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Global tightening, banking stress and market resilience in EMEs

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Global tightening, banking stress and market resilience in EMEs

Market functioning in emerging market economies (EMEs) can easily be buffeted by spillovers from advanced economies. The taper tantrum is a prime example. So how did market functioning in EMEs evolve amidst the tightening cycles in major advanced economies that started in 2022? Were EME markets resilient when banking problems emerged in the United States and Switzerland in March 2023?

This paper addresses these questions. Before doing so it provides a brief review of the channels through which spillovers from tightening in advanced economies could affect market functioning in core FX and government bond markets in EMEs.

Spillover channels to market functioning

A well-functioning market is characterised by an effective matching of participants with diverse trading interests and by reliable price discovery (Markets Committee (2019)). This in turn requires the market to be both liquid and resilient. Adequate market liquidity allows market participants to trade in a timely manner, and for large amounts, without significant price impact. Market resilience implies that market participants can continue trading during periods of heightened financial stress or economic uncertainty, although potentially at higher costs.

The proximate causes of market functioning spillovers are generally some adverse developments that significantly affect exchange rates and capital flows. It is a sign of a well-functioning market that such developments are reflected in prices. But in market dysfunction episodes, initial negative developments are amplified by pre-existing vulnerabilities and through several, often reinforcing and overlapping, channels (see also Eren and Woodridge (2022)).

Traditionally, the key vulnerability for EMEs has been unhedged, short term foreign-currency borrowing. In the 1980s and 1990s, many EMEs experienced financial crises due to their heavy reliance on such borrowing. Since then, the risks emerging from this vulnerability have significantly declined as EME financial markets developed, governments and private sector institutions raised funds domestically and central banks and other supervisory agencies implemented prudent policies on local financial institutions. This led international investors to invest more in local-currency fixed-income markets.

More recently, other channels have been more important for driving spillovers from AEs to market functioning in EMEs. For one, balance sheet constraints can limit intermediation and liquidity provision, sometimes leading to asset fire sales and negative margin spirals. These constraints have been at the heart of recent market dysfunction episodes, such as the Covid-19 crisis or the LDI crisis in 2022. Moreover, first mover advantages that underpinned many fixed exchange rate crises have become prevalent in some investment funds, including in EME mutual funds, incentivising investors to “run for the exit” (see eg Claessens and Lewrick (2020)).

Herding has also been important during periods of EME stress, when investors indiscriminately withdraw from EMEs regardless of country differences.

The exchange rate channel plays a particular role for spillover dynamics to EMEs. Global investors evaluate their gains and losses in dollars (or in their own currency) while the assets they hold are denominated in the currencies of the EME borrowers. If these positions are (partially) unhedged, which is typically the case, unwelcome feedback spirals can arise (see eg Carstens and Shin (2019)).¹ More generally, the role of the dollar as a funding currency means that leverage often depends on dollar funding. In such a context, a large dollar appreciation can trigger risk limits, leading to asset sales or more hedging. And if the domestic investor base is thin, as is often the case in EMEs, this can put pressure on domestic-currency bond yields and liquidity, leading to further outflows and dollar appreciation. In general, a stronger dollar tends to be associated with tighter global dollar funding conditions, tighter balance sheet constraints for borrowers with dollar debt and diminished appetite for risk-taking more broadly.

The various channels are often mutually reinforcing and generate negative spillovers across markets and economies. For example, dysfunction in dollar funding or hedging markets can lead market participants to reduce liquidity provision to initially unaffected segments of the global financial system. Stress can also be amplified through “proxy hedging”, ie when investors do not sell the initially affected assets, but instead sell unrelated but more liquid assets in order to manage risk. This can be particularly true in EME countries that serve as regional “proxy” safe havens such as Mexico and South Africa.

Market functioning in EMEs in the 2022 tightening cycle

The 2022 global monetary tightening cycle stands out from an historical perspective. It is the most synchronised and (in nominal terms) strongest over the past fifty years. By February 2023, more than 95% of central banks had been raising their policy rates. Historically, this share rarely exceeded 50%, reaching 90% and 80% only in the 1970s. And central banks have (so far) raised nominal policy rates at about twice the historical pace. Several central banks have also accompanied steep interest rate hikes with a reduction in the size of their balance sheets.

To gauge the impact of this tightening on market functioning in EMEs, we compare developments in EME currency and fixed income markets in 2022 to two market dysfunction episodes in the last decade: the “taper tantrum” in May 2013 and the “dash for cash” in March 2020 (in short “market dysfunction episodes”).² Given measures are more readily available, we use market liquidity as the main gauge to assess market functioning in the analysis below.

¹ This channel was coined “original sin redux” by Carstens and Shin (2019). For a recent analysis see Hofmann, et al (2022).

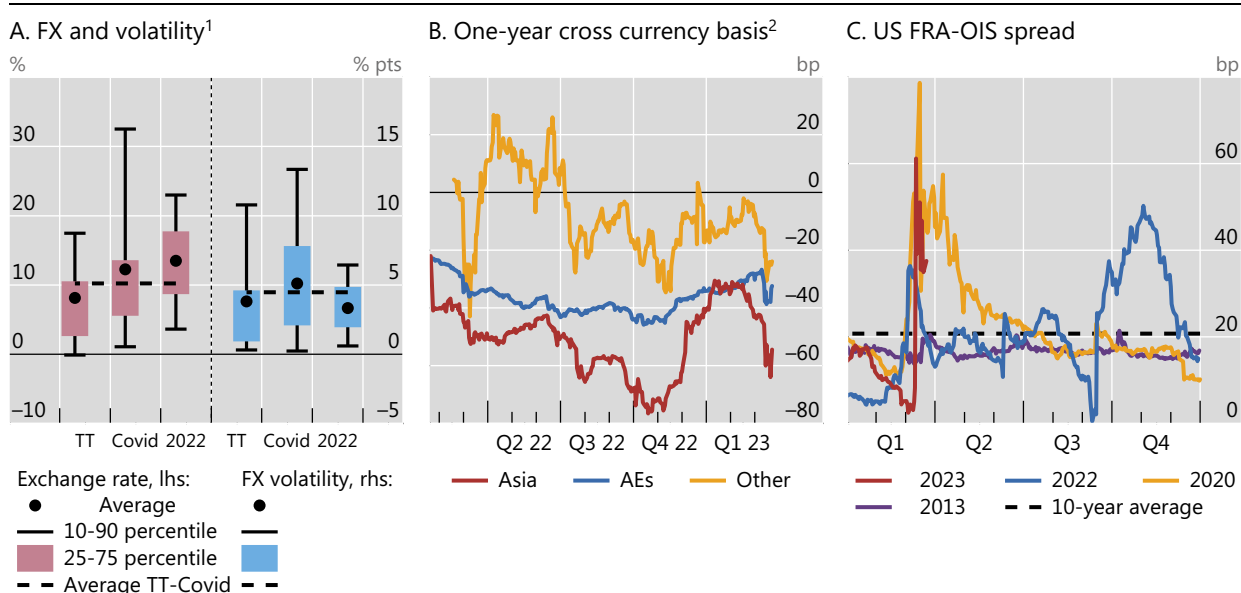
² The comparison is limited to these market dysfunction episodes mainly due to data limitations.

FX market developments

Compared to the other two market dysfunction episodes, EME currencies sold off more in 2022, but FX volatility was lower (Graph 1.A). The US dollar appreciated – and very rapidly so – in the early stages of the current cycle, reaching a peak in late October 2022. The pronounced EME currency depreciation occurred even though most EME currencies had not fully recouped the losses registered during the Covid-crisis. But the sell-off was not uniform. Some currencies, such as the Mexican peso, appreciated, while others, such as the Korean won, depreciated even more so than in previous dysfunction episodes.

Foreign exchange market developments

Graph 1



¹ Exchange rate movements measured as percentage changes against the US dollar for each country. FX volatility based on one-month implied volatility indices and measured as difference in percentage points. All changes are measured from peak to trough for each episode. TT=Taper tantrum. ² One-year cross currency basis swaps are averages for each region. Asia = Hong Kong, Malaysia, Singapore, South Korea, Thailand; AEs = Australia, Canada, Denmark, Eurozone, Japan, New Zealand, Norway, Sweden, Switzerland and the United Kingdom; and Other = Brazil, Chile, Colombia, Mexico, and South Africa.

Sources: Bloomberg; BIS.

The persistent strength of the US dollar in 2022 went hand in hand with tight liquidity conditions in dollar funding markets for EMEs as well as for AEs. Cross-currency basis swap spreads widened but with differences across currencies and regions (Graph 1.B). In Latin America, funding strains were less severe, reflecting for instance an excess dollar liquidity position in Mexico. But these market indicators pointed to more severe stresses in Asia, particularly in Malaysia and South Korea. Funding strains in some countries in Asia also reflected interregional competition for dollar deposits, which made it attractive for domestic exporters to keep dollar receipts in offshore centres. Basis swap spreads in the G-10 currencies also widened, only starting to narrow at the end of 2022. In addition, indicators of funding risk were elevated, with the US FRA-OIS spread widening to levels reached at the height of the Covid-19 crisis and well above the taper tantrum shock (Graph 1.C).

Compared to previous episodes, liquidity conditions in EME dollar funding markets were worse in 2022 than during the taper tantrum, but less severe than during the Covid-19 crisis. But the comparison to 2020 is not so straightforward. In 2022, liquidity deteriorated more gradually but poor liquidity conditions remained for longer, while the Covid-shock was abrupt and liquidity stress dissipated fairly quickly after the Federal Reserve expanded the liquidity swap line arrangements and established the FIMA repo facility (see eg Goldberg and Ravazzolo (2021)).

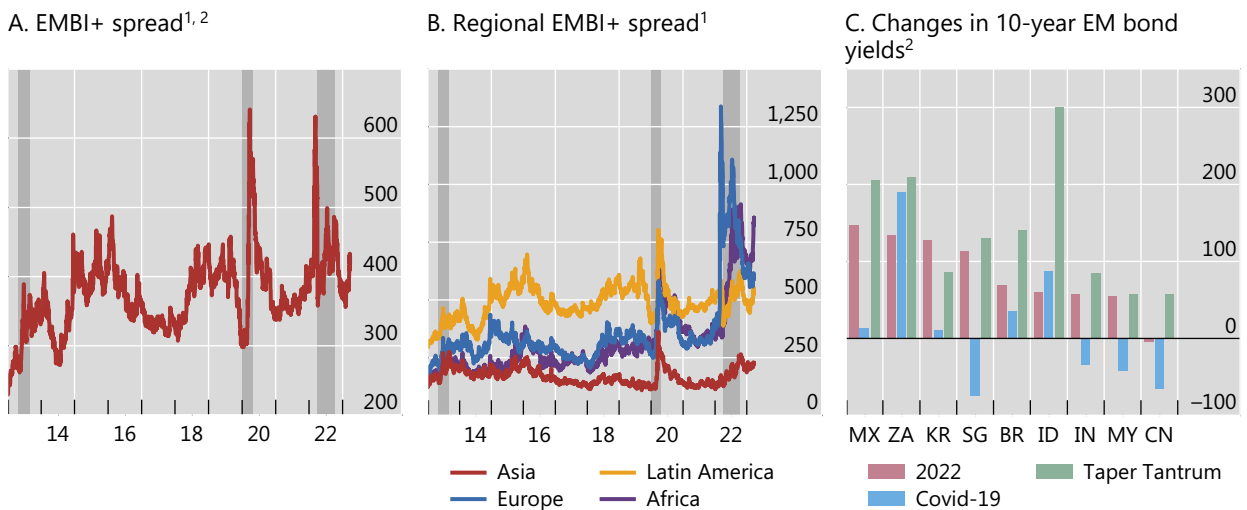
Fixed income markets in EMEs

In fixed-income markets, yields on EME foreign- and local-currency government bonds rose sharply during 2022 (Graph 2.A, B and C). While yields on ten-year nominal government bonds rose primarily because of risks related to inflation and policy normalisation, the initial spike during the first quarter also reflected investor concerns following the invasion of Ukraine by Russia. The increase in yields for local-currency government bonds was less severe compared to the taper tantrum shock, while outcomes were more mixed when compared to the Covid-19 shock. In the latter instance, EME bond yields in Asia declined overall, but rose notably in South Africa and Indonesia.

Yields on foreign- and local-currency denominated EM bonds rose sharply

In basis points

Graph 2



¹ JP Morgan EMBI+ aggregate and regional indices measure yield spreads between dollar-denominated EME sovereign bonds and US treasuries. ² The dates shown as shaded areas in Panel A and B and used to calculate the changes in yields for the three episodes in Panel C are: Taper Tantrum from 2 May 2013 to 3 September 2013, Covid-19 from 3 January 2020 to 24 April 2020 and 2022 from 1 April 2022 to 13 October 2022.

Sources: Bloomberg; JPMorgan; BIS.

Liquidity conditions in EME fixed-income markets deteriorated in 2022 and were, in most cases, worse than the pre-Covid era. Both volume- and price-based measures of bond market liquidity worsened significantly. A majority of EMEs saw for instance wider average bid-ask spreads and intraday trading ranges in 2022 compared to the pre-pandemic era (Graph 3.A).

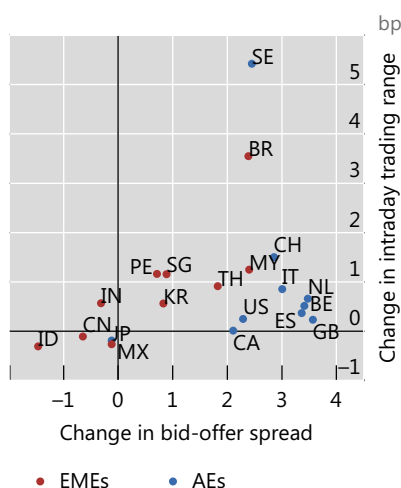
In some EMEs trading conditions deteriorated across the term structure and conditions languished, reflecting uncertainty about the path of policy normalisation and recession forecasts. There is evidence in some EMEs that large daily price gyrations persisted for longer, making trading conditions more challenging. This is in contrast with previous market dysfunction episodes, where liquidity strains lasted for relatively short periods.

Liquidity conditions in fixed income markets in 2022 were even poorer in AEs than EMEs. For instance, bid-ask spreads on 10-year generic bonds were wider in AE than EME bond markets (Graph 3.A). Moreover, the deterioration in EME bid-ask spreads was less severe than what was observed in the United States. Typically, bid-ask spreads are between 10 and 15 times higher in EMEs than in the United States (Graph 3.B). These ratios have since declined, indicating liquidity conditions in the United States deteriorated at a faster pace than in EMEs.

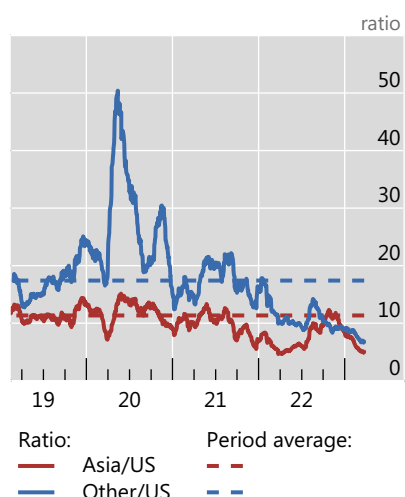
Liquidity deteriorated as non-residents reduced participation

Graph 3

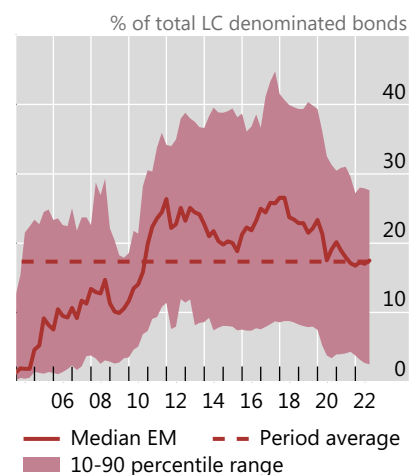
A. Bid-ask spread and intraday trading range (2022 versus 2019)¹



B. Ratio of EM to US bid-offer spread on 10-year generic government bonds²



C. Foreign investor holdings of EME government bonds



¹ Change in bid-ask spread and intraday trading ranges measured as the difference between averages for 2019 and 2022 for each country.

² One-month moving average. An increase (decrease) in the ratio indicates a faster (slower) increase in bid-ask spreads for EMEs relative to the US. Average is calculated since 2019. ASIA = China, India, Indonesia, Malaysia, Singapore and Thailand; Other = Brazil, Colombia, Mexico, Peru, South Africa and Turkey.

Sources: IIF; Bloomberg; BIS.

This deterioration in liquidity conditions reflected conjunctural as well as structural factors. For example, it can be argued that tight liquidity conditions, especially in major AEs, were generally commensurate with increased risk and uncertainty in 2022. EMEs also saw net capital outflows by non-resident investors and a lack of capacity by local market makers to absorb these.³ Non-resident investors had already steadily reduced their exposure to EME government bonds during the Covid-19 crisis (Graph 3.C), although not uniformly across all EMEs. The exit by non-

³ Idiosyncratic factors were also important for some EMEs, including sovereign rating downgrades and domestic politics.

resident investors removed an important source of demand for EMEs. In addition, the diminishing balance-sheet capacity of broker-dealers to participate in market making and increasing net-supply of government bonds also weighed on liquidity conditions in both AEs and EMEs. The role of QT in this regard is hotly debated.

Market functioning in EMEs amid stress in the AE banking sector

Core markets in both AE financial markets experienced renewed tension in March 2023, following stress in some parts of the global banking sector. Funding stress in the US banking sector, proxied by the spread between US FRA and OIS rates, increased, peaking at levels last observed during the Covid-19 shock (red line, Graph 3.C). Liquidity and trading conditions in AE bond markets were impaired. Bond market volatility was higher than any of the recent market dysfunction episodes and was only comparable to levels last seen in 2008 during the global financial crisis.⁴ Bond market liquidity also deteriorated, but not uniformly across and within AEs.

Stress spilled over to EMEs but less so than in previous episodes. Liquidity in dollar funding markets thinned. Cross-currency basis swaps spreads widened across all EMEs markets reaching or nearing the worst levels reached during 2022 (Graph 1.B). In fixed income markets, EME yields rose but less sharply than in previous market dysfunction episodes or in 2022 (Graph 2.A and B). And as in 2022, liquidity conditions in EME bond markets deteriorated but to a lesser extent than in the US (Graph 3.B), highlighting the overall resilience of these markets.

Market resilience and policy responses

Overall, core markets in EMEs were resilient to the global tightening cycle and the stresses emerging from banking problems in AEs. There was no widespread market dysfunction in 2022 or 2023. Nevertheless, liquidity conditions in FX and government bond markets deteriorated and were similar to, or worse than, during the previous market dysfunction episodes. But strained liquidity was a global phenomenon in both episodes in the context of elevated volatility and conditions were not materially worse in EME markets.

EME resilience seems to reflect a range conjunctural and structural factors. Domestically driven tightening cycles in EMEs played an important role in the evolution of EME financial conditions. For example, early tightening in Latin America afforded some flexibility to cope with AE normalization and unexpected global events such as the fallout from the geopolitical conflict between Russia and Ukraine. The resilience of regional currencies in Asia was also partly due to structural reforms

⁴ This is based on the MOVE Index – a yield curve weighted index of one-month implied volatility on US Treasuries.

implemented in recent years.⁵ And while low participation by non-residents at the start of 2022 contributed somewhat to tighter liquidity in fixed-income markets, it may have also moderated sensitivities of EME markets to global risk episodes, thus contributing to resilience.

Policy interventions also helped. During the Covid-19 crisis many central banks intervened heavily in fixed-income markets, which was hardly the case in 2022. Instead, many EMEs intervened last year in FX markets, and more so than in previous market dysfunction episodes. The interventions in 2022 included the provision of dollar liquidity either through the FX spot or derivatives market, drawing down on dollar credit lines and adjusting interest rates on FX term deposits to attract foreign capital. Some of these measures resulted in a reduction in FX reserves, especially significant in Asia. This helped to stabilize exchange rates, reduce potential increase in credit spreads and moderate capital outflows. This year, policy interventions by US and Swiss authorities helped to stabilise banks and ease concerns about a widespread bank liquidity crisis.

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⁵ See: Asian Consultative Council of the Bank for International Settlements (2022).

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