

Prospects, Risks, and Vulnerabilities in Emerging and Developing Economies

Lessons from the Past Decade

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Abstract

Growth in emerging markets and developing economies (EMDEs) has generally disappointed since the 2009 global recession, with sizable forecast downgrades in most years. EMDEs continue to face downside risks to growth outlook over the next couple of years. These include heightened global policy uncertainty, trade tensions, spillovers from weaker-than-expected growth in major economies, and disorderly financial market developments. These risks are accompanied by region-specific risks, including geopolitical tensions, armed conflict, and severe weather events. If risks materialize, their impact on EMDEs depends on the magnitude of spillovers and domestic vulnerabilities.

Since the 2009 global recession, external, corporate sector and sovereign vulnerabilities have risen in most EMDEs, leaving them less well-prepared for future shocks. Low-income countries, in particular, face elevated vulnerabilities, with about 40 percent of them currently in debt distress. Over the longer run, EMDEs also face weakening potential growth, reflecting decelerations in capital accumulation and productivity growth, as well as demographic headwinds. These constraints are likely to hamper growth in the next decade unless they are mitigated by ambitious and credible reform agendas.

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Prospects, Risks, and Vulnerabilities in Emerging and Developing Economies: Lessons from the Past Decade

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1. Introduction

Following the global recession of 2009, most analysts expected growth in emerging market and developing economies (EMDEs) to return to pre-crisis rates. After a strong rebound in 2010, subsequent growth outcomes, however, have generally disappointed. Comparing consensus forecasts prepared in January and June since 2009, over 70 percent of aggregated EMDE forecasts were downgrades and on average it has been revised down by 0.2 percentage point. 2019 was no different, with a cumulative downgrade of 0.6 percentage point from January 2018. Growth in 2019 was at its weakest since 2015 and over a percentage point slower than average growth from 2000 to 2018. In addition to these repeated growth disappointments and forecast downgrades, downside risks to the outlook are rising.

This paper provides an up-to-date and comprehensive overview of the growth prospects, risks, and vulnerabilities facing EMDEs, including low-income countries (LICs). It contributes to the existing literature in several dimensions. First, the paper updates earlier WBG work on short- and long-term growth prospects, with granular regional and group perspectives (World Bank 2018a; IMF 2019). Second, it provides a comprehensive overview of vulnerabilities for the largest sample of EMDEs yet. Existing studies (e.g., IMF 2019; Chitu and Quint 2018; Dahlhaus and Lam 2018; and Rojas-Saurez 2015), for example, limit their analysis to a few, mainly large, EMDEs. In addition, this paper is the first study that compares specific domestic and external vulnerabilities across a comprehensive list of close to 300 previous EMDE crises since 1980, building on the work of Laeven and Valencia (2018).¹

The paper presents the following findings. First, EMDE growth has generally disappointed in the past decade, with repeated and significant forecast downgrades—and 2019 was no different. Almost 40 percent of EMDEs grew more slowly in 2019 than in 2018.

Sustained and robust per capita income growth, however, is needed for EMDEs to meaningfully reduce poverty, improve shared prosperity, and converge to advanced-economy income levels. Income gaps with advanced economies widened in 2019 in one-third of EMDEs, with more economies affected in the Middle-East and North Africa (MNA), Sub-Saharan Africa (SSA), and Latin America and the Caribbean (LAC). The prospects of today's LICs, which are increasingly clustered in SSA, for progression to middle-income levels are dimmer than before the global recession, in part because of a rising number of countries affected by fragility, conflict, and violence; the prospect of weaker demand for primary commodities; and higher vulnerability to extreme weather, especially in agriculture-dependent economies (World Bank 2019b).

Second, while a cyclical upturn is expected over the next two years, near- and long-term growth prospects will likely remain subdued, and growth is expected to be slower than

¹ This paper links both to the literature on quantifying vulnerabilities (e.g., Dahlhaus and Lam 2018; IMF 2018; Lee, Posenau and Stebunovs 2017; Feyen et al. 2017; Ahmed, Coulibaly and Zlate 2017; and Fisher and Rachel 2017; Ghosh 2016) and to the literature on early warning indicators of crises. See Frankel and Saravelos (2012) and Chamon and Crowe (2012) for extensive literature reviews, and Aziz and Shin (2015) or Berg et al. (1999) as examples.

in recent decades. Long-term growth prospects are weakening, as fundamental drivers lose momentum. In the mid-2000s, potential growth in EMDEs was 5.9 percent a year. However, it slowed to 4.7 percent a year in 2013-18 and, on current trends, is expected to decelerate further over the next decade. This slowdown reflected a sharp deterioration in capital accumulation and productivity growth amid pronounced investment weakness, and demographic headwinds. Weakening growth prospects do not bode well for poverty reduction efforts in EMDEs, with evidence that the pace of poverty reduction has already started to slow. To improve prospects for potential growth, EMDE policymakers need to undertake ambitious and credible reforms that boost human and physical capital accumulation, ensure appropriate factor allocation, and raise productivity.

Third, near-term risks to the growth outlook for EMDEs are tilted to the downside. At the global level, EMDEs face risks related to trade tensions between the United States and other major economies, especially China; broader threats to the international trade system; the risk of a disorderly exit process of the United Kingdom from the EU; and the possibility of financial market disruptions. At the regional level, some EMDEs face risks related to security, geopolitical tensions, and severe weather events.

Fourth, the vulnerabilities of EMDEs to adverse events have risen since the 2009 global recession. EMDEs that are most vulnerable to spikes in borrowing cost are those that are highly indebted, especially those with elevated foreign-currency-denominated debt, and those that rely on potentially volatile portfolio and bank flows to finance large current account deficits. Today's average EMDE also has higher government and private debt, wider fiscal deficits, and only slightly smaller current account deficits than the average EMDE before past financial crises. This may be partly mitigated by greater exchange rate flexibility and more robust monetary, prudential, and fiscal policy frameworks, compared to previous crises, as well as financial sector reforms and the expansion of country-specific, regional, and multilateral financial safety nets since the global recession.

2. Prospects for growth

2.1 Decade of disappointing growth

Since 2009, January and June consensus forecasts for global growth in the same year have been downgraded by an average of 0.1 percentage point at each forecast (Figure 1). Close to 60 percent of same-year growth forecasts have been downgrades.² Downgrades affected both advanced economies and EMDE; however, in EMDEs, growth forecast were revised down more frequently and by a greater margin. Since 2009, EMDE growth has been revised down by an average of 0.2 percentage point for the current year forecast, relative to the preceding projection. Over 70 percent of same-year forecasts for EMDEs have been downgraded.³

² Forecasts published in the World Bank's Global Economic Prospects and the IMF's World Economic Outlook showed more frequent downgrades to global growth.

³ Forecasts for EMDEs by the IMF, Consensus Forecasts, and the World Bank have seen a majority of forecasts downgraded in successive rounds, with the average revision since 2009 of similar magnitude.

In January 2018, EMDE output was expected to grow by 4.6 percent in 2019. By the January 2019 forecast, this was revised down to 4.2 percent and further to 3.9 percent in June 2019. Similarly, ten-year-ahead EMDE growth forecasts have been repeatedly downgraded. This pattern of downward revisions to both short- and long-term EMDE growth projections points to both cyclical and structural factors weighing on EMDE growth.

Since 2016, there have been consistent downward revisions to growth projections for all EMDE regions, except East Asia and Pacific (EAP, Figure 1).⁴ Regionally, the largest revisions in this period have been to projections for LAC, with growth downgrades averaging 1.2 percentage points, amid falling commodity prices and recessions in some of LAC's largest economies in 2016 (World Bank 2019a). The second and third largest regional revisions since 2016 have been to growth in MNA and SSA, averaging 0.7 percentage point in both cases, with commodity-intensive countries suffering the largest downgrades.

In MNA, this reflected weak oil sector output and adjustments to lower oil prices, and more recently the intensification of U.S. sanctions on Iran (World Bank 2019a). In SSA, oil exporters were also affected by the oil price fall while the region's largest economies struggled with idiosyncratic challenges. By contrast, downgrades since 2016 have been modest for South Asia (SAR), where growth has remained robust at or above its longer-term average rate since 1990 (World Bank 2019a). The absence of growth surprises in EAP reflects the steady slowing and rebalancing of growth in China, actively managed and broadly in line with official growth projections, and resilience of growth in Indonesia.

2.2 Short-term outlook for EMDEs

EMDE growth is expected to stabilize at 4.4 percent over from 2019-2021, marginally up from the average for 2016-18, but well below the above-6 percent during 2000-08 (World Bank 2019a; Figure 2). This outlook is premised on earlier financial pressures and policy uncertainties that have affected some large EMDEs dissipating, and global financing conditions remaining benign.

Many large commodity-exporting EMDEs face the lingering effects of recent financial stress and idiosyncratic headwinds (such as sanctions), postponing the expected recovery. As these fade, commodity-exporting EMDEs are expected to grow by 2.7 percent in 2019-21, significantly better than rates achieved in the 2016-18 but still more than 1 percentage point below the average since 2000. In commodity-importing economies excluding China, growth is expected to slow to 4.7 percent in 2019-2021, only slightly below the pre-crisis average although firmly below the average of the past three years (5.1 percent during 2016-18). Weakness among commodity importers has been most visible in Europe and Central Asia (ECA) where financial stress has undermined growth in Turkey, and binding domestic capacity constraints have particularly affected countries in Central Europe.

LICs that export energy and metals commodities tend to have more volatile growth.

⁴ Based on data from the World Bank's *Global Economic Prospects*.

Since 2016, they have enjoyed a recovery led by rising industrial metals prices, although this partially stalled in 2019. Other LICs have been able to maintain robust growth in a slowing global environment thanks to a combination of robust construction activity, urbanization, and expanding services sectors. For 2019-21, growth is forecast at 5.8 percent, somewhat higher than during the past three years (5.3 percent over 2016-18; Figure 3; World Bank 2019a). This forecast, however, represents a downgrade from earlier vintages, in part reflecting unexpectedly weak external demand from major trading partners, extreme weather events that dampened activity in several countries, and an earlier-than-expected normalization of agricultural production in some large LICs after strong recoveries from drought in previous years.

LICs experiencing fragility, conflict, and violence have not seen any improvement in per capita incomes in 2016-18, which undermines efforts to reduce poverty (Figure 3). Southern and East Africa were hit by two devastating tropical cyclones—Idai and Kenneth—in March and April 2019 that took a heavy human toll and caused severe damage to social and economic infrastructure in these economies.

2.3 Longer-term growth prospects in EMDEs

Over the longer term, challenges relating to demographics, productivity growth, and investment point to weakening long-term growth in EMDEs (Figure 4; Diao, McMillan, and Rodrik 2019; McMillan, Rodick, and Sepúlveda 2016; World Bank 2018a). Thus, potential output growth is expected to decline to 4.3 percent a year on average in 2019-27, well below the 5.9 percent a year during 2003-07. 60 percent of EMDEs are expected to experience a slowdown.

The slowdown is being driven by a combination of factors. Productivity growth has moderated as the growth of productivity-enhancing investment has slowed, pre-crisis gains in factor reallocation (notably including the migration of labor from agriculture to manufacturing and services activities) have been largely depleted, and growth in global value chains has moderated. Slower investment growth, partly driven by policy-guided rebalancing in China, has also tempered capital accumulation. Since 2010, the share of the working-age population has stabilized in the average EMDEs after more than four decades of rapid increases. Many of these factors will continue to constrain potential output growth in the period ahead. To counteract them, policymakers should undertake ambitious, credible reform agendas that boost human and physical capital accumulation and improve productivity. Sustained robust per capita income growth is needed for EMDEs to meaningfully reduce poverty (World Bank 2018b).⁵

2.4 Slowing convergence with advanced economies

During 2000-08, per capita growth in EMDEs averaged 4.7 percent a year, up from 1 percent a year in the 1990s. Since the 2009 global recession, however, per capita growth has slowed, and is expected to reach 3.2 percent in 2019-21. However, there have been substantial differences across countries (Figure 2).

⁵ See also Dollar, Kleineberg and Kraay (2013); Dollar and Kraay (2002); Foster and Székely (2008); Ravallion and Chen (1997); Santos, Dabus, and Delbianco (2019); and World Bank (2018c).

Four of the five economies with the most rapid per capita growth were in SAR and EAP, where per capita growth averaged more than 5.7 percent in 2016-18 and is expected to remain above 5 percent growth in the next three years. SSA and LAC, however, lagged behind other regions.

In SSA, where the majority of the world's poor live, average per capita output contracted in 2016-18 and is expected to remain near-zero (0.6 percent) in 2019-21. SSA's three largest economies have witnessed negative per capita growth since 2015-16. Some metal exporters and countries affected by fragility, conflict, and violence have also had weak per capita growth. In contrast, other SSA economies have maintained robust per capita income growth.

Average per capita growth is expected to remain near-zero (0.8 percent) over the next three years. In the region's two largest economies, the weakness of the last three years will remain. In Iran, U.S. sanctions will weigh on growth. In Saudi Arabia, OPEC restrictions on oil production constrain prospects.

The weakness in EMDE growth in the past five years has set back convergence with advanced-economy per capita incomes. In 2019, per capita income gaps with advanced economies widened in about one-third of EMDEs, and in about two-thirds and one-half in MNA and LAC, respectively.

2.5 Poverty and Inequality

The world has made significant strides in reducing the number of poor and the severity of poverty over the past two decades (World Bank 2018b). In 1999, 1.729 billion people lived on \$1.90 or less per day (the international extreme poverty line), concentrated in EAP, SAR, and SSA (Figure 5). In 2015, their number had declined by more than half to 736 million; the latest available datapoint. Much of the success in eradicating global poverty came from China and India. In China, the number of extreme poor has fallen from 503 million in 1999 to under 10 million by 2015. As a result, the share of extreme poor in EAP declined to just 2.3 percent of the population in 2015, from 38 percent of the population in 1999. In India, too, the number of people living in extreme poverty declined by 260 million to 176 million in 2015. As a result, the share of extreme poor in South Asia declined to 12.4 percent of the population in 2015 from 39 percent of the population in 1999.

In contrast, in MNA and SSA, rapid population growth has swelled the number of extreme poor, even though, in SSA, they now account for a smaller portion of the total population. In SSA, the number of poor rose by 14 million since 2008 and 32 million since 1999. The countries with the largest increases in the absolute number of extreme poor since 2008 are South Sudan, Madagascar, Nigeria, Malawi and South Africa. In SSA, where 41 percent of the population live in extreme poverty, this share is five times as high as in other EMDEs, on average.

Since the global recession, there is evidence that the rate of poverty reduction has slowed further (World Bank 2018b).⁶ Between 2011 and 2013, poverty declined by 1.25

⁶ Studies that looked at the negative impact of the global recession include Chen and Ravallion (2010);

percentage points per year but only 0.6 percentage point between 2013 and 2015. Forecasts for these trends to 2018 suggest a further slowdown to 0.5 percentage point per year. The pace of reduction slowed particularly in ECA, which was hard-hit by the global recession and subsequent euro area crisis, and reversed in countries that experienced steep recessions (Habib et al. 2010).

In 2015, half of the 736 million people living in extreme poverty could be found in just five countries, two of which are classified as LICs: India, Nigeria, the Democratic Republic of Congo (LIC), Ethiopia (LIC), and Bangladesh.⁷ Most of the other half are concentrated in other LICs, such as Kenya, Madagascar, Mozambique, Tanzania, and Uganda, each of which is home to at least 15 million people living in poverty. In total, LICs and four lower-middle-income countries (India, Nigeria, Bangladesh, and Indonesia) account for over 80 percent of global poverty. The countries with the highest poverty rates are all in Sub-Saharan Africa (and LICs): the Central African Republic (77), Madagascar (77 percent), Burundi (75 percent), South Sudan (73 percent), and the Democratic Republic of Congo (72 percent). Poverty rates are also rising in economies affected by fragility, conflict, and violence (World Bank 2019a).

Longer-run growth trends in EMDEs suggest that the 2030 poverty target is likely out of reach. Even if historical growth trends between 2005-15 are projected forward, the world will not be able to reach the 3 percent global poverty rate target set for 2030. Based on current trends, the share of global poor living in SSA will increase to 87 percent by 2030. To be able to reach the 2030 goal of reducing the global poverty rate to 3 percent, SSA would need to grow by 6 percent per capita per year, with income growth among the bottom 40 percent of the population of 8 percent. In contrast, during 2017-2019, per capita growth in SSA has been near-nil and only a small and declining proportion of EMDEs have achieved such growth in any year since 2009 (World Bank 2019a).

Rapid growth in incomes of the poorest 40 percent of households are key to “shared prosperity.” During 2010-15, incomes of the poorest 40 percent of the population grew particularly rapidly (4.7 percent) in EAP but most slowly in MNA and SSA. In about half of EMDEs, incomes of the poorest 40 percent of the population “caught up” by growing faster than average incomes since 2010. This catching up was particularly pronounced in EAP and MNA (1.3 percentage points faster)—in MNA notwithstanding slow income growth among the poorest 40 percent—and in LAC (1 percentage point faster; Figure 5; World Bank 2018b). In contrast, in more than half of EMDEs in SSA, incomes of the poorest 40 percent of the population have grown more slowly than average incomes, thus widening income inequality in the average SSA country (especially in Mozambique and Zambia)—with important exceptions such as Burkina Faso.

Income inequality in EMDEs has fallen since the global financial crisis, continuing a trend that began in the late 1990s or early 2000s (World Bank 2018a, 2016d;

Development Committee (2010); Grosh, Bussolo, and Frejie (2014); Narayan and Sánchez-Páramo (2012); Tingson et al. (2010); and World Bank (2009).

⁷ Some non-LIC countries in this list (Bangladesh, India, Nigeria) were LICs until recently. India became a lower-middle income country in 2009, Nigeria in 2008, and Bangladesh in 2014.

Bourguignon 2017). In EMDEs, the average Gini coefficient declined from 41.4 in 2008 to 39.8 in 2017. The downward trend since the global recession has been broad-based: in more than half of EMDEs with available data for 2005-07 and 2015-17, the Gini coefficient has declined over the decade. On average, income distributions are most equal in ECA and least equal in LAC and SSA (World Bank 2016c).

Improving income inequality is about more than reducing extreme poverty as it impacts the most vulnerable in society, women and children, and is associated with greater fragility and instability (World Bank 2016c). For example, rich children are four times more likely to be enrolled in primary education, creating a significant gap in economic opportunity later in life. More equal societies are more conducive to political and institutional stability, and greater social cohesion helps mitigate threats from extremism. Inequality can therefore aggravate output volatility but also rise with greater volatility (Stiglitz 2012; Fang, Miller, and Yeh 2015; Atkinson and Morelli 2010). Its impact on growth depends on the source of inequality.⁸ While income inequality can create incentives for productivity growth, inequality brought about by lack of opportunity—access to healthcare, credit, and education—stifles productivity growth.

3. Downside risks to growth prospects

EMDEs face significant downside risks to growth over the next few years, including policy uncertainty, trade tensions, financial market disruptions, spillovers from weaker-than-expected growth in major economies, and geopolitical risks. Some risks, if they materialize, could have profound repercussions for long-run growth prospects.

3.1 Policy uncertainty

Global policy uncertainty has risen to its highest level in over three decades in 2019 (Figure 6; Davis 2016). This partly reflects heightened trade tensions between the United States and its largest trading partners, uncertainty related to the exit of the United Kingdom from the EU, and idiosyncratic developments in several large economies (including Brazil, France, and Italy). Heightened risks and uncertainty can lower growth and investment by depressing the expected value, and increasing the variance, of prospective future returns on long-term investment, and also by encouraging precautionary savings (World Bank 2017a; Baker, Bloom, and Davis 2016; Jurado, Ludvigson, and Ng 2015). For example, policy uncertainty in the euro area has been found to have had a statistically significant impact on investment outcomes in ECA EMDEs (World Bank 2017a).

3.2 Trade tensions

Much of the growth in trade since World War II has been due to the removal of protectionist measures including tariffs (Baier and Bergstrand 2001; Goldberg and Pavcnik 2016; Krugman, Cooper, and Srinivasan 1995). The commitment to trade liberalization and multilateralism has weakened recently amid growing trade restrictions. New import-restrictive measures imposed in the eight months to May 2019

⁸ See Ferreira et al. (2014) and World Bank (2006) for a survey of the literature.

were three-and-a-half times the average seen since May 2012 (WTO 2018).

Trade tensions between the United States and China escalated through much of 2019, with import tariffs imposed in 2018 and raised in 2019 (Figure 6). There are indications that tariff increases have reduced real incomes in both the United States and China, with the costs to consumers outweighing the additional government revenue (Amiti, Redding, and Weinstein 2019; Fajgelbaum et al. 2019). These trade tensions, combined with recent cyclical headwinds, have weighed on global trade. In addition, the uncertainty created and the likely disruptions to global value chains will discourage firms from investing. More recent progress in implementing a phase one trade deal between China and the U.S. has, in part, helped to ease trade uncertainty.

So far, the cost of trade tensions between the United States and China have been modest compared to the size of the economies involved. If trade tensions were to spread and worsen, however, the consequences for global growth could be sizeable. If tariff rates on all bilateral U.S.-China trade flows were increased by 25 percentage points, the impact on world growth could be significant, especially if confidence were to also retreat (Freund et al. 2018). Similarly, if all WTO members were to increase tariffs to legally-allowed upper bounds, this could translate into a decline in global trade flows of about 9 percent, similar to the contraction seen during the global financial crisis in 2008-09 (Kutlina-Dimitrova and Lakatos 2017).

Weakening trade sets back global poverty reduction efforts, as the poorest EMDEs rely heavily on trade for economic growth, with advanced economies their main export destinations and capital imports driving investment (World Bank 2017c). Higher trade openness is associated with lower poverty and inequality, and helping countries transition out of low-income status, provided other policies are implemented that target adjustment costs (Goldberg and Pavckik 2004; Winters, McCulloch, and McKay 2004). Tariff reductions have also been found to proportionately increase the incomes of the poor (Dollar and Kraay 2002; Sachs and Warner 1995).

3.3 Financial market risks

Notwithstanding still-benign global financial conditions, rising indebtedness makes EMDEs vulnerable to disorderly financial market developments. Several events could trigger a materialization of this risk.

First, in advanced economies, deteriorating growth prospects could increase corporate default rates, especially in an environment where the share of low-rated corporate bonds and the use of less transparent leveraged loans and collateralized debt obligations (CDOs) have increased (Figure 7).⁹ High-yield debt markets, including those for leveraged loans, have grown rapidly since the financial crisis and now exceed pre-crisis levels (FSB 2019). The overall size of the leveraged loan market is estimated at \$2.2-2.4 trillion, mainly in the United States and the European Union (EU). The accumulation of this debt since 2009 has significantly outpaced growth in the earnings of the corporations taking on these loans. Debt is around five times earnings (before interest, tax, depreciation, and amortization) in the United States and EU and six times earnings

⁹ Leveraged loans are loans to non-financial corporations that have high debt levels, below-investment grade credit ratings, or a spread at issuance higher than a certain threshold (FSB 2019).

in the rest of world, significantly above their pre-crisis levels (FSB 2019).

Second, large currency depreciations in EMDEs—possibly triggered by domestic vulnerabilities, shifts in U.S. monetary policy expectations, sharp commodity price movements, or changes in investor risk appetite—could lead to financial market disruptions, particularly through increases in the domestic currency value of debt denominated in foreign currencies. Some EMDEs have seen a rise in foreign ownership of local currency-denominated bonds, to over 30 percent of total, reducing immediate currency risks.

However, unlike foreign direct investment, foreign participation in local bond markets can quickly reverse if investor sentiment changes. If a currency crisis ensues, EMDEs may experience output contractions, as occurred in half of EMDEs that faced previous crises (Figure 7). Following a crisis and the accompanying jump in risk premia, debt service costs rise and real incomes fall, eroded by rising inflation and the required tightening of monetary policy. Sharp currency depreciations have been found to be associated with significantly larger contractions in output when accompanied by banking sector and sovereign distress (Laeven and Valencia 2018).

Third, concerns about the possibility of contagion have resurfaced amid recent episodes of financial stress in some EMDEs. Financial stress in these economies has been accompanied by only mild exchange rate and equity market spillovers. However, financial stress in the largest EMDEs might generate more sizable regional spillovers through trade and financial links (World Bank 2016a). Shifts in portfolio allocations across asset classes, in response to deteriorating investor sentiment, could also lead to contagion.

Fourth, U.S. term premia are negative and at record lows. Concerns about procyclical fiscal policy, intensifying wage pressures, or slowing foreign demand for U.S. government debt could trigger a sudden upward adjustment in term premia and U.S. borrowing costs, as occurred during the taper tantrum of 2013.¹⁰

3.4 Spillovers from major economies

Weaker-than-expected growth in major economies could dampen activity in EMDEs through trade and financial linkages, as well as through confidence effects and commodity market movements. More than 80 percent of advanced economies are currently experiencing growth slowdowns (Figure 8). Among them, the United States and the euro area are the most important sources of growth spillovers to EMDEs. A 1 percentage point decline in U.S. annual growth is estimated to be associated with 0.6 percentage point lower EMDE growth after one year (World Bank 2016a; Kose et al. 2017; Huidrom et al. 2019). A 1 percentage point decline in annual euro area growth is associated with a somewhat larger impact on EMDE growth (1 percentage point, broadly in line with the impact of China) in part because of its greater global trade integration than the United States and its close supply chain and financial links with

¹⁰ During the 2013 taper tantrum, the estimated 10-year term premium rose by 160 basis points over a nine-month period (Adrian, Crump and Moench 2013; Andolfatto and Spewak 2018; Crump, Eusepi, and Moench 2018; Kopp and Williams 2018). The U.S. 10-year term premium has been persistently negative since June 2017, compared to 1.6 percent on average since 1961.

EMDEs in ECA and EAP.

Among EMDEs, China is by far the most important source of growth spillovers to other EMDEs (Figure 8, Huidrom, Kose, and Ohnsorge 2017).¹¹ A 1 percentage point decline in China's growth is estimated to be associated with 0.5 percentage point lower EMDE growth after one year (Huidrom et al 2019). Since China is a major source of commodity demand, the adverse impact on commodity-exporting EMDEs is twice that on commodity importers (World Bank 2016a; Baffes et al. 2018). Growth fluctuations in some of the other seven largest EMDEs could also cause adverse spillovers to EMDEs in their regions. A synchronized growth slowdown in several major economies could severely set back EMDE growth. For example, a combined 1 percentage point slowdown in growth in the United States, euro area, and China would depress global growth by almost 1.7 percentage points after a year and EMDE growth (excluding China) by 1.4 percentage points.

3.5 Region-specific risks

Region-specific risks have been rising, including geopolitical risks and risks relating to armed conflicts and climate change. Geopolitical risks remain high in MNA, SSA, and ECA. The number of armed conflicts in 2015-17 was significantly higher than the average of the past two decades (Figure 8).¹² The economic costs of conflict can be substantial, through destruction of physical and human capital, reduced employment and investment, and capital outflows (World Bank 2005; Collier 2003; Goodhand 2001). In some cases, conflict can have global consequences. For example, oil supply disruptions in MNA can raise global oil prices, depressing global aggregate demand and worsening trade balances in oil-importing economies.

Extreme weather events have been increasing in frequency, severity, and cost (World Bank 2014). Small island economies of the Caribbean and EAP, and economies with large agricultural sectors, including in SSA and SAR, are most at risk (World Bank 2017b). In the median SSA economy, agricultural value-added accounted for 21 percent of GDP in 2017—three times larger than in non-SSA EMDEs and 11 times larger than in advanced economies. As natural disasters become more common, their effects on the level and volatility of output in agriculture-dependent economies is likely to increase.

4. Rising vulnerabilities

Since 2007, external, corporate sector and sovereign vulnerabilities have risen in most EMDEs, leaving them less well prepared for the next financial shock (Figure 9). Vulnerabilities can be defined as conditions that increase the probability of financial or economic crises (or stress) when adverse shocks occur. If risks materialize, their impact on an EMDE's growth will depend on its vulnerabilities and the ability of policymakers

¹¹ The past decade already featured major growth disappointments in China. For example, in 2012, China's growth was expected to average 7.4-10.1 percent during 2011-19 (World Bank 2012). In the event, actual growth will average closer to 7.2 percent.

¹² The number of armed conflicts averaged 51 in 2015-17, compared to 35 in 2000-14 according to the Centre for the Study of Civil War at the Peace Research Institute Oslo. Conflicts are defined as developments that involve the use of armed force between two parties, of which at least one is the government of a state, and that result in at least 25 battle-related deaths in a calendar year.

to respond.¹³

4.1 Sovereign vulnerabilities

Since 2007, government debt in EMDEs has increased by about 10 percentage points of GDP, on average, to 54 percent of GDP by end-2018, with the most rapid increases seen in commodity exporters (Figure 10). Debt has risen in three-quarters of EMDEs and by more than 20 percentage points of GDP in one-third of them. Reflecting this rise in sovereign indebtedness, many EMDEs have a lower average sovereign credit rating now than in 2007. Moreover, the average maturity of EMDE sovereign debt has declined from 11.5 years in 2007 to 10.3 years in 2018, with 23 percent of EMDEs in 2018 having an average debt maturity under 6 years.

The rise in EMDE sovereign debt reflects a deterioration in fiscal balances. On average, the primary surplus of 2.4 percent of GDP in 2007 turned into a deficit of 1.3 percent of GDP by 2018. The cyclically-adjusted overall fiscal balance has shifted from a surplus of 2.4 percent of GDP to a deficit of 1.5 percent. Nine-tenths of EMDEs now have a cyclically-adjusted fiscal deficit, compared to two-thirds in 2007. EMDEs, on average, continued to run cyclically-adjusted primary budget deficits in 2018, and have not yet fully unwound fiscal stimulus implemented during the global recession. Commodity-exporting EMDEs experienced the largest deterioration in fiscal balances, on average, and are currently running the largest deficits.

4.2 External vulnerabilities

While external financing helps fund much-needed investment in EMDEs, it can increase EMDEs' vulnerability to global financial market stress. EMDE total external debt has risen by 14 percentage points of GDP since 2007, to 55 percent of GDP on average in 2018. In half of EMDEs, it has risen by 10 percentage points of GDP or more (Figure 11). This has mainly reflected sizable and persistent current account deficits, which averaged 4.5 percent of GDP in 2018, compared with 1.2 percent of GDP in 2007. In 2018, 60 percent of EMDEs had weaker current account balances than in 2007, 76 percent ran current account deficits (compared with 66 percent in 2007), and 44 percent had current account deficits in excess of 5 percent of GDP.

The share of external debt maturing in 12 months or less has remained stable since 2007 at around 12 percent, while the share denominated in foreign currency has remained above 90 percent. This buildup of external vulnerabilities has been mitigated somewhat by foreign exchange reserves in the majority of EMDEs. However, although still above their 1980s and 1990s averages, international reserves have fallen since 2007 in two-thirds of EMDEs, and in some they have more than halved. In 44 percent of EMDEs, they also appear not to be sufficient to meet their potential balance of payments needs in 2019, according to the IMF's reserves assessment metric.

A growing share of external liabilities are channeled through domestic bond markets. In some EMDEs, the share of nonresident-held bonds in local currency bond markets has grown to more than 30 percent. The higher participation of nonresidents reduces

¹³ See Llaudes, Salman, and Chivakul (2010) on the interaction of vulnerabilities in emerging markets and the global financial crisis.

immediate currency risks, but exposes these countries to the risk of shifts in global risk sentiment (Agur et al. 2018).

4.3 Corporate and household debt vulnerabilities

Since 2007, nonfinancial corporate debt has increased on average by 10.3 percentage points of GDP to 48.0 percent in 2018 among EMDEs other than China, often fueled by low global interest rates and compressed risk premiums (Figure 12).¹⁴ Corporate debt, as a ratio to GDP, has risen above 2007 levels in 79 percent of EMDEs and, in one-third of them, by more than 10 percentage points of GDP (Ohnsorge and Yu 2016; Borensztein and Ye 2018).¹⁵ The most rapid increases in nonfinancial corporate debt have occurred in some of the largest EMDEs, particularly China. Outside China, about half of the buildup in EMDE corporate debt since 2010 has been in foreign currency (World Bank 2018c).

Household debt in the average EMDE has also increased by 5 percentage points of GDP since 2007, reaching 25 percent of GDP in 2018. In some EMDEs, household debt has risen by more than 10 percentage points of GDP. The largest increases are in China and Thailand, where household debt swelled by 32 and 24 percentage points of GDP, respectively.

4.4 Vulnerabilities in LICs

In LICs also, government debt and current account deficits have grown since 2007. Government debt in the median LIC was 47 percent of GDP in 2018, 10 percentage points higher than in 2007, although significantly lower than before the Multilateral Debt Relief Initiative (MDRI) and Heavily Indebted Poor Countries Initiative (HIPC).¹⁶ The government debt-to-GDP ratio reached a low in 2013 and has since increased by 16 percentage points; it has risen in 90 percent of LICs and, in one-third of them, by more than 20 percentage points. The composition of LIC debt has shifted toward nontraditional sources of funding, including international capital markets and non-Paris Club creditors (World Bank 2019b).¹⁷ Debt has been increasingly financed by non-concessional and private sources, increasing LICs' vulnerability to financial market disruptions. As a result, interest payments are absorbing an increasing share of government revenues. Separately, the average LIC current account deficit widened to 8.1 percent of GDP in 2018, from 3.1 percent of GDP in 2007.

¹⁴ Based on data for 16 EMDEs that have 2019Q1 data: Argentina, Brazil, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Poland, Russia, Saudi Arabia, South Africa, Thailand, and Turkey.

¹⁵ Based on a larger sample of 48 EMDEs with data for 2017 and 2016.

¹⁶ Average LIC debt was 51 percent of GDP in 2018, lower than the 59 percent of GDP in 2007. However, the mean is driven by a minority of LICs who have seen significant declines in debt as part of the Enhanced HIPC initiative of 2009/10.

¹⁷ By August 2019, 12 out of 28 LICs were regarded as being in debt distress, or at high risk thereof, under the IMF-World Bank debt sustainability framework (two more than at end-2018). A country is considered to be in debt distress if it is experiencing difficulties in servicing its debt, as evidenced, for example, by the existence of arrears or ongoing or impending debt restructuring, or if there are indications that a future debt distress event is probable.

5. Vulnerabilities now and during previous crises

EMDEs have periodically witnessed currency, banking, and debt crises (Laeven and Valencia 2018). Reflecting the different triggers and circumstances of these crises, they were preceded by wide heterogeneity in vulnerabilities. Broadly speaking, however, compared to the average EMDE two years in advance of EMDE crises since the 1980s, today's average EMDE has somewhat higher government and nonfinancial corporate debt, larger fiscal deficits, but smaller current account deficits, lower external debt and stronger foreign exchange reserve cover (Figure 13).

In the average EMDE, government debt (as of end-2018) is 3 percentage points of GDP higher, and nonfinancial corporate debt is about 7 percentage points of GDP higher, than in the average EMDE two years before it slid into a crisis in the past. Half of EMDEs have government debt levels above the average two years prior to past crises. Corporate debt levels in about half of EMDEs are above the average two years prior to past crises. Relative to only sovereign debt crises, however, average government debt in EMDEs today is 18 percentage points of GDP below the average two years preceding past crisis.

In today's average EMDE, the cyclically adjusted fiscal deficit is 0.5 percentage point of GDP larger than in the average EMDE two years before it slid into a crisis in the past. Over half of EMDEs had a fiscal deficit in 2018 that was larger, in relation to GDP, than the historical average in countries two years away from a crisis.

In the average EMDE today, the current account deficit, relative to GDP, is 0.7 percentage point smaller than in the average EMDE two years before it slid into crisis. However, almost half of EMDEs have current account deficits larger than the average two years before past crises.

Total external debt is 7 percentage points lower in the average EMDE today compared to the average two years before crisis. 41 percent of EMDEs have external debt levels higher than the average two years prior to crisis.

In the average EMDE, the ratio of short-term external debt to official international reserves is now only a third of its level in the average EMDE two years before its crisis. More than 80 percent of EMDEs have foreign reserve cover, measured this way, that is larger than levels seen two years prior to previous crises. While EMDE reserves have risen since the 1990s, these increases were not evenly distributed across countries. According to the IMF's metric of reserve adequacy, 44 percent of EMDEs appear not to have sufficient reserves to meet their balance of payments needs in 2019.

Many EMDEs have learned the basic lessons from the crises of the 1980s and 1990s and adopted policies that have improved their resilience. These include greater exchange rate flexibility, more robust monetary and fiscal policy frameworks, and increased central bank transparency (Figure 14). Financial sector reforms implemented since the global recession have also increased resilience, particularly the expansion of the Global Financial Safety Net.¹⁸ Resources available in country-specific, regional, and multilateral

¹⁸ The Global Financial Safety Net consists of four layers: 1) self-insurance against external shocks, on the basis of foreign reserves or fiscal positions at the national level, 2) bilateral currency swap lines among

financial safety nets tripled between 2007 and 2016, including through the creation of regional financing arrangements (RFAs), expanded IMF resources, and international reserve holdings (IMF 2017a, 2017b; ECB 2018). There are also now an estimated 160 bilateral swap lines between central banks around the world (Bahaj and Reis 2018).

The World Bank Group (WBG) also responded to the global recession with unprecedented levels of financing, doubling its commitments (in real terms) during 2009-10, compared to 2007-08. Lending activity was larger than during any previous crisis, made to more than 100 economies, and larger than any other international financial institution. The WBG has built upon its experience during the global recession in its subsequent work. It has expanded its global economic surveillance capabilities to better identify emerging financial and macroeconomic risks, it has rebuilt its capital, and its lending model has become more flexible and adaptable to the needs of its clients.

6. Conclusion

EMDE growth has generally disappointed in the past decade, with significant and frequent forecast downgrades, and 2019 was no different. Almost 40 percent of EMDEs are estimated to have experienced a growth slowdown relative to 2018.

The weak growth of the past few years has taken its toll. As growth has slowed, so has the pace of income convergence with advanced economies. Income gaps with advanced economies widened in one-third of EMDEs in 2019, and more in MNA and SSA. With near-nil per capita income growth in SSA—where most of the world’s poor will live a decade from now—the goal of reducing global poverty to 3 percent appears out of reach. The prospects for progression of today’s LICs, mainly in SSA, to middle-income levels have dimmed from a decade ago, are more countries are affected by fragility, conflict, and violence; commodity demand prospects as weaker; and vulnerabilities to extreme weather, especially in agriculture-dependent economies, are higher (World Bank 2019a).

EMDEs face increased risks from a multitude of sources that could further damage growth. In most cases, these risks relate to a few large economies, where developments could have adverse spillovers to EMDEs. These include increased policy uncertainty in advanced economies, as well as rising trade tensions between the United States and some of its major trading partners. Where risks originate outside EMDEs, enhanced monitoring and understanding of their likely impact may help prepare a more effective policy response. Where risks originate within EMDE regions, including geopolitical risks and domestic policy uncertainty, EMDEs can take actions to mitigate them or their impacts. If risks materialize, more vulnerable EMDEs are likely to experience more severe downturns. Since the global recession, external, corporate sector and sovereign vulnerabilities have risen in many EMDEs, leaving them less prepared for future shocks.

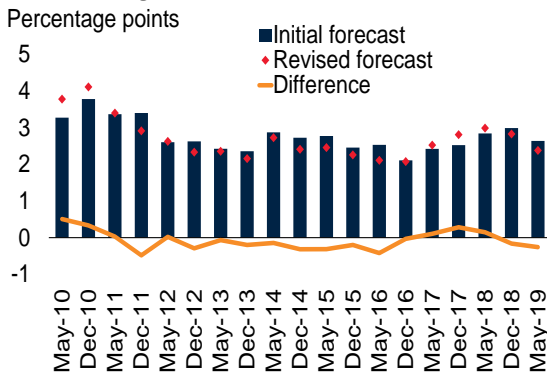
Over the next few years, EMDEs are expected to experience a modest cyclical upturn as long as downside risks don’t materialize. Even after this projected upturn, however, growth is likely to be well below rates enjoyed in the past. Longer-run prospects are weak because of structural factors limiting potential growth. Indeed, the expected

countries, 3) regional financing arrangements, and 4) the global financial backstop provided by the IMF (ECB 2018).

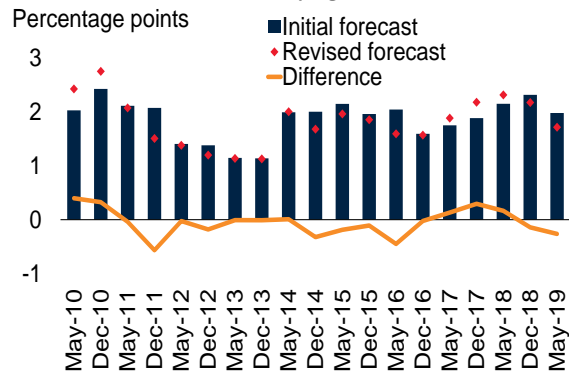
slowdown in potential growth is the continuation of a trend. This slowdown reflects sharp deteriorations in capital accumulation and productivity growth amid pronounced weakness in investment, as well as demographic changes. These constraints are unlikely to wane, but structural reforms can dampen their impacts or even counteract them.

Figure 1. Growth forecast revisions since 2009

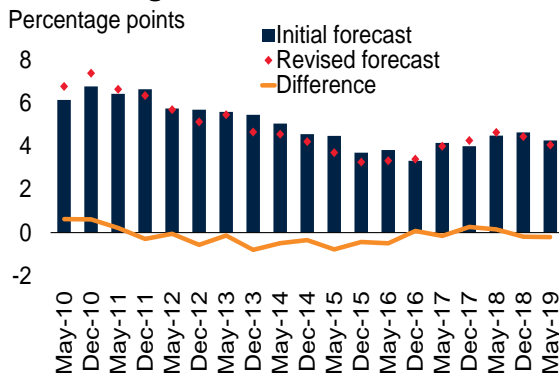
A. Global growth revisions



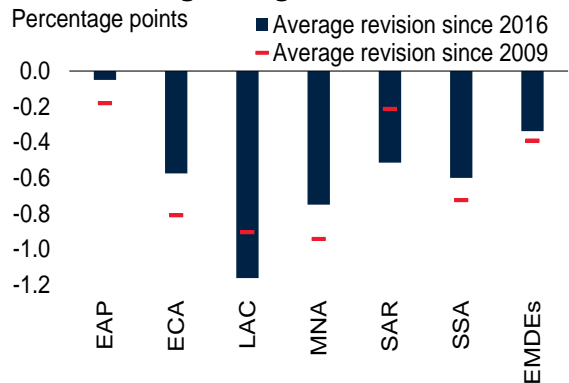
B. Advanced economy growth revisions



C. EMDE growth revisions



D. EMDE regional growth revisions



Source: Consensus Economics, World Bank.

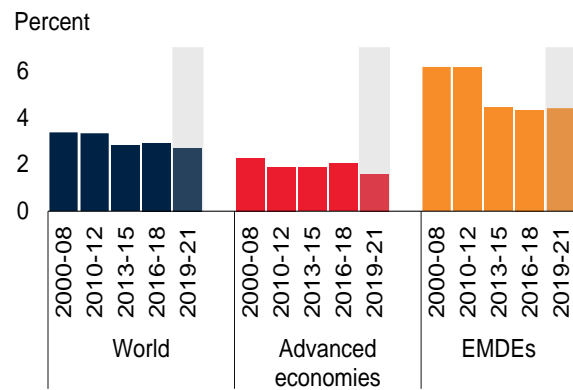
Note: EMDEs = Emerging market and developing economies, EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, and SSA = Sub-Saharan Africa.

A-C. Output growth from the May and December consensus forecast publication of Consensus Economics since 2009. Revisions are the current forecast less the previous forecast for the current year. Weighted using constant 2010 U.S. dollar GDP for 2018.

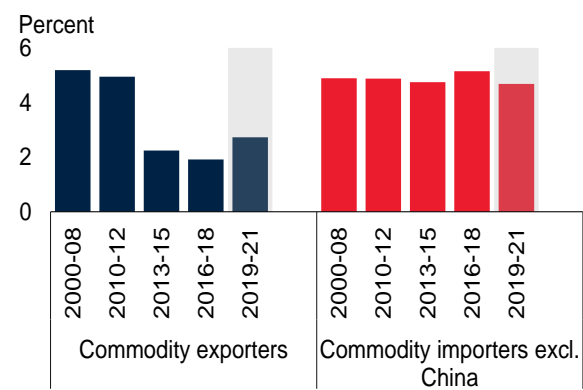
D. Based on January and June forecasts of the World Bank's Global Economic Prospects which achieves a better regional coverage than Consensus Economics.

Figure 2. EMDE growth prospects

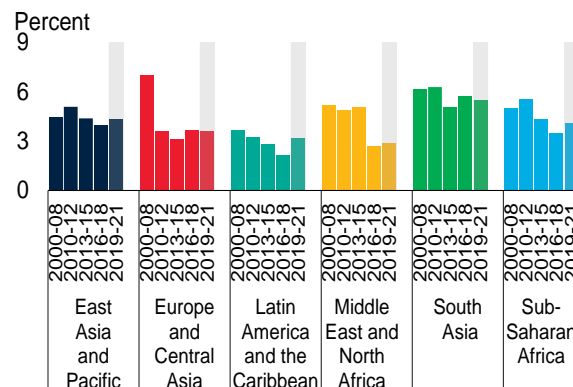
A. Growth



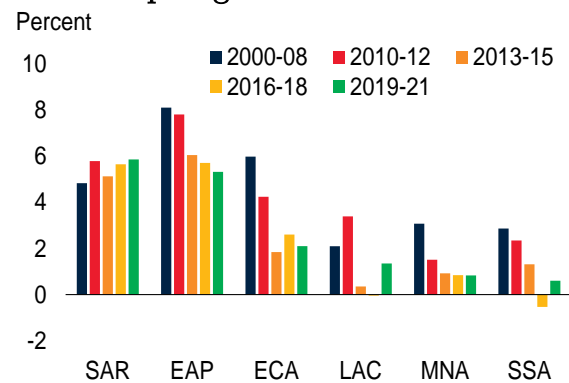
B. Growth



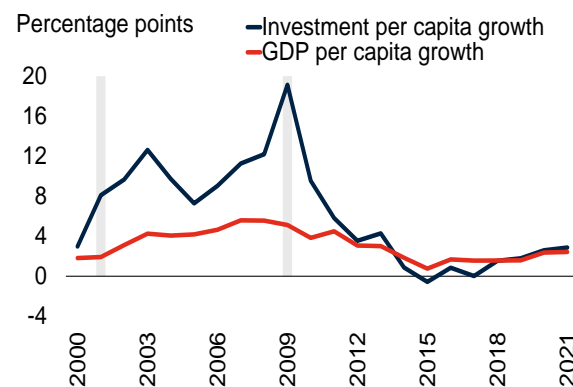
C. Growth



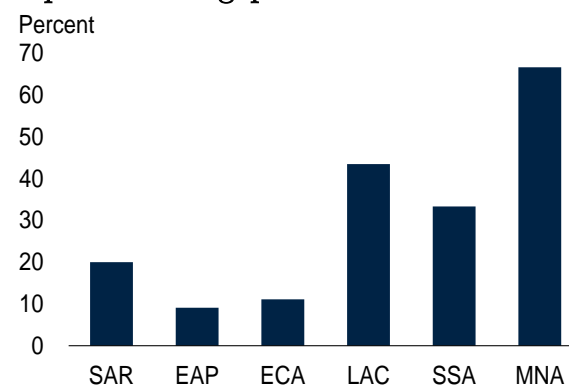
D. Per capita growth



E. Per capita growth differential between EMDEs and advanced economies



F. Share of EMDEs with widening per capita income gaps



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, and SSA = Sub-Saharan Africa

A.-D. Aggregate growth rates are calculated using constant 2010 U.S. dollar GDP weights. Shaded areas indicate forecasts.

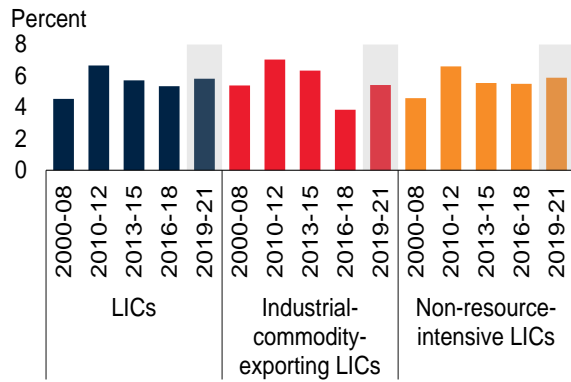
C. Unweighted average regional growth is used to ensure broad reflection of regional trends across all countries in the region.

E. Weighted based on real GDP and Investment in 2010 U.S. dollar. Investment refers to public and private real gross fixed capital formation. Sample consists of 50 EMDEs. Shaded areas indicate global recessions and slowdowns.

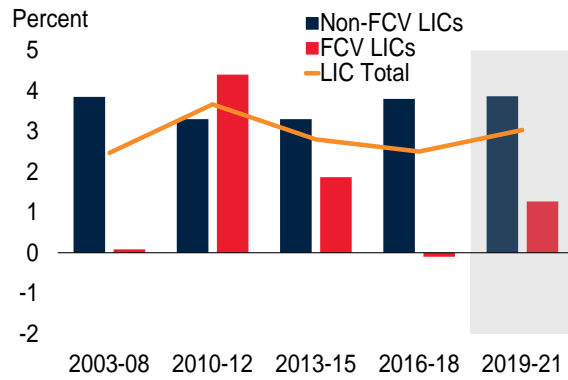
F. Economies with a widening income gap are those with per capita GDP growth of at least 0.1 percentage point lower than advanced economy per capita GDP growth in 2019.

Figure 3. Growth prospects for low-income countries

A. Global



B. Per capita growth



Source: World Bank.

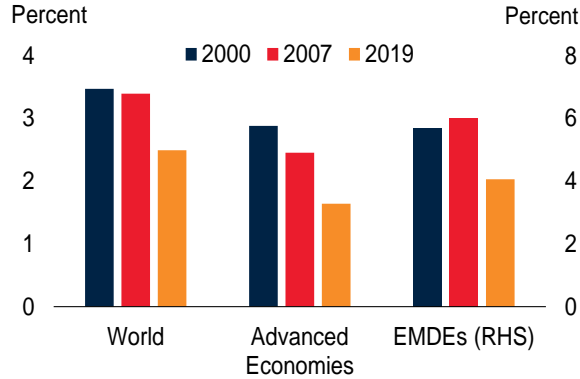
Note: Based on LICs as defined in 2018 and includes 28 economies.

A. Aggregate growth rates calculated using 2010 U.S. dollar GDP weights. Industrial commodity-exporting countries include energy and metal exporting-economies.

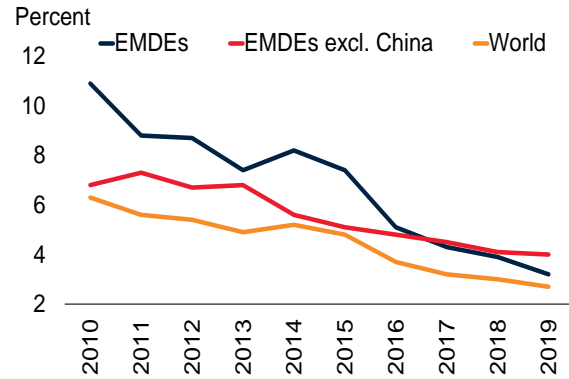
B. FCV = fragility, conflict, and violence. Weighted averages of country groups.

Figure 4. Long-term growth prospects of EMDEs

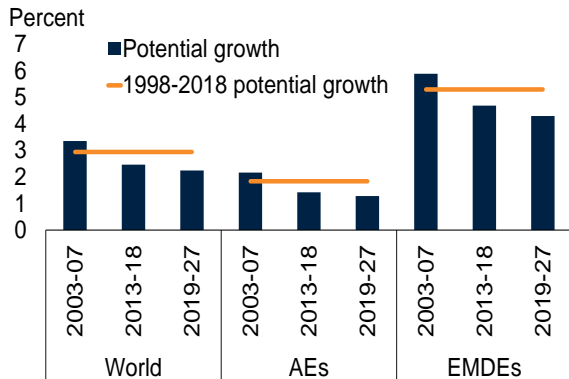
A. Long-term consensus forecasts: output growth



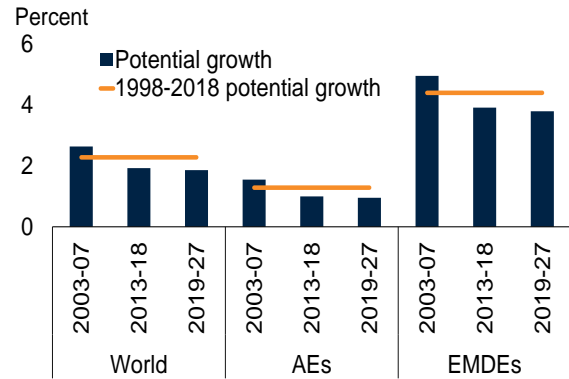
B. Long-term consensus forecasts: Investment growth



C. Potential output growth



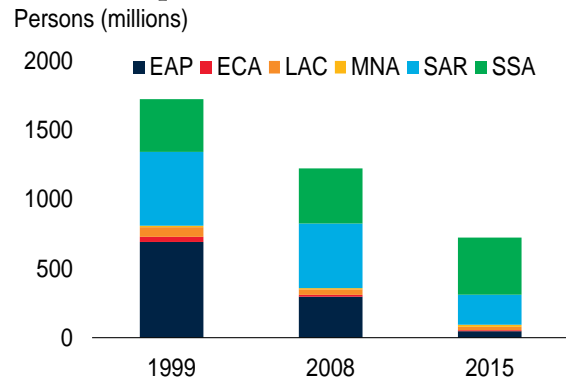
D. Potential per capita output growth



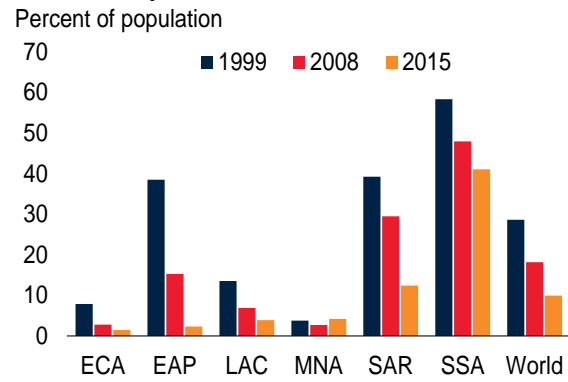
Source: Consensus Economics, Haver Analytics, Penn World Tables, UN Population Prospects, World Bank.
 A. Bars show long-term (10 years ahead) average annual growth forecasts surveyed in respective years. Sample comprises 38 countries—20 advanced economies and 18 EMDEs—for which consensus forecasts are consistently available during 1998-2019. Aggregate growth rates calculated using constant 2010 U.S. dollar GDP weights.
 B. 10-year-ahead forecasts surveyed in indicated year. Aggregate growth rates are calculated using constant 2010 U.S. dollar investment weights. Sample comprises 23 advanced economies and 20 EMDEs.
 C.D. Period average of annual GDP-weighted averages. Estimates based on production function approach. World sample comprises 50 EMDEs and 30 advanced economies.

Figure 5. Poverty

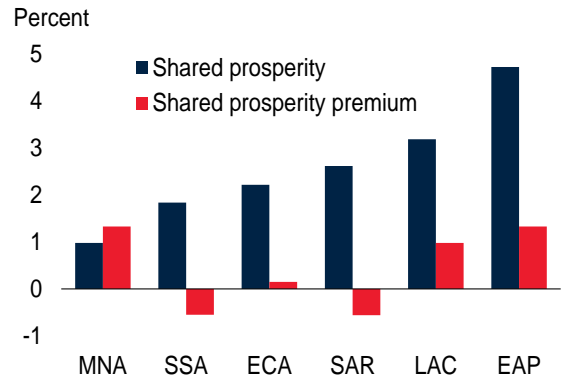
A. Global poor



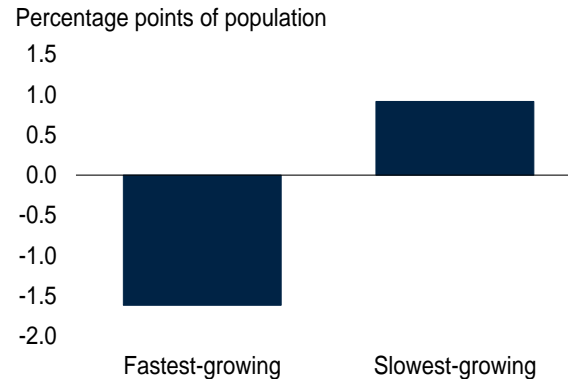
B. Poverty rates



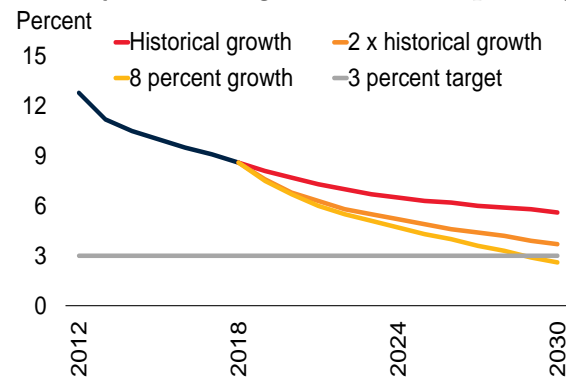
C. Shared prosperity



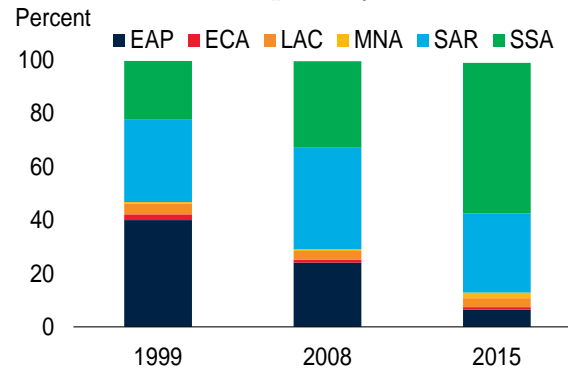
D. Change in poverty rates, by GDP growth



E. Projections of global extreme poverty



F. Distribution of poverty



Source: World Bank PovcalNet.

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, and SSA = Sub-Saharan Africa.

A.B.F. Regional aggregation based on 2011 Purchasing Power Parity (PPP) and \$1.90 per day poverty line.

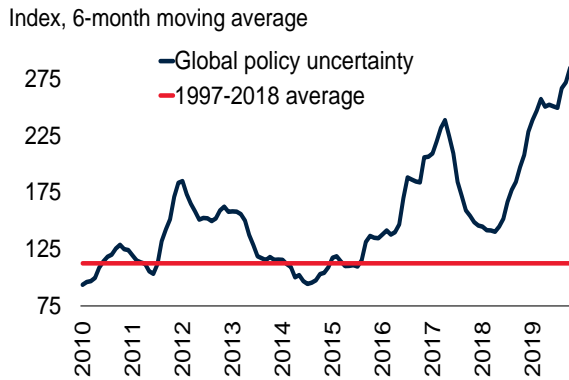
C. Shared prosperity is the average growth in household per capita income or consumption of the bottom 40 percent between 2010 and 2015. The shared prosperity premium measures the difference between income growth of the poorest 40 percent of households and the average household income growth.

D. Chart shows unweighted average of the average annual change in poverty headcount rates between two poverty estimates in each group of countries. “Fastest-growing” includes the quartile of EMDE country-year pairs with the highest average annual real GDP per capita growth between two poverty estimates; “slowest-growing” includes the quartile with the slowest average annual real GDP per capita growth. Based on data available from 1981.

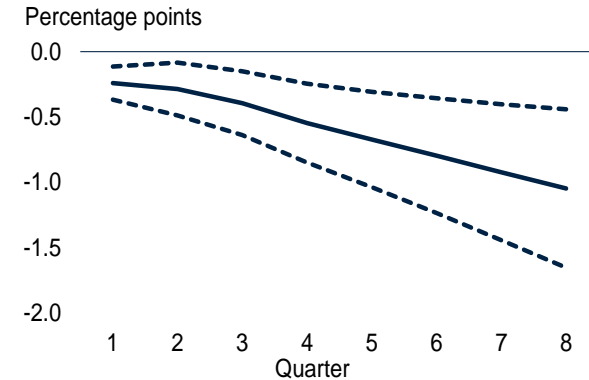
E. Data based on global real per capita growth. 8 percent growth assumes average annual growth in per capita incomes of 6 percent for all countries, but that incomes of the poorest 40 percent of households grow at 8 percent, while those of the richest 60 percent grow at 4.7 percent.

Figure 6. Risks to EMDE growth prospects: Policy uncertainty and trade tensions

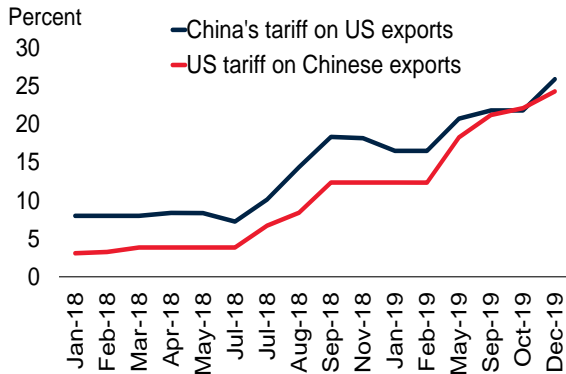
A. Global policy uncertainty



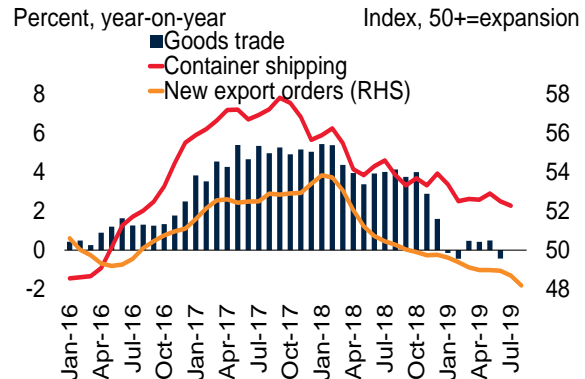
B. Impact of euro area policy uncertainty on investment in ECA



C. Import tariffs



D. Goods trade, container shipping, and export orders



Source: CPB Bureau for Economic Policy Analysis, China Ministry of Finance, Davis (2016), Freund et. al. (2018), Haver Analytics, Institute of Shipping Economics and Logistics, International Trade Centre, United States Trade Representative, World Bank.

A. See Davis (2016) for details. Last observation is October 2019.

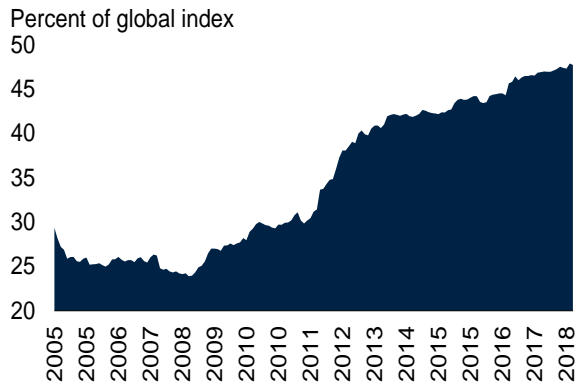
B. Vector autoregressions are used for estimation on a sample of aggregate EMDE variables for 1998Q1-2016Q2. The model includes the Economic Policy Uncertainty for the euro area, emerging market stock price (euro area) index, emerging market bond index, aggregate real output and investment growth in six ECA countries, with G7 real GDP growth, U.S. 10-year bond yields, and MSCI World Index as exogenous regressors and estimated with two lags.

C. Trade-weighted average tariffs computed from product-level tariff and trade data, weighted by U.S. exports to the world and China's exports to the world in 2017.

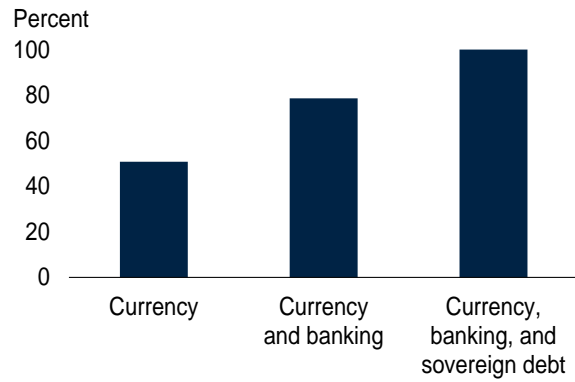
D. Figure shows three-month moving averages. New export orders measured by Purchasing Managers' Index (PMI). PMI readings above 50 indicate expansion in economic activity; readings below 50 indicate contraction. Last observation is June 2019 for goods trade, July 2019 for container shipping, and August 2019 for new export orders.

Figure 7. Risks to EMDE growth prospects: Financial stress

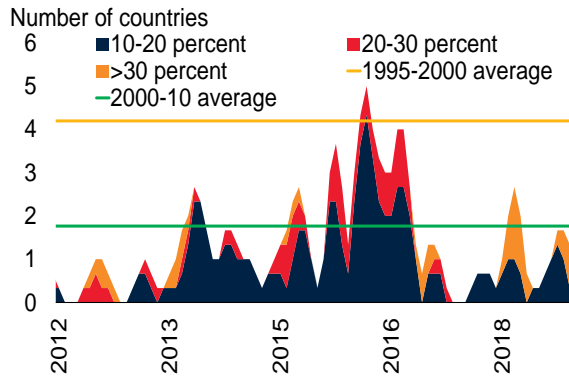
A. Share of global bonds rated BBB or below



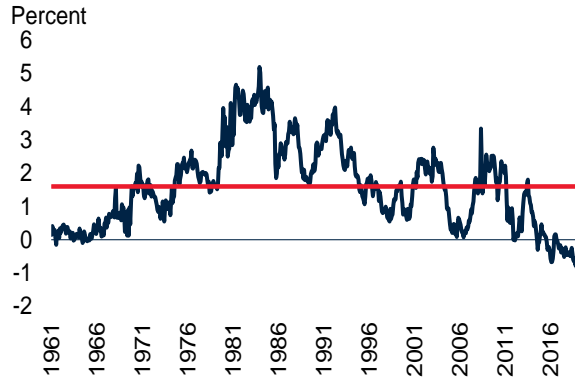
B. Share of EMDEs with negative growth around currency crises



C. Number of countries with large currency depreciations



D. U.S. term premium



Source: Dealogic, Federal Reserve Bank of New York, Laeven and Valencia (2018), World Bank.

A. Last observation is July 2018.

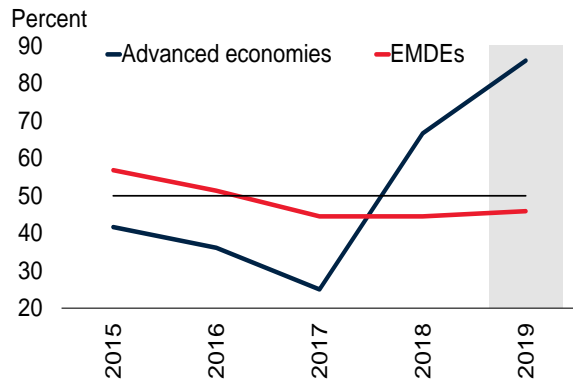
B. Share of countries that experienced negative growth in the current or next year following a currency crisis, a currency and banking crisis, or a currency, banking, and sovereign debt crisis between 1975 and 2017.

C. Figure shows three-month moving averages. Depreciations are defined as negative quarterly changes in the effective exchange rate. The sample comprises 138 EMDEs. Last observation is December 2018.

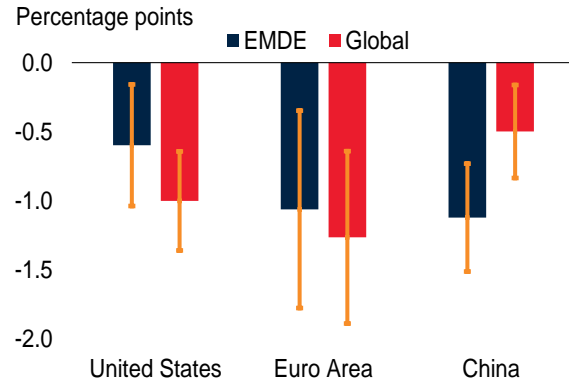
D. Based on Adrian, Crump, and Moench (2013) model of the term premia at a 10-year maturity. Last observation is August 2019.

Figure 8. Risks to EMDE growth prospects: Other adverse shocks

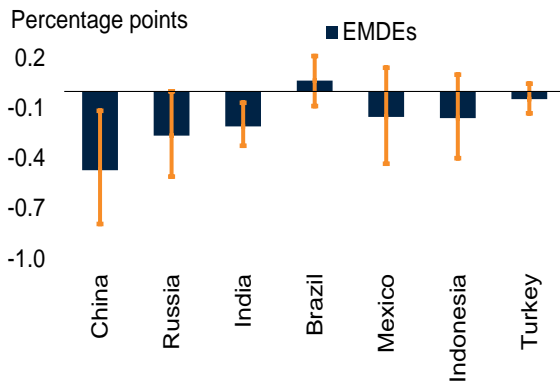
A. Share of countries with growth slowdowns



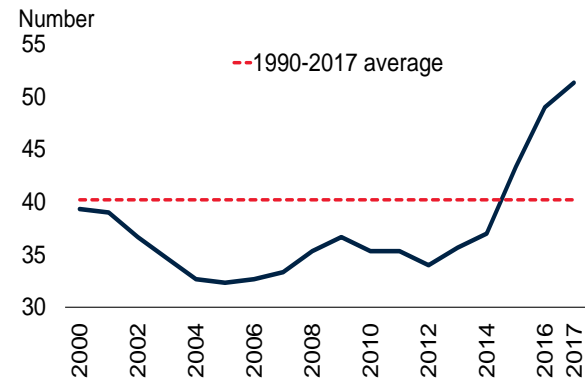
B. Spillovers from the United States, euro area and China



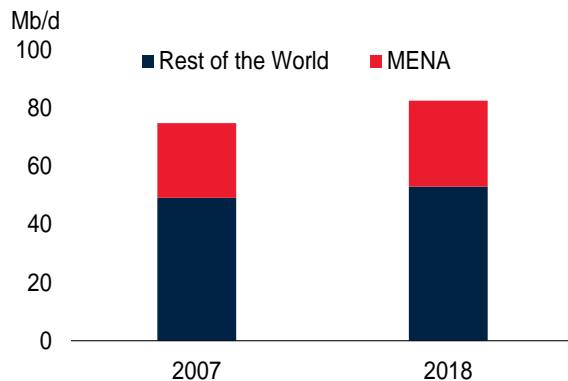
C. Spillovers from EM7



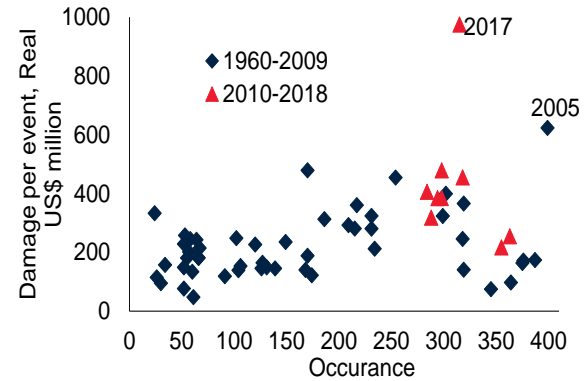
D. Number of armed conflicts



E. Oil production



F. Weather-related events



Source: Centre for the Study of Civil War at the Peace Research Institute Oslo (PRIO), CRED/OFDA International Disaster Database, Huidrom et al (2019), International Energy Agency, World Bank.

A. Slowdowns of at least 0.1 percentage point in annual GDP growth. Data for 36 advanced economies and 146 EMDEs.

B. Median cumulative impulse response of EMDE and global GDP growth after one year to a 1 percentage point decline in U.S. and euro area GDP growth. Based on vector autoregression of world GDP, output growth in the source country of the shock, the U.S. 10-year sovereign bond yield plus JP Morgan's EMBI index, output in EMDEs excluding China, and oil price as an exogenous variable. The "global" sample includes 22 advanced economies and 19 EMDEs for 1998Q1-2016Q2.

C. See Huidrom et al (2019) for details. Cumulative impulse responses of EMDE growth after one year in response to a 1 percentage point decline in growth in origin of shock.

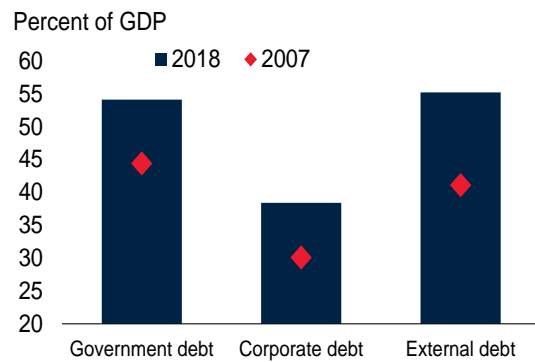
D. A state-based armed conflict is a contested incompatibility that concerns a government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year. Three-year rolling average.

E. Mb/d stands for millions of barrels per day.

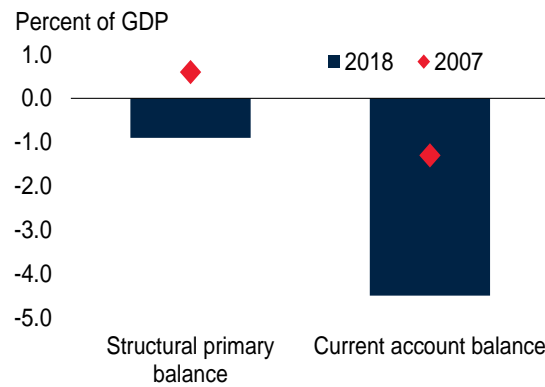
F. Observations each year. Weather events include drought, extreme temperature, floods, landslides, storms, and wildfires. Real cost deflated using U.S. GDP deflator in 2015 U.S. dollars. Last observation is 2018.

Figure 9. Vulnerabilities in EMDEs

A. Debt



B. Fiscal and current account balance



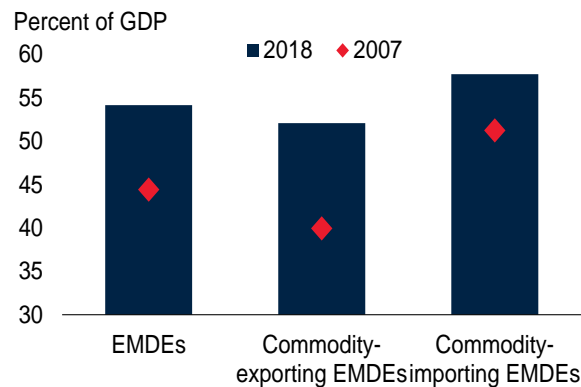
Source: International Monetary Fund, World Bank.

A. Unweighted averages of gross government debt for 146 EMDEs, nonfinancial corporate debt for 48 EMDEs, and total external debt for 61 EMDEs.

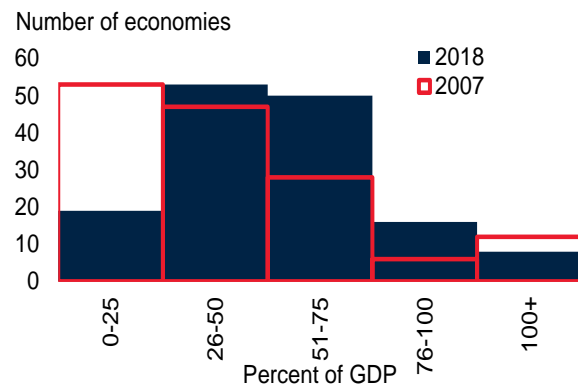
B. Unweighted averages of the structural primary balance for 149 EMDEs, and current account balances for 143 EMDEs.

Figure 10. Sovereign vulnerabilities in EMDEs

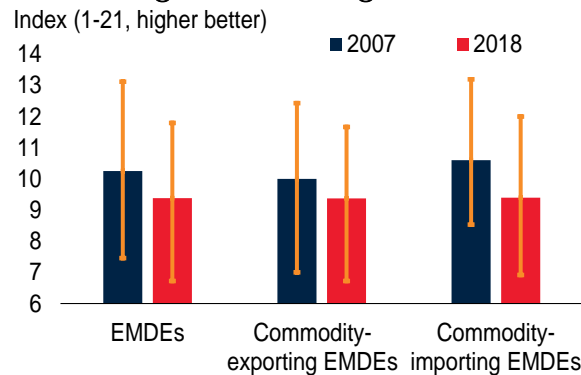
A. Government debt



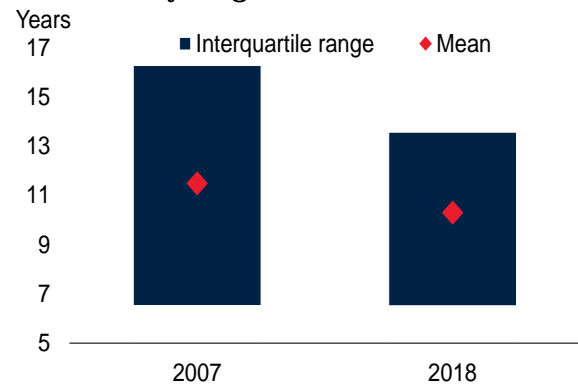
B. Government debt



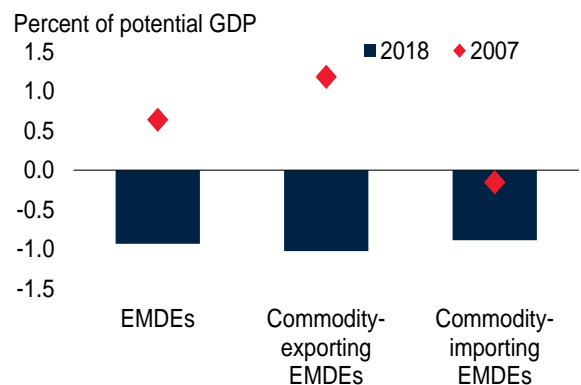
C. Sovereign credit ratings



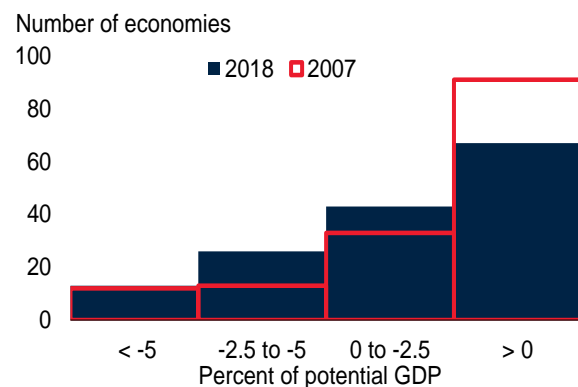
D. Maturity of government debt



E. Cyclically-adjusted primary fiscal balance



F. Cyclically-adjusted primary fiscal balance



Source: International Monetary Fund, Kose et al. (2017), World Bank.

A. Unweighted average of government debt ratios for 85 EMDE commodity exporters and 60 EMDE commodity importers.

B. Based on data for 146 EMDEs.

C. Unweighted averages of foreign currency sovereign credit ratings for 54 EMDE commodity exporters and 40 EMDE commodity importers. Whiskers denote interquartile ranges.

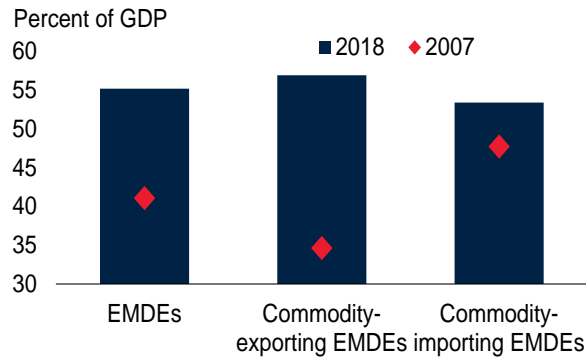
D. Unweighted averages of the average maturity of government debt based on 38 EMDEs.

E. Unweighted average of cyclically adjusted primary balance-to potential GDP ratios for 91 EMDE commodity exporters and 64 EMDE commodity importers.

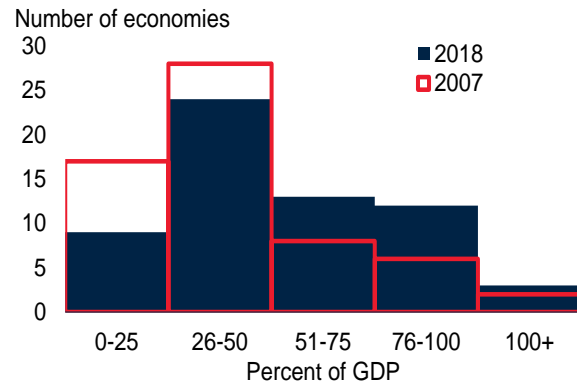
F. Based on data for 149 EMDEs.

Figure 11. External vulnerabilities in EMDEs

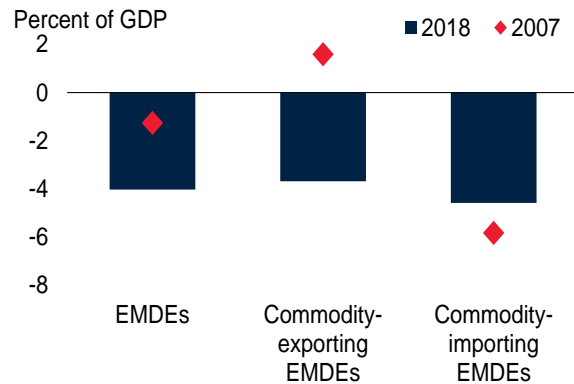
A. External debt



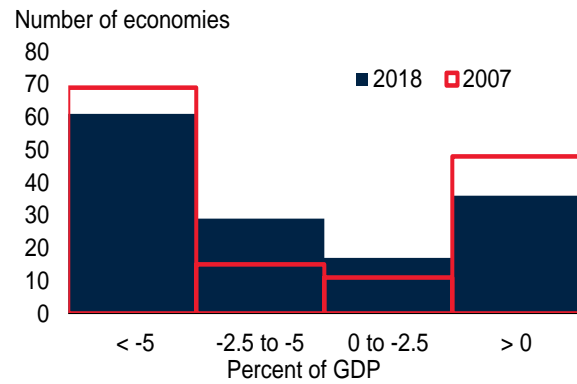
B. External debt



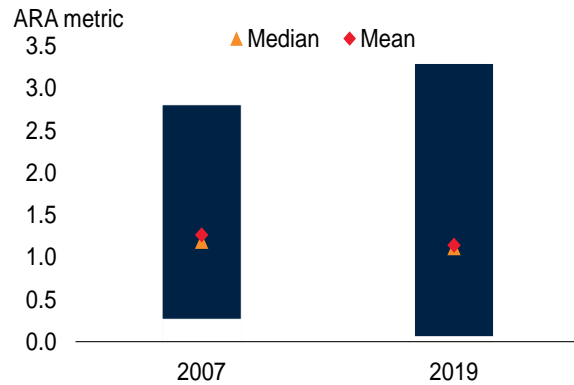
C. Current account balance



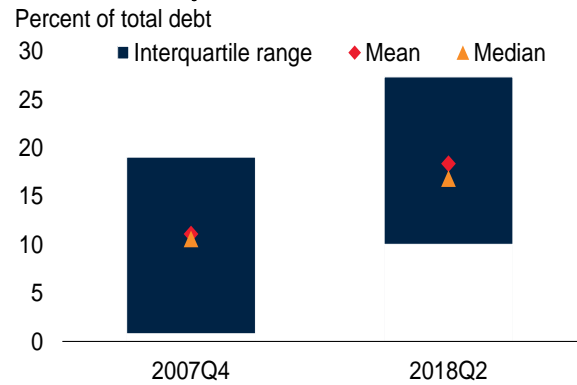
D. Current account balance



E. Foreign reserves adequacy



F. Non-resident holdings of local-currency debt



Source: Ha, Kose and Ohnsorge (2019); International Monetary Fund; World Bank.

A. Unweighted average of total external debt-to-GDP ratios for 31 EMDE commodity exporters and 30 EMDE commodity importers.

B. Based on data for 61 EMDEs.

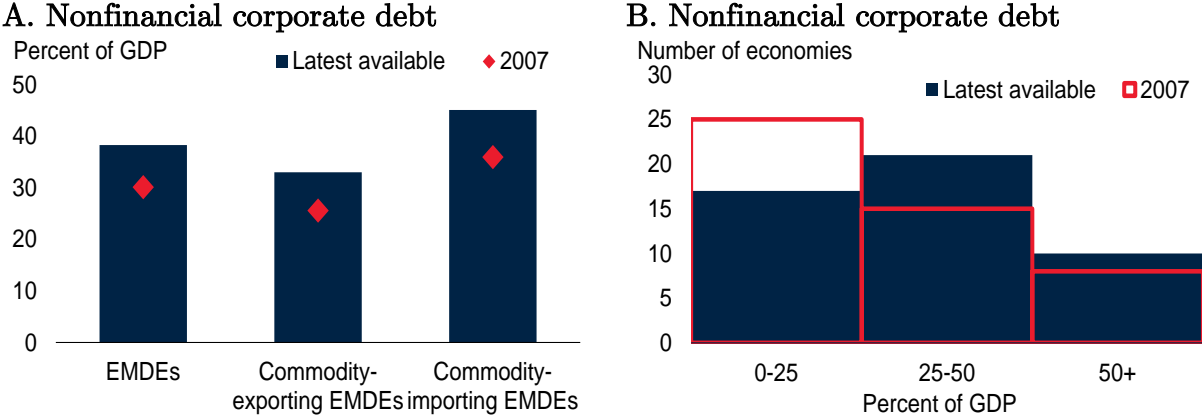
C. Unweighted average of current account balance-to-GDP ratios for 88 EMDE commodity exporters and 55 EMDE commodity importers.

D. Based on data for 143 EMDEs.

E. Based on data for 48 EMDEs. Dark blue bars show minimum and maximum values. Assessing Reserve Adequacy (ARA) metric is based on IMF (2011) which determines the appropriate reserve cover on a risk-weighted basis covering short-term debt, medium and long-term debt, and equity liabilities. Broad model and export earnings. Risk weights are based on observed outflows during periods of exchange rate pressure. Values above 1 suggest that countries are fully able to meet balance of payments needs using reserves.

F. Based on data for 23 EMDEs.

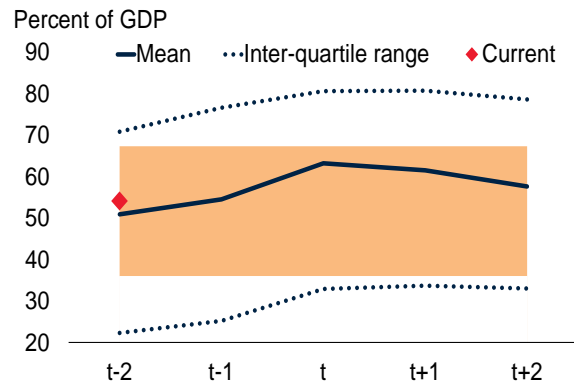
Figure 12. Corporate vulnerabilities in EMDEs



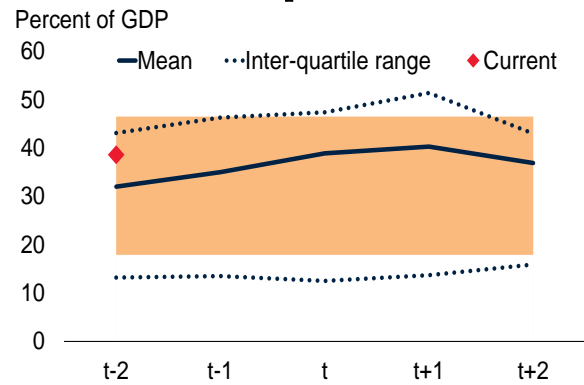
Source: Bank for International Settlements, International Monetary Fund.
 Notes: Based on data for 48 EMDEs. Latest available datapoint is 2019Q1 for Argentina, Brazil, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Poland, Russia, Saudi Arabia, South Africa, Thailand, and Turkey; 2016 for Algeria, Malaysia, Peru, and Sri Lanka; and 2017 for the rest. 2008 data are used for South Africa and the United Arab Emirates.
 A. Unweighted average of nonfinancial corporate debt in 27 EMDE commodity exporters and 21 EMDE commodity importers.

Figure 13. EMDE vulnerabilities now and during previous crises

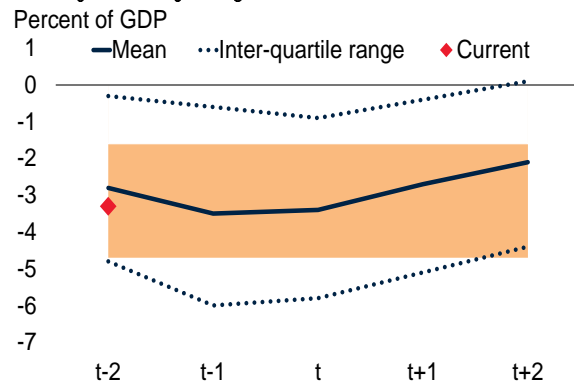
A. Government debt



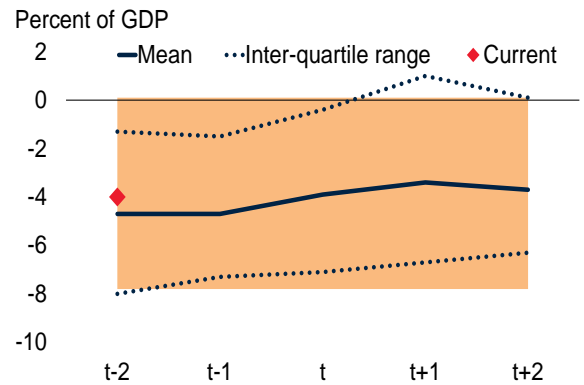
B. Nonfinancial corporate debt



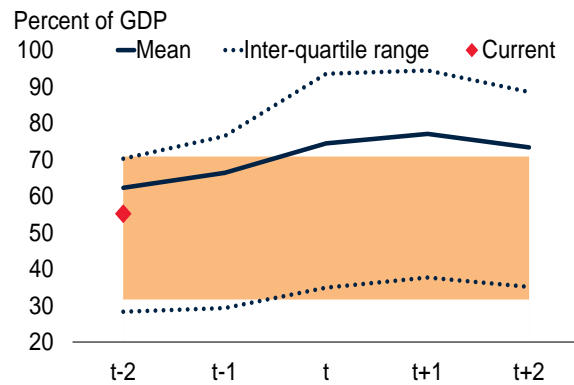
C. Cyclically adjusted fiscal balance



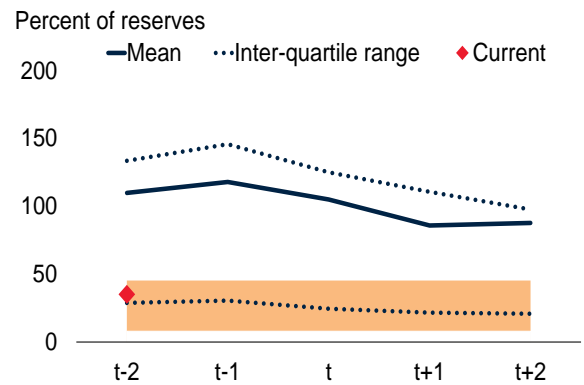
D. Current account balance



E. External debt



F. Short-term external debt



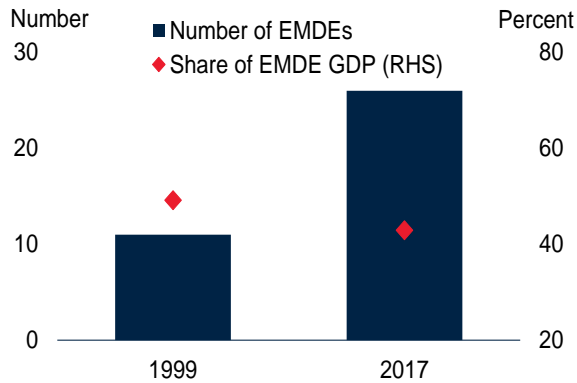
Source: International Monetary Fund, Laeven and Valencia (2018), World Bank.

Note: Crises are currency, sovereign debt, and banking crises as defined by Laeven and Valencia (2018). Horizontal axis indicates years. “Current” denotes unweighted averages for 2018 for government debt, total external debt, and cyclically adjusted fiscal balance; 2017 for short-term external debt to reserves; 2018Q3 for corporate debt in Argentina, Brazil, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Poland, Russia, Saudi Arabia, South Africa, Thailand, and Turkey; 2016 for corporate debt in Algeria, Malaysia, Peru, and Sri Lanka; and 2017 for corporate debt in 29 other EMDEs. Orange shaded area indicates the inter-quartile range of current observations. t = year of crisis.

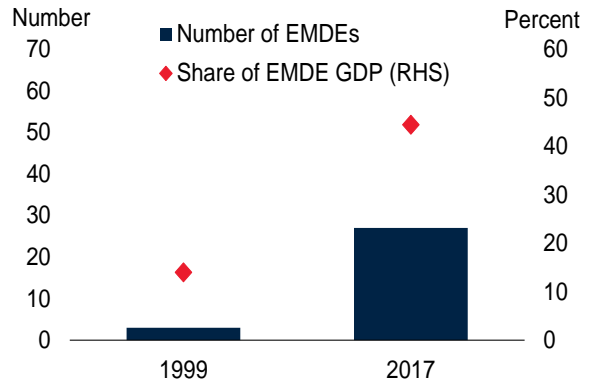
- A. Mean and interquartile range based on 94 previous EMDE crisis events.
- B. Based on 31 previous EMDE crisis events.
- C. Based on 158 previous EMDE crisis events.
- D. Based on 295 previous EMDE crisis events.
- E. Based on 170 previous EMDE crisis events.
- F. Based on 136 previous EMDE crisis events.

Figure 14. Policies to improve resilience

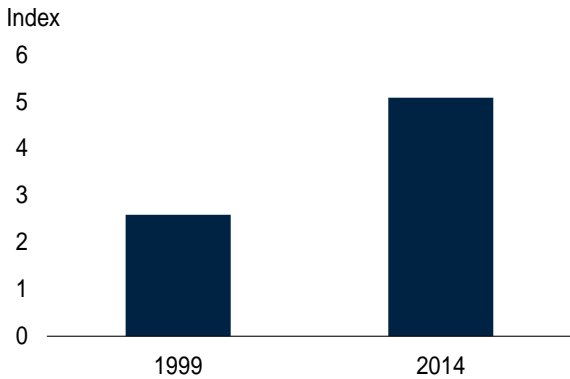
A. EMDEs with flexible exchange rates



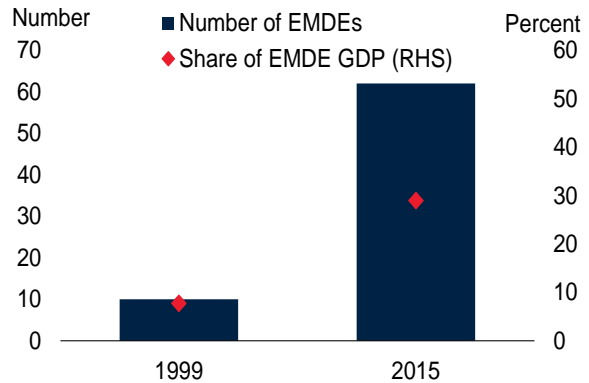
B. EMDEs with inflation targeting



C. Central bank transparency in EMDEs



D. EMDEs with fiscal rules



Source: Dincer and Eichengreen (2014), International Monetary Fund, World Bank.

A.B.D. Share of EMDE GDP based on respective year constant 2010 U.S. dollar GDP.

A. An economy is considered to have a flexible exchange rate if it is classified as “Floating” or “Free Floating.”

C. Central bank transparency based on the Dincer/Eichengreen Transparency Index. Larger numbers reflect greater transparency. Last observation is 2014.

D. An economy is considered to implement a fiscal rule if it has one or more fiscal rules on expenditure, revenue, budget balance, or debt. Last observation is 2015.

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