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A Decade after the 2009 Global Recession

Macroeconomic Developments

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Abstract

Emerging markets and developing economies (EMDEs) weathered the 2009 global recession relatively well. However, the impact of the global recession varied across economies. EMDEs with stronger pre-crisis fundamentals—such as large foreign exchange reserves, sound fiscal positions, and low inflation—suffered milder growth slowdowns, in part due to their greater capacity to engage in monetary and fiscal stimulus. Low-income countries were also resilient, as foreign aid and inflows of remittances remained relatively stable. In contrast, EMDEs that were heavily dependent on short-term capital flows—such as portfolio investment and cross-border bank lending—fared less well, especially those in Europe and Central Asia. A key lesson for EMDEs is the need to strengthen macroeconomic frameworks and create policy space to prepare for future global downturns.

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A Decade after the 2009 Global Recession: Macroeconomic Developments*

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1. Introduction

The world economy is in the midst of the most severe recession of the post-World War II period (World Bank 2020). This recession dwarfs the previous recession a decade ago, in 2009, when global output contracted by 1.8 percent, global trade collapsed by 9.9 percent, and investment declined by 9.0 percent, after robust expansions in output, trade, and investment in 2007 (of 4.3 percent, 7.3 percent, and 5.0 percent, respectively). Then as now, the recession in advanced economies was particularly pronounced, with activity declining by 3.4 percent in 2009. Despite unprecedented stimulus, the post-crisis recovery in advanced economies was anemic.

Although the crisis originated in the United States, the subsequent collapse in global trade and capital flows affected emerging markets and developing economies (EMDEs) as well. That said, EMDEs on the whole managed the global recession relatively well, especially those that were less dependent on external trade and finance, and those with strong pre-crisis fundamentals. Overall, EMDE output grew at a lower rate (at 1.6 percent) in 2009 but did not contract. This resilience partly reflected pre-crisis policies that reduced the vulnerabilities of EMDEs to external shocks and allowed the use of countercyclical policy stimulus during the crisis. The post-crisis decade, however, was marked by slowing or weak EMDE growth amid a series of financial and commodity price shocks and weakening fundamental drivers of growth, resulting in limited policy space in 2020.

Since advanced economies were more adversely affected by the financial crisis, the role of emerging markets and developing economies increased in the global economy. By 2018, the share of EMDEs in the global economy had increased to 39 percent of global GDP (from 31 percent in 2007) at 2010 market exchange rates. EMDEs' share of global trade also increased, to 36 percent during 2011-18 from 30 percent during 2002-07. In 2018, the seven largest emerging markets (EM7) alone accounted for 20 percent of global trade, compared to 15 percent in 2007.[1] EMDEs continued to be the largest source of commodity demand growth (Baffes et al.2018). During 2008-2016, the EM7 accounted for almost all of the increase in global consumption of metals and energy and a sizeable share of the increase in consumption of grains (corn, rice, and wheat; Baffes et al. 2018).

Given the growing role of EMDEs in the world economy, major economic disruptions are more likely to be felt by developing countries today than during the 2009 global recession. This risk coincides with a subdued outlook for EMDEs amid weak investment, rising debt and heightened policy uncertainty. A valuable lesson from the 2009 global recession is the importance of strong economic fundamentals, prudent financial systems, and sufficient policy room for governments and central banks to act when their economies are hit by shocks. However, when the 2020 global recession struck, many EMDEs had not yet rebuilt the policy buffers that were deployed successfully during the 2009 global recession. Like advanced economies, EMDEs engaged again—and appropriately—in swift and large-scale fiscal and monetary stimulus to dampen the economic damage of the COVID-19 pandemic in

[1] EM7 are Brazil, China, India, Indonesia, Mexico, Russia, and Turkey.

2020 (World Bank 2020). However, as they emerge from the current deep recession, they will again face the challenge of rebuilding the resilience of their economies to shocks and lifting long-term growth prospects.

Against this backdrop, this paper reviews macroeconomic developments in EMDEs before, during and after the 2009 global recession by addressing the following three questions. First, how strong were economic fundamentals in EMDEs prior to the 2009 global recession? Second, how did EMDEs fare during the global recession and in its aftermath? Finally, what explains the sluggish post-recession recovery in EMDEs?

The paper makes several contributions to a growing literature drawing lessons from the global financial crisis and the 2009 global recession. First, it expands on earlier studies of the global recession by introducing an EMDE focus and extending the horizon of the discussion. Previous studies examined the initial impact of the global financial crisis on EMDEs but did not reach far into the post-crisis period.[2] Other studies focused on the international transmission of the crisis with an advanced-economy focus.[3] Other studies examined the transmission from the financial crisis to the real economy in advanced economies (Ball 2014; Bernanke 2018; Gertler and Gilchrist 2018; Perri and Quadrini 2018) and the lasting nature of the macroeconomic effects of the financial crisis (Chen, Mrkaic, and Nabar 2019; IMF 2018). Second, it delves deeper into developments in specific EMDE regions and the largest emerging markets. Third, it draws lessons from the experience of the global recession in 2009 that are relevant for today's policy challenges.

The paper reports the following findings. First, it demonstrates that prior to the 2009 global recession, EMDEs benefitted from broad-based and rapid growth, supported by strong domestic demand and a benign external environment. On the eve of the global financial crisis, EMDEs accounted for almost one-third of global output and global exports, up from about one-quarter in 2001. EMDEs became a key source of global saving during the pre-crisis period. Gross saving in EMDEs rose by 10 percentage points of GDP between 2001 and 2007, while benign financing conditions encouraged strong investment growth. During this period, EMDEs accumulated sizeable current account surpluses, reduced fiscal deficits, lowered debt, and built foreign exchange reserves.

Second, the paper finds that EMDEs weathered the 2009 global recession relatively well, particularly those with strong fundamentals that allowed the use of counter-cyclical (expansionary) policy tools and those that were less exposed to global trade and finance. EMDEs that had built central bank credibility, established low inflation, and secured sound fiscal positions had space to engage in monetary and fiscal stimulus and thus fared better during the crisis, as did those that had accumulated ample foreign reserves that could be used to stabilize exchange rates. EMDEs that were heavily reliant on more volatile financing sources (such as portfolio investment and cross-border bank lending), especially those in

[2] See Berkmen et al. (2012); Blanchard, Faruqee, and Das (2010); and World Bank (2009a).

[3] See Arestis and Karakitsos (2013); Blinder (2013); Imbs (2010); and Mishkin (2011).

Europe and Central Asia (ECA), suffered steeper recessions.

Third, the paper shows that although well above advanced-economy growth, EMDE growth slowed steadily after the global recession, from a peak of 6.5 percent in 2011 to a trough of 3.8 percent in 2015, continuing at a moderate 4.3 percent a year during 2017-18. This slowdown had both cyclical and structural origins. It reflected weaker growth in advanced economies; the phasing out of policy stimulus in several large EMDEs and advanced economies; a slowdown in potential growth in many EMDEs, including China; China's shift toward a more balanced growth model; a sharp decline in commodity prices in 2012; bouts of financial stress in major EMDEs; and episodes of policy uncertainty that dampened confidence and weighed on investment.

Fourth, the 2020 global recession struck EMDEs on a weak footing. Population dynamics in many EMDEs reached a turning point in 2010 when the share of the working-age population stabilized after several decades of rapid increase. Even before the COVID-19 pandemic, productivity growth was expected to remain lackluster as diminishing growth prospects weighed on investment. This was expected to contribute to a potential growth slowdown of about 1.6 percentage points from pre-crisis rates, to an annual average of 4.3 percent in 2019-27 (World Bank 2018a, 2019).

Lastly, the paper demonstrates that solid policy buffers, sound institutions, and international policy coordination helped mitigate the impact of the 2009 global recession. However, a few EMDEs failed to rebuild the resilience to cope with the recent shock, projected to slide into deep recessions in 2020 (World Bank 2020). As a matter of fact, the global recession in 2020 is expected to be twice as deep as the 2009 global recession. The current deep recession and expected sluggish recovery will test EMDEs' policy frameworks and economic resilience.

The rest of the paper is organized as follows. First, the paper describes the period of strong growth in EMDEs prior to the global recession. Subsequently, it shows how EMDEs fared during the global recession, followed by a discussion of the challenging post-recession decade. Finally, the paper concludes with a summary and policy lessons.

2. Before the 2009 global recession: Strong growth

During 2002-07, in a benign external environment, EMDEs witnessed broad-based and rapid growth, averaging 6.7 percent a year—more than twice as fast as during the preceding two decades (Figure 1). EMDE growth in this period is surpassed only by their growth spurt in the early- to mid-1970s (7.2 percent a year, on average). Rapid, export-driven growth amid a commodity price boom allowed many EMDEs to accumulate sizable current account surpluses, reduce fiscal deficits, and build foreign exchange reserves (World Bank 2018b).

EMDEs faced a benign external environment before the 2009 global recession. A cyclical upturn in advanced economies, where output growth strengthened from 1.5 percent in 2001 to 2.6 percent in 2007, coincided with the integration of China into global trade networks after its WTO accession in 2001, a wave of new or recently agreed free trade agreements, and the rapid expansion of global value chains. These developments fueled global trade and commodity demand and exploration (Khan et al. 2016). Global trade volumes grew by 6.7 percent a year in 2002-07, in part reflecting a rebound from tepid growth following the Asian financial crisis of 1997-98 (World Bank 2015a). EMDE exports grew from 27 percent of EMDE GDP in 2001 to 34 percent of EMDE GDP in 2007.[4] Rapid growth in China contributed to a doubling of energy and metals prices and a 1.7-fold increase in agricultural commodity prices. This buoyed activities in commodity exporters, which account for almost two-thirds of EMDEs.

In addition to their growing importance in global trade, EMDEs also became a key source of global savings during this period. Gross savings in EMDEs rose by 10 percentage points of GDP between 2001 and 2007 (Figure 1). In particular, China's saving rate reached 51 percent of GDP in 2007, outpacing domestic investment and contributing to the widening of its current account surplus to 9.9 percent of GDP in 2007 from 1.3 percent of GDP in 2001. By contrast, in Europe and Central Asia, gross investment exceeded gross saving by a wide margin as economies transformed from centrally planned to market economies, resulting in large current account deficits.

Prolonged accommodative monetary policy in major advanced economies and rapidly growing saving in some major EMDEs helped maintain low global real interest rates and encouraged capital flows to EMDEs (Bernanke 2005; Hall 2017; Lin 2008).[5] Partly in search of yield, gross capital inflows to EMDEs (excluding foreign direct investment) swelled to 6.5 percent of EMDE GDP in 2007, from less than 1 percent in 2001. FDI in EMDEs also rose, from 2.5 percent to 4.3 percent of GDP between 2001 and 2007, and remittances from EMDE nationals working in foreign countries increased from 1.3 to 1.8 percent of EMDE GDP during the same period.

International reserve holdings accumulated rapidly in EMDEs prior to the 2009 and averaged 20 percent of GDP in 2007. This reserve accumulation reflected precautionary demand against balance-of-payment shocks and, by some estimates, support for competitiveness.[6] The reserve buildup was most pronounced in East Asia and Pacific and Latin America and Caribbean, largely accounted for by China and Brazil. The sterilized interventions of EMDEs in foreign exchange markets prompted accusations of protectionism (Portes 2010; Dadush and Stancil 2011).

Low global borrowing costs, combined with accommodative monetary policy, supported EMDE financial markets and domestic demand (Figure 1). Benefiting from a broad-based global decline in inflation, almost half of EMDEs had interest rates that were negative in real

[4] All EMDE regions except Europe and Central Asia increased their share of exports in GDP during 2001-07. The East Asia and Pacific and Middle East and North Africa regions had the largest increases.
[5] After the "dot-com" crash the U.S. federal funds rate was cut repeatedly, from 6.5 percent in December 2000 to percent in June 2003, and then maintained at this low level until May 2004. The European Central Bank also reduced its primary interest rate from 3.75 percent in October 2000 to 1.0 percent in June 2003-November 2005.
[6] The precautionary motive was more important following the emerging market crises of the 1990s and the Asian financial crisis of 1997-98, but undervaluation of exchange rates that supported export-led growth was more important in the 2000s (Aizenman and Lee 2007; Dooley, Folkerts-Landau, and Garber 2003; Ghosh, Ostry, and Tsangarides 2012).

terms in at least one year during 2002-07.[7] EMDE equity market valuations, as reflected by the MSCI index, more than quadrupled during 2002-07; EMDE bond spreads, as captured by the EMBI, and sovereign CDS spreads in major EMDEs more than halved between January 2005 and June 2007. Benign financing conditions encouraged strong investment growth (12 percent a year, on average, during 2002-07) in EMDEs. More than one-quarter of EMDEs witnessed an investment surge in at least one year during 2002-07.[8] Most of these investment surges were fueled by credit booms (Ohnsorge and Yu 2016). Meanwhile, private consumption growth remained robust (6.3 percent a year, on average, during 2002-07) as household incomes grew and employment opportunities expanded.

The decline in global poverty was faster than expected prior to the 2009 global recession. In September 2000, the international community adopted the Millennium Development Goals. Among them was the goal to halve the share of the global population living on less than $1.25 a day between 1990 and 2015. As a result of rapid EMDE growth, the goal was achieved five years earlier than targeted, in 2010. China's rapid expansion accounted for about three-fifths of this decline in global poverty while the remainder mostly reflected progress in Brazil, India, Indonesia, and Pakistan (World Bank 2016b). The number of low-income countries (LICs) declined to 49 in 2007 from 64 in 2001. Rapid LIC growth (4.6 percent a year, on average, during 2001-07), supported by several factors—such as the commodity price boom, debt relief, receding armed conflicts, and trade integration—facilitated their transition to middle-income status (World Bank 2019).

3. During the 2009 global recession: Resilience

The 2009 global recession affected EMDEs through trade and financial channels. In many EMDEs, trade collapsed. The plunge in commodity prices weighed on growth in commodity-exporting countries, while reversals of financial flows, especially portfolio investment and cross-border bank lending, led to severe credit crunches. That said, EMDEs weathered the recession better than advanced economies. First, their links with the financial institutions and markets at the center of the crisis in advanced economies was limited. Second, services trade and flows of FDI, remittances, and foreign aid was resilient. Third, swift policy actions were taken to stabilize financial systems and stimulate aggregate demand.

The global financial crisis in 2008 led the global recession in 2009. Triggered by defaults in the U.S. sub-prime mortgage market, the U.S. financial system came under increasingly severe stress in the second half of 2007 and early 2008, culminating in a collapse in housing prices in late 2008 (Figure 2). The bankruptcy of Lehman Brothers in September 2008 triggered a run on key funding markets. This exposed the fragility of banks that were dependent on short-term wholesale funding, which had been essential to the rapid growth of securitization, and also reflected inadequate regulatory oversight (Duffie 2019).

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[7] Based on 135 EMDEs with available data.

[8] Based on 132 EMDEs with available data. An investment surge is defined as an episode during which the real gross fixed investment-to-GDP ratio is at least one standard deviation above the Hodrick-Prescott-filtered trend (Ohnsorge and Yu 2017; World Bank 2016a).

Amid heightened concerns about the solvency of the financial system, credit markets froze as liquidity dried up in interbank funding markets; some banks experienced deposit runs. This was followed by a severe U.S. recession, during which U.S. output contracted by 4.0 percent between 2008Q3 and 2009Q2—more than in any other U.S. recession in the post-World War II period. Advanced-economy growth dropped from 2.6 percent in 2007 to -3.4 percent in 2009, resulting in a global recession. Global per capita GDP contracted by 2.9 percent in 2009—the second largest global recession since the end of World War II (Bolt et al. 2018).

Yet, EMDEs generally proved remarkably resilient, in part because some countries had limited vulnerabilities to global shocks and effectively used the policy room accumulated before the global recession for countercyclical policies. Among the EM7, growth remained robust during the global recession in India and China, supporting activity in its trading partners Indonesia and Brazil, but output contracted sharply in Mexico, Turkey, and Russia.

The contraction in global output was accompanied by a collapse in global trade, with export growth dropping from 7.3 percent in 2007 to -9.9 percent in 2009 (Figure 2). The countries that showed the most pronounced export contractions were those most heavily reliant on manufacturing exports of goods with high income elasticities of demand, especially in the electronics and motor vehicle sectors, as spending on consumer durables plunged in advanced economies (Goldstein and Xie 2009). The trade collapse was also particularly pronounced in those countries that relied heavily on arm's length trade rather than intra-firm trade (Lakatos and Ohnsorge 2017). Thus, EMDEs in East Asia and Pacific (EAP, Indonesia, Malaysia, Thailand), ECA (Hungary, Ukraine), and Mexico that exported capital- and technology-intensive products experienced double-digit export collapses.

In contrast, export declines were more modest (below 5 percent) in South Asia (SAR; Bangladesh, India), as these EMDEs relied more on exports of non-durable consumer goods with lower income elasticities of demand. The global trade collapse was compounded by shrinking trade finance. In Latin America and the Caribbean (LAC), for instance, in the first quarter of 2009, banks renewed just 50-60 percent of the previous year's trade credit lines (BIS 2009). Amid this trade collapse, EMDE manufacturing sectors shed large numbers of jobs (Banerji et al. 2014). Services exports of EMDEs were considerably more resilient than goods exports, although a decline in tourism dampened activity in EMDEs such as the Caribbean islands and some Sub- Saharan African (SSA) countries (Mauritius, Seychelles) where tourism is important.

The 2009 global recession was accompanied by a short-lived collapse in commodity prices, particularly for energy and industrial metals. Commodity exporters, especially those that lack economic diversification, faced sharp drops in export revenues and deteriorations in their external and fiscal positions. In major oil-exporting countries such as Saudi Arabia, Nigeria, Russia, and Venezuela, the value of exports declined by more than one-third in 2009. Saudi Arabia's current account surplus narrowed by 20 percentage points of GDP while Russia's fiscal position flipped from a surplus of 5.6 percent of GDP in 2008 to a deficit of 5.2 percent of GDP in 2009. In part as a result of the commodity price collapse, headline inflation in EMDEs fell abruptly, averaging 4 percent in 2009 compared to 10 percent in the previous year.

Portfolio investment and foreign lending flows to EMDEs fell steeply in 2008, reflecting a broad-based flight to safety in response to U.S. financial stress (Tong and Wei 2009; Figure 3). In the fourth quarter of 2008, cross-border lending to EMDEs from banks declined by more than 60 percent of the cumulative inflows during the preceding three quarters (BIS 2009).[9] Between June 2007 and December 2008, the EMBI bond spread rose nearly 600 basis points, the MSCI equity market index halved, and average CDS spreads in major EMDEs increased by 375 basis points. Particularly affected by rising financing costs and reduced external finance were countries with large current account deficits, especially in Europe and Central Asia, where the sudden decline in capital flows led to sharp exchange rate depreciations. During September 2008-March 2009, the currencies of several of these EMDEs (Hungary, Mexico, Poland, Ukraine) depreciated by more than 20 percent in effective terms.

Severe liquidity and solvency pressures, exacerbated by currency and maturity mismatches, also afflicted financial systems in EMDEs, particularly those dependent on cross-border credit from European banks and short-term borrowing in foreign currencies, such as Bulgaria, Croatia, and Romania (Binici and Yörükoğlu 2011; Ranciere, Tornell, and Vamvakidis 2010).[10] In EMDEs with more robust external positions, such as Brazil, Malaysia, and South Africa, capital flow declines significantly affected the corporate sector: corporations that had borrowed heavily in international debt and credit markets faced difficulties in rolling over their debt.

Despite sharp declines in cross-border bank lending, EMDE domestic bank credit to the private sector continued to grow, albeit at reduced rates. At the peak of the crisis—between the fourth quarter of 2008 and the first quarter of 2009—year-on-year credit growth still averaged 6.7 percent. Domestic bank credit rose swiftly thereafter, reaching 80 percent of GDP by the end of 2009, higher than the pre-crisis average of 64 percent of GDP in 2002-07 (Figure 3). Domestic credit growth in EMDEs was supported by monetary policy accommodation as well as by generally resilient EMDE banking systems that entered the crisis with solid profitability, high regulatory capital ratios (exceeding the 8 percent Basel I threshold), and low non- performing loan ratios.

Long-term capital flows moderated during the 2009 global recession. FDI inflows into EMDEs, in relation to GDP, declined moderately in 2008 but remained higher than during the Asian financial crisis. FDI fell more sharply in 2009, and after a brief rebound, continued to decelerate during the past decade (Figure 3). Remittance inflows to EMDEs fell less than other financial inflows, but the decline dampened activity in the EMDEs most reliant on

[9] Cross-border bank lending to EMDEs had been dominated by Western European banks whereas portfolio investments were primarily from investors in North America. In European EMDEs, loans from foreign banks accounted for more than 50 percent of GDP, compared to an average of 20 percent of GDP in other EMDE regions (Balakrishnan et al. 2009).

[10] By contrast, East Asia and Pacific and Latin America and the Caribbean had limited currency and maturity mismatches (Goldstein and Xie 2009). Taking lessons from previous crises, they also accumulated large foreign reserves to insure against worsening external financing conditions.

remittances.[11] Although stable in most EMDEs, official development assistance (ODA) flows to a few ODA-dependent countries (Liberia, São Tomé and Principe, Sierra Leone) dropped by more than nine percentage points of GDP as some donors allocated fewer resources to aid (Allen and Giovannetti 2011).

At the onset of the crisis, some analysts and commentators expected EMDEs to be largely spared its adverse effects (Akin and Kose 2007; IMF 2007). Many EMDEs entered the crisis with ample foreign exchange reserves, moderate debt and deficits, room for countercyclical policies, improved banking systems, and growing intra-regional trade. With business cycles having already become less synchronized between advanced economies and EMDEs, despite rapid trade and financial integration, there seemed to be a prospect of "de-coupling" of EMDEs from advanced-economy stress (Imbs 2010; Kose and Prasad 2010). Although the financial market stress and recession in advanced economies did spill over to EMDEs through trade and financial linkages, and to LICs through reduced remittances and aid, EMDEs were surprisingly resilient during the global recession.

The crisis led to a relatively moderate growth slowdown in EMDEs. EMDE output growth slowed from 8.2 percent in 2007 to 5.9 percent in 2008 and 1.7 percent in 2009. While steep, this slowdown was somewhat milder than during some previous global recessions, with three-fifths of EMDEs avoiding output contractions (Figure 4).[12] Exports shrank by 7.9 percent in 2009, in a sharp reversal from their robust 10 percent average annual growth in 2002-07, while investment growth slowed. Broadly speaking, countries that had stronger fiscal positions, lower inflation, more sound financial sectors, or were less dependent on external demand and foreign finance, fared better, as did those that used countercyclical policies decisively to support activity.

The impact of the crisis varied across EMDE regions. Europe and Central Asia (ECA) took the largest hit, with regional output contracting by 5.2 percent in 2009, following a 7.3 percent expansion in 2007. The withdrawal of Western European banks had a notable effect, causing a severe credit crunch (Tong and Wei 2009; World Bank 2011). Output in LAC contracted by 1.9 percent in 2009 as commodity exports collapsed, accompanied by a plunge in commodity prices. Elsewhere, expansions continued although at reduced rates. In EAP, the Middle East and North Africa (MNA), and SAR, this reflected the heavy use of monetary and fiscal stimulus in large economies to support activity (World Bank 2009b, 2010a, 2010b). SSA, the region with limited exposure to risks in international financial markets, continued to grow in 2009, although more slowly than before the global recession (5.4 percent growth in 2008 and 3.3 percent in 2009, compared to 6.9 percent in 2007; Louis, Léonce, and Taoufik 2009).

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[11] For example, in Latin America and the Caribbean, a sharp domestic currency depreciation dampened the impact of slowing dollar-denominated remittances (Ocampo 2009). The countries that experienced marked declines in remittances in 2007-09 were Bosnia and Herzegovina, El Salvador, Jamaica, Lesotho, Liberia, Marshall Islands, and Yemen. Remittances account for between 10 and 25 percent of GDP in these countries.

[12] For instance, during the Asian financial crisis, growth in the EAP region fell from 7.1 percent to 1.7 percent in 1997-98 whereas in the global financial crisis, growth slowed from 8.4 percent to 7.7 percent in 2008-09. Similarly, in the Latin America debt crisis, LAC growth fell from 6.3 percent to 0.0 percent in 1980-81 while in the global financial crisis, growth decreased from 4.1 percent to -0.1 percent in 2008-09.

LICs remained resilience and continued to grow during the crisis, although more slowly (4.9 percent in 2008 and 5.3 percent in 2009, compared to 6.0 percent in 2007), as domestic demand was supported by public investment in part financed by robust FDI and remittances and broadly stable foreign aid (World Bank 2019). FDI inflows to LICs averaged 3.3 percent of GDP during 2008-09 compared to 2.5 percent of GDP during the pre-crisis period (2002-07). Remittances into LICs averaged 5.9 percent of GDP during 2008-09, an increase of 1.3 percentage points over the pre-crisis average. ODA to LICs declined marginally to 9.2 percent of GDP from 10.3 percent of GDP over the same period. Exports were also less adversely affected. In the median LIC, exports rose by 2.2 percent in 2009, compared to -6.1 percent in other EMDEs.

The pace of poverty reduction slowed or poverty increased in some EMDEs with steep recessions (Habib et al. 2010).[13] In ECA, following a large growth setback during the global recession, the proportion of people living in extreme poverty declined, on average, by only 0.2 percentage point a year in 2008-2010, compared to the average decline of 0.7 percentage point a year in 2005-08.[14] In LAC, where output also contracted during the global recession, the average improvement in the proportion of people living in extreme poverty slowed to 0.4 percentage point a year in 2008-2010 from 1.0 percentage point a year in 2005-08. More broadly for EMDEs, due to strong growth in EAP and SAR during the global recession, poverty declined by 1.2 percentage points a year in 2008-2010. Former studies show that the impact of economic crisis varies across income groups, often resulting in rising income inequality (Habib et al. 2010; Ravallion 2009). In regions such as MNA and SSA, the average Gini coefficient, a commonly used measure of inequality, increased during the global recession.

4. The decade after the 2009 global recession: Protracted weakness

An easing in global fiscal and monetary policy promoted a rapid growth rebound in 2010. The following year, however, was the start of a decade of protracted weakness in the global economy. Global trade growth slowed sharply from pre-recession rates and commodity prices fell. The euro area plunged into a debt crisis in 2010-11. In 2013, as financial markets began to anticipate the reduction of large-scale asset purchases by the US Federal Reserve, financing conditions tightened for EMDEs. This sluggish and volatile external backdrop coincided with country-specific challenges in some major EMDEs. Meanwhile, the weakness of investment that accompanied the global downturn and less favorable demographic trends continued eroding potential growth (i.e., the growth rate an economy can sustain at full employment and capacity utilization).

During the initial rebound, supported by stimulus in the largest advanced economies and EMDEs, global trade rebounded, commodity prices rallied, and financial conditions eased in

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[13] It was initially estimated that the global financial crisis would add 64 million people to the population living under $2 a day (Ravallion and Chen 2009). For advanced economies, there is evidence of adverse impacts of the 2009 global recession on poverty and health (Bitler, Hoynes, Kuka 2017; Schwandt and von Wachter 2019; Seeman et al. 2018).

[14] People living in extreme poverty are those living on less than $1.90 a day at 2011 PPP. Data are obtained from https://databank.worldbank.org/source/poverty-and-equity-database.

2010 with many interest rates reaching historic lows. Capital flows returned to EMDEs but remained below peaks reached prior to the 2009 global recession. Stock markets rallied and sovereign bond spreads retreated: by end-2010, the MSCI and EMBI spread had already nearly returned to their levels before the global recession (mid-2007).

Growth in EMDEs rebounded swiftly to 6.8 percent in 2010, from 1.7 percent in 2009. Even in the worst-affected regions (ECA, LAC), output rose above pre-recession peaks in 2010. This rebound was sharper than after previous global recessions and EMDE crises. For instance, it had taken Indonesia about five years to reach its pre-crisis output levels following the 1997-98 Asian financial crisis. It had taken Mexican output about six years to recover to its pre-crisis level following the debt crises in Latin America in the 1980s. However, the initial 2010 rebound was followed by protracted weakness in the global economy.

Global trade growth weakened after the 2009 global recession. Since 2011, global trade growth has slowed to 4.1 percent a year on average, well below the pre-recession average of 7.6 percent a year during 2002-07. This weakness appears to have reflected four main factors: weak demand growth in advanced economies, a shifting composition of global demand, the maturation of global supply chains, and slowing momentum in trade liberalization and increased trade tension (World Bank 2015a).

First, advanced economies account for about 60 percent of global import demand and are the destinations for about half of EMDE exports. Import growth in advanced economies averaged 3.6 percent a year in 2011-18 compared with 6.0 percent a year in 2002-07. A series of adverse events set back growth in the United States, the euro area, and Japan during 2011-18 (Didier et al. 2015; Lin and Volker 2012; Stocker et al. 2018).[15]

Second, the composition of global demand shifted towards less trade-intensive sectors (Obstfeld 2015). In advanced economies, growth in investment—which tends to be more trade-intensive than other components of demand—remained below long-term averages during 2011-16 (World Bank 2015b). In China, the rebalancing of the economy from exports, investment, and manufacturing toward consumption and services also reduced import demand growth from 18.5 percent a year in 2002-07 to 7.8 percent a year in 2011-18. Demographic change (population aging) has also contributed to the shift in demand towards services (healthcare, recreation etc.).

Third, arm's-length trade—trade between unaffiliated firms—accounts disproportionately for the overall post-recession trade slowdown (Lakatos and Ohnsorge 2017). This is partly because arm's-length trade depends more heavily on EMDEs than intra-firm trade does, where output growth has slowed sharply from elevated pre-recession rates, and on sectors with rapid pre- recession growth that boosted arm's-length trade pre-recession but that have languished post-recession. Compounding such compositional effects, arm's-length trade is also more sensitive to changes in demand and real exchange rates.

[15] This included the euro area debt crisis of 2010-12, which raised questions about the area's viability; the 2014- 16 oil price collapse that disrupted the rapidly growing U.S. shale oil sector; and concerns about the effectiveness of the expansionary strategy known as "Abenomics" in Japan.

The pace of expansion of global supply chains, which strongly supported trade growth pre-recession, has slowed. In particular, Chinese imports of parts and components have declined from their peak of 60 percent of merchandise exports in the mid-1990s to 35 percent of merchandise exports in 2012, reflecting the progressive substitution of domestic inputs for foreign ones (Constantinescu, Mattoo, and Ruta 2016; Kee and Tang 2016).

Fourth, the pace of easing impediments to trade has slowed since the global recession. Non-tariff barriers have increased, and several countries have put trade restrictions in place (UNCTAD 2010; WTO 2018). Since 2017, increased trade tensions between the United States and several other countries, particularly China, have also weighed on global trade growth (World Bank 2019).

After the 2009 global recession, commodity price slide steeply. The 2002-07 global expansion had been accompanied by surging demand for primary commodities, particularly metals, in part because of rapid demand growth in China (World Bank 2015b; Baffes et al. 2018). Between 2000 and 2010, China accounted for 89 percent of the increase in global demand for industrial metals, 54 percent of the increase in global energy demand, and 17 percent of the increase in global demand for food. The resulting pre-recession surge in commodity prices encouraged commodity exploration and discovery, leading to rapid expansion in mining capacity and unconventional energy extraction, especially for shale and offshore oil and gas (World Bank 2015b, 2015c; Khan et al. 2016).

Metal prices reached a peak in early 2011 and then began to decline sharply, reaching a trough in early 2016. A moderate recovery followed. The decline reflected both slowing demand growth, including in China, and increased supply after a period of rapid global resource investment. While OPEC policy initially supported stable oil prices despite surging U.S. oil production, a shift in OPEC policy in mid-2014 triggered an oil price plunge during 2014-16 that caused widespread disruption to oil-exporting countries.[16] At end-2018, energy prices were 32 percent below their 2001Q1 levels, industrial metals prices 37 percent below, and agricultural commodity prices 35 percent below. The broad-based decline in commodity prices weighed heavily on growth in the almost two- thirds of EMDEs that are commodity exporters.[17]

The post-recession period was marked by considerable volatility in capital flows to EMDEs and, from mid-2013, occasional spikes in borrowing costs. Following the rebound, global capital flows declined, with sharp outflows in 2013Q3, 2015Q3, and 2018Q2 related to episodes of heightened financial markets uncertainty.[18] During these episodes, on average,

[16] The oil price plunge had both supply- and demand-related origins: increased efficiency in U.S. shale oil production, weak global demand, U.S. dollar appreciation, less-than-expected supply disruptions from geopolitical uncertainty, and OPEC's policy change to target market share instead of oil prices (Baffes et al. 2015). A detailed analysis of sources and implications of the oil price collapse is available in Baffes et al. (2015) and World Bank (2015a, 2018a, 2018b).

[17] In particular, Brazil (iron ore, soybeans), Chile (copper ore, refined copper), Guinea (aluminum ore), the Philippines (nickel ore), Qatar (liquefied natural gas), Saudi Arabia (crude oil), and Thailand (rice) account for more than one-fifth of global exports of these commodities.

[18] In May 2013, the Chairman of the U.S. Federal Reserve Board, in testimony to U.S. Congress, noted that a robust U.S. economy might warrant a tapering of asset purchases; this led to the "taper tantrum" (Arteta et al. 2015). In June 2015, a period of turbulence began in the Chinese stock market: by mid-July the Shanghai Stock Exchange had lost one-third of its

the EMBI spread rose by about 50 basis points, the MSCI declined by 7.7 percent, capital inflows to EMDEs slowed sharply, and EMDE currencies depreciated (Figure 5). From end-2015, after the U.S. Federal Reserve had started to tighten monetary conditions, the EMBI spread fell as U.S. long-term bond yields rose, before a partial reversal in early 2018 amid deteriorating growth prospects and heightened global uncertainty. From their trough of 0.3 percent of GDP in 2015, capital flows to EMDEs recovered to 2.1 percent of GDP in 2017 but slowed again in 2018.

Growth weakness has been protracted in EMDEs ever since the global recession**.** [19] Whereas advanced-economy growth recovered steadily from a trough in 2012, EMDE growth slowed continuously from 2010 to a trough of 3.7 percent in 2016 (which coincided with the trough in commodity prices) before a modest recovery took hold (Figure 6). The growth differential between EMDEs and advanced economies has since narrowed to about 2 percentage points, the smallest since the early 2000s. The growth slowdown during 2011-16 was synchronous (affecting more than three-fifths of EMDEs) and protracted, with the steepest slowdowns in LAC and the mildest in SAR (Didier et al. 2015). In the 20 largest EMDEs, growth in 2016 was, on average, 3.1 percentage points lower than in 2011. In LICs, growth slowed from 6.3 percent in 2012 to a trough of 3.2 percent in 2016.

Most components of EMDE demand slowed concurrently (Kose et al. 2017). Investment and export growth suffered especially sharp declines, falling to less than half their pre-recession rates. Gross fixed investment growth averaged 5.2 percent a year in 2011-18 compared to 11.9 percent a year in 2002-07. Export growth declined to 4.8 percent from 10.0 percent between the same periods. The weakness of investment growth reflected subdued global trade growth, low commodity prices, moderating FDI inflows, considerable policy uncertainty in major economies, and tightening financial conditions (Kose et al. 2017; Vashakmadze et al. 2017; World Bank 2017). This investment weakness has contributed to an EMDE total factor productivity growth slowdown from 2.5 percent a year on average in 2003-07 to 1.7 percent in 2018, with particularly pronounced declines in ECA, LAC, and MNA.Weak global economic growth coincided with country-specific challenges in some large EMDEs. Episodes of political uncertainty, social tensions (especially in MNA), geopolitical events, civil wars, and unorthodox policy decisions triggered bouts of sharply weaker confidence (World Bank 2016c, 2017, 2018a). In China, recession-related policy stimulus was unwound intermittently, and policies guided the economy away from investment-driven growth toward more balanced growth. The growth slowdown in China, from 11.3 percent a year on average during 2002-07 to 6.3 percent in 2018, has hindered growth in its trading partners and in commodity exporters (Huidrom et al. forthcoming; World Bank 2016c).

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value, and in August it dropped by more than 20 percent in a week, triggering widespread concerns about financial stability and growth in China. In March 2018, investor sentiment shifted to expectations of rising inflation and tightening monetary policy in the U.S., and this was followed by sharp capital outflows from EMDEs.

[19] In addition to growth weakness in EMDEs, structural factors that have contributed to the "secular stagnation" in global growth have been studied widely (see Bernanke 2015; Eggertsson, Lancastre, and Summers 2018; Eggertsson, Mehrotra, and Robbins 2019; Rachel and Summers 2019; Rogoff 2015; and Summers 2014). The "secular stagnation" theory further posits that with historically low global real interest rates (negative in many advanced economies, including Japan, Sweden, Switzerland, and the euro area), expansionary monetary policy has limited effectiveness in stimulating aggregate demand.

The erosion of policy buffers employed during the global recession made it difficult to stem the growth slowdown through countercyclical policies. The large drop in commodity prices in 2014-16 further dampened growth in EMDE commodity exporters, with growth 2.8 percentage points lower than in 2011-13, on average (Figure 6). This was exacerbated by procyclical policy tightening. As government revenues from the resources sector fell sharply and fiscal positions deteriorated, several EMDEs (Angola, Ecuador, Nigeria, Saudi Arabia) undertook fiscal consolidation despite weak growth. Adverse terms of trade movements also led to sharp currency depreciations (Angola, Azerbaijan, Colombia, and Russia), prompting central banks to raise policy rates, intervene in foreign exchange markets, or allow greater exchange rate flexibility. In commodity importing EMDEs, the growth benefits from rising real incomes due to falling prices of oil and other commodities did not materialize; instead, growth slowed by 0.6 percentage points between 2011-13 and 2014-16. Nonetheless, inflation subsided, and fiscal and current account balances improved in several countries (India, Poland, Romania, Thailand; World Bank 2015c).[20]

5. Conclusion

Strong domestic demand and a benign external environment supported broad-based and rapid growth in EMDEs prior to the 2009 global recession. During 2002-07, EMDEs grew by 6.7 percent per year—twice as fast as during the previous two decades and surpassed only by their growth spurt during the early- to mid-1970s. As a result, the share of EMDEs in global GDP increased to 31 percent in 2007 from 26 percent in 2001. In turn, favorable economic conditions allowed EMDEs to accumulate sizeable current account surpluses and foreign exchange reserves and to reduce fiscal deficits and government debt.

Triggered by defaults in the U.S. sub-prime mortgage market, the U.S. financial system came under severe stress in the second half of 2007 and early 2008. Heightened concerns about the solvency of the financial system, the shortage of liquidity in interbank funding markets, and deposit runs at some U.S. banks triggered a financial crisis followed by a severe U.S. recession. During 2008Q3-2009Q2, U.S. output contracted by 4.0 percent—more than in any other U.S. recession since the World War II. Given the size and international connectedness of the U.S. economy, the spillovers to the rest of the world were sizeable. Although the global financial crisis originated in the United States, EMDEs were adversely affected by the collapse in global trade and finance. However, overall, EMDEs weathered the crisis relatively well: EMDE growth slowed to 1.6 percent in 2009 but output did not contract.

Some EMDEs withstood the crisis better than others. Countries that were less dependent on external trade and finance, had stronger pre-crisis fundamentals, and were able to implement swifter and more aggressive stimulus policies suffered milder growth slowdowns. China and India were among the fastest to recover, in part due to swift policy responses (IMF 2009, and 2010). LICs were also resilient as foreign aid, remittances, and FDI

[20] EMDE commodity importers' current account balances improved from an average deficit of 0.3 percent of GDP in 2011-13 to an average surplus of 0.8 percent of GDP in 2014-16. By contrast, in EMDE commodity exporters, the average current account balance deteriorated from 2.3 to -1.1 percent of GDP over the same period.

flows remained broadly stable. In contrast, EMDEs that were heavily dependent on short-term and potentially volatile capital flows—such as portfolio investment and cross-border bank lending—fared less well, especially those in Europe and Central Asia.

Since the 2009 global recession, EMDE growth has slowed, from a peak of 6.5 percent in 2011 to a trough of 3.8 percent in 2015, continuing at a moderate 4.3 percent during 2017-19. This still-robust, albeit slowing, growth in EMDEs, combined with the sluggish post-recession recovery in advanced economies, has resulted in a growing role of EMDEs in the global economy. By 2018, the share of EMDEs increased to 39 percent of global GDP, compared with 31 percent in 2007. Given the increasing importance and international connectedness of EMDEs, the adverse shock originating from the pandemic generates greater spillovers to EMDEs in 2020 than those associated with the 2009 global recession.

The 2009 global recession was a reminder of the importance of resilience during times of severe financial stress, as well as the importance of early policy intervention, in international policy coordination, to dampen global shocks. Measures to strengthen resilience include improving debt management, maintaining adequate reserves, designing appropriate macroprudential policies, diversifying export and financing structures, and strengthening monetary and fiscal frameworks. Framework- strengthening measures include enhancing central bank credibility, adopting more flexible exchange rate regimes where appropriate, and ensuring sustainable public finances through fiscal rules. Separately, that the global economy remains weak post-crisis despite unprecedented policy stimulus illustrates the limitations of cyclical stimulus. It is a reminder of the need for reforms that foster private sector-led, productivity-driven growth.

The 2020 global recession will test EMDEs' ability to withstand a perfect storm of external shocks: a collapse in global trade and tourism, plunging commodity prices, and sharp capital outflows. For now, EMDEs have been able to support their economies with unprecedented stimulus well in excess of that implemented in 2009—in perhaps a sign of lessons learned from the 2009 recession. However, whether this can be sustained or unwound in a non-disrupted manner remains to be seem. The expected weak recovery will also bring home, once again, the urgent need to initiate a vigorous reform program to rekindle productivity-driven longterm growth.

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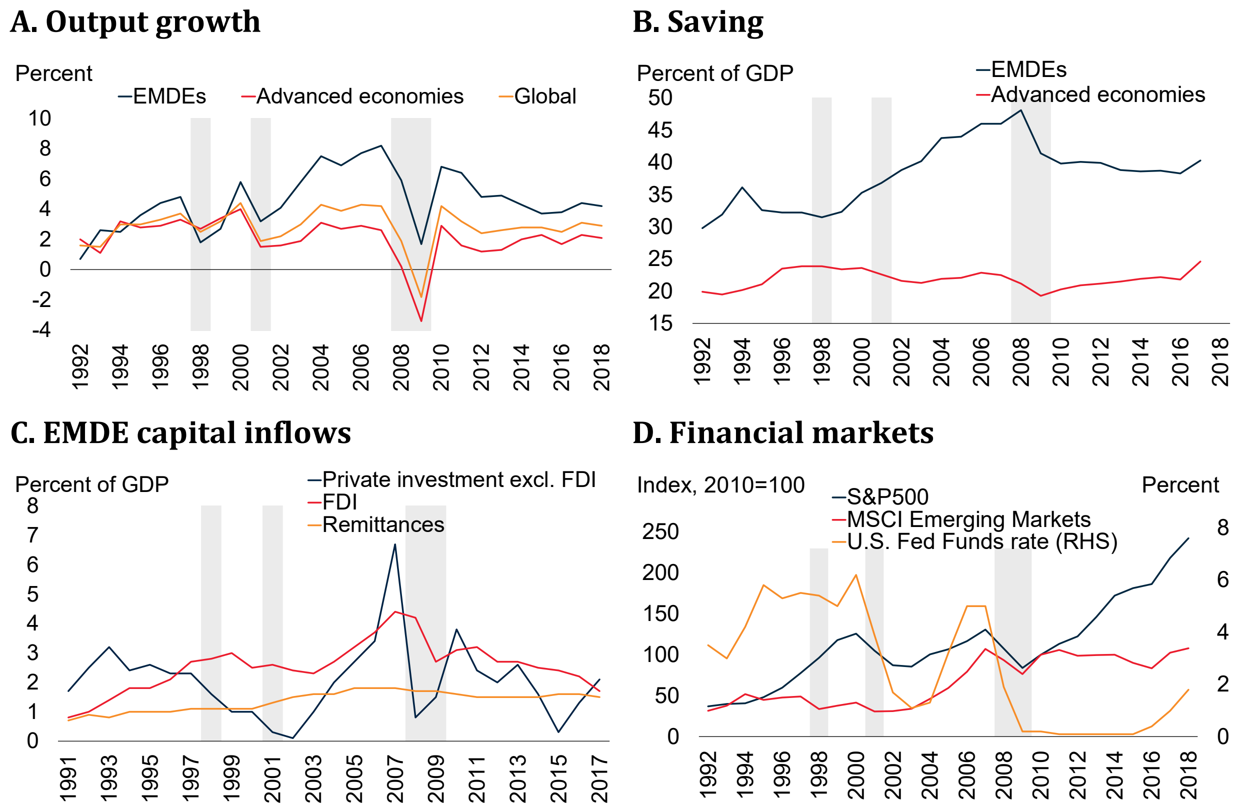
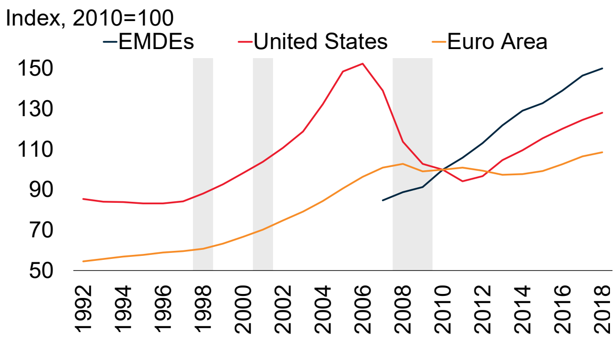
Figure 1 Global developments



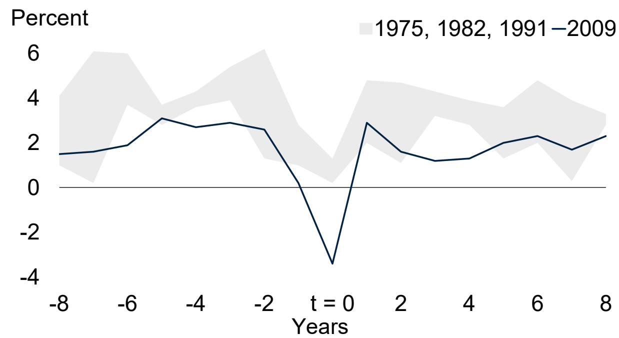
Source: Araujo et al. (2015), Federal Reserve Economic Data, Haver Analytics, International Monetary Fund, World Bank.
Notes: EMDEs=Emerging market and developing economies. Grey bars indicate global recessions and slowdowns. FDI=Foreign Direct Investment. MSCI=Morgan Stanley Capital International.
C. Private investment flows (excl. FDI) comprise portfolio investment, other investment, and financial derivatives.

Figure 2 Developments around global recessions and downturns

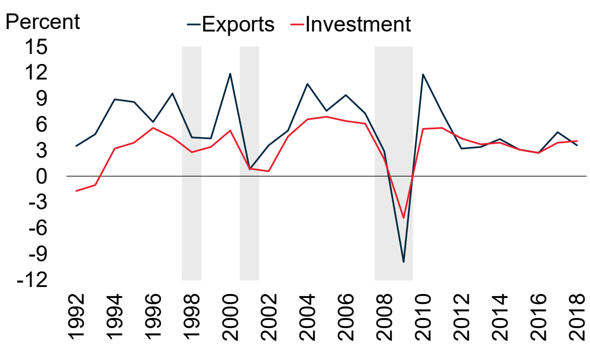
A. House prices



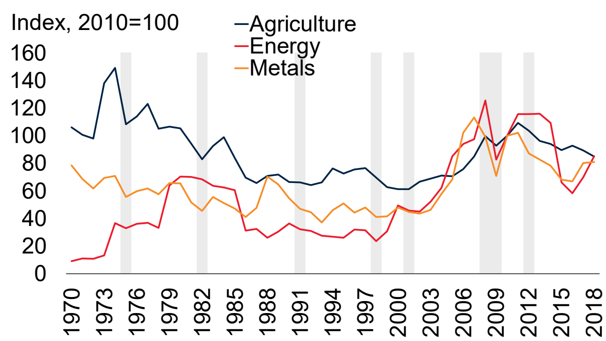
B. Advanced economies growth around global recessions



C. Global trade and investment growth



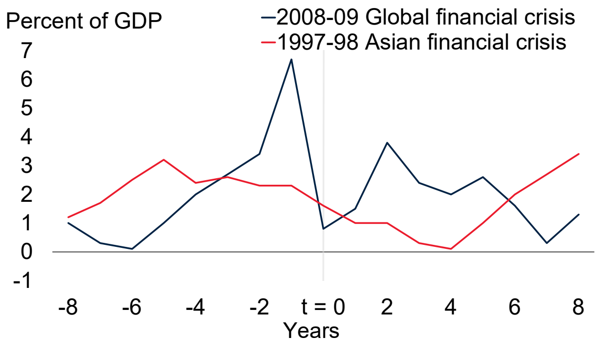
D. Global commodity prices



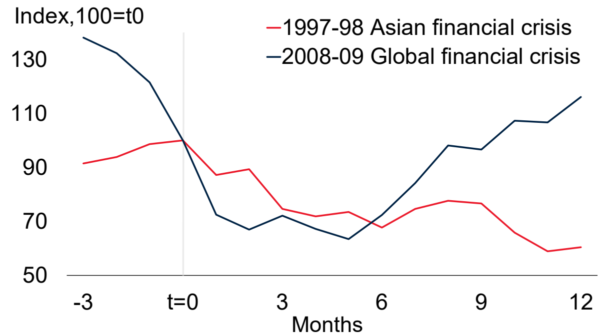
Source: International Monetary Fund, World Bank.
Note: EMDEs=Emerging market and developing economies.
A.C.D. Grey bars indicate global recessions and slowdowns.
B. Shaded areas are the range of output growth in previous global recessions as defined by Kose and Terrones (2015).

Figure 3 Financial developments in EMDEs

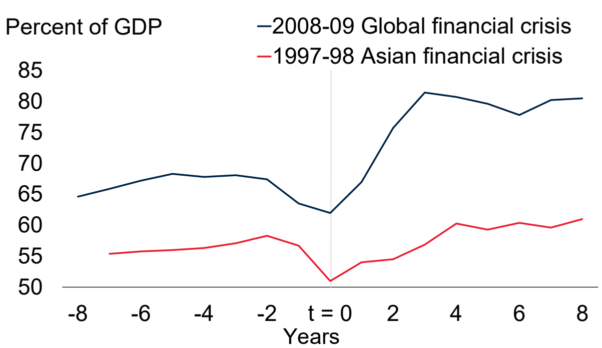
A. Private capital inflows



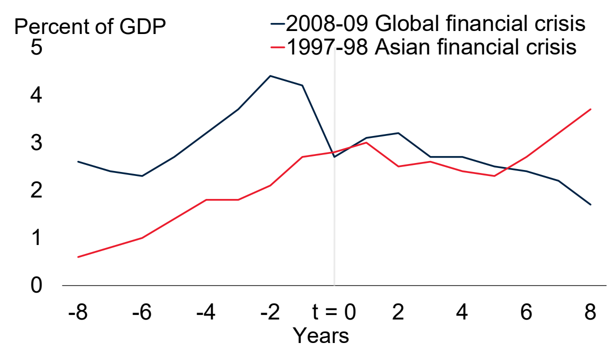
B. Equity markets



C. Domestic bank credit to the private sector

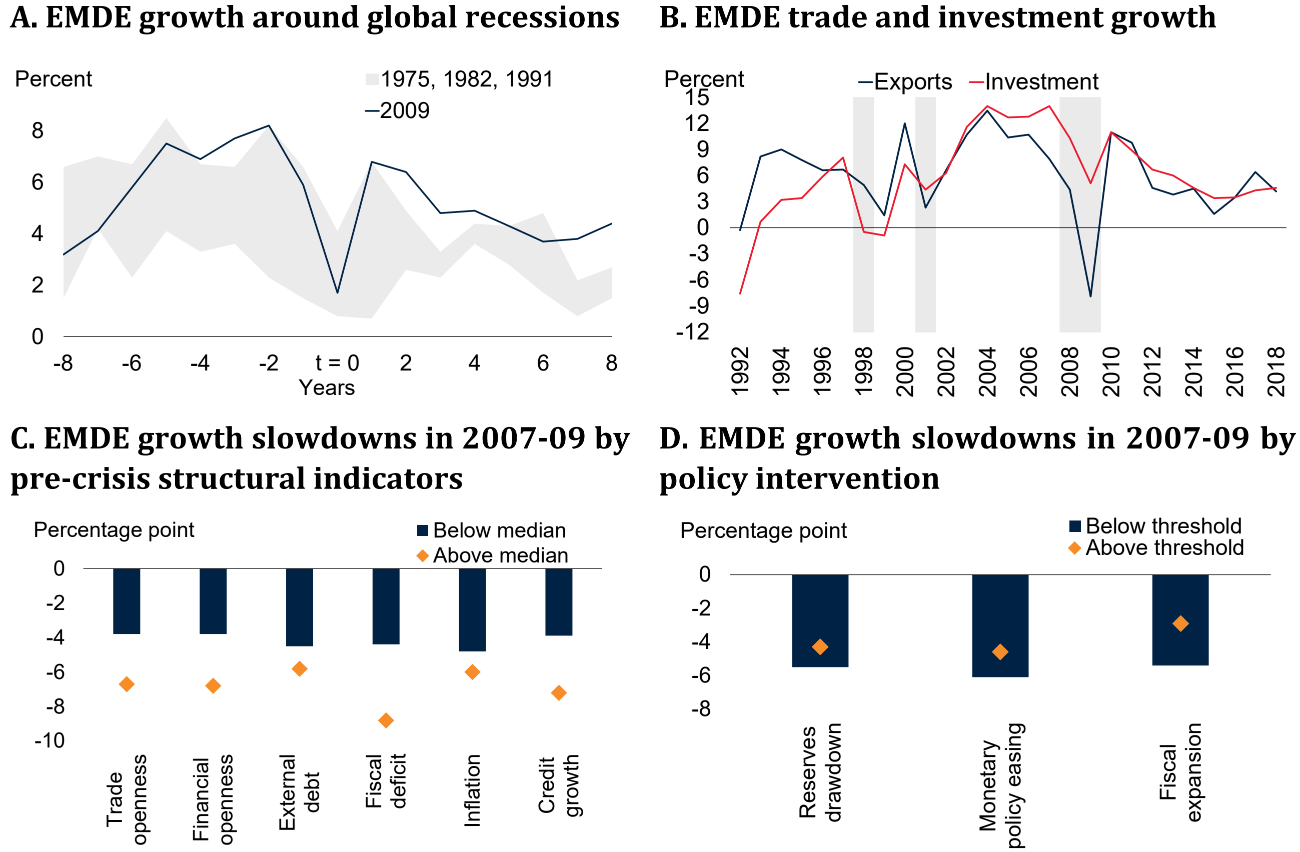


D. FDI inflows



Source: Araujo et al. (2015), Bank for International Settlements, Haver Analytics, International Monetary Fund, World Bank.
Note: EMDEs=Emerging market and developing economies.
A. Private capital flows include portfolio investment, other investment, and financial derivatives. t = 0 in the crisis episodes are 1998 and 2008.
B. t = 0 in the crisis episodes are July 1997 and September 2008.
C. t = 0 in the crisis episodes are 1998 and 2009.
D. FDI refers to foreign direct investment. t = 0 in the crisis episodes are 1998 and 2009.

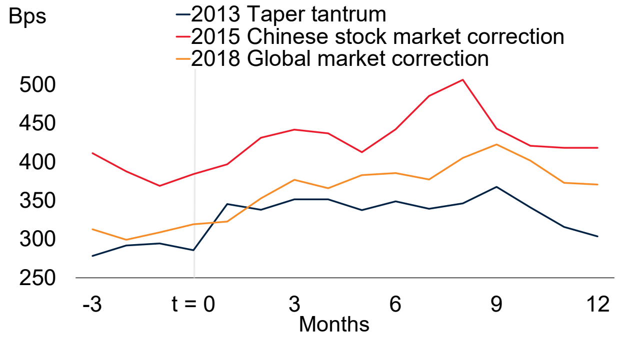
Figure 4 EMDE growth during the 2009 global recession



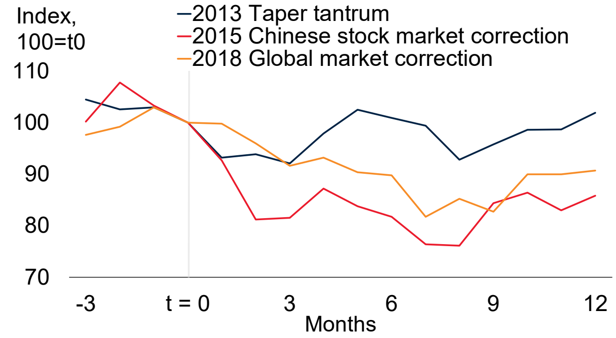
Source: Chinn and Ito (2006), Haver Analytics, World Bank.
Note: EMDE(s)=Emerging market and developing economy(ies).
A. Shaded areas are the range of output growth in previous global recessions (i.e., t=0 for year 1975, 1982, and 1991) as defined by Kose and Terrones (2015). t=0 shown in the blue line is for year 2009.
B. Grey bars indicate global recessions and slowdowns.
C. Growth slowdown is the GDP growth differential between 2007 (pre-crisis) and 2009. Trade openness is proxied by trade as a share of GDP and financial openness is based on the Chinn-Ito index. External debt and fiscal deficit are in percent of GDP. Inflation is the annual change in the consumer price index. Credit growth is the annual change in domestic credit to the private sector.
D. Growth slowdown is the GDP growth differential between 2007 (pre-crisis) and 2009. The threshold for reserves drawdown is 30 percentage points of the reserve-to-debt ratio. Monetary easing refers to the lowering of interest rates, with a 0.5-percentage-point threshold. Fiscal expansion refers to growth in real government consumption expenditure, with a 10-percentage-point threshold.
C-D. Depending on data availability for each indicator, the number of EMDEs ranges from 80 to 154.

Figure 5 EMDE financial markets since the global recession

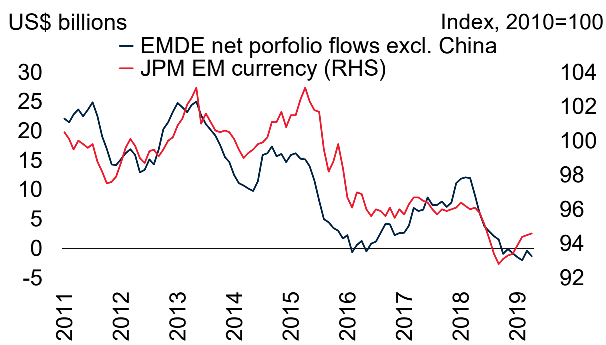
A. EMBI bond spread around key events



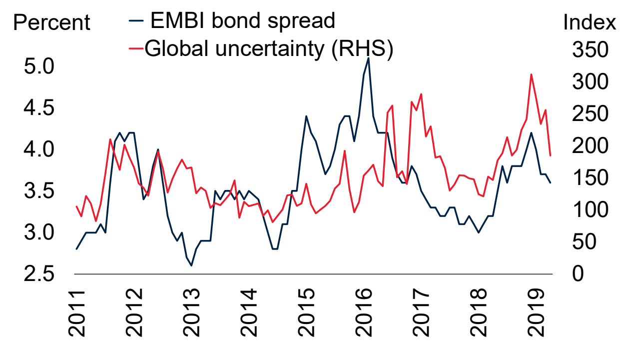
B. MSCI stock index around key events



C. EMDE net portfolio flows and nominal exchange rate



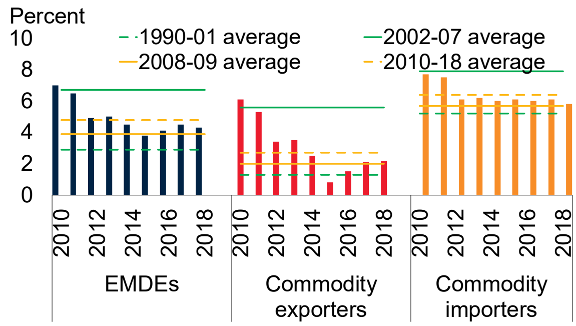
D. EMDE bond spreads and global uncertainty



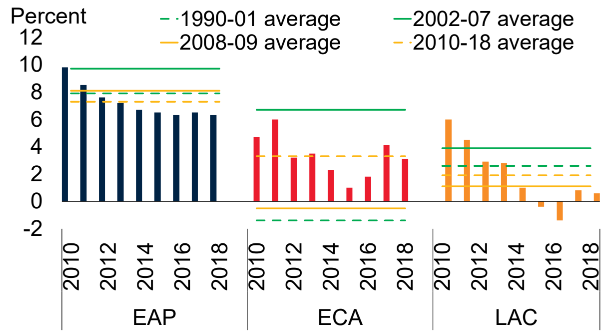
Source: Araujo et al. (2015), Davis (2016), Haver Analytics, Institute of International Finance, International Monetary Fund, JP Morgan, World Bank.
Note: EMDE(s)=Emerging market and developing economy(ies).
A.B. t = 0 for the 3 events are May 2013, June 2015, and March 2018.
C. Net portfolio flows are 12-month moving averages. The nominal exchange rate is based on the JP Morgan Emerging Market Currency Index.
D. EMDE bond spread is based on the JP Morgan EMBI+ Index. Global uncertainty is based on the Global Economic Policy Uncertainty Index developed by Davis (2016), where 100 = mean of 2007 (or first year).
C.D. Last observation is April 2019.

Figure 6 EMDE growth since the global recession

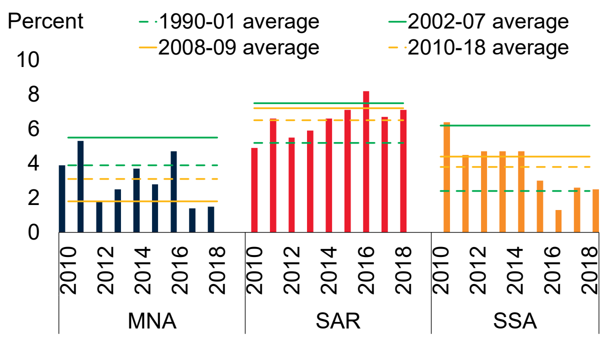
A. Growth in EMDE commodity exporters and importers



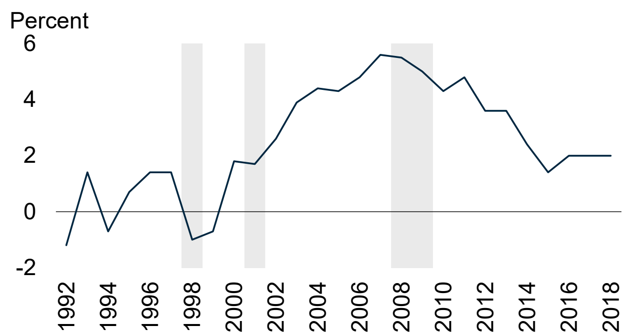
B. Growth by region



C. Growth by region (cont'd)



D. Growth differential with advanced economies



Source: World Bank.

Note: EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, SSA = Sub-Saharan Africa, EMDE(s)=Emerging market and developing economy(ies).

D. EMDE growth minus advanced economies growth. Grey bars indicate global recessions and slowdowns.