments, by reducing private sector capital outflows and the associated currency depreciation. The resulting limited increase in inflation increases the scope for conventional monetary policy and reduces the fear of floating. Our study sheds light on why exchange rates in EMEs remained stable following the unprecedented asset purchase announcements by EME central banks during the COVID-19 crisis.

*The views expressed are those of the authors and do not necessarily reflect those of the ESM or the OECD. The usual disclaimer applies.

Monetary policy has often been procyclical in many countries to curb inflation and the effects of currency depreciation on balance sheets. The ensuing fear of floating exists even though *de jure* exchange rate regimes endorse currency fluctuations as a shock absorber (Calvo and Reinhart, 2002; Kaminsky et al., 2005; and Cordella et al., 2014). In a recent paper (Mimir and Sunel, 2023) we provide a framework on central bank asset purchases to investigate if such interventions could leave room for manoeuvre on conventional monetary policy in emerging-market economies (EMEs) to accommodate capital outflows and mitigate the fear of floating.

Asset purchases by EME central banks: An unprecedented experiment

In response to financial market strains in the wake of the pandemic, EME central banks deployed several measures, including liquidity support, foreign currency interventions and swap lines. Some EME central banks have also launched asset purchase programmes – for the first time since the adoption of inflation targeting frameworks in the late 1990s – in response to the massive government bond sell-off during the initial months of the COVID-19 crisis. For example, Brazil, India, Indonesia, South Africa, Thailand, and Türkiye engaged in asset purchases with a particular focus on government bonds. In the case of Chile and Colombia, central banks even purchased local-currency bank bonds. These purchases, while often small compared to those of major advanced economies, were effective in restoring financial stability, guided price discovery and curbed further surges in local benchmark bond yields. Overall, bond purchases by EME central banks remained limited in 2021.

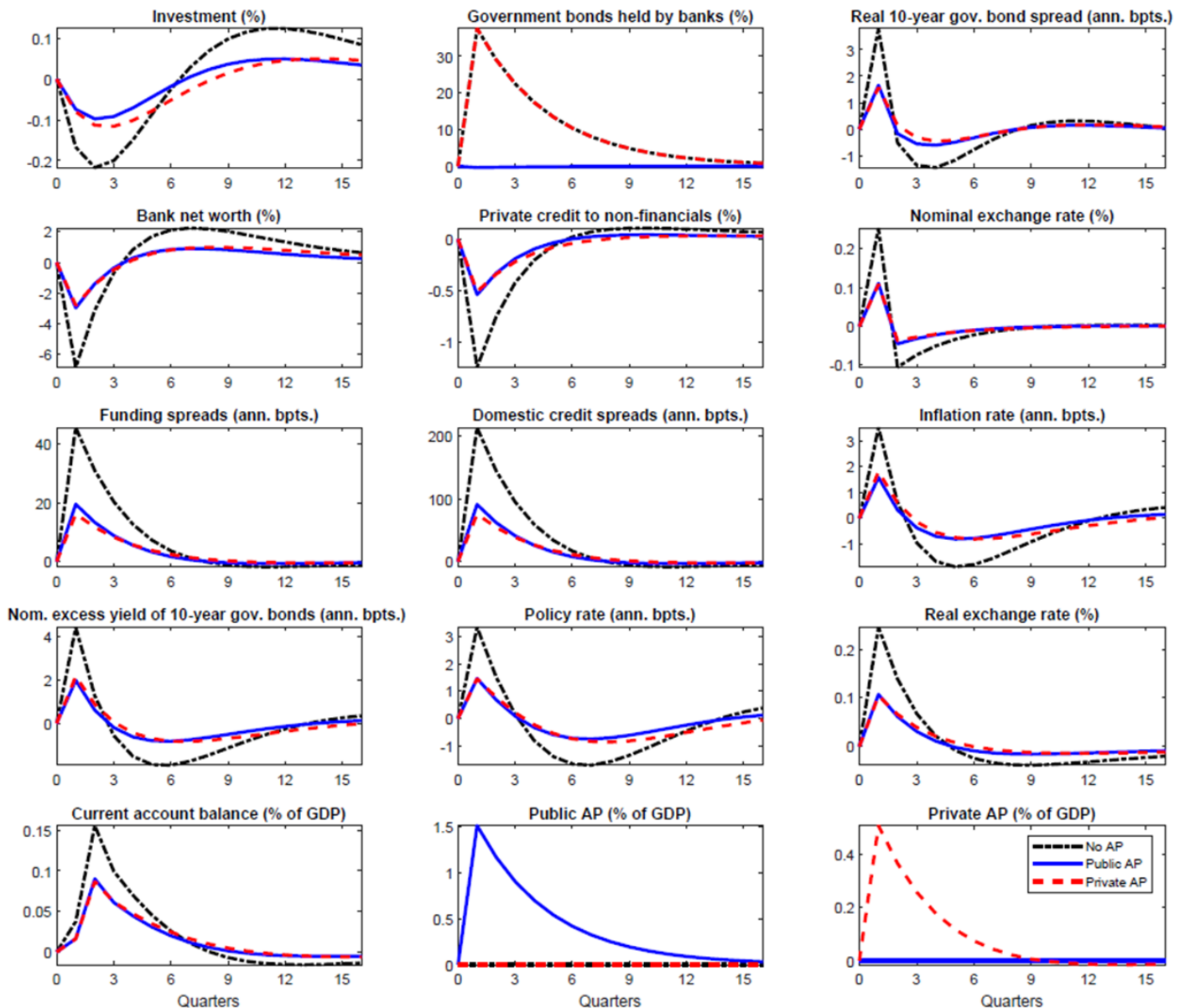
Looking at currency mismatches to understand the mechanism of asset purchases

We assess the efficacy of central bank asset purchases in EMEs in a small open economy environment with a bank-based financial sector. Banks collect local-currency deposits from households and foreign-currency funds from foreign lenders. Banks then make local-currency denominated loans to producers of intermediate goods and to the government by purchasing local-currency, long-term government bonds. These latter bonds are also held by non-resident investors, who could sell off these assets and at a faster pace under rising country risk premia. In this kind of setup, government bond purchases by the central bank on the secondary market can compensate for the market dislocation from bond sell-offs by foreign investors.

How sovereign bond sell-offs by foreigners can shackle the domestic financial system

We show that the exposure of EME sovereigns to foreign investors can tighten overall financial conditions when foreign lenders sell off government bonds of these countries during a stress episode (dotted dashed lines in Figure 1). If the central bank does not undertake asset purchases, domestic commercial banks absorb the bonds sold off by foreigners, which pushes down their price and raises the excess yield on sovereign bonds over US interest rates. This crowds out bank credit to non-financial firms, bids down private firm bond prices and leads to a widening of intermediation margins. Hence, the external bond sell-off shock has adverse spillover effects on domestic financial conditions. The foreign borrowing capacity of domestic banks is hindered by their weaker balance sheets due to depressed asset prices, exacerbating the initial net capital outflows from the sovereign bond sell-off. The ensuing depreciation of the currency raises import prices and passes through to aggregate prices, inducing conventional monetary policy to tighten to stabilise inflation.

Figure 1: Asset purchases counteract bond sell-off shocks



Note: Impulse-response functions of selected model variables to an orthogonal bond sell-off shock of 1.5% of GDP. Deviations from the steady state. Public asset purchase policy rule is calibrated to ensure that the central bank entirely makes up for bonds sold by foreign investors (1.5% of GDP at the peak). Private asset purchase policy rule positively responds to domestic credit spreads and is calibrated to imply asset purchases that match the decline in private credit as a share of GDP. Funding spread is the positive UIP deviation beyond country risk premium. Increases in the exchange rate denote depreciation. Real government bond spread is over domestic deposit rate. Nominal excess yield is over the US short-term rate.

Central bank bond purchases can help restore financial stability in times of acute market distress

We find that central bank bond purchases could address the market dislocation so that commercial banks are no longer required to absorb the bond sell-off by foreign investors (solid lines in Figure 1). This would limit the crowding out of credit to firms and the collapse in sovereign bond and non-financial corporate bond prices. Stronger asset prices would in turn reduce the tightening of financial conditions as measured by excess bond yields and loan-deposit spreads. Stronger private domestic bank balance sheets would provide better foreign-borrowing prospects for banks, limit capital outflows, reduce currency depreciation and create room for manoeuvre for monetary policy. Private asset purchases bring about a similar degree of stabilisation in response to the bond sell-off shock (dashed lines in Figure 1). In this case, the total credit base expands with central bank purchases of firm securities and commercial banks' utilisation of the safe asset role of government bonds is preserved.

Should asset purchases be used to manage aggregate demand in EMEs?

Although potentially useful in extreme stress episodes, central bank bond purchases in EMEs are not always effective. Firstly, high-frequency estimates suggest that asset purchases during the pandemic resulted in only short-lived reductions in bond yields (Arslan et al., 2020; Fratto et al., 2021; Hartley and Rebucci, 2020; IMF, 2020; and WB, 2021). Indeed, by using an estimated version of our model, we show that the level of bond purchases in EMEs observed during the pandemic was not large enough to bring a sizeable and persistent easing of financial conditions (second row of Table 1 named as “Public QE”). On the other hand, when public bond purchases by the central bank are counterfactually increased to the levels observed in large, advanced economies during the pandemic, the central bank could have reduced excess government bond yields in a statistically significant manner (third row of Table 1 named as “Aggressive Public QE”). In addition, the 6-day average bond yield compression of more than 20 basis points in EMEs as estimated by the IMF (2020) could have survived a full quarter only if public (private) asset purchases had been as large as 21% (11%) of GDP, which is arguably untenable for EMEs (the last two rows of Table 1). This leads to the policy implication that asset purchases by credible emerging-market central banks can be useful to guide price discovery in times of stress but the degree of its effectiveness depends on the size of the purchases. Moreover, deploying asset purchases to systematically manage aggregate demand is likely to hinder central bank credibility in EMEs as it requires sizable asset purchases. Secondly, if bond purchases lead to a de-anchoring in inflation expectations, we find that they bring a smaller reduction in real excess bond yields while leading to higher and more persistent inflation. Finally, a larger central bank balance sheet, especially if not scaled down once domestic financial conditions normalise, could elevate fiscal dominance risks, and raise concerns that investors perceive future monetary policy tightening as less likely because of the potential for central bank losses on bond holdings.

Table 1: The implications of baseline and alternative EME central bank asset purchases in response to the COVID-19 shock

	(1)	(2)	(3)	(4)	(5)	(6)
	Excess LC government bond yields	Real exchange rate	Monetary policy rate	Asset purchases	Inflation	Investment
2020Q2	Annualized basis point change	% change	Annualized basis point change	% of GDP	Annualized basis point change	% change
No QE policy	93 [87,98]	2.8 [1.3,4.3]	-118 [-163,-74]	<i>n.a.</i> <i>n.a.</i>	-201 [-320,-81]	-16.7 [-20.1,-13.2]
Public QE ^a	92 [86,97]	2.7 [1.3,4.3]	-119 [-164,-74]	1.3 [1.3,1.3]	-202 [-321,-82]	-16.6 [-20.0,-13.2]
Aggressive public QE	80 [75,85]	2.3 [0.8,3.9]	-127 [-172,-81]	8.4 [8.3,8.6]	-212 [-332,-89]	-16.3 [-19.8,-12.9]
Aggressive private QE	80 [75,85]	2.1 [0.7,3.7]	-127 [-172,-82]	6.8 [6.7,6.8]	-212 [-330,-91]	-15.3 [-18.8,-11.9]
Aggressive public QE ^b	72 [66,75]	2.0 [0.4,3.6]	-133 [-179,-87]	21.0 [20.1,21.3]	-220 [-341,-97]	-16.0 [-19.4,-12.6]
Aggressive private QE ^b	72 [67,77]	1.8 [0.3,3.3]	-133 [-177,-88]	10.2 [10.1,10.2]	-218 [-337,-97]	-14.4 [-17.9,-11.0]

Note: One quarter-ahead effects of adopting baseline and counterfactual asset purchase policies during the COVID-19 crisis. Changes relative to the HP-filtered trend at quarterly frequency. Increases in the real exchange rate denote depreciations. Asset purchases are as a share of steady state GDP. Ranges in square brackets are 90% confidence intervals. a) This row constitutes the baseline case and coincides with the cross-country averages of the actual data in 2020Q2. The remaining rows represent the outcome of counterfactual exercises. b) Asset purchase sizes in these rows are calibrated to match the 6-day average bond yield compression of 22 basis points in EMEs as estimated by the IMF (2020) report. ■

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