

Emerging market sovereigns: turbulent times ahead?

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EXECUTIVE SUMMARY



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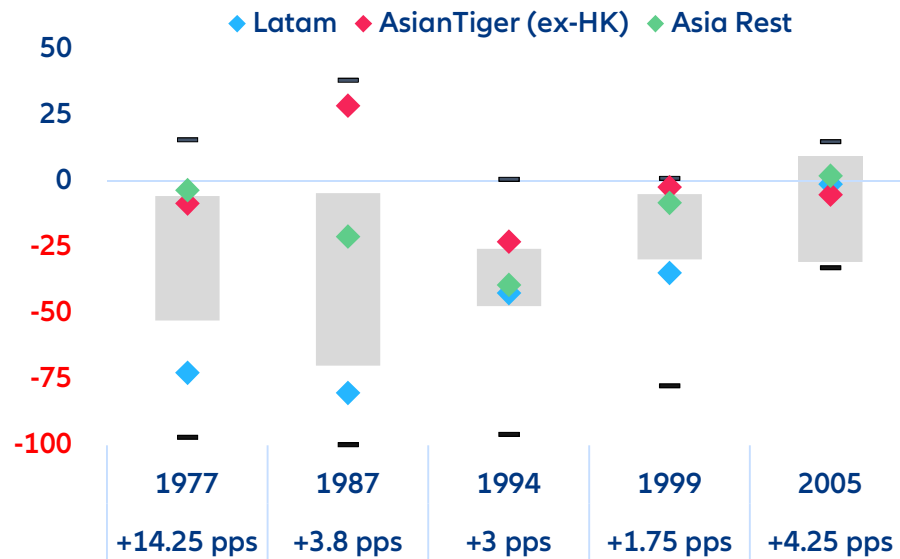
- Financial tightening in advanced economies and slowing trade growth have created less favorable conditions for emerging market sovereigns, which have been amplified by the effects of the war in Ukraine on commodity prices. While the capital accounts of emerging market sovereigns are often crucially influenced by the US monetary stance, their current accounts are very much dependent on demand from China due to their upstream integration in global supply chains.
- A repeat of sovereign debt crises similar to the ones in the 1980s and 1990s appears unlikely. However, several (large) emerging market (EM) economies have become highly vulnerable to tighter financing conditions, including those in Emerging Europe (Hungary, Romania and Turkey) and Africa (Egypt, Kenya and Tunisia), as well as in Latin America (Argentina and Chile), albeit to a lesser extent.
- Under baseline conditions, we expect a broad-based but contained EM sovereign spread widening. In local currency terms, divergences between countries are as heterogeneous as inflationary pressures. Local currency yields will remain elevated in 2022, with a gradual reversal in 2023 as headwinds start to abate. Should our adverse scenario materialize, we expect the escalation of the war in Ukraine to cause a global recession with significantly higher inflation. Deteriorating EM fundamentals and generalized capital outflows would lead to a significant widening of hard currency spreads and higher local currency yields.

Even before the invasion of Ukraine disrupted capital markets, emerging markets and developing economies (EMDEs) were already facing a reversal of fortunes via both the capital and current account channels.

Capital Account Channel: Tightening US Monetary Policy

Financial conditions in advanced economies have significantly tightened since the beginning of the year; however, the US Federal Reserve's shift to a hawkish monetary policy stance to combat surging inflation is also making investments in EMDEs less attractive in US dollar terms. As a result, countries will struggle to attract foreign capital as US real rates start rising, especially when their inflation is just as high (or even higher) than that of the US. Past evidence suggests that rising US rates tend to trigger significant FX pressures in EMDEs (Figure 1).

Figure 1: Impact of rising US interest rates on emerging market currencies (%) 1/



Sources: Refinitiv, Allianz Research. Note: The numbers on the x-axis indicate the year in which the hiking path started and the scale of the interest rate increase during the respective hiking cycle (start to peak). The grey bars show the inter-quartile range of individual country results (25th-75th percentile) while the diamonds indicate the regional averages. The lines above and below the bars reflect the minima and maxima. 1/ The impact is measured until four years after the start of the hiking cycle. The change in the FX rate is relative to the US dollar.

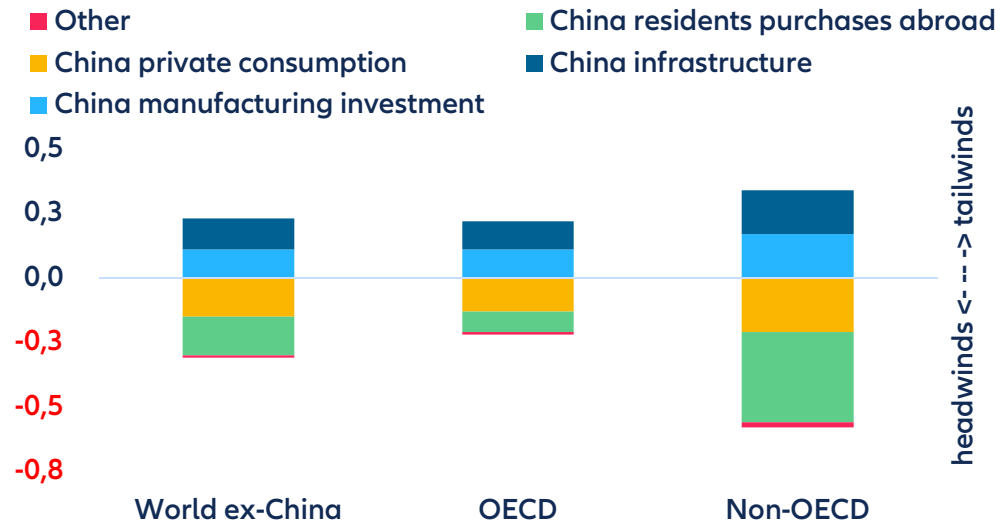
Current Account Channel: Slowing Global Trade, Lower Demand from China and Eurozone, Rising Prices

While the capital account of EMDEs is determined by the US monetary stance, the current account is very much dependent on external demand from China and the Eurozone and, more broadly, global trade, with many EMDEs being deeply integrated upstream in global supply chains. However, the combined effects of the Ukraine war and renewed Covid-19 outbreaks in China have delayed the normalization of supply chains, weighing on global trade.¹ We expect global trade growth to slow to +4.0% in volume terms in 2022, while trade in value terms is bound to increase by +10.9%. So EMDEs' current account balances are being affected by both volume and price effects through changes in external demand and the terms of trade.

EMDEs face a significant demand shock of more than 2% of GDP. We estimate that the Ukraine war could result in a loss of USD480bn in exports to Russia and the Eurozone this year, with countries in Emerging Europe most affected. Another source of vulnerability is Chinese demand, particularly from sectors that are affected by the national authorities' zero-Covid approach and the crisis in the real estate sector. After accounting for revenues from purchases usually made directly abroad by Chinese residents, we find that the slowing Chinese economy could represent a drag of up to -0.6% of GDP for non-OECD countries; tailwinds from Chinese sectors that are likely to fare better in 2022 (infrastructure and manufacturing investment) are insufficient to make up for them (Figures 2 and 3).

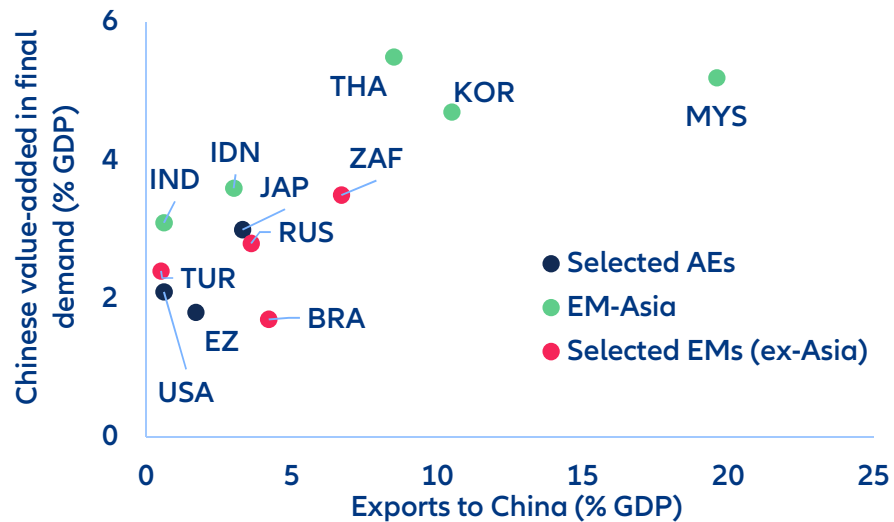
¹ See our recent publication entitled [Global Trade: Battling Out of Demand and Price Shocks](#).

Figure 2: Impact of slowing Chinese demand on selected groups of countries (%)



Sources: OECD, Allianz Research. Note: the non-OECD country grouping serves as a proxy for EMDEs.

Figure 3: Trade dependence of selected advanced and emerging market economies with China



Sources: OECD, Allianz Research.

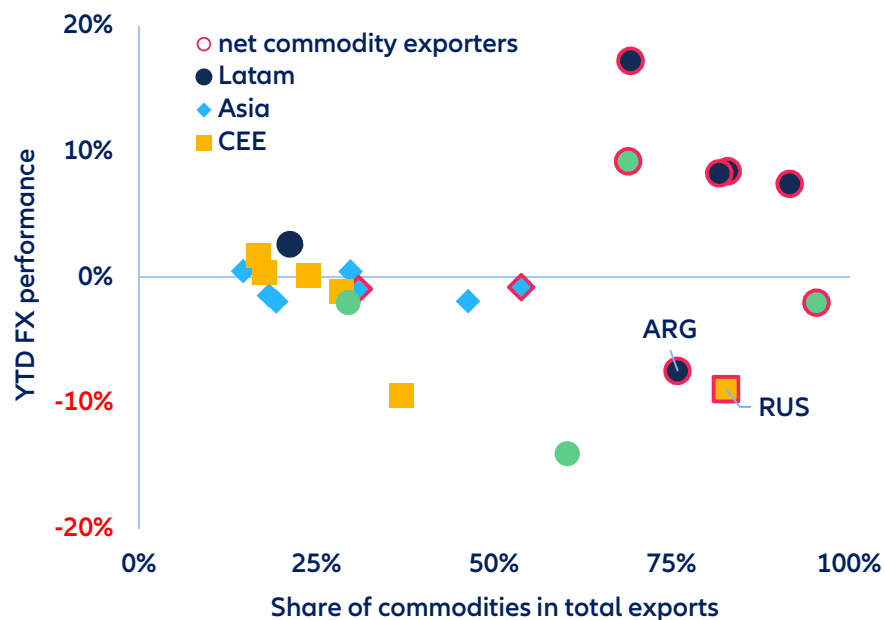
The impact of the terms of trade shock is sizeable but uneven (Figure 4):

- *Net exporters*: large oil and gas exporters, such as Qatar, Saudi Arabia, and the UAE are likely to experience record increases in their trade-balance-to-GDP ratios due to higher energy prices and potential substitution effects away from Russia. Commodity exporters in other EMDE regions also benefit, especially some Latin American countries. Their sovereign debt offers high carry as central banks have raised interest

rates significantly to battle inflation. The Brazilian real is the best-performing currency in the year (+18.4%), followed by the South African rand (+8.6%), the Colombian peso (+8%) and the Chilean peso (7.3%).

- *Net importers*: several countries, such as Tunisia, Morocco and South Korea, have been most affected by rising prices for fossil fuels and food. Net importers could potentially suffer from shortages and subsequent social discontent; currencies in these countries, such as India, Thailand and the Philippines, have performed poorly this year (-1.9%, -1.05% and -0.9%, respectively) alongside countries in Emerging Europe (e.g. Polish zloty – 5.3%), which were also affected by the war in Ukraine due to their spatial proximity.

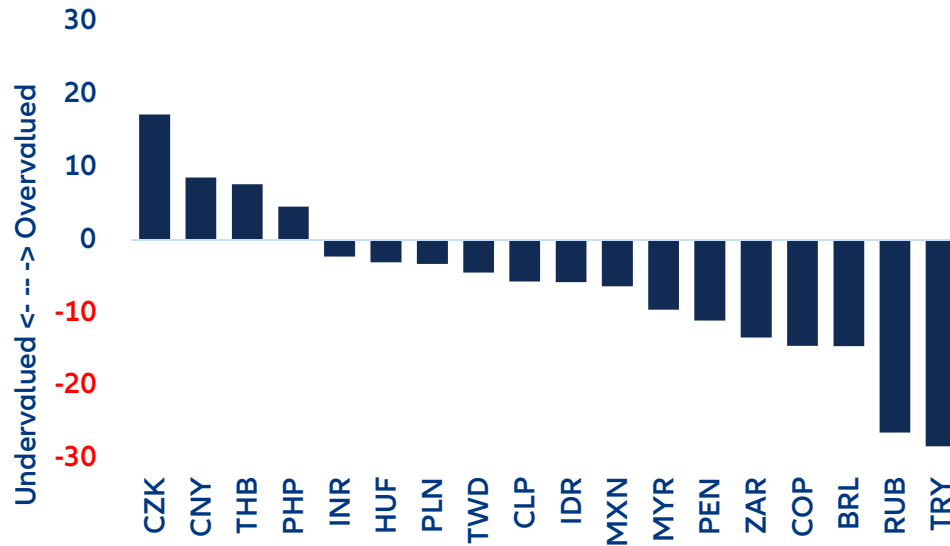
Figure 4: FX performance in 2022 vs share of commodities in total exports



Sources: Observatory of Economic Complexity, Refinitiv, Allianz Research. Note: CEE=Central and Eastern Europe. Only food commodities, minerals, precious metals, metals, stone and glass are taking into account to calculate the share. Some exceptions to the trend are commodity-exporting Argentina (structural peso weakness) and Russia (heavily hit by sanctions) as their currencies have depreciated despite higher commodity prices.

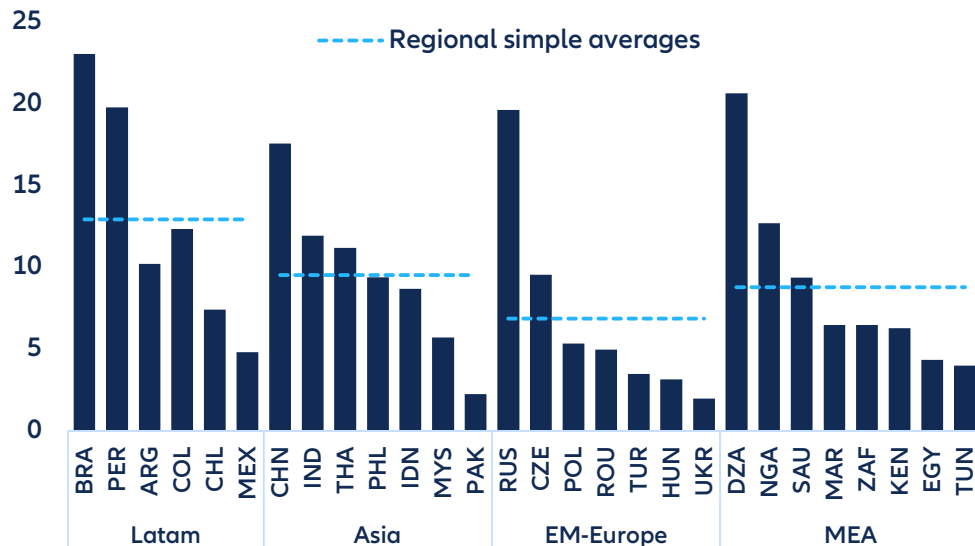
But how sustainable is the current commodity price push? While our FX valuation models point out that high-carry/commodity currencies are still cheap, hence supporting further appreciation for a while, there are several risks in the pipeline (Figure 5). On the domestic side, we observe increased political tensions in Latin America– e.g. upcoming presidential elections in Brazil and in Colombia, Constitutional changes in Chile – and rising risks of a new round of food shocks due to the rupture of fertilizer stocks as Russia is one of the main exporters of this product to several countries, including Brazil, Colombia and Chile which significantly increases risks of lower growth and puts additional pressure on inflation. On the external side, a conflict resolution in the background of tighter financial conditions in the US would certainly prompt investors to look back at the EMEs macroeconomic fundamentals, and hence growth outlook, fiscal consolidation and/ or reform agenda would be key. On this sense, countries such as Brazil have a much more fragile position.

Figure 5: Fair value of EMDE exchange rates (%)



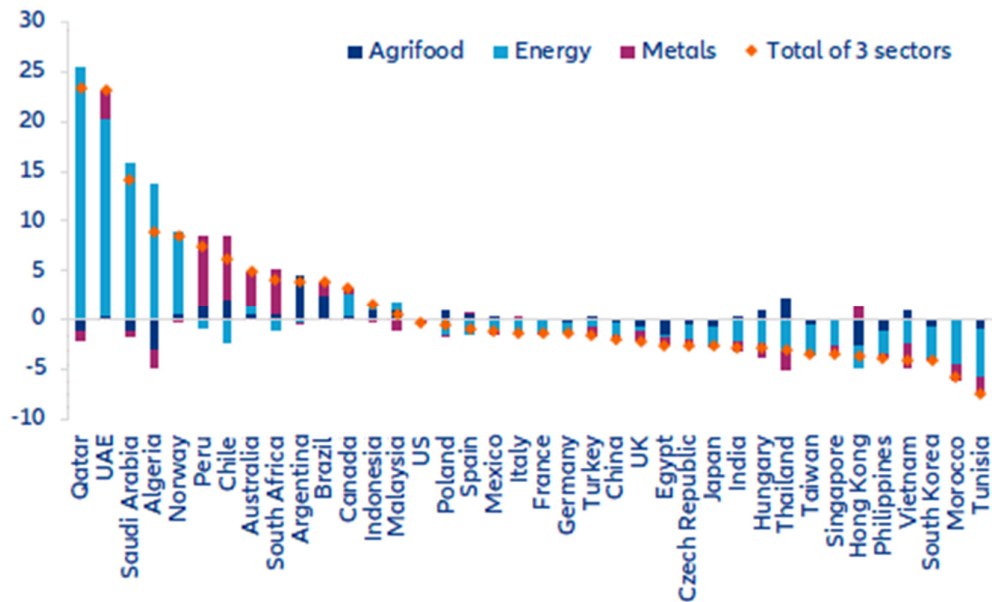
Sources: Refinitiv, Allianz Research. Note: We measure the fair value of a currency based on three models: (1) Purchasing Power Parity (PPP): deviation of the real effective exchange rate (REER) relative to its long-term average; (2) Behavioral Equilibrium Exchange Rate model (BEER): takes into account key cyclical drivers, such as terms of trade and productivity, but also fiscal variables, such as debt-to-GDP ratio, affecting the changes in the REER; and (3) Fundamental Equilibrium Exchange Rate model (FEER): links changes in REER to dynamics of balance of payments, which captures all the financial flows and transactions among residents and non-residents. For each currency, the models are weighted by the root mean squared error (RMSE).

Figure 6: Emerging markets import cover (months)



Sources: Refinitiv, Allianz Research. Note: even though import cover is a backward-looking measure based on realized imports (past prices) it is a useful indicator of vulnerability. MEA = Middle East and Africa.

Figure 7: Terms of trade shock: impact of higher commodity prices on trade balances (% of GDP)



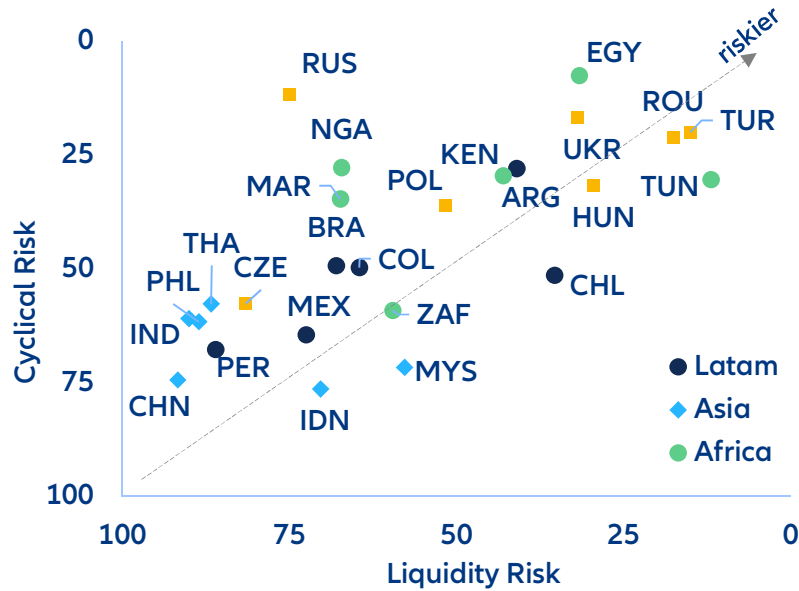
Sources: UNCTAD, IMF, Allianz Research. Note: we assume that prices in the energy, metals and agri-food sectors remain at end-March 2022 levels for the rest of the year (implying a +70%, +50% and +50% rise in each sector compared to 2021).

With this combination of factors affecting the capital and current accounts of EMDEs, the longer geopolitical tensions remain elevated and supply chains disrupted, the more challenging it will become to attract capital flows.

A repeat of the sovereign debt crises seen in the 1980s and 1990s appears unlikely, but some (large) EMDEs are at risk.

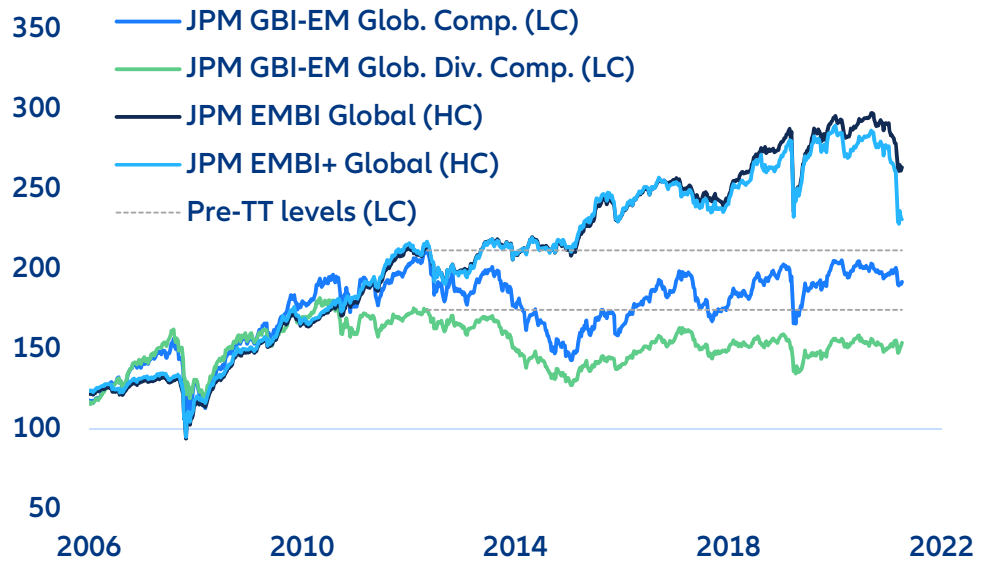
While most countries have gradually improved their external positions and built policy buffers over time, there are several (large) EMDEs that have become highly vulnerable to tighter financing conditions. Often, policy mistakes have aggravated the adverse impact of rising fiscal imbalances and external debt burdens. By assessing liquidity and cyclical risks, we find that the countries most at risk are in Emerging Europe (Hungary, Romania and Turkey) and Africa (Egypt, Kenya and Tunisia), and to a lesser extent in Latin America (Argentina and Chile). Even without any further deterioration in geopolitical conditions, these countries are likely to struggle to rebalance their economies and avoid a continued deterioration of sovereign debt sustainability. A more detailed analysis on selected metrics can be found in Appendix 1.

Figure 8: EMDE vulnerability dashboard



Sources: Refinitiv, Allianz Research. Note: CEE = Central & Eastern Europe. The liquidity and cyclical risks are composed measures that summarize the country's relative position in a set of variables: current account balance, upcoming debt payments or imports cover for liquidity risk, and exchange rate volatility, inflation, or market performance for cyclical risk. A score closer to 0 indicates higher risk, so the countries more at risk are at the upper-right side of the figure, while those safer are in the lower-left.

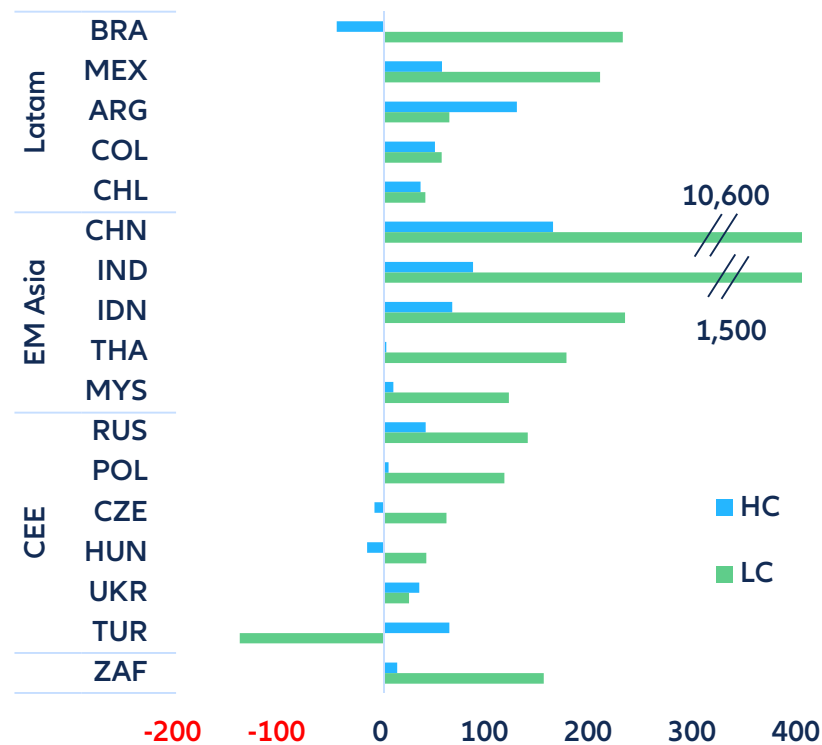
Figure 9: Total return of EM sovereign bonds benchmark indices (indexed, 100 = end-Dec. 2004)



Sources: Bloomberg, Refinitiv, Allianz Research.

The currency duality of sovereign debt issued by EMDEs reflects the fact that many countries with less developed financial infrastructure seek long-term financing from abroad. After the tough decades of 1980 (“Latin America’s lost decade”) and 1990 (Asian crisis, currency crisis in Latin America, Russian default), the 2000s were a remarkable decade for EMDEs. The performance of both hard and local currency debt prior to the GFC – as well as for other assets, such equity – left was remarkable (Figure 9). However, everything changed in the decade of the 2010s. The taper tantrum, the drop in oil prices and in general the weaknesses of EM currencies created a divergence between the returns of both type of bonds, namely, an underperformance of bonds issued in local currency.

Figure 10: Net change in outstanding emerging market sovereign debt (2009-21) (USD billion)

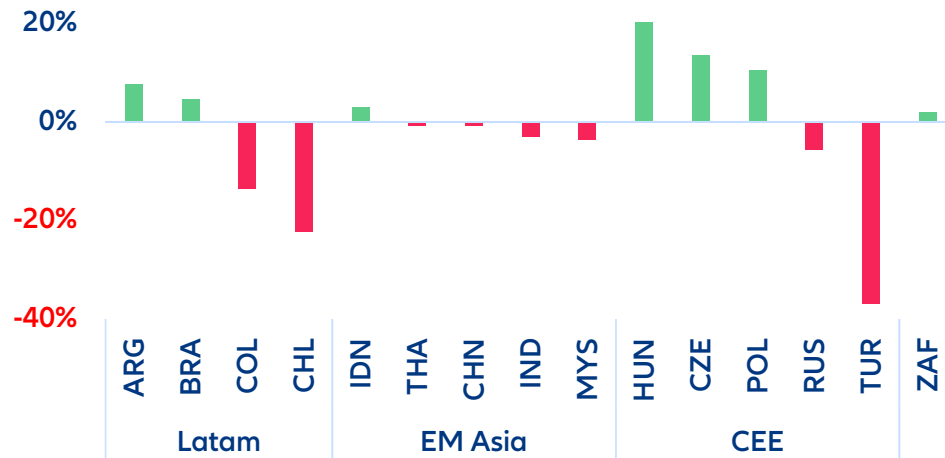


Sources: IIF, Allianz Research. Note: As the values are expressed in USD, the net changes in local currency outstanding also embed the FX deterioration/appreciation (e.g. Turkey).

Will current events change this divergence? It seems unlikely. So far, the main driver of changes would be the significant cross-financial sanctions between the US and Russia, in the form of FX reserves frozen by the former and fierce capital controls by the latter. This could mean a halt to globalization (both from the financial centers and from the finance-seekers), an increased distrust of the USD as the world reserve currency and further geopolitical pressures. Translated to the bond market, the first outcome to watch will be an even stronger division between hard currency issuance for foreign investors and local currency for local investors, but in principle this will not make local currency bonds more attractive. Appendix 2 provides further analysis on the differences between both types of issuances.

Most EMDEs have also tried to reduce their foreign-currency-denominated debt issuance (“original sin”²). However, some countries in Latin America and Emerging Europe still have a high share of hard currency debt (Figure 10 and Appendix 1).³

Figure 11: Change in the share of LC debt over total sovereign debt (2009 vs 2021)



Sources: IIF, Allianz Research. Note: As the values are expressed in USD, the net changes in local currency outstanding also embed the FX deterioration/appreciation (e.g. Turkey).

What does this mean for hard currency spreads?

According to our calculations – and consistent with prior literature⁴ – the main movements in the hard currency EM sovereign spreads are explained by changes in global financial conditions, while variables that refer to the fundamentals of the economy (GDP growth, inflation, FX reserves) are more relevant for explaining the levels, as well as the changes in times of financial calm. For simplicity, we consider corporate spreads in the main financial markets as proxy for global financial conditions, leave out some of the macroeconomic variables (global GDP growth or external debt) and calculate different coefficients depending on which is the hard currency (USD⁵ and EUR⁶). To add a greater degree of heterogeneity, we include as an explanatory variable the oil price interacted with a dummy for oil-exporter countries. The parameters are estimated in a panel data framework, using first differences (yearly changes).

Before the Ukraine war, higher inflation had widened spreads, while recent rises in oil prices have helped improve debt sustainability of oil exporters. However, the contribution coming from US corporate spreads, which should have reduced the pressures, seems to be the element that has not transmitted as expected (although it is usually deemed as a good indicator of global financial conditions, there may be tensions that are not fully reflected via this channel). Going forward, we expect tighter global financial conditions to cause a broad-

² Eichengreen, Barry and Ricardo Hausmann, 1999. “Exchange Rates and Financial Fragility,” Proceedings - Economic Policy Symposium - Jackson Hole, p. 329-368.

³ Our analysis does not include developing economies.

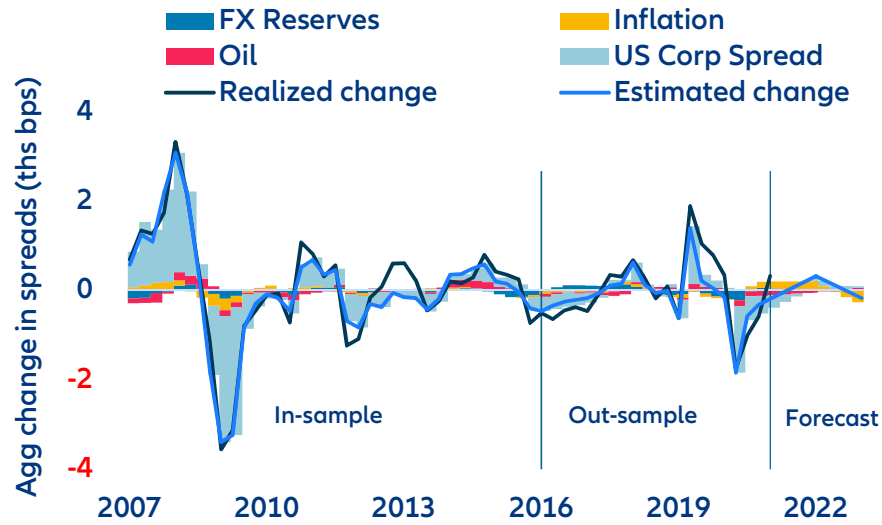
⁴ Michael Pettis, 2001. “The Volatility Machine.” Oxford University Press.

⁵ The sample comprises ten countries : Brazil, Chile, Colombia Mexico and Peru (Latin America), Indonesia and Philippines (Asia), Russia, South Africa and Turkey.

⁶ The sample comprises three countries: Hungary, Poland and Romania.

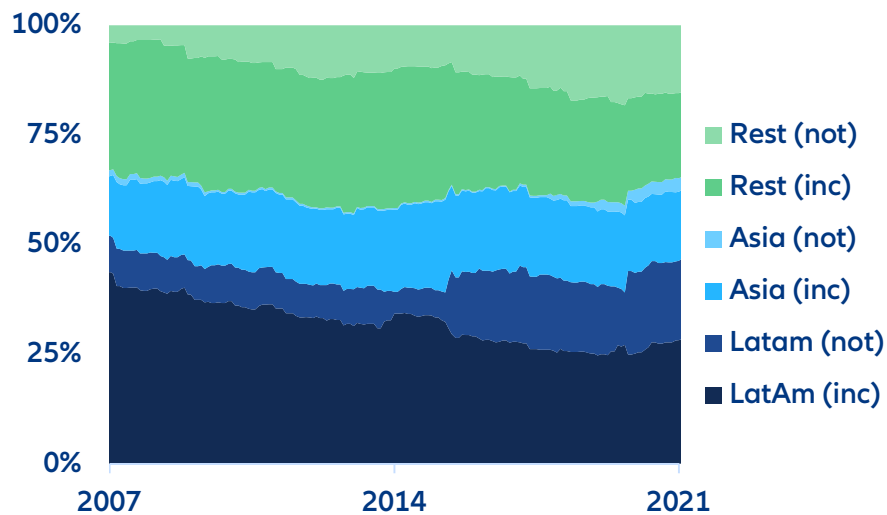
based but contained spread widening, also supported by inflationary pressures. In the event of a continuous deterioration of the Ukraine situation and a global recession, we would expect a significant widening of hard currency spreads.

Figure 12: Decomposition of the aggregate spread change of USD-denominated EM sovereign bonds



Sources: Refinitiv, Allianz Research. Note: based on 10 EMDEs.

Figure 13. Relative face value of the region-level Bank of America (BoFA) emerging market sovereign bond indices



Sources: BofA, Refinitiv, Allianz Research. Note: "inc"= included in our modelling sample; not = not included in our modelling sample. Rest only includes: Egypt, Qatar, Turkey, South Africa, and Ukraine.

Table 1: Calculated country weights in synthetic emerging market debt indices based on sub-samples of main emerging market sovereigns

	Realized values, unadjusted	Realized values, adjusted	Estimated values	Benchmark index ETF	
				JPM USD EM ETF, overall*	JPM USD EM ETF, rebased
Brazil	11%	11%	2%	4%	10%
Chile	4%	0%	5%	3%	9%
Mexico	15%	7%	42%	6%	17%
Colombia	18%	10%	1%	3%	9%
Peru	11%	5%	14%	3%	9%
Indonesia	7%	5%	11%	5%	15%
Philippines	11%	8%	17%	4%	10%
Turkey	10%	14%	8%	4%	12%
South Africa	12%	5%	1%	3%	9%

Sources: Bloomberg, Refinitiv, Allianz Research. Note: */ does not add up to 100% as only the weights for the countries included in the models are shown.

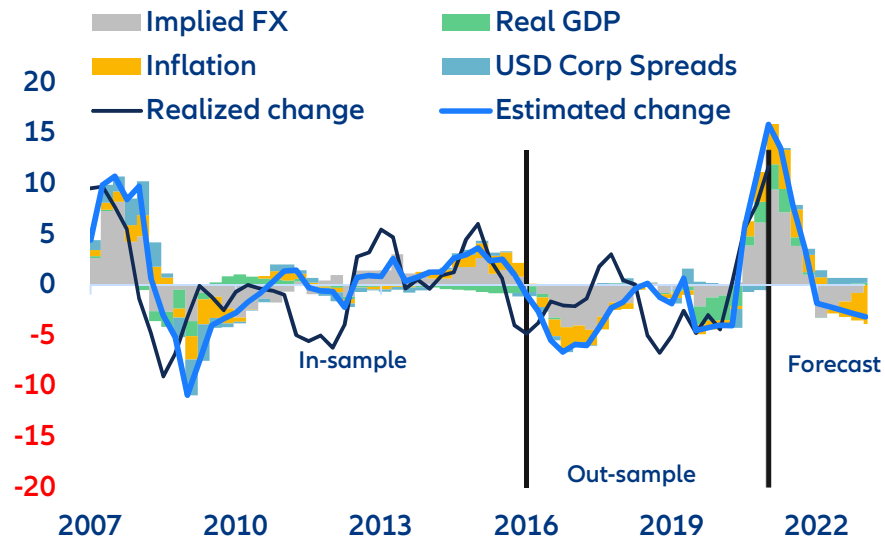
Due to the complexity and number of countries, EM debt indicators are usually represented at an index level. However, due to our focus on major EM economies, we compose the index forecast from our individual country forecasts with different weights – and omit countries that are present in the official aggregates. In Figure 13, we show the relative face value of outstanding USD-denominated bonds included in country-level BofA of Latin America, Asia and rest and how much of the weights are covered by our reduced sample (the main regions not included are Central America and the Middle East). Table 1 shows the calculated weights: greater weights to Latin America, Turkey and two Asian countries, Indonesia and the Philippines. With the realized country-level spreads the weights are not substantially different, but with the estimated values we obtain a larger divergence. This difference can be explained by the different fit of the models for each country (e.g. the high share of Mexico and the low weight of South Africa).

How will local currency yields evolve?

According to our analysis, the main movements in local currency yields can be explained in the FX deterioration implied in the forwards markets. This, in turn, considers the reference interest rate differential and is consistent with the above-mentioned differences between local and hard currency spreads. The additional variables are inflation, real GDP growth and a global financial conditions factor. Both inflation and real GDP growth enter as exponential weighted averages trying to smooth the series to extract the long-term trend. Unlike in the hard currency spectrum, this variable has less relevance to explain movements.

The framework is again a panel data setting, with differentiated coefficients for Central Europe and other regions. The sample of countries is slightly different than in the hard currency universe, with more weight to Asian countries and less to Latin America. We again have 14 countries: Brazil, Mexico, Colombia (Americas); China, the Philippines, Indonesia, India, Thailand (EM Asia); Turkey, South Africa and Russia, Poland, Czechia and Hungary (Central Europe).

Figure 14: Decomposition of annual change in 5Y sovereign yields in Latin America



Sources: Refinitiv, Allianz Research. Note: */ includes Brazil, Colombia and Mexico.

Inflation and higher policy rates were the drivers of big movements during 2021. In our baseline scenario we expect this trend to slow during this year, followed by a gradual reversal in 2023 as headwinds start to abate. Like the hard currency environment, in our adverse scenario we would see a much steeper increase in yields as fundamentals deteriorate and capital flees to safer assets (Figure 14).

Table 2: Calculated weight of EM index based on sub-sample of main EMs.

	Realized levels, unadjusted	Realized levels, adjusted	Estimated values	Benchmark Index ETF	
				JPM GBI-EM div ETF, overall*	JPM USD EM ETF, rebased
China	1%	17%	8%	10%	13%
Brazil	9%	12%	9%	10%	13%
Mexico	20%	12%	23%	9%	11%
Indonesia	10%	10%	12%	10%	13%
Malaysia	16%	12%	14%	8%	9%
Poland	15%	10%	13%	6%	7%
Thailand	0%	6%	0%	7%	9%
Turkey	1%	1%	0%	3%	3%
Czechia	0%	5%	0%	5%	6%
South Africa	18%	7%	10%	9%	11%
Hungary	10%	8%	10%	4%	5%

Sources: Bloomberg, Refinitiv, Allianz Research. Note: /* It does not add up to 100% as only the weights for the countries included in the models are shown.

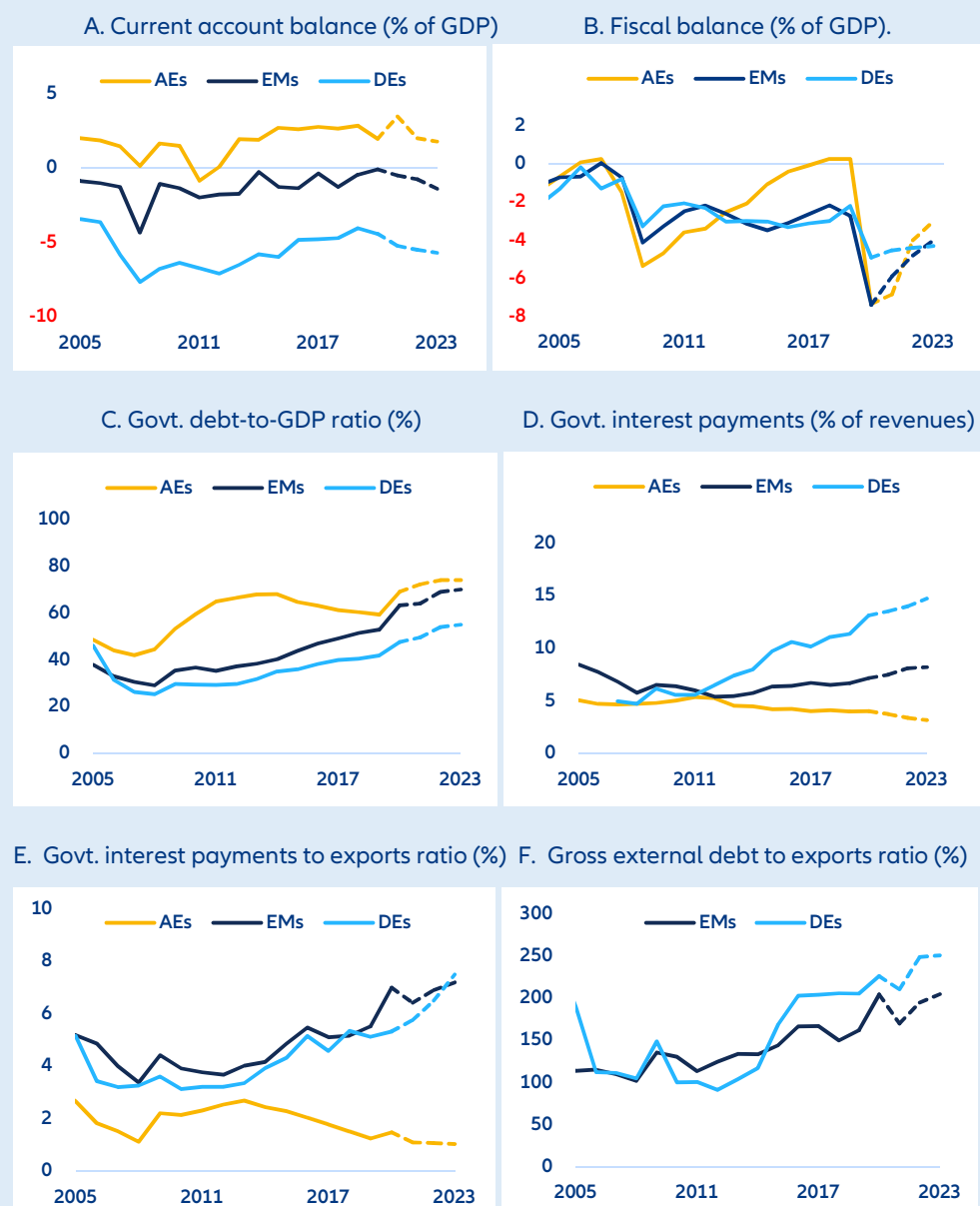
Both inflation and real GDP growth enter as exponential weighted averages trying to smooth the series to extract the long-term trend. Like the case of hard currency, the global indices include a wider scope of countries than we do as our focus is only on the main large EMs. As a result, we develop a similar analysis as the performed for hard currency spreads to try to build the benchmark indexes on smaller sample by calculating the country weights. Table 2 shows the obtained weights from both the country yields, the model-estimated country yields, and the real weights from reference benchmarks. These benchmarks usually try to diversify the weights as, if guided by amount outstanding, China would overwhelmingly dominate the movements. As in the case of hard currency, when using the model-estimated values, Mexico is overweighted while the contribution of both Thailand and the Czech Republic converges to zero.

Appendix 1. Evolving EMDE vulnerabilities

Since the 2008 financial crisis, many EMDE sovereigns have significantly improved their external position while the fiscal balance has hardly changed. The median annual current account deficit of EMs has narrowed from over -4% of GDP in 2008 to less than -1% in 2019-2021 and is expected to increase over the near term overall (Figure A1.A). However, large net commodity importers, such as Romania, Chile, Egypt, Kenya, Romania, Tunisia and Turkey, are likely to experience a significant deterioration of their current account balances this year. In addition, the median external deficit of developing economies (DEs) has improved (up from almost -8% of GDP in 2008 to -4% in 2019) but to a lesser extent than EMs; it is on course to reach -6% in 2023 as the terms of trade will deteriorate for many of these economies. The fiscal adjustment of EMDEs has relatively slow after the GFC (about +1pp for EMs on average over the decade after 2009 and negligible for DEs). Moreover, the Covid-19 crisis has caused a much larger shock to the budgets than the GFC (Figure A1.B).

However, sovereign debt sustainability has deteriorated. First, the government debt-to-GDP ratios of both EMs and DEs have steadily increased since their lows in 2008 – in contrast to AEs whose ratio declined from 2014 to 2019 – and are now more than twice as high (Figure A1.C). Second, the interest burden of governments in EMs, and in particular DEs, has risen markedly since the GFC (Figure A1.D). For DEs, this is not only due to the increase in overall public debt, but also to rising borrowing costs – the median effective interest rates on public debt for DEs rose from 2% in 2015 to 3% in 2021. The sovereign interest burden has risen faster than total exports in EMDEs. The median government interest payments in relation to exports of goods and services is forecast to increase to about 7% by 2023, twice as much as in 2008 (Figure A1.E). In addition, gross external debt has also risen faster than total exports in EMDEs since the GFC. The median ratio of the two positions has more than doubled from 2008 to over 200% in 2020 and, after a short-lived improvement in 2021, it is projected rise further (Figure A1.F). Gross external debt includes both public and private debt but in DEs it is mostly sovereign debt.

Figure A1. Advanced, Emerging Market and Developing Economies: Selected Sovereign Debt Sustainability Indicators*



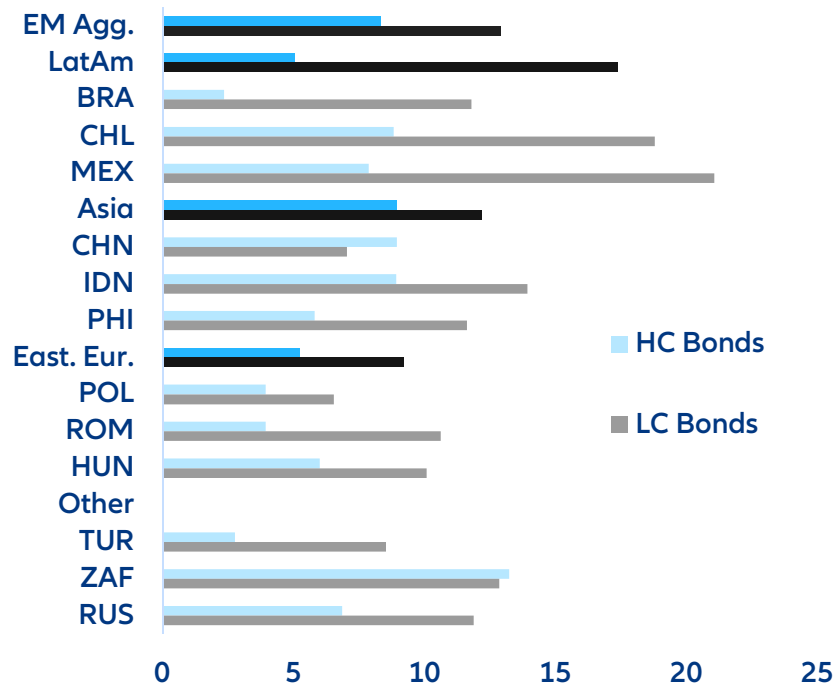
Sources: IMF, Refinitiv, Allianz Research. Note: "govt."=government; */ median values.

Appendix 2. Differences between hard currency and local currency EM bonds

Although typically dominated by domestic investors, the main supply of EM bonds is in the local currency spectrum, where – especially in bonanza periods – international lenders tend to participate in a lesser extent. For a foreign investor, this asset class is in principle riskier than hard currency denominated bonds as besides the traditional items such inflation or growth prospects, one has to take into account exchange rate movements and the fact that the issuer country has the responsibility on the currency and the monetary policy. For domestic investors, on the contrary, the FX risk weights less, and normally local financial institutions have government incentives to generate demand on these assets. Furthermore, the foreign participation in local currency debt it is a double-edged sword that in distress episodes can widen and deepen any initial wound as they reduce their positions and currency exposure.

This different nature manifests itself in different characteristics of the bonds with respect to the hard currency sovereigns. One of these differences is the average maturity of the bonds, which tends to be much shorter when they issued in local currency (see Figure A2.1). As a result, the reference maturity for yields is 5Y rather than 10Y (which is why we use the 5Y for modelling purposes). A second difference is that they usually offer higher yields – due to the greater risks specified in the previous paragraph. Nonetheless, the inclusion of China in global benchmarks– and in general the greater weight of Asian countries – has driven down the yields of EM indexes as these countries display a much more stable “developed market-alike” behavior. Taking these differences into account, the direction of changes in LC and HC yields should be similar.

Figure A2.1. Average maturity (years) of EM country level indexes (BofA) by currency.



Sources: BofA, Refinitiv, Allianz Research. Note: Darker colors indicate regional aggregates. The averages for these aggregates are weighted by the face value (in USD) of the bonds in the indexes. CZE, MYS, THA, and COL are computed for the regional averages, but not included as individual countries in the chart. Some

countries (e.g. CZE, THA) may have lower maturities in foreign currency-denominated bonds as they trying to reduce their FX risk.

Appendix 3. EM sovereign debt model results

The tables below summarize the regression coefficients at first differences for the sovereign HC spreads and LC yields models.

Table A3.1. EM local currency yield and hard currency spread model results (without country fixed effects)

	Sov. Spreads USD (bps)	Sov. Spreads EUR (bps)	Local Yields (USD centric)	Local Yields (EUR centric)
Corp Spreads ¹	0.65 ***	1.27 ***	0.003 ***	0.004 ***
Inflation ²	4.5 ***	-	0.38 ***	0.50 ***
Real GDP growth ²	-	-6.32 ***	0.29 ***	0.32 ***
Oil ³	-0.78 ***	-	-	-
FX Reserves ⁴	-856.13 ***	-	-	-
Expected FX ⁵	-	-	-71.88 ***	-94.98 ***
Country FE	No	No	No	No
Time FE	No	No	No	No

Table A3.2. EM local currency yield and hard currency spread model results (with country fixed effects)

	Sov. Spreads USD	Sov. Spreads EUR	Local Yields USD	Local Yields EUR
Intercept	-	-	3.37 ***	0.38
Corp Spreads ¹	0.65 ***	1.27***	0.001	0.003 **
Inflation ²	4.32 ***	-	0.31 ***	0.35 ***
Real GDP growth ²	-	-6.32***	0.06	0.49 ***
Oil ³	-0.76 ***	-	-	-
FX Reserves ⁴	-978.46 ***	-	-	-
Expected FX ⁵	-	-	-37.09 ***	-84.76 ***
Country FE	Yes	Yes	Yes	Yes
Time FE	No	No	No	No

Sources: Allianz Research. Note: FE=fixed effect, ***/**/*=statistically significant at the 10%/5%/1% level. 1/ Different corporate spread indices depending on the currency.; 2/ Coefficient to be applied per 1 ppt 3/ Only for oil exporters (coefficient to be applied per 1USD/bbl); 4/ Coefficient to be applied to 1ppt on the FX Reserves / GDP ratio; 5/ Coefficient to be applied to a 1 bps in the exchange rate vs. 1 USD.

These assessments are, as always, subject to the disclaimer provided below.

FORWARD-LOOKING STATEMENTS

The statements contained herein may include prospects, statements of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such forward-looking statements.

Such deviations may arise due to, without limitation, (i) changes of the general economic conditions and competitive situation, particularly in the Allianz Group's core business and core markets, (ii) performance of financial markets (particularly market volatility, liquidity and credit events), (iii) frequency and severity of insured loss events, including from natural catastrophes, and the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) persistency levels, (vi) particularly in the banking business, the extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the EUR/USD exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures, and (xi) general competitive factors, in each case on a local, regional, national and/or global basis. Many of these factors may be more likely to occur, or more pronounced, as a result of terrorist activities and their consequences.

NO DUTY TO UPDATE

The company assumes no obligation to update any information or forward-looking statement contained herein, save for any information required to be disclosed by law.