

Emerging markets inflation: Characteristics, causes and effects

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Key points

- Global factors have put upward pressure on inflation rates across emerging market (EM) economies
- EM economies' characteristics have exacerbated the shocks including greater spending on food and energy, weaker anchored inflation expectations and more exchange rate pass-through. Tight labour markets are also important
- EM central banks have tried to preserve credibility and anchor inflation expectations by front-loading rate hikes. This risks sacrificing activity.
- Inflation should decelerate slightly into the year-end before adjusting more into 2023 and beyond. Policy mix is likely to remain in a tighter mode hindering economic convergence.

Inflation has risen globally since May 2020, driven by various shocks in advanced and developing countries following the COVID-19 pandemic. While individually transitory in nature, these prolonged shocks have been supplemented by a further supply crisis after Russia's invasion of Ukraine. In the following paper, we consider the impact of these various shocks on the prospects for inflation in emerging markets (EM)¹. We look at various factors and concentrate on food and energy effects, which we demonstrate have a greater impact on these economies. We also consider the role of inflation expectations and currencies and how this can change the outlook for EM inflation compared to developed market outlooks. We also review regional differentiation and the likely macroeconomic policy responses.

As the effects of these shocks become more entrenched, EM central banks have increasingly attempted to anchor inflation expectations, tightening monetary policy generally earlier than in advanced countries to counter currency depreciation and

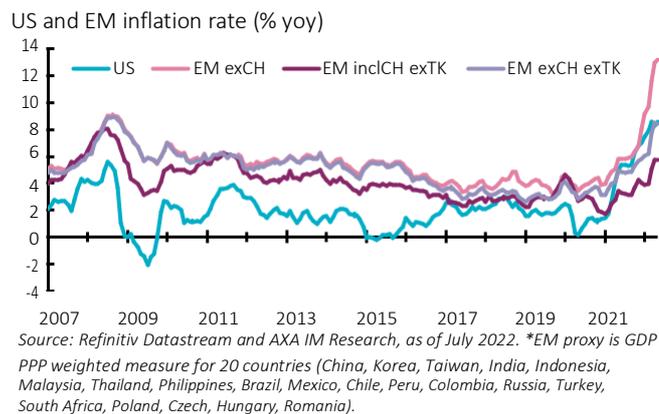
¹ In aggregation we refer to the biggest 19 EM economies, excluding China unless otherwise stated. Total and regional EM aggregates are GDP-purchasing power parity (PPP) weighted.

capital outflows. Some countries have likely come close to peak policy rates. Currency interventions are now being envisaged by some central banks as the risks to growth rise. Fiscal policies have also been constrained since the pandemic, but governments are likely to respond to the latest food and energy shocks with further stimulus. This further complicates the policy mix, pressuring central banks to tighten further. And beyond the difficulty of taming inflation in the short run, the task is even more complicated by the need to credibly anchor inflation expectations in the medium term, as some of the deflationary pressures at play in the past decades – such as increased globalisation – are likely to prove less helpful.

Inflation high before Ukraine war, worse now

Since the onset of the pandemic in 2020, inflation has been on a rollercoaster globally. Following the sharp pandemic-induced fall in inflation, prices started to accelerate with a rebound in oil prices and recovery in demand. Well before the war in Ukraine, global inflation had reached its highest levels in decades.

Exhibit 1: Global inflation picks up markedly



Annual US Consumer Price Index (CPI) inflation recorded a 40-year high of 9.1% in June. Inflation in emerging and developing economies excluding China is now above its highest level since 2008 at 14.0% (Exhibit 1) and is at two-decade highs in Mexico (8% in June) and Turkey (78% in June)².

The rise in EM inflation has been broad-based across countries, although the pace, nature and scale of price rises has differed. In EMs, significant currency depreciation during the financial market stress of March/April 2020 compounded the impact of domestic and global supply chain shocks from lockdowns and re-openings. More recently, the Russian invasion of Ukraine has cast a dark shadow over the global economy while delivering a series of shocks to commodity prices. Brent oil has been above

\$110 in July, nudging down from a peak of \$129 per barrel in June, and remains more than 40% up on a year earlier. This has impacted large EM energy importers like India and Turkey. Food prices have also jumped on the back of interruptions to grain exports from Russia and Ukraine, and on the feed-through from higher energy costs to fertiliser prices. Volatile items such as energy and food account for 56% of the inflation acceleration in EM over the period since the start of the war in February (Exhibit 2). Energy and food prices are often a more important component in EM consumer price indices.

Exhibit 2: EM CPI component breakdown

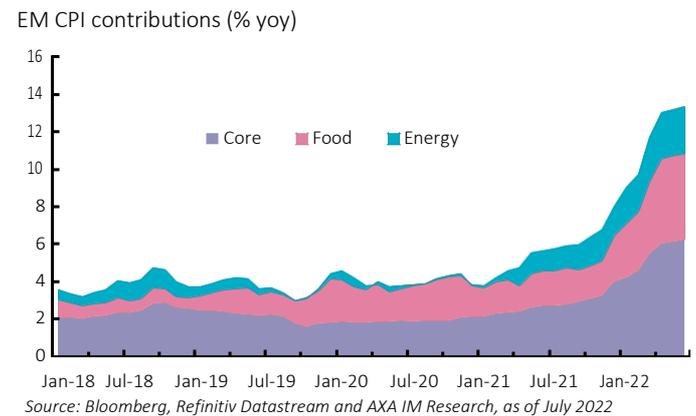
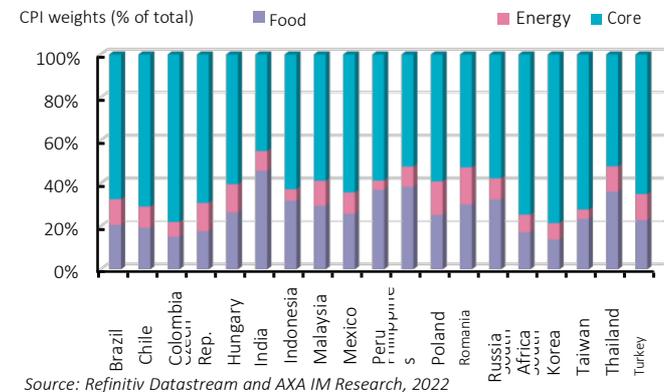


Exhibit 3: EM consumer price indices' weights



Energy a key driver of EM inflation

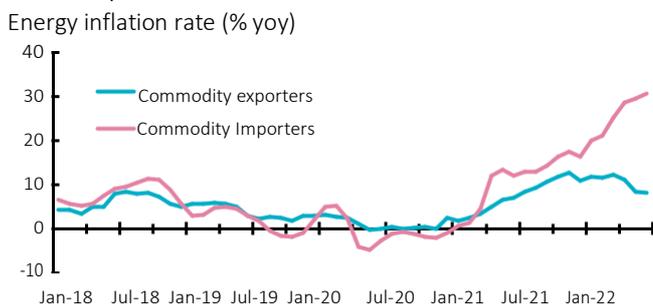
Energy accounts for between 4% and 17% of individual EM countries' CPI baskets. The average sits at 10% compared to 8.7% in the US basket (Exhibit 3). Oil price increases raise oil importers' production costs and, therefore, price levels, often further accentuated by a weakening currency in the wake of a current account deterioration given the higher energy bill. In energy exporting countries, oil price movements mainly affect energy export revenues and government budget revenues,

² We exclude China from our discussion of broader EM inflation because it distorts aggregates. This is both because of its size – China's GDP is slightly more than half of the EM universe's GDP PPP, and 40% of the biggest 20 EM

countries, which in turn account for 46% of global GDP. And it also distorts by the fact that China has been experiencing very different inflation patterns, with idiosyncratic disinflationary food trends at odds with the rest of the world.

which over time could spur investment, capital inflows, stronger currencies and slower inflation. As expected, higher energy prices impact commodity-importing nations to a larger extent, while their effect has been much more muted in commodity exporters (Exhibit 4). Moreover, oil affects distribution costs; it is an important source of energy at present and is used in the transportation of many goods around the world. A rise in oil prices translates into an increase in many goods prices in CPI at a relatively faster pace in EM than in developed countries.

Exhibit 4: Energy prices are affecting all EM – albeit differently



Source: Refinitiv Datastream, AXA IM Research, as of July 2022.
Commodity exporters: Brazil, Chile, Colombia, Indonesia, Malaysia, Peru, Russia and South Africa. Commodity importers: Czech Republic, Hungary, India, Mexico, Philippines, Poland, Romania, South Korea, Taiwan, Thailand and Turkey

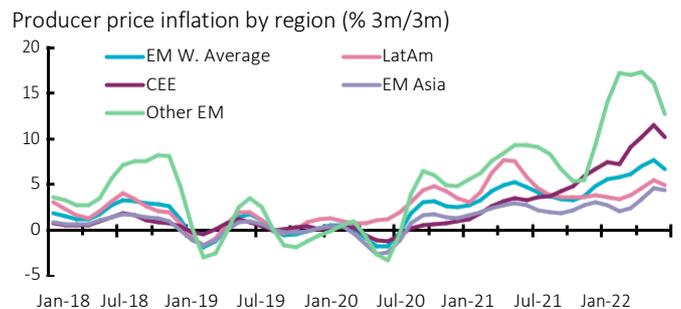
The relationship between oil prices and overall headline EM consumer prices is nevertheless weaker than one may anticipate. This may reflect the fact that EM oil exporters are less harmed by oil price spikes, while governments of EM oil importers often intervene when prices rise sharply by reducing or eliminating taxes on electricity and fuel to cushion the impact on consumers. For our EM-19 sample, we estimate that a 10% increase in oil prices leads to a meagre 0.03 percentage point (ppt) increase in inflation. In a 2017 paper, the International Monetary Fund (IMF) found a larger effect of 0.4ppt using a broader sample of countries. Assuming Brent oil prices at \$94.8 per barrel by year-end, as futures markets currently suggest, this would cut 0.35ppt from annual inflation in EM under IMF assumptions.

However, the relationship between oil prices and Producer Price Index (PPI) inflation is stronger. This strong link comes from the importance of oil as an input in the production of almost all goods. Generally, input cost inflation affects final prices. In the absence of the ability to pass through to consumers, producer profits would be at risk.

PPI inflation has remained relatively better-behaved in Asia (on average around 12% year-on-year as of late), while it accelerated very sharply first in Latin America, then in Central Europe, and is particularly striking at the moment in Turkey (at 132% in June). At the moment, we notice some stabilisation in producer price inflation in Latin America, but the momentum

seems to be accelerating again in both Central Europe and Asia (Exhibit 5). The only signs of stabilisation, although at very high levels, appears to be in ‘other EM’, which includes Russia, Turkey and South Africa, three countries going through very different adjustments. Until producer price inflation peaks, pressures on consumer prices are likely to persist.

Exhibit 5: Producer price inflation pressures continue



Source: Refinitiv Datastream, AXA IM Research, as of July 2022.
LatAm (19.7% weight): Brazil, Chile, Colombia and Mexico. CEE (7.2%): Czech Republic, Hungary, Poland, Romania. EM Asia (52.4%): India, Indonesia, Malaysia, South Korea, Taiwan, Thailand. Other EM (20.6%): Russia, Turkey, South Africa.

Food prices likely to roll over

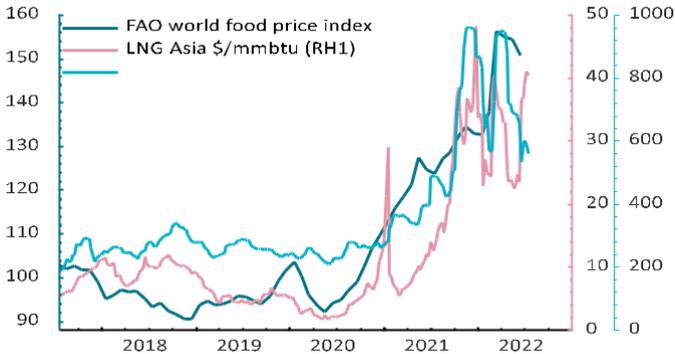
Food prices are the single most important differentiating item between EM and developed market consumer prices baskets. Food accounts for between 14% and 46% of the EM country inflation measures, an average of 27% compared to just 13.4% in the US. International prices for major food items increased in 2021 and further climbed at the start of the year to a peak in March, well beyond the highs of the global food price crises of 2007-2008 and 2010-2011, according to the United Nations’ Food and Agriculture Organization (FAO) Food Price Index.

On the demand side, structural upward pressures have arisen from a growing world population, as well as rising EM incomes, which allow improved diets with higher protein content. But the current food price shock has been mostly driven by the supply side. Rising oil prices have increased the cost of fertiliser (Exhibit 6), machine operations and transport. Additionally, once oil prices top \$60 a barrel, biofuels become more competitive, with grains diverted to biofuel production. More usual short-term supply shocks to exporting countries like droughts in Argentina and Brazil and floods in Australia have additionally led to poor harvests at a time of dwindling world cereal stocks. Moreover, Russia and Ukraine are important global grain suppliers meaning disruption here has been reflected in higher prices for many EM countries.

High prices usually do not last long as farmers increase planting and yields in the following year. However, in the wake of these tensions, some exporting countries have imposed additional taxes (e.g., Argentina on soybean oil), price caps (e.g., Malaysia on cooking oil, Thailand on chicken), quotas and outright

temporary bans on exports of various products (Russia and India on wheat, Argentina on beef, Indonesia on palm oil and China on fertilisers) which tend to lengthen shocks and distort price signals.

Exhibit 6: Food inflation and gas prices are intertwined
Food and gas/urea price



The historic relationship between global food price indices and EM food CPI inflation has been historically weak. This is partly explained by the fact that these indices are composed of multiple products that move in different directions (wheat prices have nearly doubled while rice prices halved in 2021). Rather, EM food inflation tends to be largely driven by domestic factors, like adverse weather or diseases affecting crops locally. As an illustration, food price inflation has been elevated in Latin America and EMEA throughout 2021, while it remained low in Asia. Food prices had actually spiked earlier in Asia partly as the result of African swine fever outbreaks that led to the culling of millions of pigs in China and Vietnam in 2019. More recently, food prices have been more subdued in Asia, in part explained by fewer disruptions to local food distribution and logistics, but also more benign raw food price dynamics and different consumer baskets (more rice, less wheat), but they have been nonetheless accelerating as of late, on the verge of catching up with the global trend.

Momentum in food prices appears to have started to ease in some countries. In May, food inflation decelerated for a second consecutive month in Malaysia, South Korea and Turkey on a three-monthly basis. But uncertainty around future trends remains high. Supply disruptions caused by the Ukraine conflict will take time to normalise, while weather-induced shocks such as La Niña returning this winter are highly probable. However, with a higher likelihood of recession in developed countries, weaker consumer demand could significantly dent pricing directly and through energy costs. Base effects should also contribute to slower annual price growth as well. Assuming agriculture prices stabilise at current levels, global food inflation could halve from Q1 to Q4, which could bring EM

inflation down by almost 2ppt. Food prices are to be monitored very closely as variations have a significant impact on inflation.

The current surge in food prices primarily hits low-income countries. The majority of low-income countries rely on food imports as they are unable to produce their own food, leaving them vulnerable to soaring global food prices. Food consumption accounts for 44% of total household expenditure in low-income countries versus 16% in advanced economies. Sri Lanka is a sad example, undergoing its worst economic crisis since its independence in 1948. Three in 10 Sri Lankans are unsure of where their next meal is coming from, according to the latest food insecurity assessment from the World Food Programme. While many features of Sri Lanka’s plight appear idiosyncratic, the FAO warns that severe food insecurity is likely to deteriorate further in 20 countries from June to September of this year.

Local factors: Domestic-generated inflation

Besides the global factors affecting inflation, domestic factors are also important. Economic activity in developing economies post the COVID-19 pandemic shock has been stronger than expected, helped by robust policy actions in the US and Europe, but also domestic measures taken to support households and corporate balance sheets. According to OECD estimates³, Chile and Turkey had positive output gaps in 2021, while the list will likely lengthen this year adding Colombia, Hungary and Slovenia.

There is increasing evidence of rising wage inflation in some developing economies, particularly in Central Europe and Latin America. Unemployment rates have improved recently across the board, generally back to pre-pandemic levels and sometimes even lower, suggesting tightness in the labour market. The analysis of labour markets remains always partial and limited when it comes to Latin America, for example because of its high share of informal employment (estimated at around 50%). Having said this, among formal workers, wages have increased on an annual basis by 9.6% and 6.9% in Chile and Mexico, respectively. Salaries have risen more modestly in Brazil and Colombia but are on a clear upward trend.

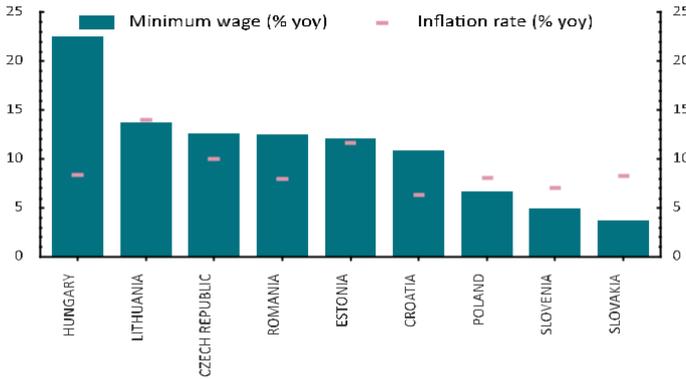
Central and Eastern European Union (CEE EU) member states saw high rises in minimum wages in 2022,⁴ the most notable being in Hungary, but also in Lithuania, Estonia, Czech Republic, Romania and Croatia. Bulgaria increased its rate by more than 9% (from April 2022), while Poland and Slovenia applied lower but still significant increase of around 7%. Latvia stands out as the only EU country that froze its statutory rate for 2022, but after having set the largest increase in the minimum wage in

³ OECD Economic Outlook, [Statistical Annex](#), Table 12 Output Gaps, June 2022

⁴ Eurofound (2022), [“Minimum wages in 2022: Annual review, Minimum wages in the EU series”](#), Publications Office of the European Union, Luxembourg

the EU in 2021. CEE countries still have the lowest minimum wage levels in the EU, but their statutory rates continue to catch up with the pre-enlargement EU-15 member states. However, given the rise in inflation, real minimum wages have actually fallen in most of these countries. By now, only Hungary, Croatia, Romania, and to some extent the Czech Republic, still have positive wage growth in real terms (Exhibit 7).

Exhibit 7: Higher minimum wage in Central Europe



The statutory minimum wage level can also act as a reference value for other benefits, allowances or costs for employees, and these annual increases in the minimum wage can trigger increased costs, including for those not earning the minimum wage. Additionally, the current spike in inflation is triggering renewed discussions and tensions on other wage adjustments, which are highly likely.

Wage pressures remain an important demand inflation push factor in this region which prompts a more forceful response from central banks (see below). The region is also facing changing patterns in migrant worker flows. The CEE is traditionally a receiver of Ukrainian workers (mostly blue-collar male workers) but is now currently welcoming a large share of Ukrainian refugees (mostly women with children). These flows are very different in nature, increasing already-existing tensions in the labour market in these countries with poor demographic trends, and are likely inflationary (albeit hopefully transitory). All in all, domestic factors that pressure inflation rates in some regions may limit the downside scope for global factors to tame inflation into year-end.

EM inflation vulnerable to FX pass-through

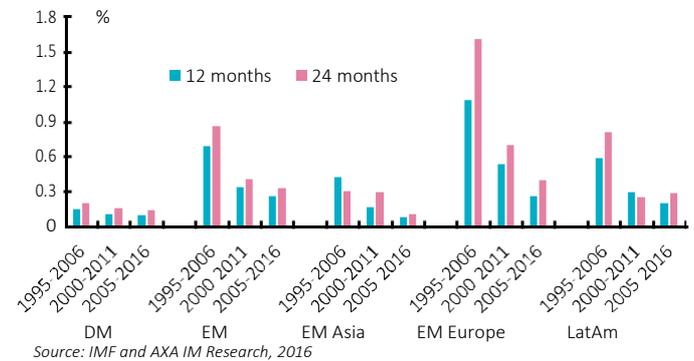
Even excluding volatile items such as food and energy, core inflation has increased globally. EM core inflation in annual terms stands at 10.2%, only 3ppt below headline inflation. Elevated core inflation threatens that inflation is becoming entrenched

⁵ IMF Working Paper “Monetary Policy Credibility and Exchange Rate Pass-Through”, December 2016

across EM countries. And this is higher than we have seen so far in developed economies (5.9% in the US and 3.7% in the Eurozone in June). This suggests an increased pass-through of energy and food prices into broader inflation. This is usually explained by the foreign exchange (FX) pass-through, which is when past currency depreciation fuels current and future inflation.

FX pass-through has actually been constantly falling in EM since the 2008 global financial crisis, but the current shock risks reversing this trend and adding to future inflation pressures. The decline in pass-through in recent decades has in part been the result of subdued inflation in the years preceding the financial crisis. Most EM countries adopted inflation-targeting frameworks in the late 1990s and early 2000s, which controlled consumer prices. This price stability reduced the ability of companies to pass through exchange rate changes. However, if the current inflationary bout persists it could undo decades of hard work by monetary authorities. Furthermore, according to the Bank for International Settlements, increased vulnerability to foreign exchange movements could make countries sceptical of adopting or maintaining a floating exchange rate regime, which tends to reduce the chances of full-blown crises (Exhibit 8).

Exhibit 8: Decades of falling FX pass-through⁵ put to test
FX pass-through evolution by period and region



Higher commodity prices propped up the currencies of EM commodity exporters in the first part of the year. However, the recent drop in certain commodity prices, along with a stronger US dollar as the Federal Reserve has turned more hawkish, has led to a collapse of EM currency strength. The currencies of Brazil, Chile, Colombia, Hungary and Turkey have all depreciated by more than 10% in the last three months. Despite the more limited FX pass-through of the last few years, certain EM central banks are starting to take measures to stabilise their currencies. Chile recently announced a currency intervention programme of around \$25bn. Likewise, the Czech Republic and Hungary started intervening in the currency markets earlier in the year to smooth out volatility after the war in Ukraine hit Eastern European currencies. The possibility of ongoing disruption to

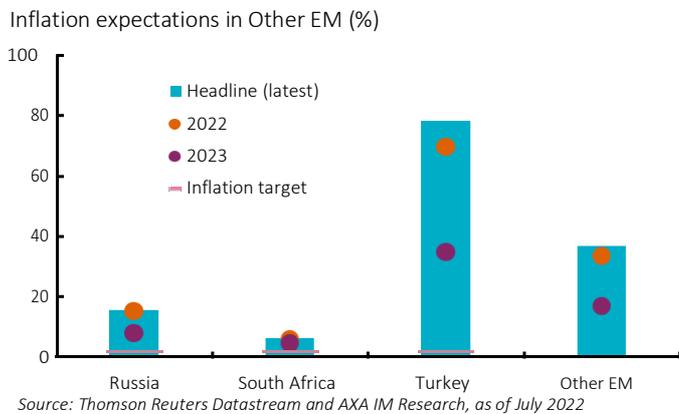
Russian gas supplies to Europe would prove an additional blow to these economies and their respective currencies.

Inflation expectations need anchoring

With the war in Ukraine prolonging and accentuating previous supply shocks, the impact on commodity prices has been at some points the largest since the 1970s and food prices have spiked by the most in the last 15 years – beyond that seen in the pre-Arab Spring. Such shocks have thus induced fear of more persistent inflation as inflation expectations rise in EM. Anchoring inflation expectations has become the most important focus of central banks. Central banks have front-loaded monetary policy tightening in emerging markets in an attempt to maintain inflation credibility.

By contrast, countries where monetary policy failed to support credibility have seen inflation expectations de-anchor with the starkest example among the big EM economies being Turkey, where soaring inflation (78.6% year-on-year in June) was accompanied by policy rates stubbornly held at 14%. The consensus now expects inflation at 70% by end-2022 (and that the central bank target stays at 5% until 2024) and markets anticipate inflation of 35% by the end of next year (Exhibit 9).

Exhibit 9: Inflation expectations (de)-anchoring



The three-monthly change indicating the most recent inflation momentum does not show any signs of moderation. On the contrary, there seems to be renewed acceleration in all regions.

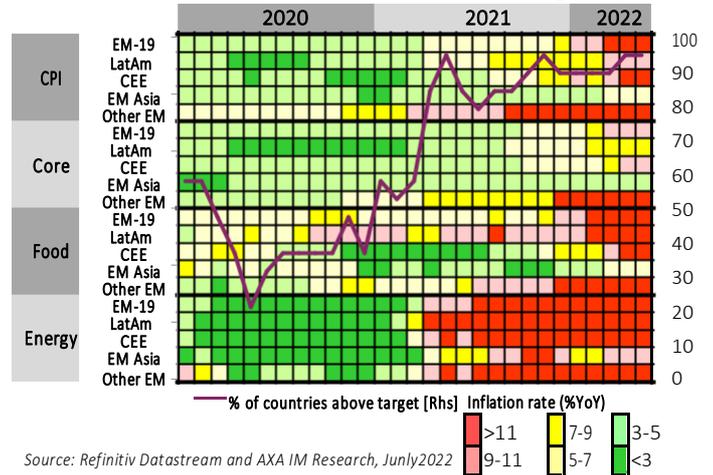
We forecast the EM inflation rate at 13.5% towards end-2022 and 7.5% by end-2023, still above target for most countries, implying tight policies for longer. In our reduced EM universe, only Indonesia, Malaysia, Taiwan, Thailand, the Philippines, and South Africa are expected to converge to their inflation target band by end-2023.

Policy and macro implications

The persistence of above-target inflation creates a policy challenge for central banks. Price stability is key to the credibility

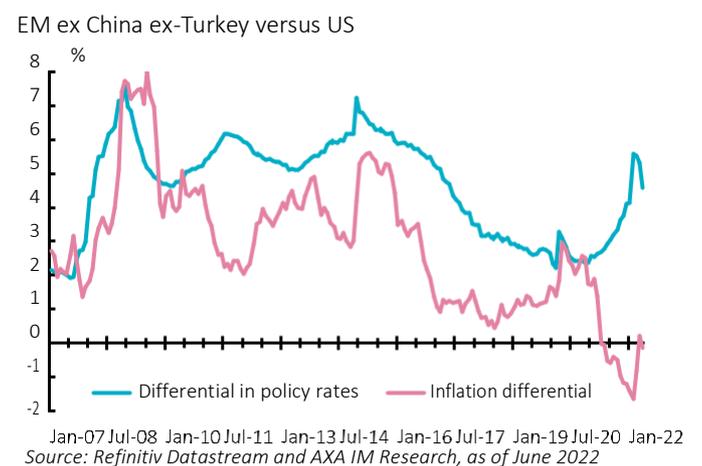
of monetary policy and macroeconomic stability. As such, central banks need to fine-tune their policies in search of a balance between credibility and growth. This tension is rising with the odds of a global recession looming that could be triggered by a sudden shut-off of Russian gas supplied to Europe.

Exhibit 10: Inflation rates and central bank targets



In EM, even before the onset of the war in Ukraine, about two thirds of inflation-targeting central banks had increased policy interest rates over the course of 2021 (Exhibit 10). The tightening cycle accelerated after the Fed started tightening policy this year. At present, nominal and real policy rates are considerably higher in EM (Exhibit 11).

Exhibit 11: Policy response to similar-to-the-US inflation



This tighter monetary stance will particularly affect Latin American countries. The region's economies are closely intertwined through trade with the US and as such their monetary policy needs to be closely aligned with the Fed's to avoid capital outflows and currency depreciation. Brazil has hiked rates by 1050 basis points (bp) since March 2021, Mexico by 375bp, Chile by 850bp and Colombia by 575bp. As inflation pressures should begin to wane in the second half of this year

in a much weaker growth environment, we consider that we are not very far from the peak in policy rates in Brazil and Chile. In Asia, policy tightening has occurred later and more cautiously due to lower inflation and slower economic recovery. South Korea was the first central bank in the region to tighten monetary policy, and it has been followed by most of the others – Thailand and Indonesia have remained on hold but are expected to kick off the rate lift-off before year-end.

Central Europe was a bit later in tightening policy, but has been catching up, with policy rates now higher by 640bp in Poland, 715bp in Hungary and 675bp in the Czech Republic since the lift-off. We think we are closer to the peak in policy rates in the Czech Republic, but expect more tightening in Poland, Romania or Hungary to alleviate inflation pressures and stabilise currencies (particularly the Hungarian forint).

Turkey remains an outlier with rates on hold despite a significant spike in prices. The Russian central bank has hiked policy rates by 425bp in 2021 and reacted very swiftly in February at the start of the war by hiking policy rates by 1150bp to 20%, but it has fully reversed this in subsequent meetings (policy rates were at 8% in June).

Sovereign bond spreads have also widened through regions and rating buckets although the adjustment has been more brutal in the lower-rated sovereigns, where single-B 10-year sovereign bond spreads are now over 800bp. We believe that bond market pressures will only ease when we see tangible signs of inflation softening – plausibly at the start of 2023. At the same time, we believe inflation rates are likely to adjust more slowly as factors that supported disinflation in the past decade have faded, including reduced efficiency gains from globalisation, a shift between capital and labour returns towards labour, and increased energy costs both associated with geopolitical and climate transition. We thus see inflation as structurally higher than in the decade following the global financial crisis.

In emerging markets, this is likely to increase the struggle for central bank credibility. We believe central banks will be driven to err more on the hawkish side and remain in restrictive monetary policy territory for longer in order to consistently anchor expectations and preserve or even attract additional foreign capital with a big enough interest rate differential versus the Fed and/or ECB. A global recession would likely be necessary to prompt a sharp monetary easing cycle into 2023 – a risk scenario, but not our baseline for now.

On the fiscal front, we had seen some normalisation of policy with a sustained unwinding of pandemic-related fiscal support. Recent food and energy shocks have since called for renewed responses from governments across the world. One positive aspect of the current bout of inflation is its material impact on countries' debt-to-GDP ratios. Rising inflation increases nominal GDP, reducing debt ratios. In other words, inflation erodes the real value of government debt. For example, Brazil's debt burden has fallen by 2.0ppt to 78.3% of GDP in just four months. Further, inflation raises tax revenues, as taxes are levied on nominal amounts. However, high inflation is not a tool that countries can lean on to control public debt over the medium term as it makes debt much more expensive for the sovereign. The loss of credibility of the central bank due to persistently high inflation often calls for a market inflation risk premium that is even higher than observed inflation. Moreover, consumers' real income erosion undermines private consumption and thus overall economic growth.

All in all, we see the pendulum of the policy mix shifting towards a tighter one in EM, which in turn will weigh on activity growth forecasts looking ahead. This will undeniably hinder the pace of economic convergence of developing economies. EM should revert to harnessing domestic engines of growth. This will require a strong institutional backdrop and stable political administrations that have a strong enough backing from the electorate to be able to implement structural reforms that increase growth potential.

Regional differentiation

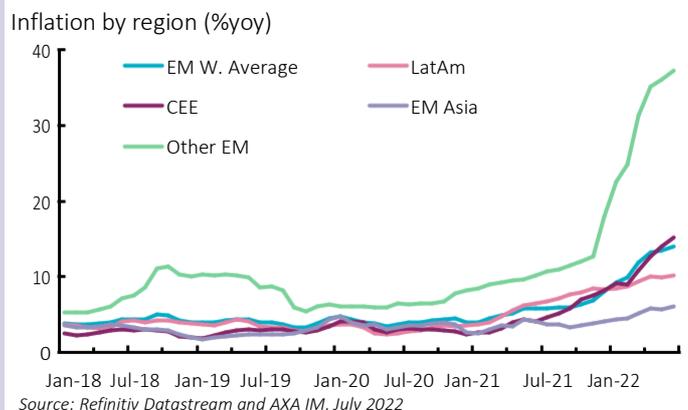
While inflation is clearly rising across all EM regions, there is substantial regional differentiation: Inflation is at its highest at 14% in CEE, while it remains more subdued in EM Asia at 5.7%. Inflation in Latin America sits in between, at around 10%, despite a much more mature hiking cycle. This regional variation is partly explained by different CPI basket structures, characteristics of exchange rate pass-through and by local idiosyncrasies (Exhibit 12).

For example, while no region is immune to rising global fuel and food prices, the impact on headline varies as a result of their own CPI basket structure. Energy has a larger weight in the CPI indices of CEE countries (14% versus an EM-19 average of 10%). Similarly, food costs make up a larger proportion of Asian CPI baskets (31.3%), particularly in India where food represents 46% of the index, but the type of food also differs with Asia more dependent on rice than wheat. In contrast, Latin American CPI indices place larger weights on items of 'core' inflation (68% versus the EM-19 average of 63%).

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Exhibit 12: Regional inflation rates in Emerging Markets



Inflation remains stubbornly high in Latin America despite quick and decisive reactions by central banks there. Several regional factors have historically contributed to more persistent inflation. For example, a history of high inflation in the region led to the introduction of indexation mechanisms (contracts that adjust their terms automatically with inflation) in goods, wages, and financial markets, which results in a quick pass-through of initial inflation shocks to second-round effects. Moreover, Latin America’s high level of informal businesses, that operate outside the formal financial system, limits the transmission mechanisms of monetary policy as they are less sensitive to interest rate changes and can absorb workers during a decline in formal employment. These factors and its history have contributed to inflation expectations being less well anchored in Latin America and thus larger and quicker nominal policy rate hikes are needed to anchor expectations and ultimately tame inflation.

Central and Eastern Europe’s current inflation bout is more the result of circumstantial factors. The region’s very tight labour markets and expansionary fiscal policies are adding to global inflation pressures. Low unemployment in the region (3.9% in February) is creating strong wage pressures, contributing to a wage-price spiral. Nominal wage growth reached 11.0% year-on-year in February. Despite sizzling inflation, governments in the region have maintained expansionary fiscal policies in an attempt to defend the post-COVID-19 recovery. It is fair to say that the region is highly dependent on Russian gas supplies and it would face a significant macro shock, including in many cases negative growth and higher inflation, in the case of a sudden interruption. According to Fitch Ratings, Slovakia, Hungary and the Czech Republic combine high reliance on Russian gas with a lack of viable short-term alternative energy supplies. In contrast, Poland, Lithuania and Romania either have largely secured alternative supplies or have significant domestic production.

In contrast, inflation in Asia has been slower to gain momentum for a variety of region-specific reasons. For example, the pace of economic recovery following the pandemic has been more gradual compared to other regions. Likewise, there has been a more gradual unwinding of pandemic-related restrictions, thus avoiding the demand shocks seen elsewhere. Meanwhile, currency resilience has helped to curtail import price pass-throughs and government subsidies contributed to containing local inflation against rising external prices, while food prices were slower to react to the current global bout of inflation.

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