Introduction

Government debt has risen sharply in advanced economies, reaching levels not seen in the past six decades. Yet, low interest rates and subpar growth have led to an intense debate about whether the rapid increase in debt is reason for concern. Some argue that countries, especially those that issue reserve currencies, should take advantage of low interest rates to borrow more to finance priority expenditures. Others caution that high debt weighs on long-term growth, by increasing the risk of crises, limiting the scope for countercyclical fiscal stimulus, and dampening private investment.

Although the focus of this debate has been mainly on advanced economies, many EMDEs have also borrowed heavily and their hard-won cuts in public debt ratios prior to the global financial crisis have largely been reversed. The tradeoffs EMDEs face are even starker, in light of their history of severe debt crises and their more pressing current spending needs to achieve development goals and improve living standards.

This box seeks to provide a basis for assessing the merits of additional debt accumulation in EMDEs by addressing two specific questions. First, how has EMDE debt evolved since 2000? Second, what are the benefits and costs associated with rapid debt accumulation?

Evolution of EMDE debt since 2000

Pre-crisis improvements in fiscal positions. Prior to the global financial crisis, rapid growth helped narrow fiscal deficits and reduce government debt ratios, especially in EMDEs (Figure 1.1.1.A and B; Kose, Kurlat, et al. 2017). In addition to robust growth, debt relief in the Multilateral Debt Relief Initiative (MDRI) and the Highly Indebted Poor Countries initiative (HIPC) contributed to the decline in debt in low-income countries (LICs) and lower middle-income countries. Fiscal deficits that reached 3 percent of GDP in EMDEs, on average, in 2001 turned into fiscal surpluses amounting to 0.7 percent of GDP, on average, by 2007. Over the same period, EMDE government debt fell by 13 percentage points of GDP to 36 percent of GDP.

Post-crisis debt accumulation. EMDE fiscal positions have weakened partly because of sharp growth slowdowns that pushed government debt up by an average of 15 percentage points to 51 percent of GDP by 2018. This deterioration was broad-based—by 2018, government debt was 10 or more percentage points of GDP higher than in 2007 in about 60 percent of EMDEs, with commodity exporters, which account for almost two-thirds of EMDEs, being hit the hardest (World Bank 2015, 2018a). In LICs, government debt rose by 14 percentage points of GDP, to 46 percent of GDP in 2018 after falling to a trough of 32 percent of GDP in 2012.

Post-crisis shifts in debt composition. In many EMDEs, financing of debt has shifted toward higher-risk sources,
Several strands of literature have attempted to identify how much debt is “too much”—a threshold level of debt below which it is sustainable or not harmful to growth (Kose, Ohnsorge, and Sugawara forthcoming). For example, one strand of the literature has estimated the sustainable level of debt in advanced economies if fiscal deficits remain consistent with past performance or if sovereign bond yields move consistent with past movements. Some studies have identified debt thresholds above which the likelihood of a financial crisis increases. A third strand of the literature has explored the debt levels above which debt burdens become detrimental to long-term growth.²

In a nutshell, the empirical evidence suggests that the optimal level of debt depends on a wide range of trade-offs. This in part reflects a broader theoretical challenge in the literature. The basic insight from theory is that debt increases output in the short-run but reduces it in the long-run (Elmendorf and Mankiw 1999). Debt can be beneficial in the short-run to smooth macroeconomic fluctuations and, in the long-run, to finance long-term investments that yield a higher rate of return than the cost of debt. However, elevated debt levels can lead to sustainability challenges, increase vulnerability to crises, erode the size and effectiveness of fiscal expansion, and weigh on investment and growth (Figure 1.1.1.E and F).

When weighing benefits against cost of debt, political-economy forces may tilt the scale towards underestimating the cost of borrowing while overestimating its benefits. Disagreements over spending preferences or short-lived government tenures generate incentives to expand government spending envelopes, financed by debt (Alesina and Tabellini 1990; Drazen 2000; Aguiar and Amador 2011). Especially ahead of elections, the absence of full information may create a conflict of incentives that encourages political incumbents to employ debt-financed fiscal stimulus to improve short-term growth prospects (Shi and Svensson 2006; Aidt, Veiga, and Veiga 2011). As a result, government expenditures, public debt and deficits tend to increase statistically significantly albeit modestly around elections (Philips 2016). Such political cycles in budget pressures tend to be stronger in countries with weaker fiscal transparency (Alt and Lassen 2006 a,b; Klomp and De Haan 2011), without balanced-budget requirements (Alt and Rose 2009; Cioffi, Messina, and Tommasino 2012) and with poorer governance (Shi and Svensson 2006; Streb, Lema, and Torrens 2009).

**Benefits of debt**

Additional debt accumulation by EMDEs could be justified because of their need to invest in growth-enhancing projects, such as infrastructure, health and education, and to protect vulnerable groups. During periods of weak growth, it may also be appropriate to employ expansionary fiscal policy to stimulate activity.

²For studies on the sustainable level of debt, see Ghosh et al. (2013) and Greenlaw et al. (2013). For studies that examine debt as an early warning indicator, see Manasse and Roubini (2009) and Krasy and Nehru (2006). For a discussion of safe debt thresholds, see Reinhart, Rogoff, and Savastano (2003). Some studies report that higher debt is associated with lower growth when government debt is larger than 80-100 percent of GDP (Reinhart and Rogoff 2010; Cecchetti, Mohany, and Zampolli 2011; Baum, Checherita-Westphal, and Rother 2013). That said, others found no such effects (Panizza and Presbitero 2014).
Promoting long-term growth. Government investment in physical and human capital can provide an important foundation for stronger growth over the long-term. These investments have taken on greater urgency in light of the expected slowdown in potential growth—the rate of growth an economy can sustain at full employment and capacity—over the next decade (World Bank 2018c). In EMDEs, in particular, potential growth is expected to slow by 0.5 percentage point to 4.3 percent during 2018-27, well below the average rate of 6.7 percent during 2002-07.

Moreover, EMDEs have large investment needs to meet the Sustainable Development Goals (SDGs): low- and middle-income countries face aggregate investment needs of $1.5–$2.7 trillion per year—equivalent to 4.5–8.2 percent of GDP—between 2015 and 2030 to meet infrastructure-related SDGs, depending on policy choices (Rozenberg and Fay 2019). Infrastructure investment can have particularly large growth benefits if it connects isolated communities with input and output markets, allowing companies to realize economies of scale by...
BOX 1.1 Debt: No free lunch (continued)

increasing market size, and increases competitive pressures (Égert, Kozluk and Sutherland 2009; Calderón and Servén 2010). To the extent that debt-financed investment spending stems the slowdown in potential growth, it also helps preserve the revenues required to service this debt (Fatás et al. 2018).³

Stabilizing short-term macroeconomic fluctuations. Temporary debt accumulation also plays an important role to stabilize short-term macroeconomic fluctuations. During recessions, borrowing for government spending or tax cuts can provide the necessary fiscal stimulus to support activity (World Bank 2015; Yared 2019; Figure 1.1.1.F). A large literature has estimated the output effects (fiscal multipliers) of additional government spending or tax cuts (Huëdrom et al. 2016, 2019; Ramey 2019). The estimates vary widely—from a 1.1-dollar output decline to a 3.8-dollar output increase for every dollar of additional government spending or reduced revenues—depending on the cyclical position of the economy; structural country characteristics, including the coherence of fiscal frameworks; and the fiscal instrument employed. Broadly speaking, output effects tend to be larger during recessions than expansions, and larger for advanced economies than for EMDEs (Kraay 2012, 2014). In EMDEs, lack of fiscal space has often constrained fiscal policy during recessions, but there is some evidence that fiscal policy has become less procyclical during the 2000s (Frankel, Vegh, and Vuletin 2013).

Costs associated with debt

The main arguments against heavy borrowing, which may outweigh the benefits of borrowing in some countries, are that rollover costs can increase sharply during periods of financial stress and perhaps even trigger a financial crisis; and high debt levels can limit the size and effectiveness of fiscal stimulus during downturns. In addition, they can constrain growth by crowding out productivity-enhancing private investment over the long term, especially if the costs of debt outweigh its benefits.

Deteriorating debt sustainability. During the post-crisis period, the cost of government borrowing has been historically low, for both advanced economies and EMDEs (Figure 1.1.2.A and B). Looking ahead, demographic shifts and slowing productivity growth are expected to contribute to a further secular decline in both real interest rates in advanced economies, continuing this multi-year trend (Holston, Laubach, and Williams 2017). However, an increase in global borrowing cost, for example because of a decline in global savings rates, could test the sustainability of high debt in some countries (Henderson 2019; Rogoff 2019).

The recent discussion on debt has focused on the differential between interest rates and nominal GDP growth. If interest rates (the cost of capital) are below nominal output growth (the presumed rate of return on capital), then the real burden of the debt declines over time because the rate of return on debt-financed investment is more than sufficient to service the debt. However, the interest rate-growth differential has to be weighed against the accumulation of new debt—the primary fiscal deficit. If, every year, primary deficits add more to the debt than is repaid on past debt (even if high rates of return are more than sufficient to service the debt), then the debt stock will be on a rising trajectory.⁴

During 1990-2018, the interest-rate-growth differential has been negative in just over half (57 percent) of country-year pairs (54 percent of country-year pairs among 36 advanced economies and 60 percent of country-year pairs among 63 EMDEs). However, even in about one-quarter of these instances, the differential was not large enough to offset the increase in debt from primary balances and maintain the government debt ratio on a stable or declining path. As a result, during 1990-2018, primary balances, long-term interest rates and nominal GDP growth have been such that debt has been on a steadily rising trajectory about half of the time—in 44 percent of country-year pairs among 34 advanced economies and 49 percent of country-year pairs among 62 EMDEs.

Increasing vulnerability to financial crises. Higher spending on debt service implies some combination of further borrowing, or increased taxes, or less spending on critical government functions (Figure 1.1.1.E; Debrun and Kinda 2016). The challenge of mounting borrowing is that a growing debt-to-GDP ratio could erode investor confidence, requiring a government to pay a rising risk premium on its debt. Eventually, these pressures can culminate in a debt crisis if investors fear that the accumulation of government debt is no longer sustainable (Henderson 2019; Rogoff 2019; Blanchard 2019).

³In EMDEs, debt can also play an important role in financial deepening by establishing a safe asset for use as collateral and as benchmark for non-government debt (Hauner 2009; World Bank and IMF 2001).

⁴The balance between these two forces is captured in the sustainability gap, defined as the difference between the primary balance and the debt stabilizing primary balance at specific interest rates and growth rates (Kose, Kuralat, et al. 2017).
For reserve currency-issuing advanced economies, like the United States, it has been argued that such a spike in risk premia is unlikely, since these countries are often viewed as safe havens during periods of market turbulence (Furman and Summers 2019; Krugman 2014). For EMDEs, however, this risk is more acute. History has shown that EMDE borrowing costs tend to rise sharply during episodes of financial stress, and higher debt servicing costs can cause debt dynamics to deteriorate (Figure 1.1.2.C to F). A recent example is the case of Argentina, where its five-year U.S. dollar-denominated sovereign bond yields more than doubled during 2018 to over 11 percent in early September. Indeed, every decade since the 1970s has witnessed debt crises in EMDEs, often combined with banking or currency crises (Kose and Terrones 2015; Laeven and Valencia 2018).

**Constraining government action during downturns.** High debt constrains governments’ ability to respond to downturns, in part because debt service crowds out other important government spending needs, including growth-enhancing public investment or social safety nets (Obstfeld 2013; Reinhart and Rogoff 2010; Romer and Romer 2018). This was also the case during the global financial crisis: fiscal stimulus during 2008-09 was considerably smaller in countries with high debt than in those with low debt.
BOX 1.1 Debt: No free lunch (continued)

government debt (World Bank 2015). Moreover, weak fiscal positions tend to be associated with deeper and longer recessions, a situation that worsens if the private sector also falls into distress and its debt migrates to government balance sheets.

Reducing the effectiveness of fiscal policy. High government debt tends to render fiscal policy less effective (Figure 1.1.1.F). High government debt can reduce the size of fiscal multipliers through two channels. First, when a government with a high level of debt implements fiscal stimulus, consumers expect that tax increases will soon follow (Sutherland 1997). This expectation leads consumers to cut consumption and save more (the “Ricardian” reaction to government dis-saving). Second, when the level of debt is higher, fiscal stimulus can increase creditors’ concerns about sovereign credit risk. This raises sovereign bond yields and, hence, borrowing costs across the whole economy (Corsetti et al. 2013). This, in turn, crowds out private investment and consumption, reducing the size of the fiscal multiplier (“interest rate channel”). Indeed, empirical evidence suggests that, regardless of the time horizon considered, fiscal multipliers are smaller when government debt is higher (Figure 1.1.1.F; Huidrom et al. 2016, 2019). Similarly, evidence points to less effective monetary policy in the presence of high debt because of poorly anchored inflation expectations in high-debt countries (Kose et al. 2019).

Slowing investment and growth. High and rising government debt may eventually raise long-term interest rates (Rubin, Orszag, and Sinai 2004; Laubach 2009). High debt could also create uncertainty about macroeconomic and policy prospects, including the possibility that governments may need to resort to distortionary taxation to rein in debt and deficits (IMF 2018; Kumar and Woo 2010). Higher interest rates and uncertainty would tend to crowd out productivity-enhancing private investment and weigh on output growth.5 The empirical evidence for the association between debt and growth is, however, mixed (Panizza and Presbitero 2014).

Conclusion

EMDE governments need to put in place frameworks that help them strike a careful balance between taking advantage of the present low interest rate environment and avoiding the risks posed by excessive debt accumulation. For countries with sound fiscal positions and frameworks that help ensure long-term sustainability, the balance may tip toward debt-financed spending to boost growth prospects if the cyclical position is appropriate. But for those countries with constrained fiscal positions, alternative policies exist to expand the fiscal resources needed to finance growth-friendly policies.

These alternatives include better spending and tax policies, in an improved institutional environment. Spending can be shifted toward areas that lay the foundation of future growth, including education and health spending as well as climate-smart investment to strengthen economic resilience. Government revenue bases can be broadened by removing special exemptions and strengthening tax administration (Gaspar, Ralyea, and Ture 2019; IMF 2019; World Bank 2017b). Business climates and institutions can be strengthened to support vibrant private sector growth that can yield productivity gains and expand the revenue base.

Greater debt transparency and better debt management can mitigate some of the costs associated with debt buildups and some of the political-economy pressures for rapid debt accumulation. The buildup in LIC debt has not been accompanied by necessary improvements in the quality of debt management. Better debt management and transparency can help reduce borrowing costs, enhance debt sustainability, and dampen fiscal risks. For example, a sound debt management system would keep short-term and foreign currency exposures to prudent levels. Greater transparency—as well as institutional constraints on fiscal policy, including robust fiscal rules, and better governance—can mitigate some of the political-economy forces that are biased toward rapid debt accumulation.6 Over time, improved debt management and transparency would help foster macroeconomic stability.

Regardless of the desired level of debt, prudent debt management favors debt contracted on terms that preserve macroeconomic and financial resilience—preferably at longer maturities, at fixed (and favorable) interest rates, are denominated in local currency and transparently disclosed. A debt composition that is less vulnerable to market disruptions reduces the likelihood that a decline in market

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5 Auerbach, Gale, and Krupkin (2019); Gale and Orszag (2003); Croce et al. (2018); Huang, Pagano, and Panizza (2017); and Panizza, Huang, and Vargheese (2018).

6 Alt and Lassen (2006 a,b); Klomp and De Haan (2011); Alt and Rose (2009); Casilli, Messina, and Tommasino (2012); Shi and Svensson (2006); and Streb, Lema, and Torrens (2009).
these new tariffs are contributing to heightened policy uncertainty, which is expected to dent confidence and investment.

As demand from major economies continues to moderate, export growth is expected to decelerate across EMDE regions in 2019. An exception is Sub-Saharan Africa, where export growth is expected to recover modestly from supply disruptions in key commodity-producing sectors in 2018 (Figure 1.7.E). The weakness in export growth this year is projected to be particularly pronounced in the Middle East and North Africa, reflecting oil production cuts in OPEC countries and U.S. sanctions on the Islamic Republic of Iran. Overall, export growth in 2019 is expected to be below historical averages in more than 80 percent of EMDEs.

In all, global trade growth is projected to weaken from 4.1 percent in 2018 to 2.6 percent this year—a full percentage point below previous forecasts, slightly below the pace observed during the 2015-16 trade slowdown, and the weakest since the global financial crisis (Figure 1.7.F). As the weakness in manufacturing abates, global trade is expected to stabilize to an average of 3.2 percent in 2020-21. This assumes no further escalation in trade tensions between major economies; new stimulus measures implemented in China and, to a lesser degree, the Euro Area; and firming domestic demand in some EMDEs. However, global trade is projected to be weaker than previously envisaged over the forecast horizon. This reflects a softer outlook for global investment and evidence of a lower income elasticity of trade.

The post-crisis decline in the income elasticity of trade reflects slower value chain integration and trade liberalization (UNCTAD 2018).

While the global trade growth forecast assumes that new tariffs imposed continue to apply throughout the forecast horizon, trade relations between the United States and China remain fragile and could deteriorate further. Meanwhile, trade agreements that recently entered into force, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the EU-Japan Economic Partnership Agreement, could help boost trade and foster deeper integration between signatory countries. The recently signed, but yet to be ratified, United States-Mexico-Canada Agreement (USMCA) could impact trade in agricultural products, automobiles, textiles and apparel; however, it is expected to have limited effects on economic activity (Chepeliev, Tyner and van der Mensbrugghe 2018; Burfisher, Lambert, and Matheson 2019). Potential tariffs on U.S. imports from Mexico announced in late May—not included in baseline forecasts—could weigh on North American trade.

Financial markets

Amid signs of deterioration in global economic prospects and persistently low inflation, major central banks have adopted more accommodative monetary policy stances for the near term. The U.S. Federal Reserve has placed its tightening cycle on hold, while the European Central Bank has delayed the end of its negative interest rate

**BOX 1.1 Debt: No free lunch (continued)**

sentiment, sharp depreciations, or interest rate spikes erode debt sustainability. This is particularly important in EMDEs, which tend to suffer sharp capital flow stops or reversals during times of financial stress.

EMDEs should avoid the temptation of the “this-time-is-different” syndrome in the current period of low interest rates (Reinhart and Rogoff 2009). Even if the cost of debt is currently low, the historical record suggests that it could increase sharply during periods of financial stress, as some EMDEs have painfully learned once again in recent years. Excessive debt burdens may make governments more vulnerable to crises, limit the size and effectiveness of fiscal stimulus during future cyclical downturns, and weigh on investment and longer-term growth. As the long history of financial crises in EMDEs has repeatedly shown, debt cannot be treated as a free lunch.