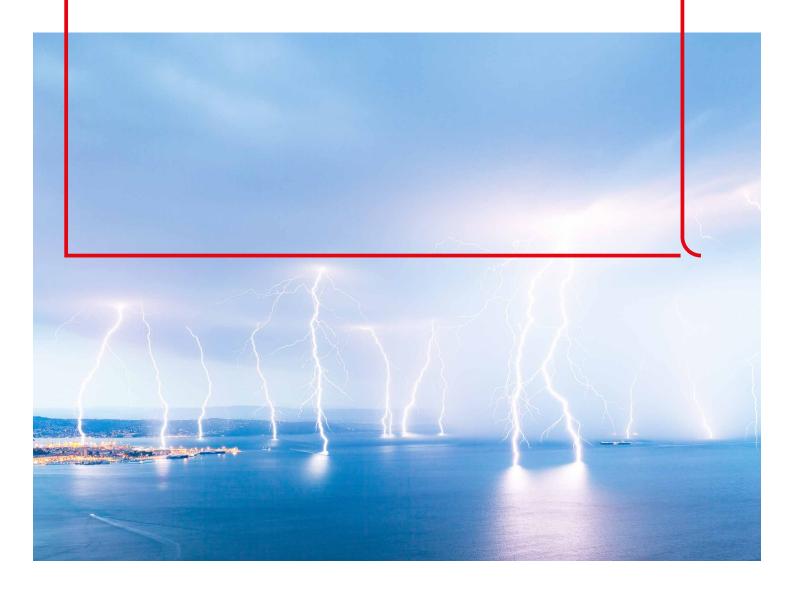


Brace for a long, stormy summer

Emerging markets fixed income – Q2 2022 UBS Asset Management



Emerging Markets Fixed Income Q2 2022 review and Q3 2022 outlook

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Authors

Emerging Market Fixed Income Team

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The views expressed are a general guide to the views of UBS Asset Management's Emerging Market Fixed Income team as of 5 July, 2022.

Market overview

EM hit by global inflation and fear of recession

- Emerging markets fixed income (EMFI) delivered negative total returns in Q2, mostly reflecting global risk aversion on high global inflation and fear of recession.
- Emerging market spreads widened, driven by high yield spreads, while rates and currencies (EMFX) sold off reflecting significantly higher global rates and a stronger US dollar.
- Emerging market asset performance during the third quarter of 2022 is likely to continue to be influenced by high inflation, fear of recession and lack of direction by developed markets (DM) central banks.

Emerging markets fixed income showed negative total returns across most asset classes during the second quarter of 2022. Sovereign (corporate) credit spreads as measured by the EMBIGD¹ (CEMBID²) widened by 142 bps (76bps) in Q2 to 542 bps (393 bps) generating a -7.25% (-3.55%) spread return (inclusive of carry). The US Treasury (UST) yield curve sold off aggressively while flattening further, with the 2-year,10-year and 30-year yields selling off 62 bps, 67 bps and 74 bps respectively. These US Treasury (UST) yield moves detracted significantly from total credit return performance.

Local returns (as measured by the GBIEMGD³ Index) were also negatively impacted by higher global rates and a stronger USD. On top of the negative impact of global rates, higher global food and energy prices kept inflation higher, forcing EM central banks to tighten monetary policy beyond Q1 expectations. Higher rates in EM could not offset the impact of global uncertainty and a stronger US dollar on emerging market currencies which returned -6.49% in Q2. In all, the local index returned -8.63% in Q2.

Most of the negative returns occurred in April and June, reflecting muddled communication from DM central banks, worse-than-expected inflation prints and signs of slower economic activity amidst tighter financial conditions.

Q2 2022 returns⁴

	Total return	Spread return	US Treasury return
JP Morgan EMBI Global Diversified	-11.43%	-7.25%	-4.51%
JP Morgan CEMBI Diversified	-6.02%	-3.55%	-2.56%

	Total return	Currency return	Local debt return
JP Morgan GBI-EM Global Diversified	-8.63%	-6.49%	-2.29%
JP Morgan ELMI+	-4.57%	-5.78%	1.29%

Source: Data as of 30 June 2022. Bloomberg Finance.

Past performance is not a reliable indicator of future results.

- 1 As measured by the JP Morgan Emerging Market Bond Index Global Diversified index.
- 2 As measured by the The JP Morgan Corporate Emerging Markets Bond Index Global Diversified index.
- 3 As measured by the JP Morgan Global Bond Index Emerging Markets Global Diversified
- 4 EMBI = Emerging Markets Bond Index. CEMBI = Corporate Emerging Markets Bond Index. GBI-EM = Government Bond Index Emerging Markets. ELMI = Emerging Local Markets Index. The table shows total returns of US dollar and local currency debt plus their return components. The US dollar debt return components: Spread return results from the yield difference between emerging markets debt and US treasuries and from spread movements. US treasury return results from US treasury yield movements. Local currency debt return components: Local debt return results from yield movements and coupons of the underlying bonds in local currency. Currency return results from exchange rate movements.

Outflows met with net negative issuance

According to the latest J.P. Morgan survey, emerging markets fixed income saw outflows of USD 33.3 billion in Q2, after recording USD 14.7 billion of outflow in Q1 2022. Sovereign and corporate credit saw outflows of USD 14.4 billion in Q2, compared to the USD 11.4 billion outflow in Q1, while local emerging markets (currency and rates) saw outflows of USD 18.9 billion in Q2 after seeing outflows of USD 3.3 billion in Q1.

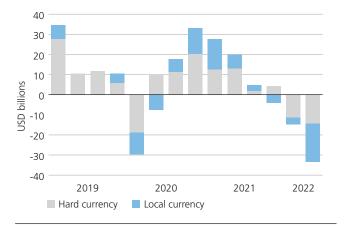
Emerging markets debt issuance further slowed in Q2, while supply continued to be led by investment grade credits. Sovereign and corporate issuance in Q2 2022 reached USD 19.5 billion and USD 56.5 billion respectively. Amortization and coupon payments reached USD 31.9 billion for sovereigns and USD 139.4 billion for corporates, leading to net negative supply in Q2 2022.

Geopolitical uncertainty will remain elevated

It has been more than four months since the Russian army invaded Ukraine expecting a quick victory. Unable to take Kyiv, Ukraine's capital, Putin has redirected the Russian army towards the Donbas region to the east of the country, with the aim of securing it while building a dry bridge to Crimea and is now involved in what seems to be a long and costly war of attrition.

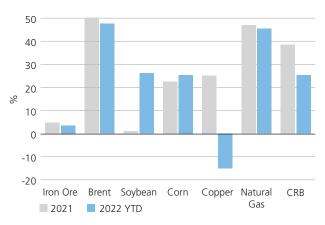
The Russian invasion of the Ukraine backfired on Russia as it united the West. Europe and the US are helping Ukraine with weapons and financing while the European Union has approved a path for Eurozone membership to Ukraine. Furthermore, Russia revived the dormant North Atlantic Treaty Organization (NATO), with Finland and Sweden joining NATO in late June. Both would not have happened in the absence of the attack. Furthermore, at the Madrid summit in late June, NATO laid out plans for the next decade which included deploying hundreds of thousands of troops to Europe's eastern border with Russia, increasing military expenditure and finally naming Russia a "direct threat" to the alliance security. It seems that the world is back to the cold war framework. As Yuni Kim and Juha Seppala describe later in this report, the war has also had disruptive impact on commodity markets and prices.

Exhibit 1: Highly negative Quarterly Flow (US \$bn)



Source: JP Morgan, UBS Asset Management, as of 30 June 2022.

Exhibit 2: 2022 YTD Commodities price change (%)



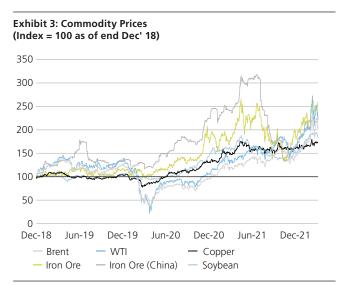
Source: Bloomberg Finance, UBS Asset Management. As of 30 June, 2022.

The invasion also exacerbated relations between the West and China. Right before the invasion, China and Russia expressed that there were no limits to their partnership and its anti-US alignment, and it did not change its stance after the invasion. Moreover, the issue of Taiwan's status continues to be a source of uncertainty, after President Biden's statements that appear to break with decades of the policy of strategic ambiguity. The Department of State later clarified the US position: "...we oppose any unilateral changes to the status quo from either side; we do not support Taiwan independence; and we expect cross-Strait differences to be resolved by peaceful means. We continue to have an abiding interest in peace and stability across the Taiwan Strait. Consistent with the Taiwan Relations Act, the United States makes available defense articles and services as necessary to enable Taiwan to maintain a sufficient self-defense capability..." Nonetheless, the Taiwan issue has further deteriorated US-China relations. Furthermore, at the Madrid summit, NATO not only invited Japan and South Korea as special guests but also named China a "systemic challenge" to the alliance. China has warned the US against building a version of NATO in Asia. In all, the Russian invasion of the Ukraine has generated or revived important global geopolitical issues that will keep uncertainty elevated in the future.

China between lockdowns and stimulus¹

The COVID-19 outbreaks and China's dynamic zero-COVID policy hurt China's growth in Q2 as Shanghai and Beijing were stuck in lockdowns. The impact of lockdowns appeared to be more pronounced on the demand side (services), but milder on production side (construction). Since Shanghai and Beijing ended their lockdowns and gradually begun to reopen in late May, market sentiment has improved, and economic data has surprised on the upside. This confirms that growth may have bottomed, and the economy is recovering, albeit at a subpar pace. Given the high base effect and weak demand pressures, China continued to be immune to high levels of inflation in much of the rest of the world.

Amid the weak economy backdrop, policymakers did not change China's annual growth target of 5.5%. Instead, they announced a wide range of policy stimulus initiatives, including on the fiscal, monetary, credit and property sides in order to stimulate economic growth. On the monetary policy side, the People's Bank of China (PBoC) delivered a 25 bps RRR (Reserve Requirement Ratio) cut, a 15 bps cut on 5-year LPR (Loan Prime Rate), 10 bps cut on the lower band



Source: Bloomberg, UBS Asset Management, as of 30 June 2022.

Source: Bloomberg Finance, as of 30 June 2022.

Exhibit 4: China manufacturing PMIs (Index, sa)

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47

45

Feb-21 May-21 Aug-21 Nov-21 Feb-22 May-22

— NBS — Markit

¹ This section was written by Yunxi Liu.

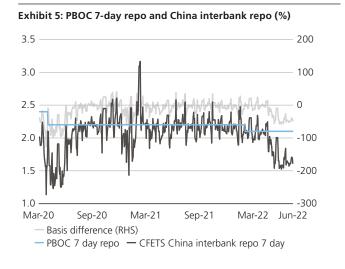
of mortgage rate, maintained low interbank funding costs, encouraged banks to lower their deposit rate, and provided reloans to COVID-hit industries include coal, logistics and SMEs. On the fiscal side, major policies include frontloading LGSB (local government special bond) issuance, providing additional value-added tax (VAT) credit rebates, providing fiscal subsidies to boost durable goods consumption and automobile, postponing social security's tax payment, and offering RMB 800billion in policy bank support for infrastructure spending, among other measures. Support policies also targeted the new economy, property, LGFVs (local government financial vehicles) and internet platforms.

Looking into Q3, we expect growth to recover gradually and CPI to approach 3%. On the policy front, markets' key focus would be more fiscal stimulus and new fiscal policy tools (such as special CGB, adjust fiscal deficit ratio, etc.) to boost the economy. On the monetary side, we expect the PBoC to continue to maintain an accommodative monetary stance coordinated with the planned fiscal stimulus. We expect funding costs to increase gradually as the economy and demand for credit recovers, but we expect funding costs to remain lower than normal levels. Under our base case scenario, we expect China 10-year yields to continue to sell-off. We also expect credit spreads to sell-off as the yield on government bonds widen. On the currency side, we expect the currency to depreciate further on higher global rates, as the Fed and ECB hike rates.

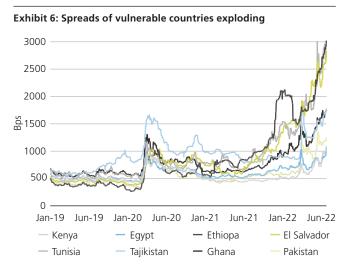
The socio-political impact of the pandemic and the war

In our view, the pandemic had a profound impact on EM countries. The substantial progress achieved over two decades on poverty alleviation and standards of living was lost during the pandemic. Furthermore, as the pandemic was subsiding, Russia's invasion of Ukraine brought an additional negative shock on EM: Higher food and energy prices. Initial conditions in EM were weak post-pandemic and the food and energy shocks not only generated higher inflation and weaker economic performance but an imminent risk of hunger and/or starvation in several countries.

EM populations were already unsettled with the lockdowns and economic hardship brought by the pandemic and were already making their views known by ousting governments, in many cases going for new extreme left- or right-wing populists ones. This socio-political dynamic is worrisome not only for political stability but also because economic performance is unlikely to improve under these circumstances. Additionally, it could mean that the most vulnerable food and energy importers in EM could be forced to restructure their external obligations. Markets have started to reflect this and spreads in certain high yield countries have widened to levels that reflect a distinct risk of restructuring (see feature section on 'High food and energy prices').



Source: Bloomberg Finance, as of 30 June 2022.



Source: Bloomberg Finance, JP Morgan, as of 30 June 2022.

Persistently high inflation in Q2

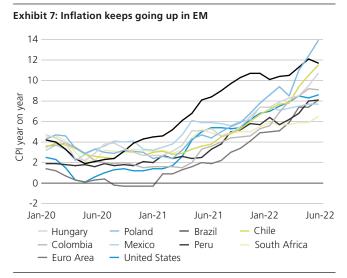
Contrary to central bank expectations, inflation did not slow down in Q2 2022. This was not only the case in EM, which was further impacted by higher global energy and food prices, but most notably in DM where it became evident that the narrative on higher inflation being transitory had faded. As in Q1, inflation prints in Q2 were higher than expected almost everywhere (including low inflation systemic countries like China and Japan) and did not show signs of peaking as many policy makers had expected.

The continuance of the shocks experienced in Q1, including the Russian invasion and COVID-19 driven lockdowns in China (which kept supply chains under stress) explain a good portion of the stickiness in inflation. In all, Q2 DM inflation showed similar dynamics than in Q1: It remained at levels not seen since the 1970s. In EM, inflation was boosted by globally higher food and energy inflation. Inflation in Latin America continues to be very high, forcing central banks to hike further. Inflation in EMEA picked up dramatically in Q2 reaching 15.6 % (10.7 %) in Poland (Hungary) from 11.0% (8.5%) in Q1. Turkey's unorthodox monetary policy to cut interest rates to lower inflation, resulted in a jump in inflation to 71.7% in Q2 from 54.8% Q1.

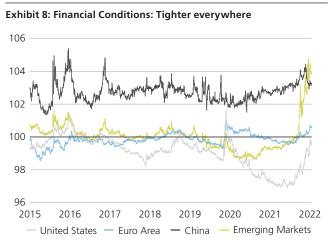
DM central banks look for direction in markets

After hiking a mere 25 bps in Q1, FOMC members started to issue increasingly hawkish statements as inflation failed to stabilize. Markets quickly priced in those expectations, and in early May the Fed hiked its policy rate by 50 bps to 1%. Also, April inflation (released in mid-May) showed inflation declining somewhat, giving markets a reason to hope that perhaps inflation was finally stabilizing. US equity markets and UST yields rallied while the US dollar weakened.

A debate about the persistence of inflation and the stance of the Fed ensued but market talks about potentially higher rate hikes in the future (75bps) were quickly dismissed by chairman Powell. Then the May inflation and inflation-expectations release on June 10th came higher than expected. Future markets quickly started to reflect the 75 bps hikes in June with talks of an even higher 100 bps path been the appropriate strategy. After insisting for weeks that 50 bps was the preferred path and after dismissing 75 bps or higher hikes as unnecessary, the FOMC proceeded to hike rates 75 bps to 1.5% on June 15th (by then fully priced in by markets) followed by a dovish statement by Chairman and Powell and a repeat by FOMC members that their future rate strategy continues to be "data-dependent" and that 75 bps hikes in the future were unlikely.



Source: UBS Asset Management, Macrobond, as of 30 June 2022.



Source: Goldman Sachs, Bloomberg Finance, UBS Asset Management, as of 30 June 2022.

The Fed is not alone in their search for a way to control inflation with minimum macroeconomic disruption. Europe suffered a severe energy shock from the invasion of Ukraine by Russia, and energy prices have skyrocketed (yet core inflation in Europe is much lower than in the US) pushing inflation to high levels. Furthermore, If Russia were to cut gas supply, Europe would most certainly experience a recession. Back in March, the ECB surprised markets with a (welcome given high inflation) hawkish stance when they announced their strategy for normalizing monetary conditions. However, they grew worried about the impact of such normalization on periphery spreads, after the 10-year Italian bond yield widen to 4% in June from 2% in March (for background, Italian inflation is running at almost 8%). As a result, the ECB called an emergency meeting on June 15th to address the recent divergence in rates across Europe and created a new "anti-fragmentation" tool, by which it presumably would buy periphery bonds and either sell core bonds or sterilize the impact on monetary aggregates. As with the Fed, the ECB is worried about an undue and uneven tightening of financial conditions in the Euro area and has shown that it is willing to react promptly to this data.

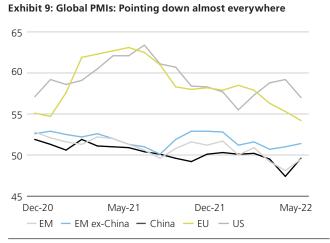
The Bank of Japan (BoJ) continues to be the lone wolf in the world of DM central banks. Despite severe market pressure on the Japanese yen (which weakened by 11.4% against the US dollar in Q2) and substantial speculation against JGBs yields, the BoJ kept its extremely accommodative monetary policy stance unchanged at its June 16th meeting and kept its policy-balance rates at -0.10% and the 10-year JGB yield target at 0% +/-0.25% under the yield curve control policy.

Headline inflation in Japan rose to 2.5% in May (1.2% in March), but core inflation at 0.9% (-0.4% in March) is still below the 2% target. Higher commodity prices and currency depreciation is having an (apparently welcomed) impact on inflation. It may take a lot more currency depreciation to convince the BoJ it is time to reset the JGB yield range.

Data-dependent strategies leads to higher uncertainty and volatility

The fact DM central banks are taking their cues from markets will likely keep macro uncertainty and financial volatility elevated in coming months. DM central banks looking at financial conditions before making their next move (regardless of current inflation) could exacerbate inflation expectations and result in stagflation and the need for a hard landing to bring inflation expectations back in line.

In the US for example, inflation continues to be 4x above the target, and will remain above it until 2024 according to their own projections. Furthermore, labor markets continue to be extremely tight with unemployment at decade-record lows. Not surprisingly a debate about the possibility of a soft-landing scenario, one where inflation converges to target without the need for a substantial increase in unemployment, versus the need for a recession to lower and stabilize inflation expectations has ensued. Some have even ventured to portrait a scenario of recession accompanied by persistently high inflation, not unlike what dedicated investors have grown accustomed to in EM.



Source: Macrobond, UBS Asset Management, as of 30 June 2022.

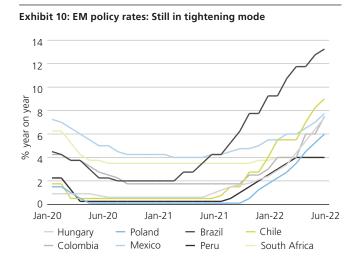
The Fed economic projections clearly indicate that a soft-landing is their base case. Market participants are divided on the issue but have started to worry about a slowdown in economic activity. Furthermore, the Fed has indicated they are carefully watching financial conditions (the data-dependency trap) and hinted that if those financial conditions were to tighten too much, they may reassess the policy stance, perhaps regardless of inflation dynamics.

Hence the Fed (and the ECB) is essentially taking their guidance from markets instead of providing a guidance to markets. This strategy is likely to keep policy uncertainty higher than otherwise and financial volatility elevated in months to come, because it could increase the probability of a policy mistake. Unfortunately, higher uncertainty and volatility is in general not conducive to good financial performance of riskier assets including EM.

A longer tightening cycle in EM

EM central banks started to tighten early as imported inflation (food and energy) and the depreciation of their currencies started to show up in 2021. However, protracted commodity shocks have extended the hiking cycle beyond earlier expectations. Most central banks have been forced to tighten for longer in the face of persistently high inflation.

Brazil, for example, has been hiking rates since March 2021, for a cumulative 1,125 bps to 13.75%. Nonetheless, market participants are pricing in another 75 bps of hikes in the next couple of meetings. Inflation in Brazil was well behaved between 2%-5% from 2018 to early 2021 when it started to diverge form the range. The central bank started to hike immediately, yet inflation reached 12.3% in April before dropping to 11.75% in May 2022. However, the central bank has kept real rates positive for most of the past 12 months. Mexico started hiking in June 2021 and has hiked rates 375 bps to 7.75%, yet markets are pricing in another 250 bps in hikes as inflation is still hovering 7.5%-8%. Poland and Hungary resisted hiking rates for longer in the face of strong inflationary pressures, and when they started hiking, they did it very slowly. Poland started hiking in September 2021 from a very low base of 0.1%, when inflation was already running at 6%, and it hiked 590 bps to 6% currently, but inflation exploded to 13.9%. A similar story happened with Hungary. Clearly it pays to be early and aggressive.



Source: Bloomberg Finance, JP Morgan, as of 30 June 2022.

No light at the end of the tunnel yet

Uncertainty and volatility are likely to remain elevated over the third guarter of 2022 on account of confusing global monetary policies and ongoing geopolitical risks. As it was the case at the beginning of Q2, we cannot rule out another severe widening of US Treasury yields with temporary rallies in between, as markets juggle high(er) inflation and low(er) growth in months to come, while central banks look at markets for guidance. The probability of a policy mistake by DM central banks is high given their reliance on financial conditions instead of inflation. Another downward leg in equity and/or real estate markets would send contradictory signals to markets as DM central banks could become dovish in the presence of tighter financial conditions, regardless of inflation. This policy response seems to have a moderate probability and would keep markets on its toes. An uncertain, data-dependent policy strategy would keep macroeconomic uncertainty and financial volatility higher than otherwise. We foresee DM rates on an increasing path, particularly because of the low starting point (3% yield on the 10-year UST bond) but with severe bouts of volatility driven by the struggle between persistently high inflation and lower growth. Riskier asset classes, including EM FI rarely does well in such an environment.

Geopolitical risk emanating from the protracted Russia invasion and the west's reaction to it (sanctions, Finland/ Sweden membership to NATO, Ukraine path to the EU.) as well as the continued assertiveness of China in the South China Sea and towards Taiwan could have a further negative impact on risk taking and hence on riskier asset classes such as EM FI.

The above arguments call for a cautious management of duration in fixed income portfolios. The severe weakening of EM asset prices (wider spreads, higher rates, and weaker currencies) has reestablished value in most asset classes, particularly in high yielding bonds in US dollars and local currencies. However, such value will only be realized when better external conditions provide further support to riskier asset classes like EM FI. In the meantime, we would remain on the defensive but ready to redeploy risk if signs of global inflation stabilization appear.

(Federico Kaune)



Source: UBS Asset Management, Bloomberg Finance, as of 30 June 2022.

Sovereign debt

High yield countries underperformed sharply

Sovereign credit posted a -11.43% total return in Q2 2022 (measured by the JP Morgan EMBIGD Index). Spreads widened 142 bps to 542 bps, generating a -7.25% spread return. A significant widening in US Treasury yields detracted from total returns.

Investment grade spreads widened only 39 bps to 194 bps in Q2, a remarkable performance given the variety and size of the shocks. IG countries (several of them oil exporters in the Middle East) benefited from strong fundamentals and high oil prices. At 194 bps, we believe investment grade spreads are close to fair value when measured relative to its own history and relative to US IG.

High yield spreads on the other hand massively underperformed and widened by 282 bps to 965 bps in Q2. High yield countries, many of them oil exporters, did not see better oil prices reflected in lower sovereign risk premiums because other global factors -particularly high risk-aversion -offset the positive impact of higher oil prices. The most recent widening in high yield spreads makes high yield even cheaper relative to its own history and to competing asset classes, including US high yield. Some of the widening is justified by potential defaults, particularly in those countries with weak fundamentals that import commodities and have experienced the brunt of the food and energy shocks (see feature section on 'High food and energy prices').

Spreads in high yielding South Saharan Africa (SSA) widened the most (357 bps) to 974 bps in Q2, which together with the impact of wider US yields resulted in a total return of 118.89%. Oil exporter Ghana and Nigeria underperformed despite higher oil prices, in part because of their weaker macroeconomic fundamentals. Ghana will need to adjust

its economy if it wants to avoid a debt restructuring in the following quarters.

Eastern European spreads widened 206 bps to 766 bps as the Russian invasion of Ukraine continue to have a negative impact on the region. In all, the total return in Easter Europe (inclusive of the impact of wider UST yields) was -10.59%, with Ukraine bonds dropping 33.66% on account of the invasion, despite the better-than-expected outcome of the war and substantial financial assistance from the West.

Latin America spreads widen 124 bps to 506 bps in Q2, resulting in a total return of -13.04% on account of the longer duration of their bonds relative to other regions.

Argentina (-28.4%), Ecuador (-22.7%) and El Salvador (-24.8%) underperformed the most. Argentina and Ecuador both export oil, but Argentina is struggling to reach consensus on the policies needed to contain inflation, while Ecuador is facing protests from indigenous groups on higher food inflation. In El Salvador - which adopted Bitcoin as a medium of exchange - international reserves are dropping to levels that could result in bond restructuring by year end.

Spreads in the Middle East and North Africa (MENA) widened 72 bps to 389 bps, resulting in a total return (inclusive of the impact of UST yields) of -7.61%. Spreads in Gulf Cooperation Countries remained very well behaved as they benefited from relatively solid fundamentals and high energy prices. However, other countries in the region did not fare well. Lebanon had another dismal quarter with bonds dropping 47% in value on account of the protracted political crisis. Tunisia and Egypt returned -15.5% and -20.8% respectively on higher food inflation and social unrest (Tunisia). Tunisia's weak macroeconomic fundamentals and higher exposure to imported

food could result in debt restructuring in coming months. Asia spreads widened 78 bps to 343 bps in Q2, resulting in a total return (inclusive of the impact of wider UST yields) of -7.96%. Sri Lanka's ongoing political crisis and potential default resulted in a 41% collapse in bond prices. Sri Lanka is suffering from severe food and energy shocks, which have resulted in social unrest and political instability.

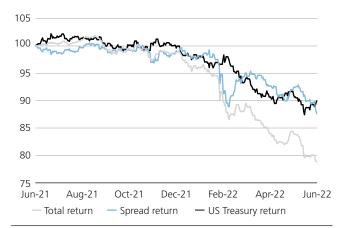
As in Q2, we believe emerging market sovereign debt will continue to be subjected to the volatility of US treasury yields and risks emanating from the decisions of DM central banks. We believe that DM central banks are putting emerging markets at risk of further shocks because their data-dependent strategy keeps macroeconomic uncertainty and

financial volatility higher than otherwise as they react to market developments instead of providing guidance to markets.

At 542 bps over US Treasuries, EM spreads screen cheap on different metrics: relative to their fundamental capacity to pay (despite some countries been at risk of default), their own history and relative to competing asset classes (US IG and US HY in particular). However, we doubt such value will be realized in the current global environment characterized by high financial volatility.

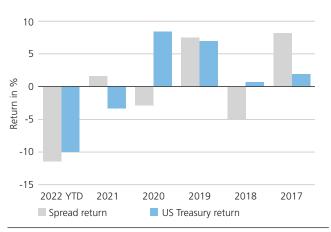
(Federico Kaune)

Exhibit 12: Sovereign credit returns by component Rebalanced to 100 as of 30 June, 2021



Source: JP Morgan, Bloomberg Finance. As of 30 June, 2022. Past performance is not a guide to future results.

Exhibit 13: Sovereign credit yearly returns over past 5 years



Source: JP Morgan, Bloomberg Finance. As of 30 June, 2022. Past performance is not a guide to future results.

Corporate debt

Returns overwhelmed by macro environment

EM corporate credit returns were negative in Q2 2022, resulting in negative returns of -6.02% (as measured by the JP Morgan CEMBI Diversified Index). Corporate credit spreads widened by 76 bps in Q2 2022, resulting in negative spread return of -3.55% while Treasury detracted another -2.56%.

In Q2 2022 corporate bonds in Ukraine (15.78%), Philippines (-0.06%), and Oman (-1.20%) provided the best returns while the largest underperformers were Macau (-22.03%), Morocco (-16.83%), Guatemala (-13.21%), and Colombia (-11.26%).

Like in Q1, all sectors provided negative returns in Q2 2022. The best performing sectors were Financials (-2.68%), Utilities (-3.61%) and Infrastructure (-3.70%), while the worst-performing sectors were Consumer (-12.41%), Pulp & Paper (-11.71%), and Oil & Gas (-8.68%). All regions reflected negative returns in Q2: Middle East (-3.96%), Europe (-4.83%), Asia (-5.17%), Africa (-8.01%), and Latin America (-8.91%).

While in the first quarter of 2022 we faced many negative shocks, the return sentiment in Q2 remained the same . COVID-19 was back in the headlines, as cases increased in Asia and China stood firm with its zero-COVID policy implementing lock downs in major cities across the country. This added to the ongoing difficult environment discussed in

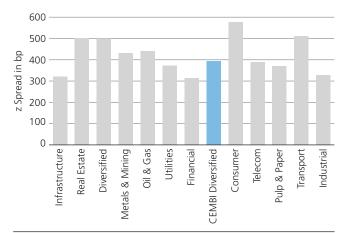
Q1, Russia's war in Ukraine, the concern of conflict spilling into other countries, and the impact on inflation by disrupting supply of oil and gas and agricultural exports. The increased inflation expectations were realized applying more pressure on central banks to aggressively hikes rates.

No asset class was immune to aggressive interest rate hikes creating negative returns across risk assets.

Financials: Higher interest rates are broadly supportive for net interest margin (NIM) expansion benefiting financials with faster asset repricing. A slowdown in growth leads us to prefer large high-quality franchises that have solid capital and liquidity buffers and conservative underwriting standards.

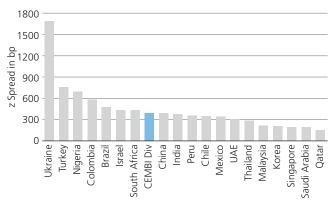
TMT (technology, media & telecom): This sector has a domestic-oriented nature as consumption of mobile, internet and TV subscription services remained resilient and decoupled from Russia/Ukraine war. The long-term investment case for TMT remains largely intact, on the back of stronger demand for telecom services surged post pandemic, with increases in mobile and fixed broadband traffic, a supportive demographic outlook for EM as well as comparatively lower penetration rates relative to developed economies. While the backdrop remains supportive, this is reflected in prices, and we see limited upside in TMT.





Source: JP Morgan. Index shown is the JP Morgan CEMBI Global Diversified index, as of 30 June 2022. The z-spread, also known as the zero-volatility spread or the static spread, measures the spread over the benchmark zero coupon swap curve.

Exhibit 15: Emerging market corporate spreads by country



Source: JP Morgan. Index shown is the JP Morgan CEMBI Global Diversified index, as of 30 June 2022. The z-spread, also known as the zero-volatility spread or the static spread, measures the spread over the benchmark zero coupon swap curve.

Oil & Gas: Supported by low inventories amidst a severe supply crunch of natural gas. Russia's war in Ukraine disrupted traditional supply of Oil & Gas. We remain positively positioned to the sector. There could be headwinds due to a slowdown in economic activity but the longer-term outlook remains positive given structural underinvestment in favor of energy alternatives (such as, biofuels, solar, wind).

Consumer: Within the consumer sector we continue rotating out from the more defensive components of this segment (packaged food, beverages and household products) into consumer discretionary names. However, we prefer to remain selective given higher raw material costs.

Metals & Mining: Another sector disrupted by Russia's war in Ukraine. The post COVID-19 economic recovery and green transition have improved the outlook/demand for most

base metals. While our outlook for Metals & Mining remains broadly positive, growth risks and the slow economic recovery in China could continue to strain returns causing us to lower expectations.

We remain cautious on credits with low to negative cash flow generation and tight liquidity buffers. The weakest corporations tend to be in the most exposed sectors including transport, industrials, travel and leisure, oil and gas, and real-estate. We prefer energy exporters. While short duration high yield has not performed as expected, we believe value remains in EM corporate credit, though we may need to wait for a shift in global risk appetite for that value to be realized. In China Real Estate we expect volatility to remain high and liquidity to remain tight, creating opportunities in coming quarters.

(David Michael)

Local currency debt

Local debt: Value versus global headwinds

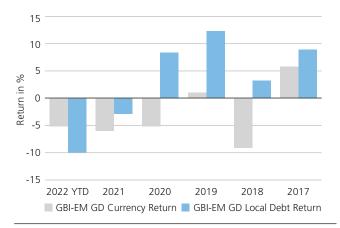
EM local debt (measured by JP Morgan GBI-EM Global Diversified index) lost 8.63% in Q2 bringing the year-to-date return to -14.53%. The loss was concentrated in weakening of the currencies (-6.49% but local bond returns were also negative, albeit less pronounced (-2.29%%) given the high starting point for yields, and significant dispersion in outcomes. The main driver of returns was surging UST yields and disruptions caused by the war in Ukraine and COVID cases in China. Ongoing political risks have also played a role.

The outlook for Q3 2022 is unsurprisingly cloudy. The impact of the pandemic has largely dissipated outside China, where the zero-COVID policy is being put to the test. The war in Ukraine remains in the active phase with little hope for a quick resolution. Growth is decelerating in Europe, China and the US with reducing demand, but energy commodities are benefitting because of mounting supply constraints. This lends support for energy-driven currencies, but growth-sensitive commodities are struggling. The Fed has accelerated the hiking cycle, which is expected to continue in the coming months. Nevertheless, many Emerging Markets central banks have started earlier and are near the end of their hiking cycles, and we believe the yield levels outside APAC are attractive by historical standards.

Latin American markets were the main beneficiary of the commodity trade in Q1 but are now suffering from increased political risk. After the sell-off in Q2, in our view, Latin American currencies and rates are at attractive levels, but are likely to only perform if the global environment turns less hostile. In Brazil, the central bank is nearing the end of the hiking cycle, provided the tentative slowdown in inflation holds. The Brazilian Real is also attractive in our view, but volatility may be high ahead of the elections. We are still cautious on rates in Mexico as the Central Bank is likely to match the Fed rate hike, but the Peso will be the beneficiary of prudent monetary and relatively tight fiscal policy. We continue to be cautious in Colombia and Chile – the elections of left-leaning presidents in both countries, without legislative majority, will likely lead to erratic policymaking. In addition, Chile and Peru's terms of trade are deteriorating with softer copper prices.

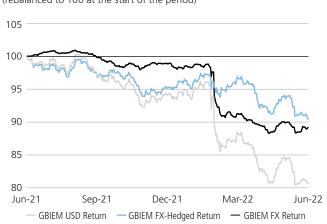
In EMEA, Russian assets have gone out of indices at the end of March and are no longer investable. Turkey's government and central bank have lost control of inflation and the currency has collapsed with little hope for a return to more orthodox policies. With inflation already north of 70%, the Lira is at risk of continuing sell-off. The currency, however, sold off and the price of hedging is high, creating two-way volatility after sharper moves last year. Egypt that entered the indices in Q1

Exhibit 16: EM local debt yearly returns over past 5 years



Source: JP Morgan, Bloomberg Finance. As of 30 June, 2022. Past performance is not a guide to future results

Exhibit 17: EM local debt total returns (rebalanced to 100 at the start of the period)



Source: JP Morgan monitor. As of 30 June, 2022.
The graph shows the total return of JP Morgan GBI-EM Gl12obal Diversified and its components, local debt return with FX hedged into US dollar and currency returns. Local debt return results from yield movements and coupons of the underlying bonds in local currency. Currency return results from exchange rate movements and carry.

Past performance is not a guide to future results.

devalued its currency in March as the shock of higher oil and food prices was severe and led to portfolio flight. The outlook for the Egyptian Pound is uncertain as it remains overvalued. South African growth and fiscal balance has improved on sizeable gains in terms of trade; however, the best gains may be behind us. In addition, political risks are creeping up ahead of the ruling party's conference in December.

Central Europe (CE) has suffered the brunt of the fallout from the Russian war in Ukraine, outside the combatants. The volatility in CE rates has been very high. The outlook will largely depend on the path of the conflict. Inflation had been very high even earlier, and the outlook continues to be negative due to supply constraints, influx of refugees from Ukraine and rising core rates. Central banks, however, have accelerated rate-hike cycles and the yield curves have adjusted. We continue to see upside risk to bond yields in the region if the conflict continues.

The APAC outlook has deteriorate given the slowdown in China and rise in oil price. The recent lockdowns in large Chinese cities and stress in the real estate sector do not bode well for China growth this year. The Chinese Yuan has adjusted but is vulnerable to an increase in US rates against easier domestic policy. In addition, higher oil prices will affect both growth and trade balance negatively for commodity importers such as India and Korea. Thailand and other ASEAN countries will continue to see few Chinese tourists despite easing of lockdowns. Commodity exporters – Malaysia and Indonesia – on the other hand will benefit from higher export prices. However, inflation is likely to gradually increase putting pressure on bonds across the region. As a result, we are cautious on regional bond markets and neutral on the currencies.

(Igor Arsenin)

Self-organized criticality and high food and energy prices

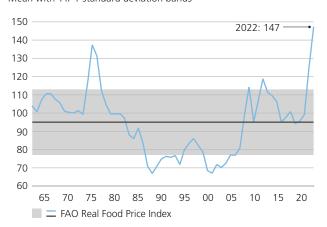
In 2020, Russia accounted for 19% of the global wheat export market and Ukraine 9%. In addition, Ukraine also accounted for 14% of global corn exports. As a consequence of the war in Ukraine, export of grains dropped substantially and the real food price index, as estimated by the United Nations Food and Agriculture Organization, is now at an all-time high, and significantly higher than previous peaks in 1974 or in 2011, see Exhibit 18. While this article will mostly concentrate on food prices, it is worth noting that high food and energy prices are at least partially interrelated for two reasons. First, the war in Ukraine has unambiguously increased both food and energy prices. Second, high energy prices increase the cost of fertilizers and other inputs in agricultural production so that food prices are going up both for direct and indirect reasons.

There are now two crises currently impacting vulnerable EM countries and we believe there is at least one significant crisis is likely to materialise, possibly more, in the months ahead. The first and the foremost is the humanitarian crisis. According to the World Food Program, up to 20 million people in Kenya, Ethiopia and Somalia are facing the risk of starvation by the end of the this year because of higher grain prices driven by the war. Globally, 49 million people are at the edge of famine and the number is expected to increase around 10% by the end of the year. And, unfortunately, the problem will not become easier in early 2023 either. While the higher prices will incentivize farmers to plant more, the reward from this increased agricultural investment will take

up to 12 months to show up in global food markets. The second crisis is the economic and financial crisis impacting countries such as Egypt, Tunisia, Ghana, Zambia, Sri Lanka, and Pakistan, which import significant amounts of food and/or energy. As food and energy prices increase, their current account deficits will widen, putting pressure on currency reserves and sustainability of the external debt. Not surprisingly, in all of these countries sovereign spreads have widened significantly so far this year, from 190 bps in Egypt to 1,700 bps in Sri Lanka, and significantly more than the 120 bps the EMBI Global Diversified index has widened this year.

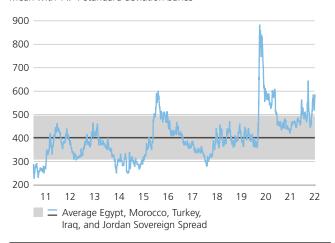
The third, potential, crisis is what happened in 2011 – the last time food prices were close to as elevated in real terms as they are now. Political and civil unrest spread throughout Northern Africa and the Middle East, from Tunisia to Egypt to Algeria to Yemen to Lebanon to Saudi Arabia, to ten different countries altogether. The reasons behind this so-called Spring Arab were multi-fold: Economic hardship, unemployment, limited opportunities for self-expression, political corruption, social inequalities, and so forth. Unfortunately, it is impossible to forecast which country or countries may fall into unrest or when that will happen. However, there is at least one framework which is useful to analyzing the situation. This model was originally proposed by Acikahn and Artun (2018) and it builds on the seminal contribution on the literature of self-organized criticality by Bak et al (1987).

Exhibit 18: FAO Food Price Index in real terms Mean with +1/-1 standard deviation bands



Source: UBS Asset Management, Macrobond, FAO, as of June 2022.

Exhibit 19: Food insecurity exposed countries sovereign spread Mean with +1/-1 standard deviation bands



Source: UBS Asset Management, Macrobond, Bloomberg, as of June 2022.

References

Acikahn, S.N. and E.C. Artun (2018), "The Concept of Self-Organized Criticality: The Case Study of the Arab Uprising," pp. 73-85 in *Chaos, Complexity and Leadership 2017: Explorations of Chaos and Complexity Theory*, Springer Nature.

Bak, P., C. Tang, and K. Wiesenfeld (1987), "Self-Organized Criticality: An Explanation of 1/f noise," *Physical Review Letters*, 59, 381-384.

Consider a sandpile. One can add grains of sand to the top of a sandpile for a while, to no apparent effect. But then, suddenly, an avalanche sweeps sand down from the top in an irregular pattern. The first grain (economic hardship) probably has a very limited impact and the same is true for the second one (unemployment) and the third one (limited opportunities) but eventually an invisible threshold is passed and the whole pile collapses. That is, a small event can trigger a large event. The system goes through a phase transition from a stable system into an unstable one. Seemingly stable society collapses. While we cannot predict when the phase transition will happen, we know that distribution of such events follows a power law distribution. Power law distributions, with their fat right or left tails are surprisingly common in science, economics, and financial markets - with the initial mass of stars, the distribution of income in a free-market economy, and the average waiting time for change of direction in stock prices being just few examples. Power law distributions also characterize writing research reports: The last 20% of the text takes 80% of the time and effort.

If we cannot predict where and when a sudden spread spike will happen, what can we say? We can propose a basket of countries, which are potentially vulnerable to higher food and energy prices. The conditions we impose on our list of countries are as follows. First, we include countries which are in Northern Africa and the Middle East, the region where such events have happened in the past and which are close to Europe, thereby increasing the investors' awareness of possible risks. Second, we include countries which import significant amounts of their food or energy. Third, we exclude countries whose EMBI GD spread is wider than 1,000 bps, which is a considerable cost for waiting and suggests the risk of a tail event is at least partially priced in. Finally, we exclude countries in Asia such as Pakistan or Indonesia which can, due to geographical and cultural reasons, easily switch from consumption of wheat to consumption of rice. As of now, rice prices have not been impacted to the same degree by the war in Ukraine. Exhibit 2 displays the average sovereign spread for five countries which satisfy these conditions: Egypt, Morocco, Turkey, Iraq, and Jordan. The average spread is now 580 bps, which is at a higher end of the range but, as the experience of 2015-2016 and spring 2020 shows, this average spread can widen very dramatically. It is also worth observing that this average spread has been gradually widening over the past 12 years suggesting increased vulnerability.

Juha Seppala

Russian oil: new trading blocs against sanctions

Following Russia's invasion of Ukraine, the Biden administration was quick to impose wide-ranging sanctions including an import ban on Russian oil, liquified natural gas and coal. Close allies without significant energy dependence on Russia – Canada, United Kingdom - followed the move, while the EU, after difficult negotiations among member states, agreed to ban seaborne (about 2/3 of Europe's Russian oil imports) Russian crude oil in six months' time and oil product imports in eight months. As Russia was the world's second largest producer, a reduction in Russian supply could contribute to a further tightening of oil supply balances and lead to price overheating. For Russia, a near 90% loss of European purchases which together represent almost two-thirds of Russian exports, would have meant a significant loss of its \$200bn energy revenues (see Figure 1).

Diversion of Russian oil moderates immediate supply shock

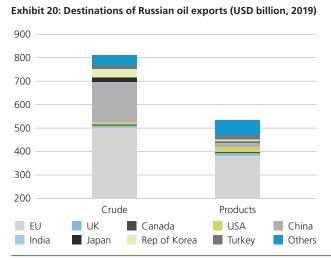
While the (partial) oil embargo was intended to dramatically reduce Russia's ability to earn energy export revenues, even as European buyers reduce their crude and product purchases by c.1mb/d from the February levels of c.3mb/d, Russian export volumes have nevertheless remained stable since supply losses from Europe were more than fully offset by redirected flows to India, which bought 800kb/d of deeply discounted Urals (from almost zero previously) and China, whose imports from Russia reached an all-time high of 2mb/d (from 1.6mb/d) – see Figure 2. The Indian government has encouraged private and state-owned refineries to increase Russian oil purchases and will likely increase purchases to 1mb/d, partially replacing Iraqi, US, or Nigerian imports. China has also increased its pipeline imports and could see a further increase as it has committed

to growing its strategic reserves to cover 180 days of net imports from current 100 days, which could be an increase of 500kb/d. Countries like Turkey could see their purchase rise as well. As a result, we believe that the diversion is likely to moderate the impact of the immediate supply shock.

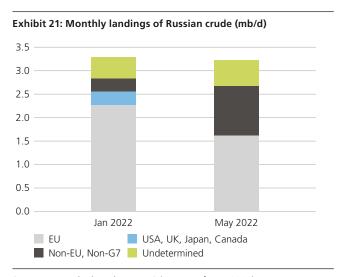
Russian production to decline

When the embargo is fully phased-in by Q1'23, will Russia be able to fully replace the 2-3mb/d loss to Western markets by the new market? We believe this new oil market dynamic is unlikely to be sustainable and Russia is likely to reduce production eventually in part due to continued Western efforts to prevent leakage and reduce Russia's oil income. The EU/UK ban on insuring ships carrying Russian oil anywhere in the world is likely to reduce shipping capacity due to a crucial role that European/UK insurers play in international crude shipping; meanwhile the G7 countries are discussing a price cap on Russian oil, which in theory, instead of restricting volumes, limits upward pressure on global oil prices while still incentivizing production and export because the cap would be set above production costs. While details of the new measures are still being worked out at the time of writing, it will be challenging for Western policymakers to artificially lower the price of Russian oil without affecting volumes. At worst, the Kremlin could withhold its oil off the market with the intention of causing economic damage to the West. The loss of Russian production therefore is likely to lead to tighter oil balances that support oil prices to remain elevated next year unless there is sufficient supply response from the US, OPEC or Iran.

(Yuni Kim)



Source: Comtrade (Data as of 2019)



Source: Bruegel, Bloomberg, UBS (Data as of May 2022)

On the correlation and causality of flows and returns

To study the behaviour of flows and returns in EM fixed income, we analyse the relationship between monthly flows in EMD hard currency and local currency funds (data provided by JPMorgan) and monthly returns on the three main benchmarks (EMBIGD, CEMBIBD and GBIEMGD). Intuitively, we would expect a positive correlation, as inflows are more likely to materialize when the asset class posts positive returns. Conversely, when returns turn negative, we would expect outflows from the asset class. Has this been the case in our space?

The correlation between monthly flows and returns is generally strong between hard currency flows and CEMBIBD/EMBIGD returns, less so on local currency flows vs GBIEMGD returns.

Indeed, we do observe positive correlations between the two variables in general. This is especially the case with CEMBIBD and EMIGBD monthly returns, both having strong correlations with hard currency monthly flows (above +0.75 for 3 years and 5 years). This outcome suggests that returns and flows are usually moving in similar direction and intensity. On the other hand, the correlations found on the local side (GBIEMGD monthly returns and monthly local currency flows) are still positive but much lower at roughly +0.35 for 3 years and 5 years, indicating a much weaker link between the two variables.

Correlations are intensifying, suggesting that the relationships have become more important in recent years.

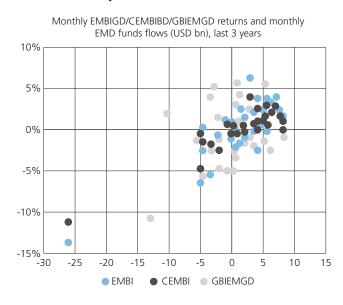
To understand if and how the behavior has changed over time, we study the evolution of such relationship over the past 15 years (2007-2022), using a 3-year rolling correlation approach. When analyzing the results, we observe two clear trends. First, correlations between hard currency flows and returns on EMBIGD and CEMBIBD remain generally higher than the ones observed between local currency flows and GBIEMGD returns throughout the observation period. This confirms our findings in the previous section. Second, we notice a general trend of rising correlations over the past 10 years, with a sharp increase over the past 3 years (from around +0.6 over the period 2016-2020 to +0.8 post 2020) in correlations between hard currency flows and EMBIGD and CEMBIBD returns on the back of the pandemic shock. We think that the combination of lower liquidity, dealers willing to take less risks and inventories, and the growth of EM Debt ETFs have contributed to the spike in correlations. For local currency however, this is not the case, as despite an initial spike above 0.6 in 2020 at the pandemic begin, correlations have fallen back to trend levels (around +0.4 during 2016-2020).

To determine which factor (returns or flows) drives the other, we use a lagged correlation approach, at +/- 4 months for the entire data set (2007-2022). Looking at results, we observe some correlation for flows to materialize the month after returns take place across all three benchmarks (EMBIGD, CEMBIBD and GBIEMGD). We note, however, that the

strength of the correlation is generally weak between 0.3 and 0.4 across the board. Conversely, we observe extremely poor correlations with flows leading returns, all between the -0.15 and +0.05 range.

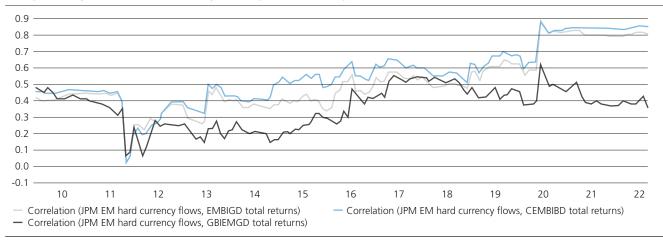
(Gianandrea Moccetti)

Exhibit 22: Causality: which factor causes the other? Some evidence points to returns driving flows, albeit weak.



	Lag months	Correlation (hard currency flows, EMBI returns)	Correlation (hard currency flows, CEMBI returns)	Correlation (local currency flows,GBIEMGD returns)
	4	-0.07	-0.03	-0.13
Current returns with	3	-0.07	-0.02	-0.09
lagged flows	2	-0.12	-0.06	-0.12
	1	0.03	0.04	-0.07
	0	0.53	0.51	0.35
Current flows with lagged returns	1	0.36	0.30	0.39
	2	0.19	0.19	0.22
	3	0.11	0.15	0.20
	4	0.13	0.13	0.19

Three-years rolling correlations between JPMorgan monthly flows and monthly returns on EMBIGD, CEMBIBD, GBIEMGD



Source: UBS Asset Management, JPMorgan, and Bloomberg. Data as of 31 May, 2022

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