

# VULNERABILITY FROM DEBT IN THE CORONAVIRUS CRISIS

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NIESR Policy Paper. 020

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Date: 27 May 2020

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This paper was first published in May 2020

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# Vulnerability from Debt in the Coronavirus Crisis

**Barry Naisbitt**

## *Abstract*

After a period of deleveraging following the financial crisis a decade ago, the past five years have seen private sector debt rising again in both advanced and emerging economies. Public sector indebtedness, too, is generally higher than five years ago. The increase in debt was, before the coronavirus pandemic, generally seen as creating a potential vulnerability to increases in interest rates. The coronavirus shock and the measures taken to combat it have changed the focus of vulnerability, as they have created a severe cashflow shock to companies and an income shock to households, as well as raising public sector debt further. This paper examines recent trends in debt across sectors and countries and discusses policy issues arising from the vulnerabilities resulting from the recent increase in indebtedness.

## *Acknowledgements*

I am grateful for helpful comments from Jagjit Chadha and Garry Young. This is an expanded version of a box in the National Institute Economic Review, No. 252, May 2020. All analysis and opinions are my own, not those of the Institute.

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## 1. Introduction

In the decade since the financial crisis, the major economies have experienced a prolonged period of low inflation during which policy interest rates in several economies remained at or close to the zero lower bound. The reduction in debt and indebtedness seen during and immediately following the financial crisis was, in general, short-lived and debt has increased over the past decade, at a time when policy interest rates remained very low, creating potential vulnerabilities.<sup>1</sup> The coronavirus shock and the measures taken to combat the virus have created a severe cashflow shock to companies, raising issues about the availability of funds for re-financing, and an income shock to households. The purpose of this paper is to provide insight into the vulnerability from debt by examining some recent trends in debt across sectors and countries.

## 2. Recent increases in debt

The financial stability reports of central banks frequently highlight the level of debt (private sector or public sector or both) as an important risk consideration for the outlook for both financial stability and for continued economic growth. Headline-grabbing figures for debt are usually expressed in currency terms. The advanced economies as a whole<sup>2</sup> have total debt outstanding<sup>3</sup> of a record \$129 trillion, with an increase of over \$4 trillion (3.5 per cent) in the year to 2019Q2 and an increase of 27 per cent over the past ten years. Emerging market economies<sup>4</sup> have debt amounting to \$58 trillion, up \$3.5 trillion over the past year (an increase of 6.6 per cent). Their increase in debt over the past ten years has been more marked than in the advanced economies, with an increase of almost 200 per cent.

It is, however, more insightful when considering trends in debt and debt across countries to consider the level of debt relative to the level of GDP. Adjusting for GDP, the record \$129 trillion for advanced economies is 272 per cent of GDP, which is slightly down on the record debt to GDP level reached in late 2016. Whichever way one looks at it, debt in the advanced economies is higher in both dollars and as a share of GDP than when the financial crisis hit. The same is true for emerging economies, where indebtedness has increased from 92 per cent of GDP to 143 per cent, and the gap

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<sup>1</sup> See, for example, Bank of England (2019), International Monetary Fund (2019), Kose et al (2020) and Naisbitt (2018a, b).

<sup>2</sup> The Advanced Economies grouping in the Bank for International Settlements (BIS) statistics is defined as Australia, Canada, Denmark, the Euro Area, Japan, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States.

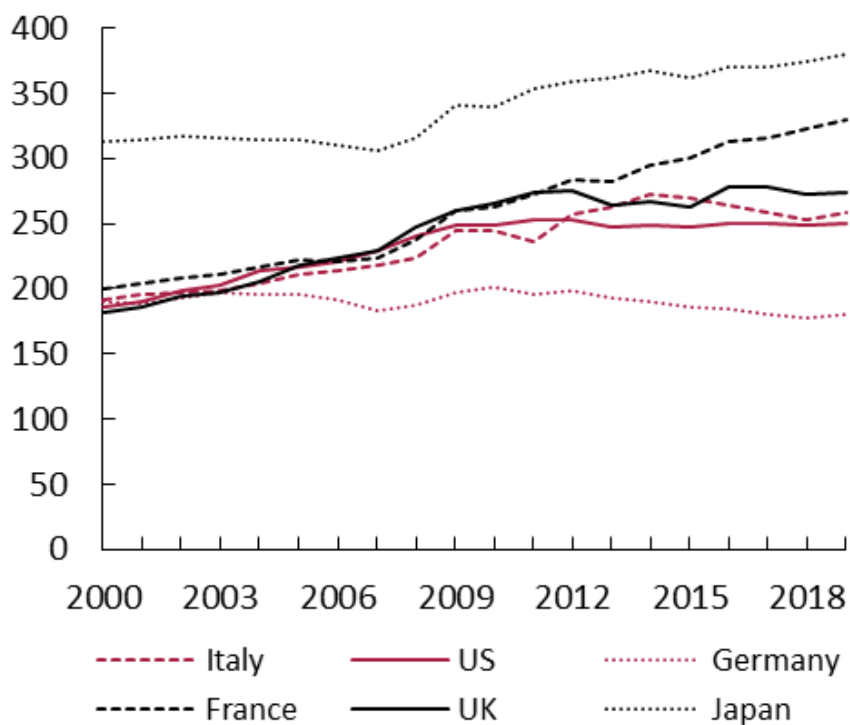
<sup>3</sup> BIS total credit statistics for 2019Q2. Total debt is the sum of Government, Household and Non-Financial Corporation debt.

<sup>4</sup> The emerging economies group defined by the BIS includes 21 countries. See Dembiermont et al (2013).

between their debt to GDP ratio and that of the advanced economies has narrowed.

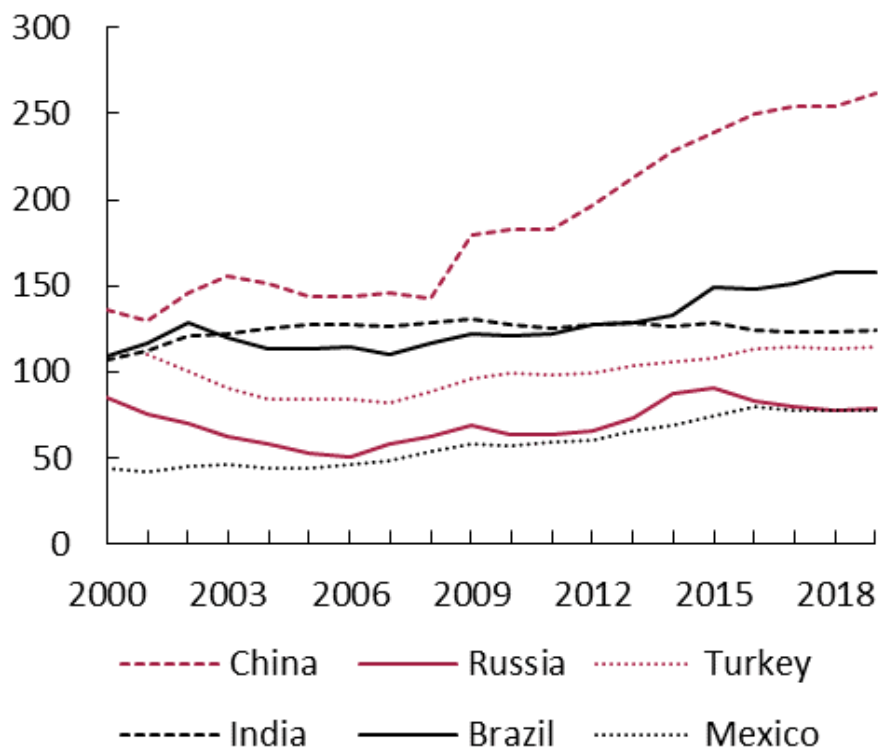
Figure 1 provides a longer-term perspective on the trends in the overall levels of indebtedness in major advanced economies over the past two decades and Figure 2 shows the experience of the larger emerging economies. Two features stand out – the generalised rise in indebtedness over the period (though with the notable exceptions of Germany, Russia and India), and the wide spread in the level of indebtedness across economies (from around 80 per cent of GDP in Russia in mid-2019 to 380 per cent in Japan).

**Figure 1 – Total debt to GDP ratios (%) - selected advanced economies**



Source: Bank for International Settlements, total credit statistics, to 2019Q2

**Figure 2 – Total debt to GDP ratios (%) – selected emerging economies**



Source: Bank for International Settlements, total credit statistics, to 2019Q2

The overall figures for indebtedness combine debts raised by the public sector, households and non-financial companies. Table 1 shows the changes in indebtedness of these three sectors over the past five years in major advanced and emerging economies. The overall pattern is of rising indebtedness in all three sectors in almost all the economies. In the advanced economies, government debt is the dominant form in Japan and Italy, while in the major emerging economies the scale of government debt is generally lower and the split between government and private sectors more variable. The ‘debt problem’ does not have a common form across types of countries. Canada and Australia, for example, have a substantially greater exposure to private debt issues than Italy or Japan, and France and Japan have greater exposures to the company sector than to household debt.

Over the past five years the largest increases in indebtedness have been in the private sector. The rise in debt by non-financial companies has been more substantial in the emerging than the advanced economies but, despite these increases, the debt to GDP ratios of non-financial companies in the emerging economies are still lower than in the advanced economies, with the striking exception of China. With a fall in global GDP now expected this year, highly indebted private sector households and companies are exposed to this negative shock to

incomes. In addition, they may be vulnerable to a possible lack of availability of funds when they need to re-finance debt as it matures or when they need to issue new debt, and so to increased risk of default.

**Table 1 - Government and Non-financial Private Sector Debt-to-GDP Ratios (%)**

	General Government		Households	Non-financial companies	
	2014	2019		2014	2019
<b>Advanced Economies</b>					
Canada	76.9	79.4	92.0	100.8	97.5
Australia	29.2	37.1	111.9	119.3	73.9
US	95.6	96.3	80.6	75.0	67.7
UK	85.2	85.5	83.6	84.0	81.0
France	95.6	99.5	55.5	60.6	129.2
Italy	137.9	138.0	42.6	41.3	81.1
Germany	82.6	67.8	54.6	54.0	55.2
Japan	197.2	204.1	57.9	58.7	98.8
<b>Emerging Economies</b>					
Brazil	59.3	87.0	26.6	28.3	42.5
Mexico	32.0	35.3	14.7	16.3	20.7
India	66.7	67.9	8.9	11.6	52.0
South Africa	47.0	60.3	38.0	34.0	32.2
Russia	12.7	14.8	17.0	18.1	43.9
Turkey	29.8	32.1	18.7	13.9	53.4
<b>China</b>	38.7	52.4	41.8	54.6	149.5

Note: figures are for 2014Q2 and 2019Q2.

Note: the darker shading in the table shows where debt-to-GDP ratios are higher than the preceding period.

Source: Bank for International Settlements, total credit statistics, November 2019

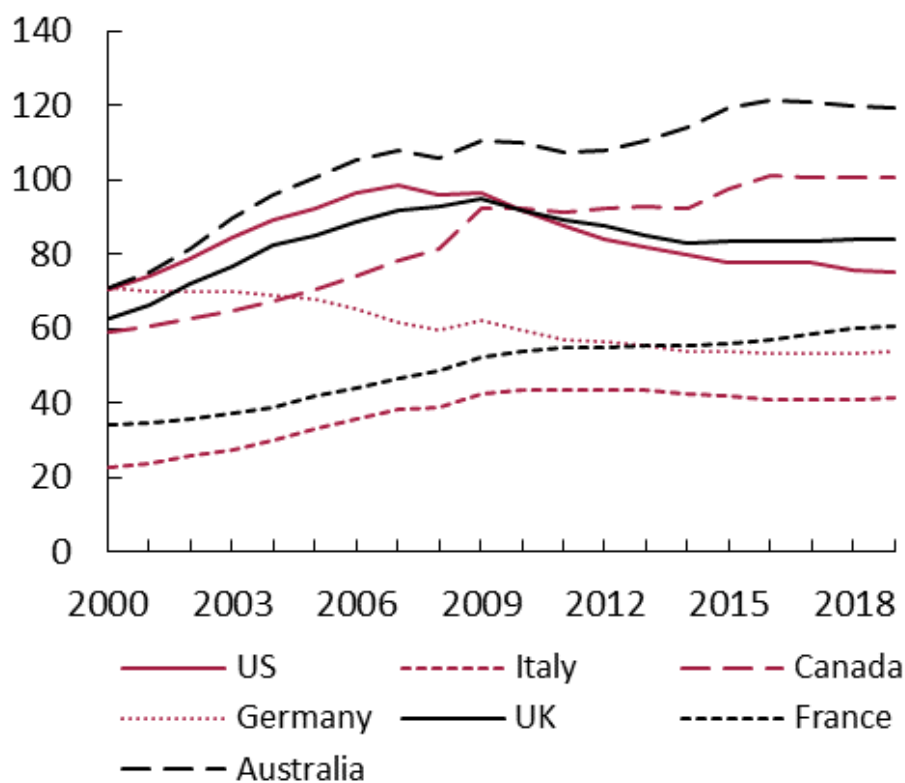
For many economies, the interest rates that their governments are now paying on debt are at historically low levels as a result of the long downward drift in global real interest rates (Bean et al, 2015) and the monetary policy responses in the financial crisis and afterwards, when policy interest rates were lowered to the zero lower bound and subsequently maintained there for a considerable time. The latest fall in long-term rates as the coronavirus outbreak has

reinforced this. With low interest rates, in economies with economic growth running slower than previous trends or expectations, there have been growing calls for increased government borrowing to finance infrastructure renewal projects to promote future growth.

### 3. Recent trends in private sector debt

For central banks' concerns about maintaining financial stability, the extent of private sector debt is the primary issue. Household debt to GDP levels in some major economies are now lower than just before the financial crisis, as shown in figure 3. These are being supported by interest rates running at historically low levels and, in terms of debt servicing, the expectation that income growth will continue. Canada and Australia stand out as economies in which household sector debt to GDP ratios have risen substantially since the financial crisis, albeit with some stabilisation since 2016.

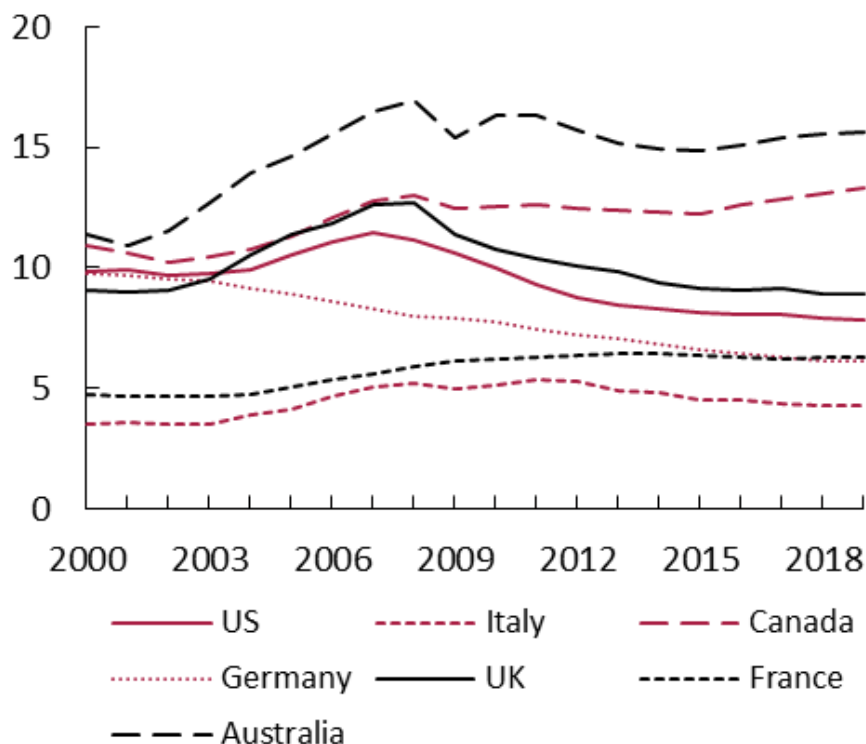
**Figure 3 - Advanced economies - household sector debt to GDP ratios (%)**



Source: Bank for International Settlements, total credit statistics, to 2019Q2



**Figure 4 – Household debt servicing costs (% of income)**



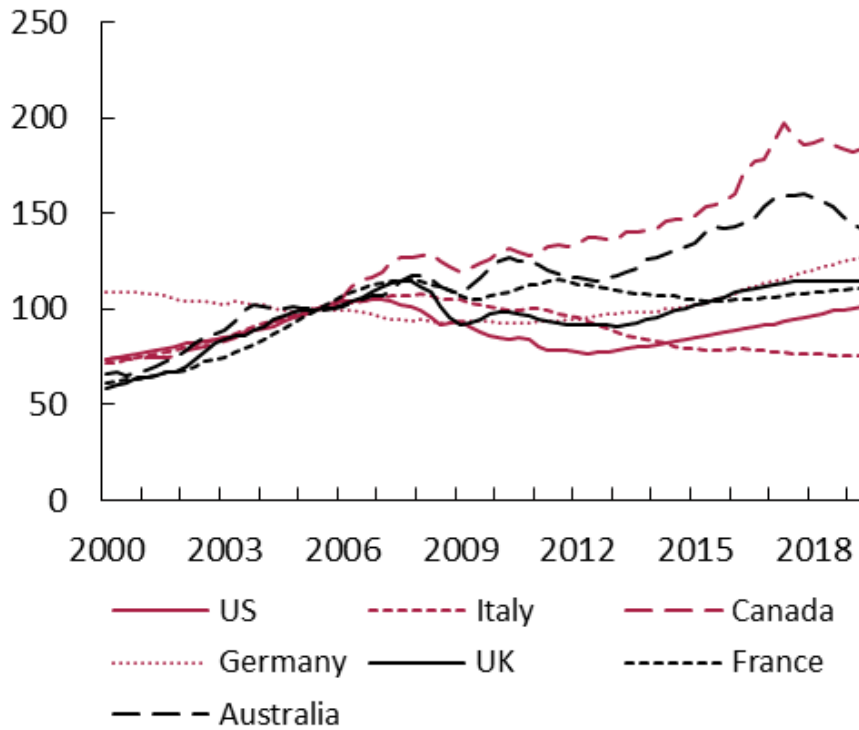
Source: Bank for International Settlements, total credit statistics, to 2019Q2

Despite higher debt, the serviceability of that debt (in terms of interest payments as a share of income) has remained favourable, except in Canada and Australia, as shown in Figure 4. The concern has been that higher debt is being supported by ultra-low interest rates which may prove to be temporary and, in the UK, mortgage rate stress tests are applied to try to ensure that new debt could still be serviced if interest rates were to rise substantially. Until very recently, and with unemployment rates having fallen since the financial crisis, there has been much less focus on income prospects for servicing debt.

Since borrowing to finance house purchase is a major component of household debt, the behaviour of house prices is an important issue in considering the potential vulnerability of the household sector because of its debt position. House prices have, generally, recovered from their lows in the financial crisis. Real house prices in the US and UK have now recovered their pre-crisis levels, but in Canada and Australia real house prices rose rapidly after the financial crisis to well above their end 2007 levels, as shown in figure 5. The rapid rise in household sector debt to GDP ratios since the start of the last decade in Canada and Australia has reflected the rise in house prices in those countries, with new peaks in mortgage debt and real house prices. Over the past year or so, real house prices in these economies have fallen

(as have actual house prices), which may be both a necessary adjustment and a potential source of economic vulnerability.

**Figure 5 - Real house prices (index 2005 = 100)**



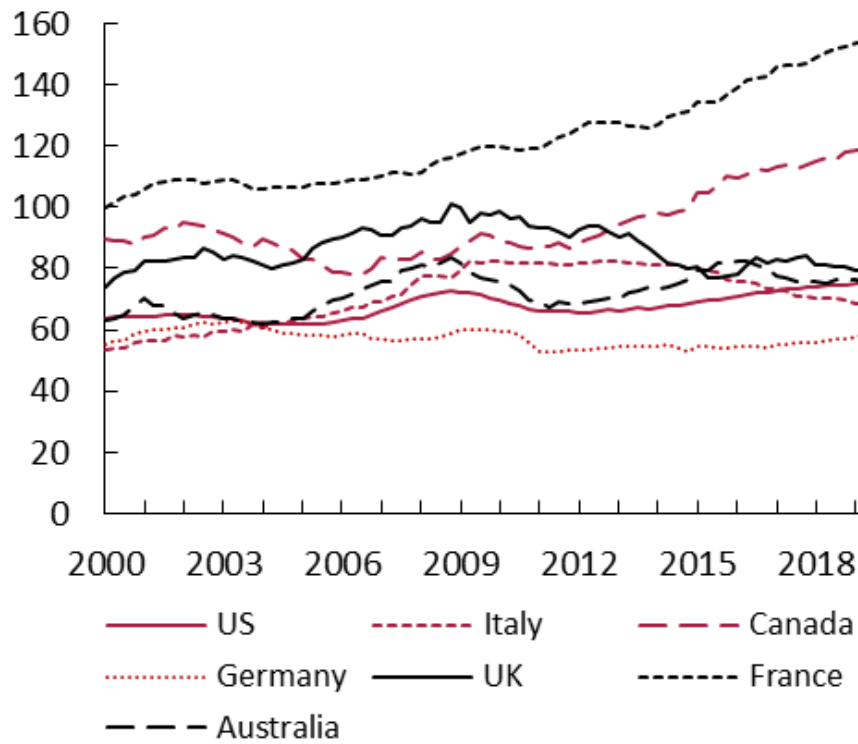
Source: Dallas Federal Reserve Bank, international house price database, using the dataset described in Mack and Martinez-Garcia, 2011. Data to 2019Q2.

The coronavirus crisis and the policy responses to it have revealed that the immediate concern for debt affordability is not about interest rates, but about income. The effects of the economic lockdowns have been to lead to many businesses closing temporarily and furloughing employees or to people losing their jobs. These effects have been partly mitigated in some countries by the ability of certain borrowers to request a period of a mortgage holiday and a government income replacement scheme for furloughed employees. But the risk is that many will see not just their current income reduced but their future income prospects reduced too. If higher debt has been predicated on expectations of continued future income growth, the disruption to incomes is likely to lead to debt problems. The reduction in incomes has brought into focus the importance of continuity of income for debt service.

Table 1 shows that in most of the economies detailed the debt to GDP ratio of the non-financial corporate sector is higher than that of the household sector. Over the past five years company indebtedness has increased in nearly three quarters of the economies in the table.

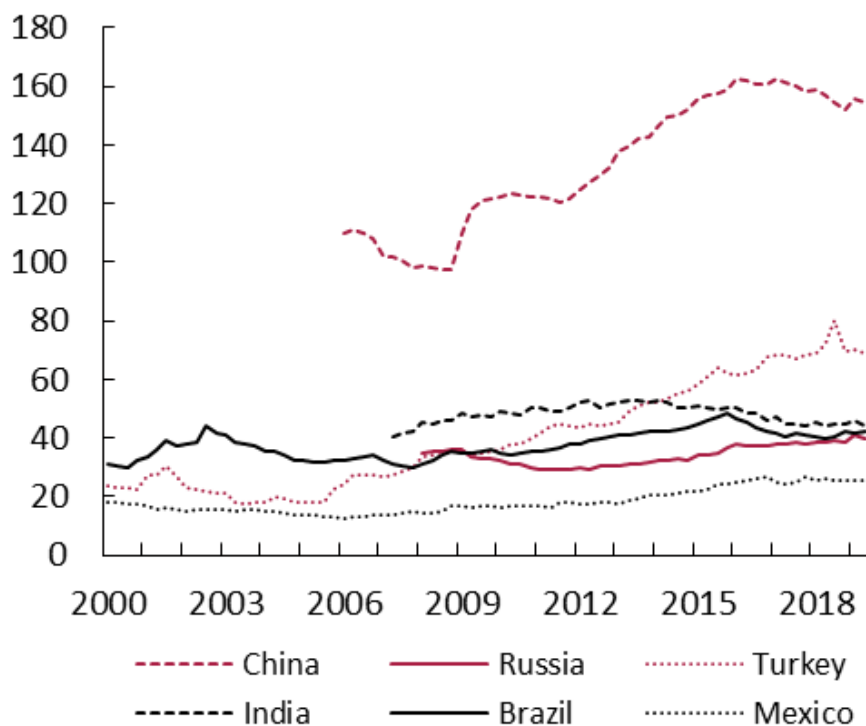
The range of exposure differs across advanced economies, as shown in figure 6. This recent growth in the indebtedness of the non-financial corporate sector, which has been particularly marked in emerging economies, also creates a potential vulnerability, as illustrated in figure 7.

**Figure 6 - Advanced economies – corporate sector debt to GDP ratios (%)**



Source: Bank for International Settlements, total credit statistics, to Q2 2019

**Figure 7 – Emerging economies – corporate sector debt to GDP ratios (%)**



Source: Bank for International Settlements, total credit statistics, to 2019Q2

As part of the rise in corporate indebtedness, two issues have received particular attention recently. In relation to the global economy, the rise in corporate debt in China has been cited by the IMF as a potential cause for concern.<sup>5</sup> In the US, the growth of leveraged loans over the past five years has been pointed to as a potential concern to financial stability as it increases the vulnerability of companies to an adverse shock.<sup>6</sup>

Companies in emerging market economies are currently facing the same issue of reduced cashflow but in many economies the shock has had an additional aspect because of the importance of foreign currency (US dollar) denominated debt that companies have and the sharp depreciations that emerging market economies have experienced. As a consequence, despite lower interest rates, there will be increases in the domestic cost of the foreign currency debt repayment. There is not a uniform pattern across countries. In Turkey over 25 per cent of government and corporate debt is dollar denominated and Mexico and Brazil are approaching 20 per cent. In the three months to end March, the currencies of these three economies depreciated by 10 per cent, 30 per cent, and 25 per cent respectively against the

<sup>5</sup> See International Monetary Fund (2015).

<sup>6</sup> Bank of England (2019)

US dollar. While China has high level of corporate indebtedness, it has a low percentage of US dollar denominated debt (estimated at less than 10 per cent).

**Figure 8 – US BBB corporate index option-adjusted spread (%)**



Source: St Louis Federal Reserve, economic database

In an environment of elevated corporate indebtedness and with global corporate default rates already above their long-term average (McKinsey, 2018), the shock from the coronavirus outbreak has had major effects on companies internationally. The sudden shock of reduced product demand has hit cashflow and hence, even though policy interest rates have been reduced to the zero lower bound in advanced economies, the ability to service loans as well as to cover ongoing business costs. In addition, although policy interest rates have fallen, corporate bond spreads have spiked. As figure 8 shows, US BBB spreads have risen suddenly and sharply, with echoes of the financial crisis, to their highest level since the financial crisis. There have been a range of business support schemes announced by different governments but some major industries (e.g. airlines) have faced an extreme drop in income that may be protracted. The combination of high corporate indebtedness and reduced cashflow threatens an increase in defaults and workforce redundancies. These actions could then reinforce the effect of reduced cashflow on a different set of companies. In this case it is not the debt itself that would trigger the adverse effects but rather the high debt exposure that creates the vulnerability to a reduction in income and increased refinancing costs and this is likely to lead to economic policy intervention in order to prevent defaults.

#### 4. Issues arising from the continued increase in debt

Indebtedness is now higher in almost every major economy than 5 years ago and households and companies are facing a reduction in income. The adverse shock from the coronavirus outbreak could mean that the high level of indebtedness might exacerbate the downturn and lead to a wave of company defaults, so leading to a prolonged period of slower growth in the subsequent economic recovery phase. If household and corporate borrowers have not allowed an adequate buffer in their finances, then it is possible that the falls in cashflow and increases in interest rate spreads could lead to defaults rising quickly.

While central banks and international organizations now monitor financial stability issues much more publicly than a decade ago, such activities are, in themselves, unlikely to prevent or solve any problems that may arise from a combination of high levels of indebtedness and adverse economic shocks. In the US and UK in the first decade of this century, one problem for policymakers was determining whether high and rising debt and real house prices were sustainable and justified by 'fundamentals' or whether they represented incipient 'bubble' conditions which might burst if the economy were hit by an adverse shock. As a consequence, one issue in the debate on monetary policy has been whether inflation measures (and targets) should include house (or equity) prices and whether monetary policy should try to burst what are judged to be developing asset price bubbles, even if consumer price inflation is within its target range (see Mishkin, 2011). The consensus policy view is that identifying house (asset) price bubbles is far from a precise science and that monetary policy, pursued appropriately, should be sufficiently forward looking to take into account the potential effects of rapidly rising house prices or debt, especially with the increasing development of macro-prudential policy as an adjunct to monetary policy since the financial crisis. As a consequence, macroprudential policy choices (such as raising banks' capital ratios or restricting mortgage loan to income limits) have been used as additional policy tools by central banks in recent years. In the current coronavirus crisis these capital buffers have been able to be relaxed to allow banks to maintain the supply of credit to companies.

For emerging economies in particular, the growth of non-financial company debt has been particularly marked and could turn into a more global concern. The IMF has recently noted that "balance sheet vulnerabilities in nonfinancial companies and in nonbank financial entities are elevated by historical standards in several large economies with systemically important financial sectors" and that "debt issued by companies whose earnings are insufficient to cover interest payments is elevated relative to GDP in several economies".<sup>7</sup> So far, the economic and financial crisis in Argentina and Turkey have not spread beyond their national boundaries. But, as previous episodes have demonstrated, there is no guarantee that such containment will continue. For the medium-term, the rise in debt may be a signal about future economic performance. If the rise in private sector debt has been primarily a 'bringing forward' response

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<sup>7</sup> International Monetary Fund (2019), Global Financial Stability Report, October. It noted that "The corporate sector weaknesses are primarily concentrated in small and medium-sized firms and in large Chinese firms, including state-owned enterprises."

by economic agents to what was expected to be a temporary period of ultra-low interest rates and if the activity brought forward has been primarily consumption rather than investment, then future potential supply growth will not have benefitted significantly.

## 5. Policy issues around debt and coronavirus

At a time when the immediate economic outlook is adverse and some economic measures were in unusual territory even before the responses to the coronavirus outbreak,<sup>8</sup> the rise in indebtedness over the past decade has compounded the current difficulties for policymakers. The importance of the rise in debt in the private sector has been brought into prominence by the effects of the coronavirus and the various policies introduced to support the economic activity of households and companies in a period of almost unprecedented pressures on households' incomes and companies' cashflows.

In the immediate coronavirus crisis governments have supported individuals and companies as the effects of the virus and the lockdown measures have hit economic activity. Government loans to companies, either directly or by guarantees to banks, will increase corporate debt. For individuals, those who have been granted debt repayment breaks or holidays will still have those repayments to make at a later date. Levels of government income support to individuals may not have been sufficient (or in some cases such support may not have been available), so that some individuals will have taken on additional short-term debt. In addition, the various support measures and the fall in economic activity which has directly increased government spending and reduced tax revenues has increased government debt. The May National Institute Economic Review estimated that government debt to GDP ratios in the major advanced economies would increase by around 10 to 15 percentage points as a consequence. While ultra-low interest rates will support affordability in the short-term, the management of this increase in public sector debt is likely to be an important issue for the global economy in the medium term.

While combatting the virus is the immediate concern, the increase in private sector debt from an already elevated level could pose policy dilemmas for governments once the immediate health crisis is over. The key issue will be how economies perform once the lockdowns are lifted. Without a rapid bounce-back to pre-Covid19 demand and activity levels, the risk is that inadequate demand will lead to company insolvencies and higher unemployment and that the income loss from unemployment will lead to individual defaults, despite low interest rates. Governments concerned about the debt of companies and individuals, face the issue that the

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<sup>8</sup> "At one point, before the recent uptick in yields, the amount of sovereign and even corporate bonds trading at negative rates hit a new record, over USD 17 trillion according to certain estimates, equivalent to roughly 20% of world GDP. Indeed, some households, too, could borrow at negative rates. A growing number of investors are paying for the privilege of parting with their money. Even at the height of the Great Financial Crisis (GFC) of 2007-09, this would have been unthinkable. There is something vaguely troubling when the unthinkable becomes routine." Claudio Borio, Bank for International Settlements, BIS Quarterly Review, Media Briefing, 22 September 2019.

debts are overwhelmingly to other private sector entities. So there is a need to consider how any solutions might affect creditors. Depending on the extent of any rise in individuals' default, governments could provide guidance to lenders on extending forbearance, arrange to make some payments for mortgage interest as part of income support directly to lenders, as in the UK in the early 1990s, or provide guidance to lenders on permissible extensions of loan repayment periods.

Depending on the length and scale of the current severe fall in economic activity, it is possible that measures such as debt repayment breaks or debt write-downs may be needed to prevent or limit company defaults. There have already been calls for bail-outs for certain firms or industries that have been especially badly hit by the virus and the lockdowns, such as airlines. For companies involved in international trade and in sectors where there may be competition issues, governments may find that international agreements limit their room to provide support. Governments will have to carefully weigh the arguments for support, with the associated prevention of job losses, with the costs of support and the complexities of international agreements. Support in an unprecedented crisis should not be seen as industrial policy.

The wider issue for policy responses in the crisis concerns the role of international support for countries that are adversely affected by a combination of economic spillovers from contractions in other economies, adverse financial market movements (for example from higher sovereign bond spreads and capital outflows), and domestic health and economic problems. The importance of support for emerging economies in difficulties (see Kara et al, 2020) from international agencies such as the World Bank and International Monetary Fund is paramount. However, maintaining trade links, particularly with regard to scientific information about healthcare, will be especially important in helping to deal with the pandemic and prevent adverse healthcare across countries.

In terms of macroprudential policy, central banks are likely to be revisiting their risk registers, especially as there are risks that a second wave of Covid-19 may hit. After a decade of worrying about the risks from higher interest rates at a time of elevated debt, these risks still remain. Now the importance of the risks to the income or cashflow to service debt are likely to attract more detailed analysis.



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