

# The slowdown in emerging market economies and its implications for the global economy

*Emerging market economies (EMEs) have been a significant driver of global growth and euro area external demand in the 21st century. However, since 2010 growth in EMEs has been on a downward trend. Some of that moderation has been driven by structural factors such as diminishing capital accumulation and productivity gains and waning global trade integration. Other headwinds include the sluggish recoveries seen in advanced economies, which have dampened external demand, sharp declines in commodity prices, which have particularly affected growth in commodity-exporting economies, and the gradual tightening of global financing conditions since 2013. Moreover, following a period in which policies were highly accommodative and private sector debt increased, policy buffers have been eroded and macroeconomic vulnerabilities have increased. The slowdown in EMEs has already dampened global growth and had an adverse, albeit moderate, impact on euro area exports. However, this has been partially offset by the boost to real disposable incomes resulting from declines in commodity prices. Looking ahead, risks to the outlook for EMEs remain on the downside. A further broad-based and pronounced slowdown in EMEs could have a sizeable adverse impact on the outlook for the global economy.*

## 1 Introduction

**The weakening growth observed in EMEs in recent years has surprised many forecasters.**<sup>1</sup> That slowdown has been pronounced and has affected a large number of countries. However, the underlying causes vary from country to country. In some countries, structural impediments to growth and macroeconomic imbalances are increasingly limiting potential growth, while other countries are adjusting to lower commodity prices and tighter external financing conditions.

**EMEs are playing an increasingly important role in the global economy.** EMEs account for almost two-thirds of global GDP in purchasing power parity (PPP) terms. A broad slowdown in EMEs could therefore act as a significant drag on global growth.

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<sup>1</sup> This article focuses mainly on a group of large EMEs comprising Argentina, Brazil, Chile, China, Colombia, Egypt, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Taiwan, Thailand, Turkey and Venezuela. In some cases, however, data availability issues have necessitated the analysis of smaller groups. Moreover, definitions of EMEs vary across statistical providers, and the countries included in broader aggregates compiled by other institutions can vary.

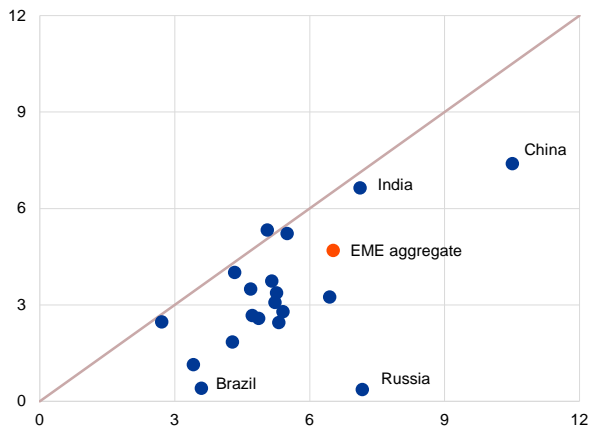
**This article analyses the causes of the slowdown in EMEs and assesses the economic outlook and the implications for the global economy and the euro area.** The next section outlines the headwinds that have been impeding EMEs in recent years. Section 3 then assesses the risks to the economic outlook, focusing on EMEs' potential vulnerability to an abrupt tightening of external financing conditions against the backdrop of rising indebtedness. The final section discusses the role of EMEs in the global economy and considers the transmission channels to the euro area in the event of a more pronounced slowdown in EMEs.

## 2 The factors contributing to the slowdown in EMEs

**Since 2010 growth in EMEs has been on a downward trend.** EMEs weathered the global financial crisis rather better than advanced economies and recovered strongly afterwards, recording aggregate GDP growth of 7.5% in 2010. However, last year was the fifth consecutive year of slowing economic growth in EMEs, with aggregate GDP growth standing at just 4.0% in 2015 – markedly lower than the levels observed in the years before the financial crisis. The slowdown has been broadly based: growth has been weaker in the last three years than it was before the financial crisis in most large EMEs (see Chart 1).

**Chart 1**  
Average GDP growth in large EMEs

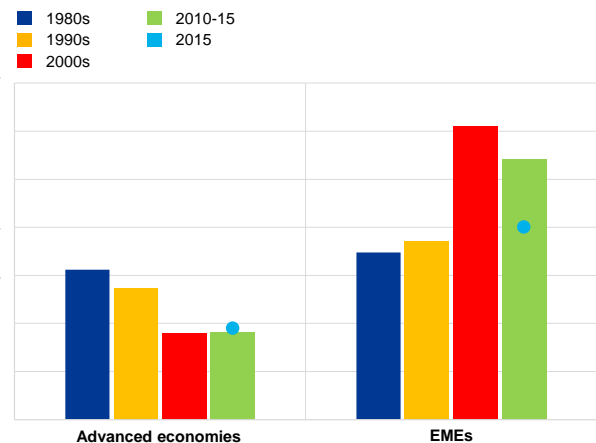
(x-axis: average real GDP growth, 2000-07; y-axis: average real GDP growth, 2012-15; annual percentage changes)



Sources: IMF and ECB staff calculations.  
Notes: The sample comprises Argentina, Brazil, Chile, China, Colombia, Egypt, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Taiwan, Thailand and Turkey. The EME aggregate is a PPP-weighted average for these countries.

**Chart 2**  
Average GDP growth in past decades

(annual percentage changes)



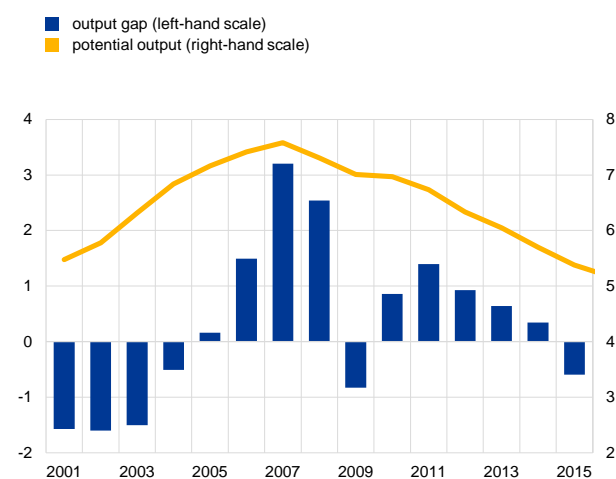
Sources: IMF and ECB staff calculations.

**One factor underlying that deceleration has been a structural moderation in EMEs' growth.** Looking at developments from a longer-term perspective, the period from 2000 to 2010 was exceptional, with EMEs averaging aggregate GDP growth of almost 6%, compared with less than 4% in the previous two decades (see Chart 2). EMEs benefited from a confluence of tailwinds: strong demand in advanced economies, buoyant financial markets in the run-up to the global financial crisis, and

increasing integration into the global economy. The rise in commodity prices – which was partly attributable to the strong growth seen in many EMEs – also benefited commodity-exporting economies, boosting investment in these economies. In this environment, robust capital accumulation and strong productivity growth helped to boost trend growth rates. As those factors have ebbed since the global financial crisis, so too has potential growth. In addition, previously favourable demographic trends have gradually waned in some countries, as growth in the working age population has moderated. ECB staff estimates based on a Cobb-Douglas production function attribute around one-third of the moderation in growth seen in the seven largest EMEs since 2010 to falling potential growth (see Chart 3).

**Chart 3**  
Potential output in large EMEs

(percentages of potential output; annual percentage changes)



Sources: IMF, OECD, national data and ECB staff calculations.  
Note: This chart shows PPP-weighted estimates of potential GDP for Brazil, China, India, Mexico, Russia, South Korea and Turkey, based on a Cobb-Douglas production function.

**Changes in potential growth have varied across the largest EMEs, as have the factors underlying those developments.**

In China, years of credit-driven investment have resulted in excess capacity in some sectors, as well as the misallocation of resources and a build-up of debt, while the benefits of accession to the World Trade Organization and increased trade integration have gradually waned. Moreover, although there remains scope for productivity gains through the reallocation of workers from rural to urban areas and integration into more advanced sectors with higher levels of productivity, the labour force has been in decline since 2011. In Russia, unfavourable demographic trends are also weighing on potential growth. Declines in energy prices and international sanctions imposed as a result of the conflict in Ukraine have also exacerbated long-standing obstacles to investment and growth, such as infrastructure bottlenecks and a poor business climate (which were encouraging capital outflows even before the sharp recession began in 2014). In Brazil, potential growth

has deteriorated as reduced commodity prices have hit investment activity in the country's key export sectors. Weak infrastructure investment and an onerous regulatory environment have exacerbated poor productivity. In India, by contrast, potential growth has remained robust as favourable demographics and structural reforms aimed at enhancing the country's business environment have boosted growth dynamics.<sup>2</sup>

**External factors have also contributed to the slowdown in EMEs.** The literature has highlighted the impact that external factors, such as global trade dynamics, the global financing environment and commodity market fluctuations, have on EMEs' economic activity.<sup>3</sup> Bayesian vector autoregressive (BVAR)<sup>4</sup> models for a sample of

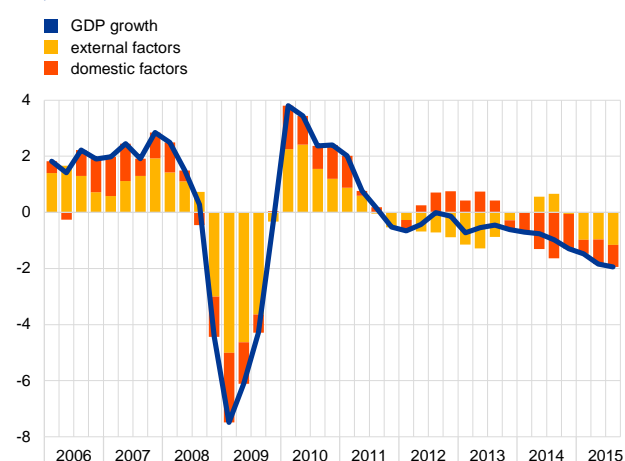
<sup>2</sup> See the box entitled "The rise to prominence of India's economy", *Economic Bulletin*, Issue 4, ECB, 2015.  
<sup>3</sup> See IMF, *World Economic Outlook*, Chapter 4, April 2014; and Didier, T., Kose, M.A., Ohnsorge, F. and Ye, L.S., "Slowdown in emerging markets: rough patch or prolonged weakness?", Policy Research Note PRN/15/04, World Bank Group, December 2015.

12 large EMEs confirm that view, suggesting that external factors have accounted for around half of all variations in growth dynamics in the last two decades. Looking at the most recent period, external factors were important in the initial downturn observed as of 2010. Since 2014, however, domestic factors have played a larger role in dampening growth (see Chart 4).

#### Chart 4

#### Contributions to GDP growth in EMEs

(contributions to aggregate annual GDP growth expressed as deviations from the steady state)



Sources: ECB staff calculations, Bloomberg and the IMF World Economic Outlook.  
Notes: This chart shows estimated contributions to annual GDP growth (expressed as deviations from the steady state) based on BVAR models estimated separately for each EME and aggregated using PPP weights. The sample comprises Argentina, Brazil, Chile, India, Indonesia, Malaysia, Mexico, Russia, South Korea, Taiwan, Thailand and Turkey. See footnote 4 for details.

#### Among the external factors, sluggish external demand and global trade have both had an adverse effect on EMEs in recent years.

Global trade volumes have grown at rates well below historical norms in the past five years. After growing at almost twice the rate of GDP on average in the two decades before the financial crisis, trade has barely kept pace with economic activity since 2011. Some of that weakness stems from inter-EME trade developments, perhaps reflecting the dwindling benefits of EMEs' integration into global markets. In particular, the moderation seen in trade with China has affected that country's trading partners, including other Asian EMEs and commodity-exporting economies. However, the slow recoveries observed in advanced economies, where both private and public sectors have sought to repair balance sheets in the wake of the global financial crisis, have also weighed on trade-intensive components of demand such as investment. Moreover, the persistent weakness of global trade volumes since 2011 may also point to a structural shift, perhaps related to the weakening of global supply chain expansion.<sup>5</sup>

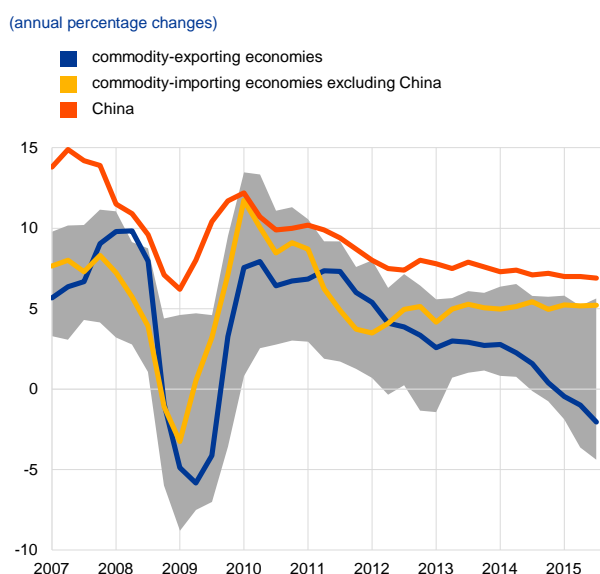
**Declines in commodity prices have also affected some EMEs.** Oil prices have declined sharply over the last 18 months, with prices at the end of March 2016 around two-thirds of the mid-2014 peaks. Other commodity prices have also been on a downward trend, with the IMF non-fuel primary commodities index standing 40% below its 2011 peak. The moderation seen in commodity prices – particularly oil prices – has reflected both supply and demand-side factors. Much of the initial decline in oil prices during 2014 was attributable to supply-side factors, as oil production increased more strongly than expected against the backdrop of high levels of past investment and technological innovations. OPEC's decision in November 2014 to keep production quotas unchanged exacerbated the decline in oil prices, as did the resilience of shale oil production. However, weaker demand played

<sup>4</sup> The BVAR models are estimated separately for each of the 12 EMEs. Each model includes an external (i.e. exogenous) block (comprising growth and inflation in the United States, ten-year US bond yields, the J.P. Morgan Emerging Market Bond Index spread, and the terms of trade) and a domestic block (comprising GDP, inflation, the real effective exchange rate and the short-term real interest rate). The models use a Choleski identification scheme, with the variables ordered as above. They are estimated using quarterly data from the first quarter of 1998 to the third quarter of 2015. For a similar analysis, see IMF, *World Economic Outlook*, Chapter 4, April 2014.

<sup>5</sup> See the article entitled "Understanding the weakness in world trade", *Economic Bulletin*, Issue 3, ECB, 2015.

an increasingly important role in driving prices down in the second half of 2015, particularly as growth in EMEs slowed. This has resulted in a sharp divergence in EMEs' prospects, depending on whether they are exporters or importers of commodities. Commodity-exporting economies' terms of trade have deteriorated, which has affected economic activity and caused contractions in investment in commodity-related sectors (see Chart 5). In some larger countries, particularly Brazil and Russia, declines in key commodity prices have interacted with other shocks (including political uncertainty and the fallout from geopolitical tensions), leading to significant macroeconomic adjustments. As commodity-driven revenues have shrunk and fiscal positions have deteriorated, governments in commodity-exporting economies have had difficulty cushioning the downturn in activity. Commodity-exporting economies with flexible exchange rates have also seen their monetary policies constrained, as their currencies have depreciated in line with the falling commodity prices and inflationary pressures have risen. At the same time, although commodity-importing economies have benefited from rising real disposable incomes, the effects on economic activity have been fairly slow to materialise. In some countries, falling energy prices have enabled governments to reduce fuel subsidies and increase fiscal sustainability, while in others, private savings have increased.

**Chart 5**  
Average GDP growth in commodity-exporting economies and commodity-importing economies



Sources: National data and Haver Analytics.  
Notes: The latest observation is for the third quarter of 2015. Lines are PPP-weighted averages of GDP growth in EMEs. The shaded area shows the 10th to the 90th growth percentiles across the EMEs in the sample. The commodity-importing economies are the Hong Kong SAR, India, Singapore, South Korea, Taiwan, Thailand and Turkey. The commodity-exporting economies are Argentina, Brazil, Chile, Colombia, Indonesia, Malaysia, Mexico, Russia, Saudi Arabia, South Africa and Venezuela.

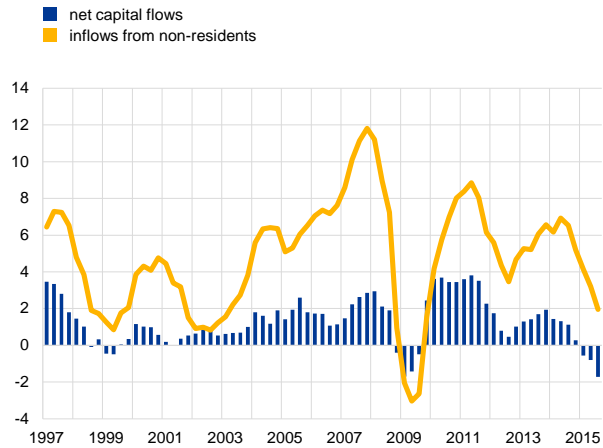
**In addition, after being broadly favourable in the years following the global financial crisis, the external financing environment has gradually tightened.** In the early stages of the post-crisis recovery, EMEs benefited from a supportive external financing environment. Global funding conditions were favourable to EMEs, with central banks in advanced economies pursuing accommodative policies, keeping interest rates low and engaging in large-scale asset purchases. Capital flows to EMEs generally remained buoyant. Over the last three years, however, financing conditions have tightened. The “taper tantrum” observed in the summer of 2013, when speculation mounted about the Federal Reserve System’s intention to tighten US monetary policy, sparked a sharp correction in financial markets. External funding conditions tightened again in anticipation of an increase in US interest rates (which eventually came in December 2015). Meanwhile, the unwinding of excessive stock market valuations amid changes in China’s exchange rate policy framework has added to uncertainty and financial market volatility in recent months. Balance of payments data show net capital outflows from the largest EMEs during the first three quarters of 2015 (see Chart 6). More timely indicators

point to a strengthening of capital outflows towards the end of 2015, particularly in China. Several EMEs have seen their currencies depreciate (see Chart 7). The impact of tighter financing conditions can be seen in higher bond yields, widening credit spreads and substantial corrections in equity prices.

**Chart 6**

**Average capital flows to EMEs**

(percentages of GDP; four-quarter moving averages)

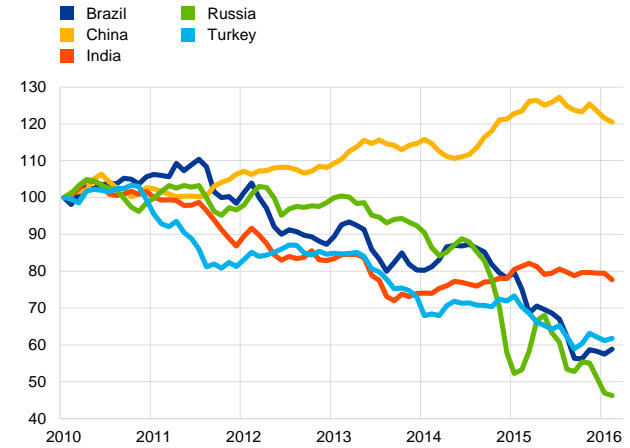


Sources: IMF and national data.  
Notes: The latest observation is for the third quarter of 2015. Data represent aggregate flows (as percentages of GDP) for Argentina, Brazil, Chile, China, Colombia, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, Singapore, South Korea, Taiwan, Thailand and Turkey. Net capital flows represent the financial account from the balance of payments excluding changes in reserve assets.

**Chart 7**

**Nominal effective exchange rates**

(indices: January 2010 = 100)

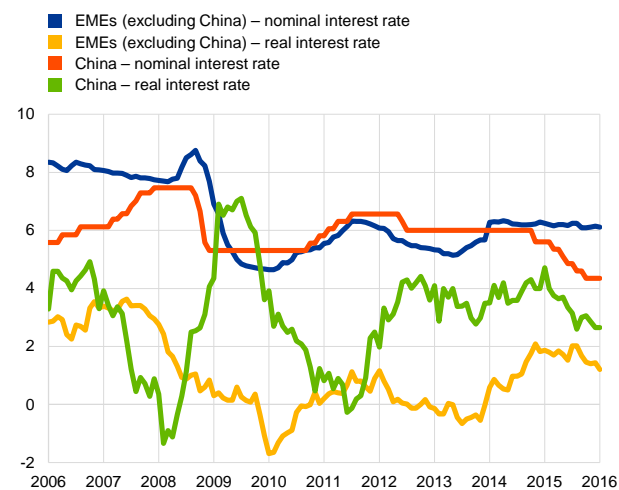


Source: ECB staff calculations.  
Note: The latest observation is for February 2016. An increase in the index denotes an increase in the value of the currency.

**At the same time, the support provided by accommodative policies in the aftermath of the financial crisis, which helped to sustain demand (particularly through strong credit growth), has weakened.** Although favourable external funding conditions supported EME growth in the years after the global recession, they also posed challenges for EMEs. Faced with a choice between restraining domestic demand and deterring unwelcome capital inflows in order to alleviate appreciation pressures, many EMEs chose to maintain relatively accommodative policies. On aggregate, short-term (ex post) real interest rates were close to zero from 2008 to 2012 (see Chart 8). Long-term interest rates also fell during this period. The substantial fiscal stimulus provided in 2009 and 2010 contributed to the supportive macroeconomic environment. In the presence of loose financial conditions, credit expanded rapidly in several countries (see Chart 9). The analysis in the box suggests that domestic and global financial cycles have had a major influence on EMEs' business cycles. The combination of rising domestic credit and capital inflows initially helped to sustain EME growth during a period of external weakness, but in the last three years financial conditions have tightened and that support has begun to wane.

**Chart 8****Policy interest rates in EMEs**

(percentages per annum)

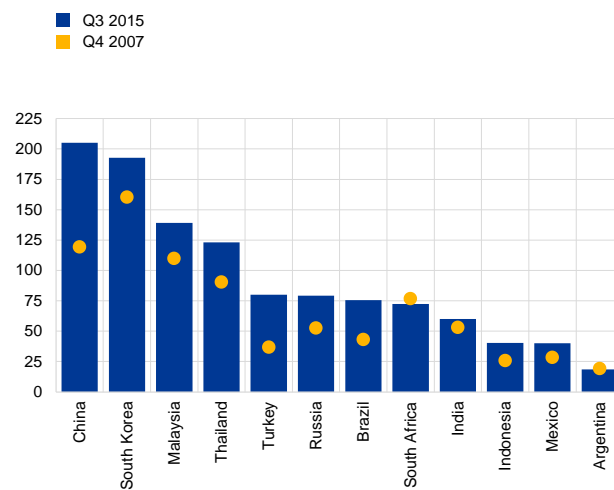


Sources: IMF and national data.

Notes: The latest observation is for January 2016. Data represent GDP-weighted averages for the following EMEs: Brazil, Chile, Colombia, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, South Africa, South Korea, Taiwan, Thailand and Turkey. Real rates are calculated as the nominal short-term policy rate minus the CPI inflation rate.

**Chart 9****Private sector credit-to-GDP ratios**

(private sector credit as a percentage of GDP)



Source: BIS.

**Box**

The implications of global and domestic credit cycles for EMEs: measures of “finance-adjusted” output gaps

**The buoyant credit growth observed in many EMEs has increased concerns about growing imbalances and the potential risks to the economic outlook if the credit cycle were to turn.** In order to gauge the impact of global and domestic credit developments on the business cycle, this box describes estimates of “finance-adjusted” output gaps for a selection of EMEs.

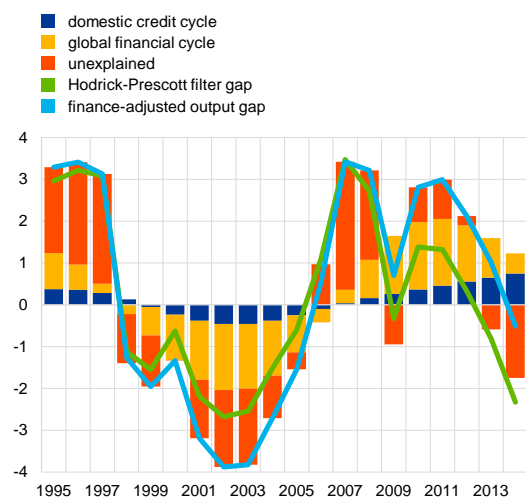
**Measures of finance-adjusted output gaps provide a way of understanding the role that financial factors have played in shaping recent EME business cycle dynamics.** The theory is that traditional measures of potential output may be too restrictive, as inflation may not be the only symptom of an unsustainable expansion. Indeed, the pre-crisis experiences of a number of advanced economies suggest that it is possible for output to be on an unsustainable path even if inflation remains low and stable. Recent literature has explored the concept of finance-adjusted gaps (which use simple filtering techniques to estimate the impact that the financial cycle has on economic activity), finding that financial cycle information can explain some of the cyclical movements in output in some advanced economies.<sup>6</sup>

<sup>6</sup> See Borio, C., Disyatat, P. and Juselius, M., “Rethinking potential output: Embedding information about the financial cycle”, *BIS Working Papers*, No 404, February 2013.

## Chart

### Contributions to the aggregate EME finance-adjusted output gap

(gap as a percentage of trend output; percentage point contributions)



Source: ECB staff calculations.

Notes: This chart shows contributions to a finance-adjusted output gap estimated for an aggregate of 12 large EMEs. See footnote 7 for details of the sample. The latest observation is for 2014.

**Finance-adjusted output gaps have been estimated for a sample of 12 large EMEs, incorporating measures of global and domestic credit cycles.**<sup>7</sup> The model augments a Hodrick-Prescott filter within a simple state-space framework, allowing financial variables to influence the output gap. Domestic credit gaps are estimated as the deviation of real private sector credit from long-term trends, using an asymmetric band-pass filter.<sup>8</sup> The global financial cycle is estimated as the deviation of aggregate net capital flows to EMEs from long-term trends.<sup>9</sup>

**The model suggests that financial cycle information – as captured by the behaviour of domestic and global credit aggregates – explains part of the cyclical movements in output for most EMEs.** For most countries, global and domestic credit variables explain a large amount of the variation seen in output gaps. Since the global financial crisis, the

finance-adjusted output gap has diverged from a measure based on the Hodrick-Prescott filter. Several countries have seen strong increases in domestic credit during this period, which have raised growth above trend levels. Strong capital inflows also helped to boost economic activity in the aftermath of the global financial crisis, but in 2013 and 2014 (the last two years for which output gaps have been estimated) this contribution moderated. With global financing conditions having tightened further in 2015, this contribution is likely to have declined further.

**The finance-adjusted model comes with some important caveats, but it provides an interesting alternative perspective on recent developments in EMEs, differing from other models of the business cycle.** The production function approach suggests that EMEs' potential growth rose in the mid-2000s and has since fallen (see Chart 3 in the article). By contrast, estimates of finance-adjusted gaps offer an alternative view, suggesting that, in part, EMEs' strong growth reflected some overheating, with economic growth reliant on strong credit growth, particularly after the financial crisis. There are clear limitations to this approach. The model is mostly statistical and does not allow for a structural interpretation. It does not model the process of

<sup>7</sup> The sample comprises Brazil, Chile, China, India, Indonesia, Malaysia, Mexico, Russia, South Africa, South Korea, Thailand and Turkey. The model is estimated separately for each country using annual GDP data between 1980 (or the earliest available data) and 2014, which are aggregated using PPP weights.

<sup>8</sup> Reflecting the common view in the literature that financial cycles last longer than traditional business cycles, we measure credit gaps using a filter that isolates cycles with a duration of between 8 and 20 years. See Drehmann, M., Borio, C. and Tsatsaronis, K., "Characterising the financial cycle: don't lose sight of the medium term!", *BIS Working Papers*, No 380, June 2012.

<sup>9</sup> See Blanchard, O., Adler, G. and de Carvalho Filho, I., "Can foreign exchange intervention stem exchange rate pressures from global capital flow shocks?", *IMF Working Papers*, No 15/159, July 2015. For each country, the series for aggregate net capital flows to EMEs that is included in the model excludes that country from the calculation – i.e. capital flows to the country are not included in the calculation of the aggregate.



the financial cycle, and the link with the business cycle is simplistic. Moreover, it provides no insight into the possible distortions generated by financial imbalances.<sup>10</sup> However, even bearing these caveats in mind, the model could suggest that a further tightening of financing and credit conditions could remove a quantitatively important component of support for economic activity in some EMEs.

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### 3 Risks and vulnerabilities in the outlook for EMEs

**As economic activity in EMEs has slowed, concerns have increased about the outlook for economic growth and the possible vulnerabilities of some countries.** As discussed in Section 2, some of the factors that helped to sustain activity in the short term have meant that – in some countries, at least – vulnerabilities have increased. The nature of that fragility varies from country to country, ranging from external vulnerabilities to domestic imbalances such as high levels of credit growth. This section assesses risks to the outlook for EMEs, focusing on EMEs' potential vulnerability to an abrupt deterioration in global risk sentiment.

**Many EMEs appear better placed to withstand external shocks than they were prior to previous crises.** Most of the large EMEs have better external positions than they did prior to previous crises. Many countries have either current account surpluses or small deficits (see Chart 10). EMEs also typically have stronger macroeconomic frameworks, with more flexible exchange rate regimes. Moreover, many EMEs hold substantial foreign exchange reserves, considerably in excess of their short-term external liabilities, which should increase resilience in the event of external shocks. A large proportion of EMEs have also adopted inflation-targeting monetary policy frameworks, which can help to anchor inflation expectations and stabilise business cycles.<sup>11</sup>

**Nonetheless, the rising external debt observed in recent years (particularly as a result of US dollar-denominated financing) may have left EMEs vulnerable to a sustained deterioration in global financing conditions.** EMEs' stock of external debt has risen since the global financial crisis, increasing from USD 3 trillion to USD 5 trillion between 2010 and 2014. The appreciation of the US dollar has helped to increase the external debt servicing burden in domestic currency terms for borrowers in some of these countries. Banks remain the primary recipients of cross-border lending, but non-financial corporations are increasingly financing themselves by issuing debt securities, often through overseas subsidiaries.<sup>12</sup> Allowing companies to increase wholesale bank deposits may also have fuelled the expansion of bank

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<sup>10</sup> For a more comprehensive discussion regarding the possible drawbacks, see Borio, C., Disyatat, P. and Juselius, M., "Rethinking potential output: Embedding information about the financial cycle", *BIS Working Papers*, No 404, February 2013.

<sup>11</sup> See Didier, T., Kose, M.A., Ohnsorge, F. and Ye, L.S., "Slowdown in emerging markets: rough patch or prolonged weakness?", Policy Research Note PRN/15/04, World Bank Group, December 2015.

<sup>12</sup> External debt statistics may understate cross-border borrowing, as some corporations obtain funding from their foreign subsidiaries via inter-company lending, which is not recorded in international debt statistics. See Avdjiev, S., Chui, M. and Song Shin, H., "Non-financial corporations from emerging market economies and capital flows", *BIS Quarterly Review*, December 2014.

balance sheets and domestic credit booms in some EMEs. Although aggregate data suggest that EMEs' net foreign currency position has improved in recent years, there may be currency and maturity mismatches at sector or firm level.<sup>13</sup> In these circumstances, rather than acting as a shock absorber, the depreciation of EMEs' currencies could exacerbate balance sheet weaknesses, posing a risk to their economic outlook. Moreover, while growing issuance of debt denominated in local currency has helped to reduce currency mismatches for EME borrowers, sizeable non-resident holdings of such bonds may nonetheless leave those countries exposed in the event of a swift reversal of global sentiment.<sup>14</sup>

**Moreover, domestic imbalances have increased and policy space has become more limited in some countries.** As foreign currency-denominated financing has risen, domestic credit has increased significantly. Aggregate EME debt across the government, household and corporate sectors has risen by around 50 percentage points as a percentage of GDP since end-2007, with credit to the non-financial corporate sector accounting for the majority of that increase. While the sharpest rise in debt has been observed in China, several other countries have also seen marked increases in private sector credit as a percentage of GDP (see Chart 9). Moreover, in some countries, growing imbalances have been combined with diminishing policy buffers (see Chart 10). Most of the largest EMEs are currently running fiscal deficits. In particular, although falling commodity prices have alleviated fiscal pressures in commodity-importing economies, the fiscal positions of commodity-exporting economies have deteriorated considerably as commodity-driven revenues have shrunk. At the same time, there has been a divergence in terms of the scope for monetary accommodation in the event of further shocks. Some commodity-importing economies have already benefited from interest rate cuts as inflation has fallen. In some cases, however, the scope for further monetary easing may be tempered by concerns about excessive credit growth, given the strong build-up of credit in recent years. In commodity-exporting economies, monetary policy's ability to cushion a further downturn is limited by either fixed exchange rate regimes or high levels of inflation (associated, in part, with sharp declines in the value of those countries' currencies).

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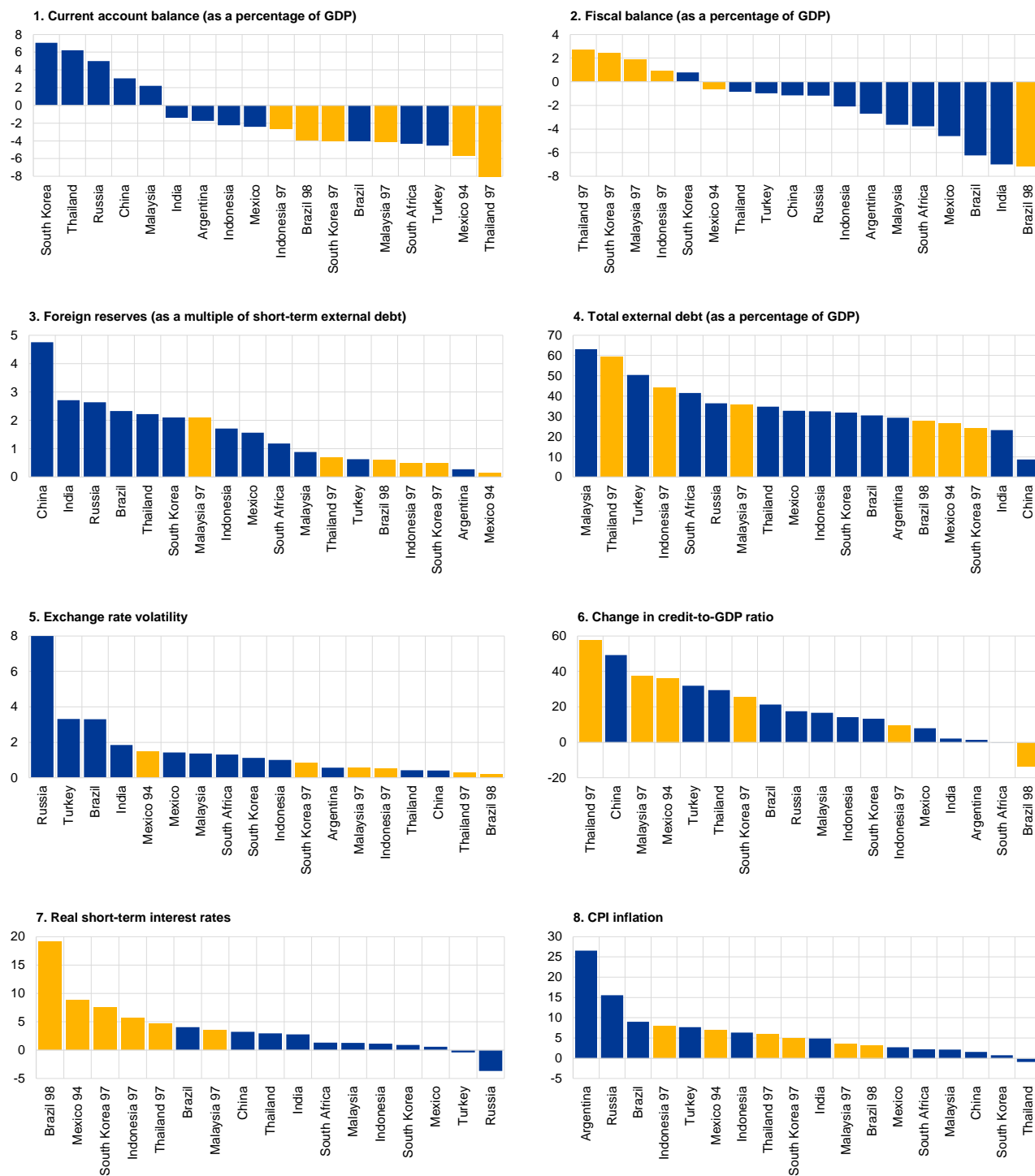
<sup>13</sup> See Bénétrix, A.S., Lane, P.R. and Shambaugh, J.C., "International currency exposures, valuation effects and the global financial crisis", NBER Working Paper No 20820, January 2015. For a discussion of risks to corporate balance sheets, see Chui, M., Fender, I. and Sushko, V., "Risks related to EME corporate balance sheets: the role of leverage and currency mismatch", *BIS Quarterly Review*, September 2014. See also "Corporate Leverage in Emerging Markets – A Concern?", Chapter 3, IMF *Global Financial Stability Report*, October 2015.

<sup>14</sup> See Ebeke, C. and Kyobe, A., "Global financial spillovers to emerging market sovereign bond markets", *IMF Working Papers*, No 15/141, June 2015.

## Chart 10

### EMEs' vulnerabilities relative to previous crises

(latest data for EMEs (blue bars), compared with previous crises (yellow bars))



Sources: IMF, BIS, Wall Street Journal, national data and ECB staff calculations.

Notes: Blue bars show recent data for large EMEs. Yellow bars show the situation prior to previous crises in EMEs: Mexico in 1994; Thailand, Indonesia, Malaysia and South Korea in 1997; and Brazil in 1998. The panels show: (1) current account balances as a percentage of GDP in 2014; (2) general government net lending as a percentage of GDP in 2014 (with positive (negative) figures denoting surpluses (deficits)); (3) foreign exchange reserves divided by short-term external debt as a percentage of GDP in 2014; (4) total external debt as a percentage of GDP in 2014; (5) the standard deviation of daily exchange rate changes against the US dollar in 2015; (6) changes in the ratio of credit to the non-financial private sector to GDP in the five years to the second quarter of 2015; (7) short-term policy interest rates minus annual CPI inflation in 2015; and (8) annual CPI inflation in 2015.

**An abrupt shift in global risk sentiment could therefore pose risks to EMEs' economic outlook.** The “taper tantrum” of 2013 provided an indication of the turbulence that could arise in the event of a sharp reversal of global risk sentiment. In May of that year, speculation about the pace of monetary policy tightening in the United States prompted a sharp increase in the yield on ten-year US Treasury bonds, which rose by almost 100 basis points between then and the end of the year. EME asset prices fell and some countries' currencies depreciated rapidly. Economies with external fragilities, such as large current account deficits or heavy reliance on external funding, experienced particularly severe financial turmoil. The Federal Reserve's decision to raise interest rates in December 2015 was met with a relatively muted response in financial markets. Federal funds futures suggest that markets are expecting subsequent policy rate increases to be very gradual, and term premia remain compressed. However, a deterioration in global funding conditions could present policymakers in the worst-affected EMEs with new challenges. Indeed, central banks could be forced to tighten monetary policy substantially to prevent large-scale capital outflows and currency depreciation.

**Moreover, other risks are also weighing on the outlook for EMEs.** The protracted downturn over the last five years has raised concerns that the effect of cyclical and structural headwinds in some EMEs could be stronger than expected. For instance, the impact of weak investment, infrastructure bottlenecks and capacity constraints could be stronger than expected. In more vulnerable economies, the limited policy space could also prevent monetary or fiscal easing from cushioning the effects of weaker demand. Finally, geopolitical risks are also continuing to weigh on the economic outlook, and increases in tensions could have adverse implications for EMEs.

## 4 The implications of the downturn in EMEs for the global economy and the euro area

**EMEs play a prominent role in the global economy.** On average, EMEs have accounted for three-quarters of global growth since 2000 (see Chart 11). In 2014 they accounted for more than one-third of global stocks of inward foreign direct investment.<sup>15</sup> EMEs are also a significant source of demand in commodity markets. Looking ahead, therefore, developments in EMEs could affect other economies (including the euro area) through a variety of channels, including trade and financial links, their impact on commodity prices and confidence effects.

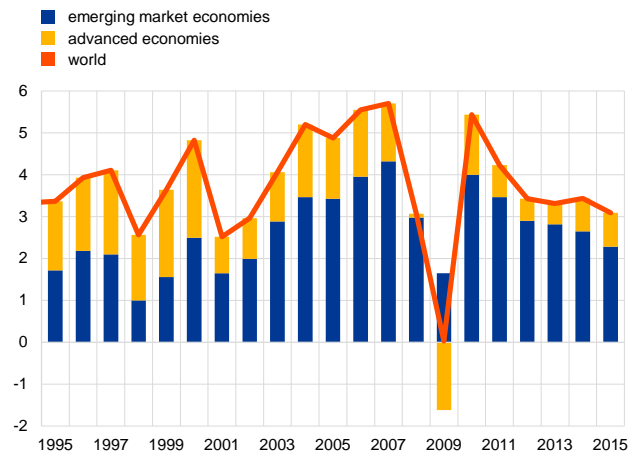
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<sup>15</sup> See UNCTAD statistics.

**Chart 11**

**Contributions to global GDP growth**

(annual percentage changes; percentage point contributions)

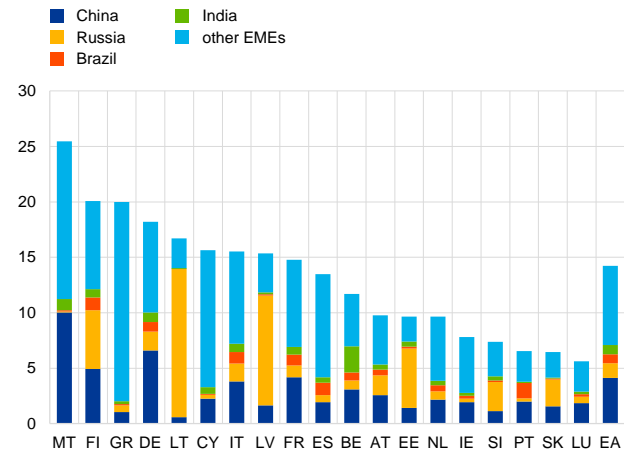


Source: IMF World Economic Outlook.  
Note: Aggregates are PPP-weighted.

**Chart 12**

**Euro area countries' trade exposure to EMEs**

(percentages of total nominal exports)



Sources: IMF Direction of Trade Statistics, Haver Analytics and ECB staff calculations.  
Notes: This chart shows EMEs' share of euro area countries' total nominal exports in the second quarter of 2015. The EMEs in question are Argentina, Brazil, Chile, China, Colombia, Egypt, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Thailand, Turkey and Venezuela.

**EMEs are an important source of external demand for the euro area.** After a prolonged increase during the 2000s, driven chiefly by rising exports to China, EMEs' share of euro area nominal exports has stabilised at around 15%. Within the euro area, several countries have large exposures to Russia. Of the largest euro area countries, Germany has the greatest trade exposure to EMEs, particularly China (see Chart 12).<sup>16</sup> The slowdown in EMEs has already affected economic activity in the euro area through the trade channel. Since the beginning of 2012 the contribution made by EMEs to euro area external demand has been below the long-term average (see Chart 13). In particular, sluggish demand from China, Brazil and Russia has had a negative impact on the euro area's export growth – offset, in part, by more resilient growth in other EMEs.<sup>17</sup> A further moderation in EMEs' economic activity would weigh on euro area external demand and output.<sup>18</sup>

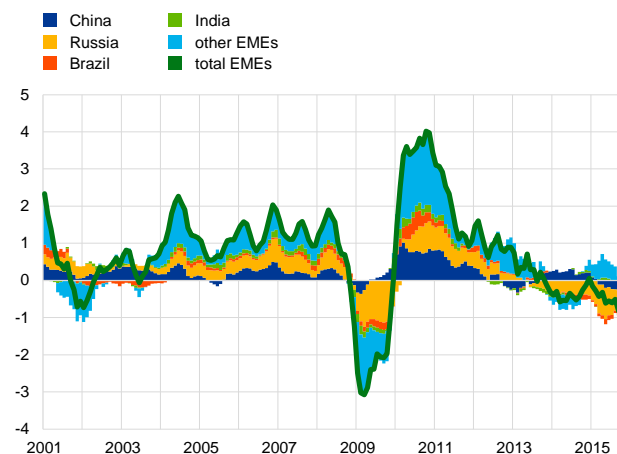
<sup>16</sup> For further insight into the various trade relationships between the euro area and its trading partners, see the article entitled "Transmission of output shocks across countries: the role of cross-border production chains", *Economic Bulletin*, Issue 2, ECB, 2016.

<sup>17</sup> While reduced domestic spending in EMEs has contributed to declining external demand for euro area exports, some EMEs also play an important role in global supply chains. For example, weaker exports by China and other economies that are central to global supply chains may also, in part, be a symptom of the broader moderation in global trade discussed in Section 2. See the article entitled "Understanding the weakness in world trade", *Economic Bulletin*, Issue 3, ECB, 2015.

<sup>18</sup> There could, for example, be an impact through the exchange rate channel. If EMEs' currencies were to depreciate in response to the slowdown in activity, the associated rise in the euro's effective exchange rate would weigh on exports.

**Chart 13****EMEs' contribution to euro area real export growth**

(annual percentage changes)

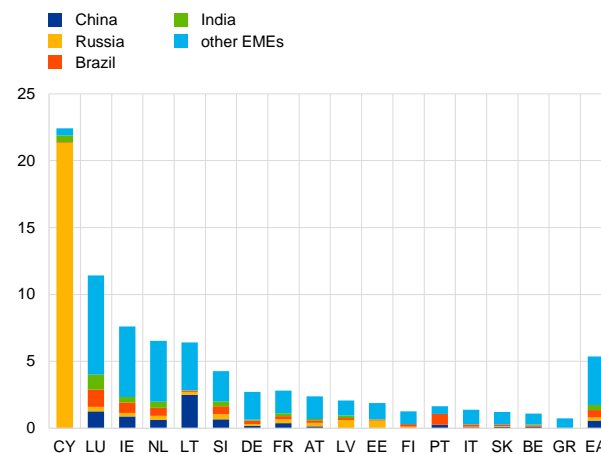


Sources: Eurostat and ECB staff calculations.

Notes This chart shows the contribution of EMEs to the growth of euro area export volumes, computed as the annual growth rate of the three-month moving averages of euro area exports to the EMEs, weighted by EMEs' share in total euro area trade in the previous year. The EMEs in question are Argentina, Brazil, Chile, China, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Taiwan, Thailand and Turkey.

**Chart 14****Euro area countries' portfolio investment in EMEs**

(portfolio investment in EMEs as a percentage of total foreign assets)



Sources: IMF Coordinated Portfolio Investment Survey and ECB staff calculations.

Notes: This chart shows investment in EMEs as a percentage of total foreign investment in securities in the second half of 2014 (the latest data available). Spain and Malta have not been reported because of a lack of data. The EMEs in question are Argentina, Brazil, Chile, China, Colombia, Egypt, Hong Kong SAR, India, Indonesia, Malaysia, Mexico, Russia, Saudi Arabia, Singapore, South Africa, South Korea, Taiwan, Thailand, Turkey and Venezuela.

**On the other hand, the commodity channel would tend to dampen the adverse effects of any weakening of external demand.** EMEs are significant consumers of energy products, accounting for more than half of total energy consumption in 2014 and all of the net growth in global energy consumption over the last decade.<sup>19</sup> When it comes to other commodities (such as metals), EMEs consume even larger proportions of global production. For example, China alone consumes more than half of the world's iron ore production and around half of the world's refined copper and aluminium output.<sup>20</sup> Although commodity prices have already fallen substantially, a further slowdown in EMEs would weigh on commodity prices, boosting real disposable incomes in commodity-importing economies such as the euro area and helping to offset the impact of weaker external demand.

**In general, direct financial links between EMEs and the euro area remain weak.** EMEs' share of total portfolio investment is below 10% in most euro area countries, with limited exposure to Brazil, China, India and Russia (see Chart 14). BIS data on international banking activities suggest that euro area banks have relatively small cross-border claims on six of the largest EMEs (Brazil, China, India, Mexico, Russia and Turkey), with those claims accounting for less than 4% of their total assets, although banks in some euro area countries are more exposed. Banks are mainly exposed via traditional loans, predominantly to the corporate sector.

**However, even in the absence of strong direct financial links with EMEs, the euro area could still be affected if heightened concerns about the economic**

<sup>19</sup> Non-OECD countries accounted for 57.5% of primary energy consumption in 2014. See BP, *BP Statistical Review of World Energy*, June 2015.

<sup>20</sup> See IMF, *World Economic Outlook*, October 2015.

**outlook were to trigger volatility in financial markets and adversely affect global confidence.** With financial turbulence in 2015 confined to a few of the more fragile EMEs, spillover effects for the euro area were fairly well contained. However, given the sustained build-up of debt seen in EMEs in recent years, there is potential for fresh turbulence to materialise. In these circumstances, an increase in risk aversion and uncertainty could have a strong impact on the global economy. Indeed, in the second half of 2015 and early 2016, sharp stock market declines in China led to significant volatility across global equity markets.<sup>21</sup> That lends some support to the view that EMEs have the potential to trigger confidence and financial shocks affecting the global economy.

## 5 Conclusions

**Looking ahead, heightened uncertainties about the outlook for EMEs are likely to remain a key risk for the global economy.** Potential growth has weakened in the context of dwindling capital accumulation, waning productivity growth and unfavourable demographic trends. Other factors have caused further headwinds in the form of sluggish external demand, weaker commodity prices (which have particularly affected commodity-exporting economies) and the tightening of global financing conditions. Many EMEs are adjusting to a new reality. In several economies, the slowdown has revealed structural impediments which are increasingly limiting growth potential. In others, it has exacerbated existing macroeconomic imbalances. Some of these challenges are unlikely to be overcome quickly. The rebalancing process that is under way is necessary to ensure sustainable growth over the medium term, but the transition path is likely to be bumpy and risks will tend to be on the downside.

**The slowdown in EMEs has already had a substantial dampening effect on global growth and an adverse impact – albeit a moderate one – on euro area activity.** The weakening of demand in EMEs has weighed on euro area exports. However, the adverse effects of the slowdown in EMEs have, in part, been offset by the boost to real disposable incomes resulting from the declines in commodity prices. Looking ahead, risks to the economic outlook for EMEs remain on the downside. A further broad-based and pronounced slowdown in EMEs could have a sizeable adverse impact on the outlook for the global economy.

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<sup>21</sup> See the box entitled “Understanding the links between China and the euro area”, *Financial Stability Review*, ECB, November 2015.