CHAPTER 4

The Fourth Wave: Ripple or Tsunami?

Since 2010, another global wave of debt accumulation has been building. This wave has already seen the largest, fastest and most broad-based increase in debt in emerging market and developing economies (EMDEs) in the past half-century. Even excluding China, where corporate debt has soared post-crisis, debt in EMDEs has risen to record highs. The current wave bears many similarities to the previous episodes: it has been fueled by very low interest rates and major changes in financial markets, and accompanied by mounting vulnerabilities in EMDEs. However, it also differs from the previous waves in some important dimensions: the current wave has been exceptional in its size, speed and breadth but has also taken place in a more resilient global financial system as a result of post-crisis reforms. In addition, many EMDEs have improved their policy frameworks over the past two decades.

Introduction

The current global wave of debt, which started in 2010, has already seen the largest, fastest and most broad-based increase in debt in emerging market and developing economies (EMDEs) in the past 50 years. Total EMDE debt (both public and private sectors) rose to almost 170 percent of GDP at end-2018 from 114 percent at end-2010. Even excluding China, where the debt buildup has been particularly pronounced, total debt has risen by 19 percentage points since 2010, to 107 percent of GDP at end-2018.

The magnitude and speed of debt accumulation in the current (fourth) wave has triggered an intense debate about the benefits and risks of more borrowing. As summarized in Chapter 2, debt can be beneficial if it is used for productive purposes, but high and rising debt can leave EMDEs vulnerable to economic and financial shocks. Despite the current prolonged period of very low interest rates, there is a risk that the latest wave of debt accumulation may follow the historical pattern of its predecessors (as documented in Chapter 3) and result in widespread financial crises.

This chapter examines the current wave and puts it in historical context by considering the following questions:

- How has debt evolved in the fourth wave?
- Which factors have contributed to debt accumulation during the fourth wave?

- What are the similarities and differences between the fourth wave and the previous waves?

Contributions to the literature. In contrast to earlier studies, this chapter puts the current wave of broad-based debt accumulation in EMDEs into historical perspective. Earlier work has recognized the steep post-2009 increase in debt in certain regions and/or groups of countries. For example, some studies have examined mounting government debt in advanced economies.[1] There has also been considerable interest in the post-crisis increase in debt in EMDEs, including low-income and lower-middle-income countries but, again, these studies have documented the post-crisis increase in debt without the historical lens of the global waves framework (Essl et al. 2019; World Bank and IMF 2018a, 2018b).

Main findings. The main findings of this chapter are as follows:

- *Another global wave of rising debt underway.* This latest wave of debt accumulation began in 2010 and has already seen the largest, fastest, and most broad-based increase in debt in EMDEs in the past 50 years. The average annual increase in EMDE debt since 2010 of almost 7 percentage points of GDP has been larger by some margin than in each of the previous three waves. Whereas previous waves were largely regional in nature, the fourth wave has been very widespread with total debt rising in almost 80 percent of EMDEs and rising by at least 20 percentage points of GDP in just over one-third of EMDEs.

- *Multiple similarities with the previous waves.* The current wave of debt accumulation bears many similarities to the previous three waves. Global interest rates have been very low since the global financial crisis, and the search for yield by investors has contributed to narrowing spreads for EMDEs. Some major changes in financial markets have again boosted borrowing, including through a rise of regional banks, growing appetite for local currency bonds, and increased demand for EMDE debt from the expanding shadow banking sector. As in the earlier waves, vulnerabilities have mounted as the current wave has proceeded. There has been a shift to riskier debt instruments, including increasing reliance on non-Paris club bilateral lenders, particularly in low-income countries (LICs). Fiscal and external deficits have increased in many EMDEs since 2010. GDP growth has also slowed in EMDEs since 2010.

[1] For example, BIS (2015); Eberhardt and Presbitero (2015); Cecchetti, Mohanty, and Zampolli (2011); Eichengreen et al. (2019); Panizza and Presbitero (2014); Reinhart, Reinhart and Rogoff (2012); Mbaye, Moreno-Badia, and Chae (2018a); and OECD (2017).

- *Some important differences.* The fourth wave looks more worrisome than the previous episodes in terms of the size, speed, and reach of debt accumulation in EMDEs. It has also seen both government debt rising in tandem with private sector debt, in contrast to earlier waves. But there have also been important policy improvements which may mitigate these concerns. Multiple reforms have increased the resilience of the international financial system, and global financial safety nets have been expanded and strengthened since the global financial crisis. Many EMDEs have improved their macroprudential and regulatory policy frameworks over the past two decades.

The remainder of this chapter proceeds as follows. The first section discusses the evolution of debt in the fourth wave, in terms of the location, scale, and type of debt accumulation. Some factors that have contributed to the increase in debt are discussed next. The subsequent two sections place the fourth wave in the context of the previous waves by examining the similarities and differences among the four waves. The chapter concludes with a summary of findings.

The fourth wave

Largest, fastest, and most broad-based wave yet. Including or excluding China, the average annual increase since 2010 in total EMDE debt has been larger, by some margin, than the first three waves—almost 7 percentage points of GDP (or more than 2 percent excluding China (Figure 4.1). Just over one-third of EMDEs have seen an increase in debt equivalent to at least 20 percentage points of GDP. In LICs, total debt increased by 19 percentage points of GDP, to 67 percent of GDP at end-2018.

In contrast to the previous three waves, which were largely regional in nature, the current, fourth wave has been global. Total debt has risen in more than 70 percent of EMDEs in each region—previous waves saw higher rates of increase in individual regions, but not big increases across all regions simultaneously. Total debt-to-GDP ratios have risen in all EMDE regions, except SAR where it has been flat, and in almost 80 percent of EMDEs, with over one-third seeing increases of at least 20 percentage points of GDP.[2]

[2] Total debt has risen particularly rapidly in China, Cambodia, Chile, and Argentina. Turkey stands out as having the third fastest increase in private sector debt after Cambodia and China. Among low-income countries, Mozambique, Togo, and The Gambia have seen the largest increases in debt.

FIGURE 4.1 Change in debt across the four waves

The fourth wave has seen the largest and fastest increase in debt-to-GDP ratios among EMDEs. It has also been the most broad-based across regions and borrowing sectors.

Source: International Monetary Fund; World Bank.

Note: Sample includes 142 EMDEs. First wave: 1970-89; second wave 1990-2001; third wave 2002-09, fourth wave 2010+.

A. Change in total debt ratio over the course of each wave.

B. Average annual change calculated as total increase in debt-to-GDP ratio over the duration of a wave, divided by the number of years in a wave.

C.D. Data show the share of economies where the debt-to-GDP ratio increased over the duration of the wave. Regions are excluded if country-level data are available for less than one-third of the region.

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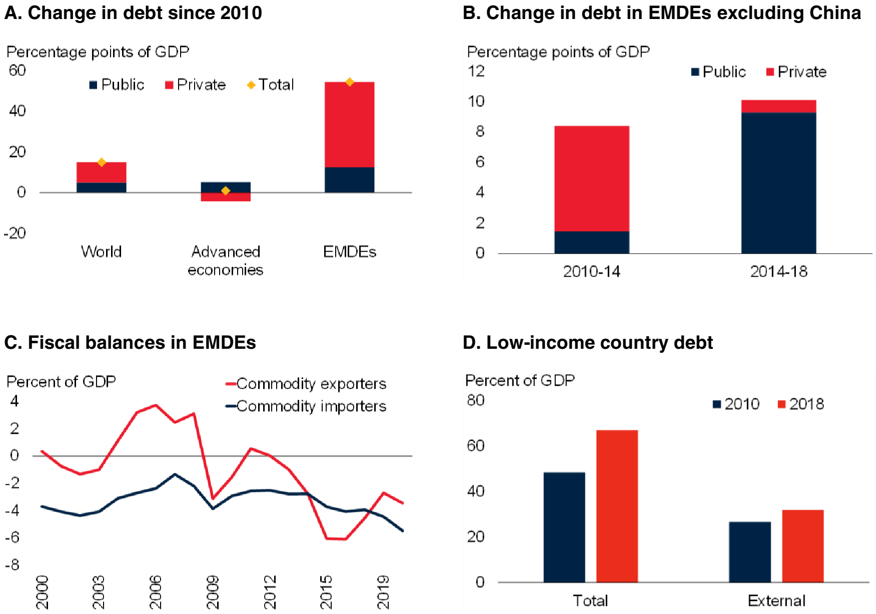
Total debt in EMDEs rose by 54 percentage points of GDP to reach 168 percent of GDP at end-2018—a record high (Figure 4.2). China, where corporate debt has soared post-crisis, accounted for the bulk of this debt buildup. Even excluding China, total EMDE debt rose to a near-record 107 percent of GDP at end-2018. Government debt accounted for almost three-fifths and private debt for just over two-fifths of the debt buildup in EMDEs other than China between 2010 and 2018. Debt in EMDEs excluding China has been relatively flat between 2016-18, with a small decrease in private sector debt offsetting a modest increase in government debt. However, this masks substantial variation between regions, with large increases in debt-to-GDP ratios in SSA and LAC, and declines in MNA and ECA.

FIGURE 4.2 Debt developments in the fourth wave

Since the global financial crisis, another wave of EMDE debt accumulation has been underway. The fourth wave has seen a particularly rapid increase in private debt, especially in China. Among EMDEs excluding China, the fourth wave has seen an increase in private debt in 2010-14, and rising government debt in 2014-18. Deteriorating fiscal deficits in the aftermath of the oil price plunge of 2014-16 resulted in increased public sector borrowing. LICs have also seen an increase in debt ratios.



Source: International Monetary Fund; World Bank.
A.-D.U.S. dollar GDP-weighted averages for each group.
A. Change in debt as a share of GDP since 2010.
B. Change in debt ratio over period shown.
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- *Government debt.* Since 2010, EMDE government debt has risen, on average, by 12 percentage points of GDP to 50 percent of GDP at end-2018. Over this period, government debt relative to GDP has risen in three-quarters of EMDEs and by at least 10 percentage points in almost 60 percent of them. Government debt saw marked increases among commodity-exporting countries in the aftermath of the commodity price plunge of 2011-16, and especially the oil price plunge of 2014-16, as fiscal deficits surged amid declining revenues and fiscal stimulus measures (World Bank 2018a). In LICs, government debt has risen by 13 percentage points of GDP since 2010, to reach 46 percent of GDP at end-2018.

- *Private debt.* The private sector has also accumulated debt rapidly since the global financial crisis, especially in China. In about two-fifths of EMDEs, there were private sector credit booms in at least one year during 2011-18 (Ohnsorge and Yu 2016; World Bank 2016a).[3] The increase in China's private debt accounted for four-fifths of the post-crisis increase in private EMDE debt in 2010-18. It was concentrated in a few sectors, notably real estate, mining, and construction, and among state-owned enterprises. Private debt in EMDEs excluding China has increased by 8 percentage points of GDP since 2010, to reach 57 percent of GDP at end-2018.[4]

Both external and domestic debt. While China's total debt buildup was predominantly with domestic creditors, external and domestic creditors have contributed in almost equal measure to the 19 percentage points of GDP debt buildup in other EMDEs between 2010 and 2018.

- *External debt.* External debt of EMDEs excluding China rose by 9 percentage points of GDP between 2010 and 2019, to 35 percent of GDP at end-2018 (Figure 4.3). The pace of China's external debt buildup was considerably slower than that of other EMDEs, so that external debt in EMDEs including China rose by only 4 percentage points of GDP between 2010 and 2018, to 26 percent of GDP at end-2018. In LICs, external debt rose by 5 percentage points of GDP over the same period, to 32 percent of GDP at end-2018.

- *Domestic debt.* Domestic debt in EMDEs excluding China also rose by 9 percentage points of GDP between 2010 and 2018, to 72 percent of GDP at end-2018.[5] China's debt buildup consisted almost entirely of domestic debt. In LICs, domestic debt accounted for more than two-thirds of the post-crisis debt buildup.

Shifts to riskier debt. Both government and private debt have shifted toward riskier funding sources in many EMDEs, making these countries more

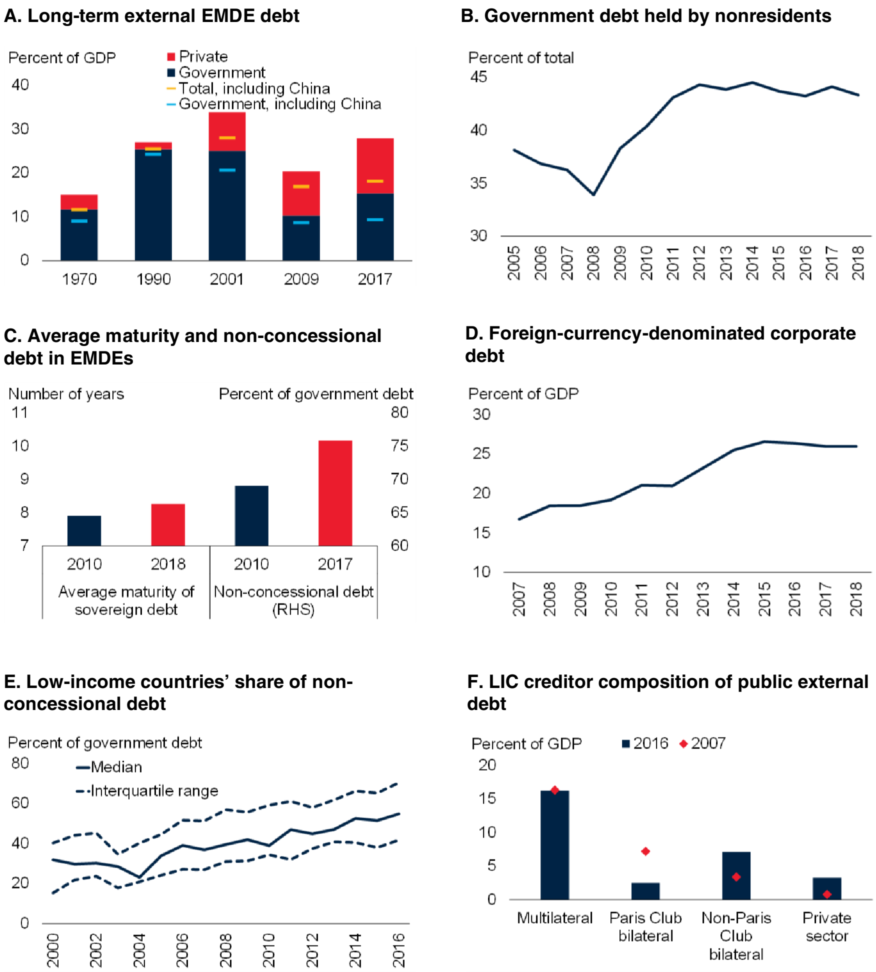
[3] About half of all credit booms are followed by at least a mild deleveraging within three years (Ohnsorge and Yu 2016).

[4] Separate data on household and corporate debt are available only for a small sample of countries (27 advanced economies and 16 EMDEs). Among these countries, on average, corporate debt accounted for all (advanced economies) or most (EMDEs) of the post-crisis debt buildup. Whereas household debt-to-GDP ratios declined in 2010-18 in four-fifths of these advanced economies, they rose in almost all of these EMDEs, but on average by only half the corporate debt buildup. Corporate debt-to-GDP ratios fell in two-thirds of these advanced economies but rose in almost all of these EMDEs. In China, household and corporate debt rose rapidly by 25 and 30 percentage points of GDP, respectively (BIS 2019).

[5] Domestic debt is estimated as the residual after the reduction from total debt, as reported in Kose, Kurlat, Ohnsorge, and Sugawara (2017), of external debt as reported in the World Development Indicators.

FIGURE 4.3 EMDE external debt and vulnerabilities

Both government and private debt in EMDEs have shifted towards riskier funding sources. The increase in government debt has been accompanied by a growing share of nonresident investors, while corporations increased borrowing in foreign currencies. Borrowing among LICs has increasingly shifted toward non-Paris club bilateral lenders.



Source: Bank for International Settlements; Institute of International Finance; International Monetary Fund; World Bank.
A. GDP-weighted averages.
B. Average for 45 EMDEs, though the sample size is smaller for earlier years.
C. Median of 35 EMDEs.
D. Average for 21 EMDEs.
E. Includes 30 low-income countries and excludes Somalia, South Sudan, and Syria, due to data restrictions.
F. GDP-weighted average across 32 countries.
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vulnerable to a sudden deterioration in global investor sentiment or tightening monetary conditions.

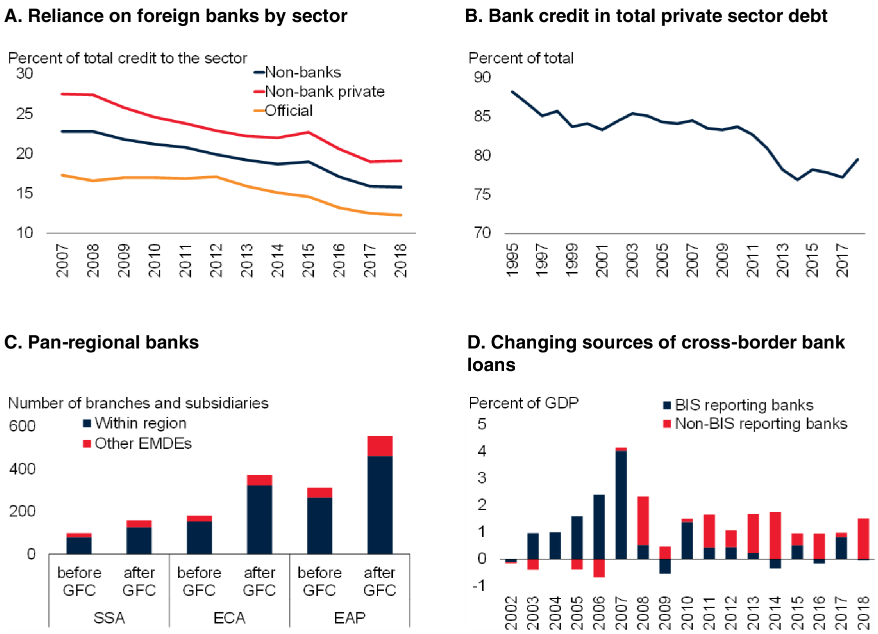
- *Government debt.* The increase in government debt has been accompanied by a growing share of debt held by nonresident investors (to 43 percent in 2018) and an increasing reliance on non-concessional terms. Sovereign ratings have also been downgraded for many EMDEs since 2010 (World Bank 2019d).
- *Private debt.* On average across the 21 EMDEs with available data, foreign-currency-denominated corporate debt rose from 19 percent of GDP in 2010 to 26 percent of GDP in 2018, although its share of total corporate debt remained around 40 percent over this period (IIF 2019a). By end-2018, one-third of the 21 EMDEs had foreign-currency-denominated corporate debt above 20 percent of GDP. In addition, a greater share of corporate debt than before the global financial crisis has been owed by firms with riskier financial profiles, as supportive financing conditions have allowed firms to issue more debt with weaker credit quality (Beltran and Collins 2018; Feyen et al. 2017; IMF 2015a).
- *LIC government debt.* In LICs, debt has also shifted towards non-concessional, non-Paris Club creditors, notably China, as well as commercial creditors over the past decade (World Bank 2018b; World Bank and IMF 2018a, 2018b). The median share of non-concessional debt in LIC government debt rose to 55 percent in 2016, an increase of nearly 8 percentage points since 2013, and 15 percentage points higher than a decade earlier. In 2016, non-Paris Club debt accounted for more than a fifth of the median LIC's external debt, and about 13 percent of their public debt, raising concerns about debt transparency as well as debt collateralization (Essl et al. 2019).

Changes in the composition of creditors. Since the global financial crisis, borrowing by EMDEs has shifted toward capital markets and regional banks, and away from global banks (Figure 4.4). Bond issuance has allowed firms to access finance when bank credit supply has tightened or at different terms from bank loans (Becker and Ivashina 2014; Cortina-Lorente, Didier, and Schmukler 2016). The role of regional EMDE banks has also grown as large international banks retrenched from EMDEs in the aftermath of the global financial crisis.[6]

[6] For details of bank financing in EMDEs after the global financial crisis, see Cerutti and Zhou (2017, 2018); Feyen and Gonzalez de Mazo (2013); IMF (2015a); Milesi-Feretti and Tille (2011); Montoro and Rojas-Suarte (2015); and World Bank (2018c).

FIGURE 4.4 Shift toward EMDE-headquartered banks

As European and U.S.-headquartered banks have downsized their EMDE operations, cross-border bank lending to EMDEs has shifted to EMDE-headquartered banks.



Source: Bank for International Settlements; International Monetary Fund; World Bank.

A. Sample includes Argentina, Brazil, Chile, Colombia, Hungary, India, Indonesia, Mexico, Malaysia, Poland, Russia, Thailand, Turkey, and South Africa. Claims by foreign banks (on an ultimate risk basis) are a sum of cross-border lending and credit extended by local subsidiaries of foreign banks. Average foreign bank reliance (FBR) is measured across the sample of 15 EMDEs with BIS data on total credit. Sector-specific FBR measure is calculated as a ratio of cross-border lending and local claims by subsidiaries of foreign banks divided by total credit to the sector.

B. Sample includes total debt and bank credit of the non-financial private sector in Argentina, Brazil, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Thailand, Poland, Russia, South Africa, and Turkey.

C. GFC = global financial crisis. Based on annual bank statements; before the GFC = 2008 or 2009 depending on data availability; after GFC = 2018 or latest data available.

D. Sample includes 115 EMDEs excluding China (data for only 77 EMDEs in 2018). Lending by non-BIS banks is estimated as total bank loans and deposits from the IMF Balance of Payment Statistics (excluding central banks) minus cross-border lending by BIS reporting banks. This difference mostly accounts for the banking flows originating from non-BIS reporting economies.

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Chinese banks accounted for the two-thirds of EMDE-to-EMDE lending between 2013 and 2017 and for most of the doubling in cross-border claims on SSA economies in this period, to over 10 percent of GDP on average (Cerutti, Koch, and Pradhan 2018; Dollar 2016). Other EMDE banks have also increased their presence in EMDEs within their respective regions (IMF 2015b). A notable exception has been Middle East and North Africa (MNA), where declining current account surpluses resulting from weaker oil revenues have reduced the region's ability to recirculate savings from highincome oil exporters to lower-income EMDEs with persistent current account deficits (World Bank 2019c).

In SSA, banks headquartered in Togo, Nigeria, and South Africa have expanded rapidly to other EMDEs in the region (Arizala et al. 2018). In ECA, Russian banks initially expanded post-crisis within the region, as Western European banks withdrew. LAC was an exception, with a growing role of domestic banks, rather than of banks based in other countries in the region, as domestic banks acquired assets from exiting foreign lenders. The regional expansion of EMDE banks has yet to reach the scale of pre-crisis cross-border activity of advanced economy banks.

Finally, the domestic institutional investor base has continued to grow in EMDEs, offering the prospect of a potentially stabilizing pool of domestic savings. Assets of pension funds and insurance companies were 46 percent of GDP by end-2016, on average, in EMDEs, slightly higher than in 2010. Such assets remain equivalent to only about half of the assets of the bank and nonbank financial system (World Bank 2019b).[7]

Similarities with the previous waves

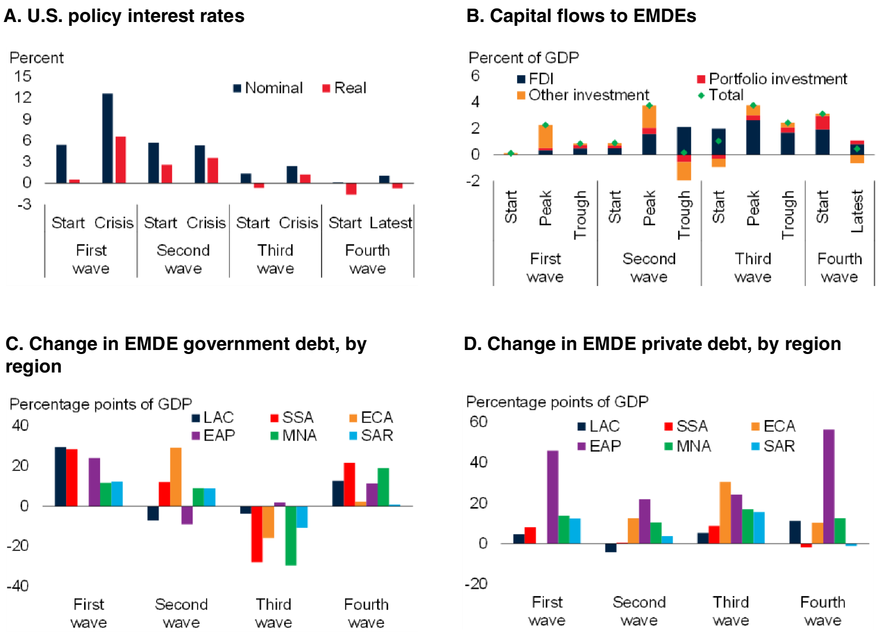
The fourth wave shares a number of common features with the previous three waves. Specifically, the current debt buildup has been associated with very low global interest rates and major changes in financial markets, some of which have facilitated the rapid buildup of debt by previously credit-constrained borrowers. The beginning of the wave coincided with a strong rebound in economic activity in 2010 but EMDE growth subsequently slowed. Vulnerabilities have also risen during the current wave.

Low interest rates. As in the previous three waves, interest rates have been very low, as a result of accommodative monetary policies since the global financial crisis (Figure 4.5). In the resulting search for yield environment, spreads on emerging market debt—for both corporate and sovereign bonds—reached all-time lows in 2017, enabling both governments and

[7] Data on assets of pension funds and insurance companies are available only for 22 EMDEs. Foreign institutional investors' role in EMDE financial markets has also grown but in some sectors remains small. For example, in just under 1000 infrastructure projects since 2011, the share of institutional investors has more than tripled but still accounts for only 0.7 percent of the average project value (World Bank 2018a). Some institutional investors in EMDEs have been shown to behave procyclically, leaving EMDE financial markets during times of stress rather than acting as stabilizing investors with deep pockets (Raddatz and Schmukler 2012).

FIGURE 4.5 Comparison with previous waves

As in earlier waves, the start of the fourth wave coincided with a period of low, or falling, interest rates and rising per capita incomes. Whereas earlier waves were concentrated in a few regions, the debt buildup in the fourth wave has been broad-based. Like the third wave, private and government sectors accounted almost equally for external borrowing.



Source: Haver Analytics; International Monetary Fund; World Bank.

A. Start of a wave defined as the first three years of the wave. Crisis defined as the year before and year of widespread crises: First wave: 1970-72 and 1981-82; second wave: 1990-92 and 1996-97; third wave: 2002-04, and 2008-09; fourth wave: 2010-12 and 2017-18 (final two years of sample). Real interest rates are deflated by the GDP deflator.

B. Net capital inflows to EMDEs. The start of each wave is the first year, the peak is the year of peak capital inflows before the start of crises, and the trough is the year of lowest capital inflows after the crisis. First wave: 1970, 1978, and 1988; second wave: 1990, 1995, and 2000; third wave: 2002, 2007, and 2009; fourth wave: 2010 and 2018 (latest data).

C.-D. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and Caribbean; MNA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa.

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corporates to borrow at low interest rates. Average spreads on corporate bond issuance have fallen for all EMDEs, including LICs. Spreads have also fallen for lower-rated corporate bonds. The current wave has also seen rising demand for EMDE bonds from international investors such as asset managers (Shin 2014).

Changes in financial markets. As with the previous three waves, the current wave has seen some major changes in financial markets that have facilitated the accumulation of debt in EMDEs. Financial systems in EMDEs have deepened and become more complex (Didier and Schmukler 2014). Domestic debt has become increasingly important, with a rising share of local-currency bonds (Figure 4.6).[8] The increase in issuance, by both private and government borrowers, has been driven by the largest EMDEs.

Both corporate and sovereign borrowers have increasingly accessed capital markets, in some regions following retrenchment by large international banks. Over the past decade, more than 20 EMDEs have accessed international capital markets for the first time. New frontier market bond indices, such as J.P.Morgan's NEXGEM (launched in 2011) or MSCI's Frontier Market Index (launched in 2007), have facilitated international capital market access and broadened the investor base for countries which previously had only intermittent access or access on less favorable terms. For example, exceptionally long-term (50- and 100-year) international bonds have been issued by Mexico in 2010 and Argentina in 2017.

From 2007 to 2017, debt securities issued by EMDE governments increased by 4.4 percentage points of GDP on average, to 22 percent of GDP. In SSA, Eurobond issuance has grown, with several countries tapping this market for the first time. Sovereign debt issuance has increased particularly rapidly in certain domestic bond markets, especially in EAP (G20 IFAWG 2018). Foreign portfolio investors have become more active in local bond markets, accounting for a growing share of holdings of local-currency-denominated sovereign bonds. In some EMDEs, the share of nonresident investors in local currency sovereign bond holdings has risen above 30 percent, which makes these economies more vulnerable to sudden shifts in investor confidence (G20 IFAWG 2018).

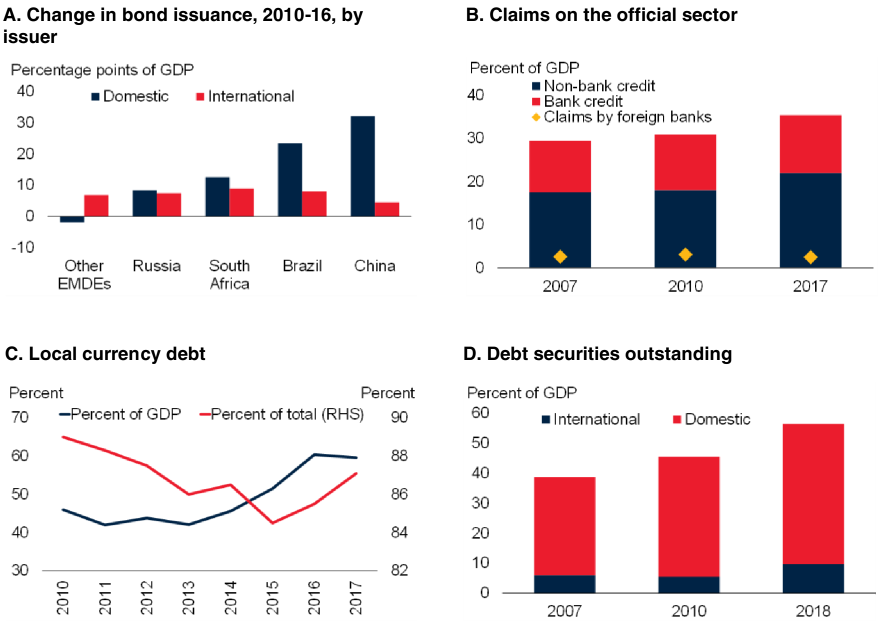
New financing vehicles such as infrastructure bonds and green finance bonds have stimulated lending to specific EMDE sectors where banks used to be the primary source of funding (FSB 2018a; McKinsey Global Institute 2018).[9] However, infrastructure financing, in general, has fallen in EMDEs

[8] For details, see Arteta and Kasyanenko (2019) and Essl at al. (2019). However, the growing share of local currency-denominated debt may bring other risks, as countries switching from external to domestic debt could be trading a currency mismatch for a maturity mismatch (Broner, Lorenzoni and Schmukler 2013; Panizza 2008). Nominal interest rates on domestic debt also tend to be higher than on external debt (IMF 2015a).

[9] In advanced economies, some financial instruments that were widely used before the crisis have regained popularity. Especially in the United States, leveraged loan issuances—the majority of which are now covenant-light with lesser protections for creditors, and which are predominantly held in Collateralized Loan Obligations (CLOs) and loan funds—have risen again above elevated pre-crisis levels. Concerns have been raised whether CLO prices are fully aligned with risks (FSB 2019a; Domanski 2018).

FIGURE 4.6 EMDE bond issuance

Since the global financial crisis, EMDE corporate and sovereign borrowers have turned to capital markets to raise new debt. Domestic debt has become increasingly important, with a rising share of local-currency bonds.



Source: Bank for International Settlements; Institute of International Finance; International Monetary Fund; World Bank.
A. Chart shows the change in debt securities (in percentage points of GDP) between 2010 and 2016 (last observation). Other EMDEs includes 8 countries. Data for India are unavailable.
B. BIS estimates of the claims by foreign banks on official sector: sample includes Argentina, Brazil, Chile, Colombia, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Poland, Russia, Thailand, Turkey, Republic of Korea, and South Africa.
C. Local-currency-denominated debt as share of total debt of the general government and non-government sectors. Non-government sector debt includes debt of financial corporations (including banks) and non-financial corporations.
D. Sample includes Argentina, Brazil, Colombia, India, Indonesia, Malaysia, Mexico, Philippines, Russia, South Africa, Thailand and Turkey.
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following the sharp decline in cross-border lending amid stricter post-crisis regulations in the financial sector (G20 2013; World Bank 2019d).[10]

The current wave has also seen a significant increase in shadow banking activities in EMDEs. Shadow banking refers to nonbank financial intermediation that takes place outside of the regulated financial system and may provide credit to riskier borrowers who often lack access to bank credit. Shadow banking systems, which were small before the global recession, have

[10] Grants and concessional loans are the primary sources of infrastructure finance in LICs, with bank lending providing complementary funding only in a small number of countries (Gurara et al. 2017).

expanded rapidly in a number of EMDEs, particularly in large economies such as China and India (IMF 2014). In these two countries, assets of nonbank financial institutions have recently increased to over a third of total financial system assets. In China alone, this share has more than doubled over the past decade, and the size and complexity of its nonbank financial sector is becoming comparable to those of advanced economies (Ehlers, Kong, and Zhou 2018).

Economic upturn. The beginning of the fourth wave was similar to those of the previous three waves in that it was also marked by a sharp rebound in global economic activity, starting in 2010, and following an economic downturn—in this case, the deepest global recession of the past seventy years. However, global growth has stagnated since then and EMDEs have experienced a sharp slowdown over the course of the fourth wave.

Mounting vulnerabilities. As in previous global waves of debt accumulation, vulnerabilities have once again grown over the course of the fourth wave (Ruch 2019). Since 2010, EMDE total external debt has risen reflecting sizable and persistent current account deficits. In addition, both government and private debt have shifted towards riskier forms in many EMDEs, as summarized above. A decade of tightening bank regulation and rapid growth of debt have increased maturity mismatches and credit risk in shadow banking (IMF 2019a; 2019b). Adding to these vulnerabilities, there are signs during the current wave that government debt has been used to finance not investment in human or physical capital that could boost potential growth but less efficient and less productive current spending.

Differences from the previous waves

Among the four waves of debt, the latest, and current, wave has been exceptional in terms of its greater size, faster speed, and broader country coverage. However, some other developments have been more reassuring. During the latest wave, there have been reforms that have made the international financial system more resilient and enlarged the global financial safety net. Many EMDEs have improved their macroeconomic and prudential policy frameworks over the past two decades. In contrast to previous waves, the current wave has been set against a backdrop of broadly stable advanced-economy debt ratios.

Largest wave. The current wave has featured the fastest, largest, and most broad-based accumulation of debt by EMDEs in the past half-century, as documented above. In contrast to earlier waves, government debt has risen in tandem with mounting private sector debt.

Better policy frameworks. Many EMDEs learned the lessons from crises in the previous waves and adopted reforms designed to improve their resilience (Ruch 2019). These include greater exchange rate flexibility, more robust monetary policy frameworks with central bank transparency, and the adoption of fiscal rules. More EMDEs now employ macroprudential tools and many have improved bankruptcy regimes.

Financial regulatory reforms. Implementation of the G20 global financial regulatory reform agenda has led to major financial reforms since the global financial crisis (FSB 2018b). These reforms have helped increase the resilience of the international financial system (Arteta and Kasyanenko 2019). Global financial safety nets have also been expanded significantly since the crisis.

Stable debt in advanced economies. In contrast to the first and third waves—when advanced-economy debt accumulation outpaced EMDE debt accumulation—the fourth wave has been accompanied by near-stable advanced-economy debt-to-GDP ratios. In advanced economies, there has been pronounced private deleveraging which has reduced the share of private debt in total debt.

Conclusion

The fourth wave has seen the largest, fastest, and most broad-based increase in debt over the past half-century. As with previous waves, low interest rates and financial market developments have facilitated the buildup of debt. But there are also important differences. Policy frameworks are more robust in many EMDEs, with more EMDEs adopting inflation targeting regimes and fiscal rules. Similarly, global safety nets have been expanded and strengthened. However, vulnerabilities have been mounting in EMDEs throughout the current wave.

Key questions confronting policymakers are whether the fourth wave may also end in widespread crises, following its predecessors over the past 50 years, and what needs to be done to prevent such an outcome. Before answering these questions, it is necessary to move beyond the global waves of debt and examine the causes and consequences of national episodes of rapid debt accumulation in EMDEs. That is the topic of the next chapter. Chapter 6 will then revisit the similarities and differences, discussed here, of the current wave with the previous waves, synthesize the main insights from the first five chapters, and offer answers to these key questions.