Real knowledge is to know the extent of one's ignorance.

He who will not economize will have to agonize.
(Confucius)

Executive Summary

The debate around public debt and fiscal risks is very controversial. Some claim that sustainability risks are already very high while others suggest that more debt could serve the 'common good'. This study presents the facts, arguments and scenarios for public debt dynamics in the future. It finds that a prudent approach is the best but perhaps not the most likely way forward.

Many countries feature record levels of public debt. This concerns especially the largest economies. Fiscal support programmes in the COVID-19 pandemic were necessary to protect incomes and economic capacities but they aggravated the debt situation. Further challenges amplify fiscal sustainability risks: high and unproductive public spending and the future costs of population ageing, low growth, high private debt and potential financial crises with international contagion. There are also questions over future inflation and real interest rates, the costs of decarbonisation and geopolitical conflicts. As long as a favourable financing environment prevails, there is no imminent problem. But at some point, risks will have to be dealt with and debt will have to come down.

Four possible scenarios describe how the reduction of excessive debt and vulnerabilities could unfold. First, countries could reform and consolidate to bring growth up and fiscal and financial imbalances down. This is likely to happen in many small economies but prospects are more uncertain in the larger ones. Second, countries could seek 'debt workouts' that imply a negotiated reduction in the real value of debt. Some small economies may find this a suitable option, despite the political costs that might arise.

Third, countries could engage in financial repression to reduce the real value of debt gradually via inflation and low interest rates. This is already happening and it may continue for a long time. However, this scenario is only stable if confidence is maintained and major policy errors and shocks are avoided. Once confidence drops, financial repression could mutate into destabilisation. This fourth scenario would be particularly troubling if it were to involve the largest economies.

Financial repression can build a bridge to consolidation and reform so that the destabilisation scenario is avoided. The adjustment effort needed is feasible and the return is considerable: maintaining confidence in public finances will keep our economies stable, reduce societal tensions and benefit the poor and middle classes the most. It will also allow us to master population ageing, decarbonisation requirements and geopolitical challenges.

1 Introduction

> High debt and fiscal risks trap governments and reduce the policy space beyond fiscal policies more than we think. Over-indebted, we depend more and more on a continuing upswing which causes uncertainty, reduces confidence and at times even crises.
>
> (Jacques de Larosière, 2019)

> Fashion is not restricted to clothes, and when ideas become fashionable, they are just as resistant to objective criticism as the length of skirts. That is why all economic ideas need to be freely discussed and judged against the facts of real life.
>
> (Prince Philip, Duke of Edinburgh)

Debt and finance have been amongst the most ingenious but also most controversial inventions of humanity. Debt has been financing business opportunities, wars or big festivities for millennia. Homer and Sylla (1991) in their fascinating history of interest rates report the first evidence on debt from about 5000 years BC. The Babylonians introduced the Code of Hammurabi, the first code for debtor–creditor relations, in about 1800 BC, specifying limits to interest rates and credit conditions. At that time, interest rates were very high by today's standards: 25–50% per annum for grain and metal. The Greeks and Romans introduced such codes following domestic debt crises and these codes were so well done that they were valid for centuries. Government debt appeared for the first time in the third and second centuries BC in the Greek City-States and the Roman Empire before taking off in the Middle Ages and modern times.

Throughout history, all genres of writing have discussed the ups and downs of debt, of government debt and private debt, of the relations between debtors and creditors, and the economic, distributional, social, moral and political questions revolving around it. Debt is the motive in many crime stories and real-world dramas.

The drama and divisiveness of optimism and credit booms ending in the tears of default have been known since the ancient Greeks (Homer and Sylla, 1991). It became a frequent phenomenon in modern times (Reinhart and Rogoff, 2009; Eichengreen et al., 2021). It is perhaps best embedded in the global public's memory through the Latin American crisis of the 1980s, the Asian crisis of the late 1990s, the repeated Argentinian defaults over recent decades and the European fiscal crisis with the Greek tragedy of 2009–2015 (Papaconstantinou, 2016). Debt is, therefore, one of the most dramatic embodiments of evolving human ingenuity and cooperation but also of excesses and tragedy.

1.1 Two Visions of Public Debt and Fiscal Risks

Public debt and fiscal risks have reached historical records at the global level and in many countries, and projections do not point to a decline. This is an indisputable fact, as we will see below. But whether this situation is concerning because of the implied sustainability risks and whether something needs to be done about it are subject to a very controversial debate.

Some economists argue that today's situation implies huge risks. Low interest rates have induced governments, corporations and households to take on ever more debt. The dynamics of debt is unsustainable. The quality of public and private debt is declining. Debt undermines growth prospects as low-return investments proliferate and unproductive zombie firms are kept alive. Future liabilities from population ageing, financial crisis, climate change and geopolitical challenges add to fiscal risks. When interest rates rise, many countries if not the world will be in big trouble.

Consolidation and reform are, therefore, needed sooner rather than later, and they should be underpinned by rules and institutions that constrain public spending and debt accumulation in the post-COVID world. This will preserve the solvency and well-functioning of our market economies and allow us to master the challenges of the future (Heinemann et al., 2018; Schuknecht et al., 2011).

Other economists argue that more debt is even a desirable development, especially in advanced countries. This includes many prominent economists, including Blanchard (2019) and Krugman (2020), and New Monetary Theorists like Kelton (2020). According to their assessment, there is too much saving in the world and governments need to make up for the lack of demand with higher public deficits and debt. If the money is well spent on public investment, the additional spending's positive growth effects finance the additional debt easily. Moreover, more spending will keep more people employed and, thus, prevent 'scarring' from the loss of human capital.

Fiscal consolidation to bring down debt 'too soon' will, therefore, be self-defeating as it will hurt growth and confidence. Proponents of this view acknowledge that there are limits to debt but they are regarded as being far away. Moreover, governments can and should fine-tune demand, and rules-based policies are too rigid. Only this will allow us to master the challenges of the future.

Who is right? The doom-mongers deploring soft budget constraints and weak incentives as the root of moral hazard and bankruptcy in the 'mother of all debt bubbles'? Or the idealists who confuse the aspiration of benevolent and omniscient governments willing to implement their smart policy advice with the

reality of 'policy' makers being 'irresistibly attracted to public debt' (Tanzi, 2016 and 2018)? Both worlds are of course caricatures and a balanced assessment is required instead.

Indisputably, we need government with public spending financed by taxes to provide core public goods and services – the history of government over the past 150 years is in fact a huge success story in this regard (Schuknecht, 2020b). At the same time, politicians and bureaucrats are just human beings, prone to error and excesses, like everybody else. They need constraints on spending and deficits so that their action fosters a competitive, sustainable and socially balanced market economy instead of inviting rent-seeking and promoting crony capitalism (Erhard, 1957). Limitless spending and debt arguably do not make people happier while they breed waste and privilege. Politics need constraints especially in good times, so that debt accumulation in the inevitable bust is indeed followed by debt reduction, as Keynes requested.

1.2 Gauging the Need for Action

The ability of governments to respond strongly to crises has proven its value in the COVID-19 pandemic. Enormous public stimulus programmes replaced faltering private demand and mitigated supply shocks, thus protecting many jobs and firms. This benefitted people directly during the pandemic and it also preserved the economic structures that allow a swift recovery as the pandemic comes to an end.

However, the pandemic and earlier episodes of crisis and recession have left a legacy of debt, vulnerabilities and disincentives that need to be addressed at some point. At the same time, population ageing, financial instability, decarbonisation and geopolitics constitute major economic and fiscal policy challenges. The scope of imbalances is quite significant but not unmanageable. There are good reasons not to wait too long to move back onto solid ground.

This requires taking stock of the post-COVID situation, including the fiscal risks lying ahead. It also requires an analysis of the possible scenarios for debt reduction in the future so that we know what options we have and what their costs and benefits will be. This study will be international and global in scope. Along the way, there will be more emphasis on the highly indebted advanced countries. But the situation of emerging economies will also receive due attention, given their growing economic weight in an increasingly interconnected and interdependent world.

1.3 Debt-Related Risks Warrant Debate: Mapping the Study

Public debt is at record levels globally and in many economies, especially the largest ones. This coincides with large contingent liabilities emerging from population ageing and risks in the financial sector; add to that the future challenges of climate change and geopolitical conflicts. These are the facts discussed in Section 2. They have made many countries' public finances vulnerable to even moderate changes in interest rates, external shocks and policy errors.

There are further factors that may aggravate sustainability risks but not all of them receive the attention which they deserve. Section 3 argues that high public spending is not neutral and may itself become a risk driver, especially if it is unproductive and goes beyond what is financeable. Growth prospects may be lower than we think due to poor framework conditions, decarbonisation requirements, the zombification of our companies and growing protectionism. Asset price booms turning to bust and rising inflation and real interest rates would weigh on financing conditions, growth and public finances. These risks could be exacerbated by growing concerns about the credibility of the institutional frameworks that we erected for our economies, our currencies and public finances. International interdependence and open capital markets could speed up and exacerbate an eventual loss of confidence.

What are the choices for bringing debt down and what would they imply? Section 4 looks at four scenarios. The first scenario describes debt reduction via consolidation and structural reforms. Many countries have successfully taken this route. The section also discusses 'debt workouts' as a second scenario of orderly debt reduction. This is politically costly and seems more feasible for smaller than for large countries. Scenario 3 involves reducing the real value of debt via negative real interest rates. Such financial repression has worked to some extent and for a limited time in the past. It did so in a number of countries in the late 2010s and it is expected to continue doing so going forward.

But repression might get out of control and mutate into destabilisation when financing costs rise, and policy errors and external shocks occur. The section describes the possible evolution of this fourth scenario. It is a risk scenario, not the baseline, but such scenarios have happened many times before as well. In the 1970s, it involved the US and the UK, two of the largest economies at the time. The impact was huge, but it could well be stronger, faster and more contagious if it happened in today's global economy and affected its largest countries. However, financial repression might also build a bridge to consolidation and reform with more sustainability and resilience as the prize.

This Element does not provide an account of fatalistic and speculative doom-mongering. It describes the situation we are in, the risks we face, the choices we

have and the scenarios they would lead us into. Chances are that major crises can be avoided. The risks and remedies are well known and the magnitude of reform is feasible.

At the same time, the political economy and the zeitgeist do not favour determined action and even point in the other direction. Still, the risks are there and, from an encompassing, global perspective, they may be larger than we perceive. Reinhart and Rogoff (2009) asked why countries did not act preventively before crisis struck. Many times, people have believed, or wanted to believe, that 'this time is different'. And yet, 'the universe loves nothing so much as to change the things that are and to make new things like them', as the Roman emperor Marcus Aurelius said almost 2,000 years ago.

2 Public Debt and Sustainability

> The superior man, when resting in safety, does not forget that danger may come. When in a state of security, he does not forget the possibility of ruin. When all is orderly, he does not forget that disorder may come. Thus, his person is not endangered, and his States and all their clans are preserved.
>
> (Confucius)

> If you do not know history, you think short term. If you know history, you think medium and long term.
>
> (Lee Kuan Yew, 1998)

2.1 Introduction

Public debt is a Janus-headed 'invention' (James, 2021). It allows governments to do many productive and necessary things that otherwise would have to wait. But there would also have been fewer wars and 'white elephants' if there had not been the possibility to make future generations pay for them. And when there has been too much debt, the ensuing crises have never been pleasant.

Public debt has affected the course of history (Eichengreen et al., 2021). North and Weingast (1989) argue that the rise of the UK and the USA as leading global powers was closely linked to their credibility in repaying public debt. It allowed the two countries to borrow more and more predictably than their competitors because they would not default. Hence, it helped them to become world leaders. The two World Wars also left winners and losers very highly indebted, and the strong economic and financial muscle helped the Allied Forces to win. In the global financial crisis and the COVID-19 pandemic, rising debt helped prevent financial and health disasters turning into economic and social disasters.

Nobody questions the need for incurring debt in the midst of a crisis but the main challenge arises afterwards. On most occasions in history, countries paid up – the USA, the UK and France have never defaulted in the past 200 years. Sometimes the debt was simply too high though. Some countries openly and repeatedly defaulted. Others did not default but inflated their debt away – slowly or suddenly – when the debt burden became economically or politically too high. This happened time and again in history (Reinhart and Rogoff, 2009). The hyperinflations in Germany of 1923 and in twenty-first-century Zimbabwe are probably amongst the best-known examples in a long history of (slow or fast) default via inflation.

This is not today's situation and it is not our prospect. But in order not to get there, it is important to understand and acknowledge the challenge – which is the aim of this section.

2.1.1 The Merits of Sound Public Finances

Given the controversial discussion over the merits and demerits of public debt, it is worth recalling why sound public finances with high-quality spending and sustainable debt are so important in modern economies. First, they are a prerequisite for the sound functioning of government itself. Only with sufficient financial means can governments conduct fiscal policies towards the production of essential goods and services in an orderly manner. Financial problems cause ad hoc disturbances and 'stop-and-go' policies that are detrimental to people's trust in government. They tend to hurt the most vulnerable people in society who depend on good government services. High-quality spending and sustainable debt also ensure that we can master the fiscal challenges of the future, from population ageing to climate change. Sound public finances are hence deeply social and the strong correlation between trust in government and low debt in Europe is no surprise (König and Schuknecht, 2019).

Second, sound public finances are also important for the functioning of the economy per se. They allow the private sector sufficient room for its activities and provide the necessary stability for investment and innovation. They ensure that central banks can preserve trust in money via price and financial stability so that citizens and companies have a credible and reliable store of value, medium of exchange and unit of account.

Third, sound public finances are also essential for the proper functioning of financial markets, which serve as the 'lubricant' of the economy. Government debt provides a liquidity and funding buffer for banks and non-bank financial institutions. Banks hold large amounts of government debt on their balance

sheets that could get them into financial trouble, should their government experience financing difficulties.

Finally, sound public finances also ensure confidence in the currency of a country. Fiscal crises produce contagion, disrupt international stability and undermine the international standing of a country. This is particularly relevant given that debt is very high at the global level and in most large countries. International spillovers and spillbacks could be very large and unpredictable.

2.2 A Recent History of Public Debt

In 2020/21, public debt was very high by any historical standards in many countries and notably in the largest ones. Advanced country public debt stood at about 120% of GDP in 2020 (Figure 1; see also IMF 2021a, IMF definition of 39 advanced economies). The G7 countries even featured more than 140% of GDP on average (Table 1). These debt figures are very similar to those prevailing in 1946, directly after World War II, except that they were reached during times of peace and not war.

On the IMF's metric of public debt, Japan topped the 'league' at some 256% of GDP in 2020. Italy was second at almost 156% of GDP followed by the United States (133%). France, the United Kingdom and Canada (three other G7 countries) plus Spain, Belgium and Portugal fell into the 100–130% range in 2020. Germany was an outlier of sorts with 'only' 73% of GDP and many smaller countries still saw debt near or below 60% (Annex Table).

Emerging economies featured much smaller public debt ratios. The average in 2020 was about 64% and slightly higher in Asia at 68% (Table 2). Hence the magnitude of emerging economy debt in the early 2020s is comparable to advanced countries in the 1990s. Still, differences across countries are huge and some of the largest countries are also highly indebted. Public debt in Brazil and Argentina was around the 100% of GDP mark in 2020. China's public debt was on average near 67% of GDP (though there are significant potential further liabilities; see Wong, 2021) while India reported almost 90% of GDP.

There are good reasons for debt increases in crisis times such as the two World Wars, the global financial crisis or the COVID-19 pandemic. In the pandemic, the magnitude of stimuli in advanced countries was staggering: over 15% of GDP of additional spending and forgone revenue and over 10% of GDP in loans, equity or guarantees (Figure 2). Figures were much smaller but still substantial in emerging economies and developing countries. As a result, public deficits shot up from almost −3% in 2019 to −11.7% in advanced countries and from −4.7 to −9.8% in emerging economies.

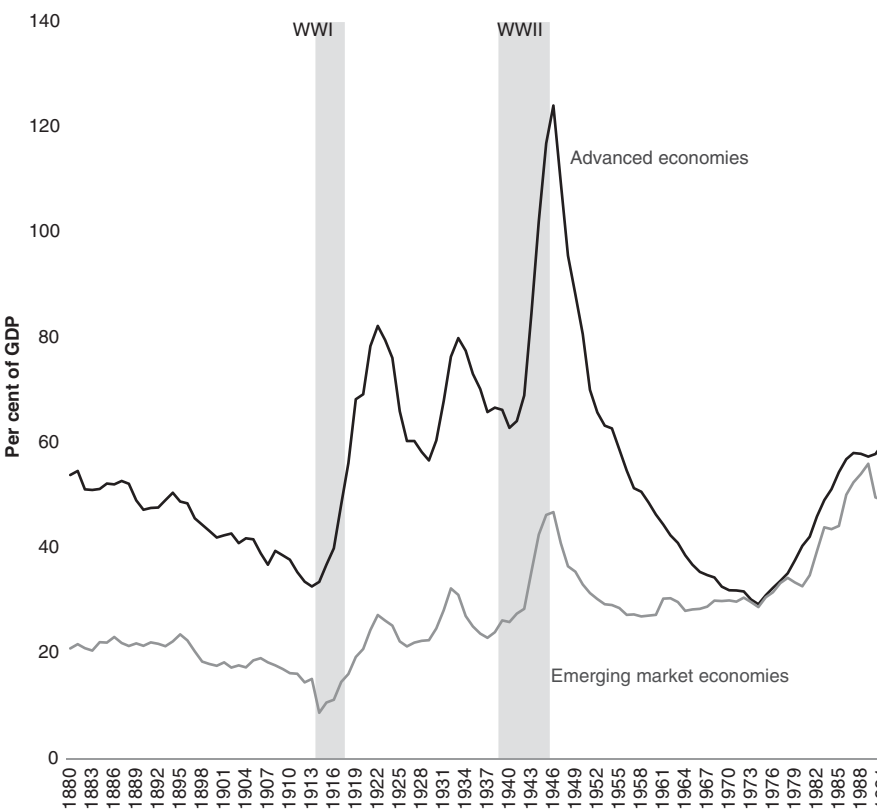

Figure 1 Historical patterns of general government debt, per cent

Sources: IMF, Historical Public Debt database; IMF, World Economic Outlook database; Maddison Databas

Note: The aggregate public-debt-to-GDP series for advanced economies and emerging market eco twenty-five and twenty-seven countries respectively, weighted by GDP in purchasing power parity

Table 1 General government gross debt and overall balance

	Gross debt (per cent of GDP)				Overall balance (per cent of GDP)	
	2007	**2019**	**2020**	**2021**	**2020**	**2021**
G7	84.4	118.0	136.7	139.5	−13.2	−11.9
Canada	65.0	86.8	117.8	116.3	−10.7	−7.8
France	63.8	98.1	113.5	115.2	−9.9	−7.2
Germany	65.0	59.6	68.9	70.3	−4.2	−5.5
Ireland	24.9	57.4	59.8	63.2	−5.3	−5.5
Italy	103.4	134.6	155.6	157.1	−9.5	−8.8
Japan	187.7	234.9	256.2	256.5	−12.6	−9.4
Spain	36.1	95.5	117.1	118.4	−11.5	−9.0
Switzerland	43.6	39.8	42.9	44.8	−2.6	−3.4
United Kingdom	44.1	85.2	103.7	107.1	−13.4	−11.8
United States	62.1	108.2	127.1	132.8	−15.8	−15.0

Source: IMF

Table 2a General government debt, 2016–26, per cent of GDP

			Projections	
Gross debt (per cent of GDP)	**2016**	**2019**	**2020**	**2021**
World	83.2	83.7	97.3	98.9
Advanced Economies	105.5	103.8	120.1	122.5
Emerging Market Economies	48.4	54.7	64.4	65.1
Asia	**50.0**	**57.3**	**67.6**	**69.9**
China	48.2	57.1	66.8	69.6
India	68.7	73.9	89.6	86.6
Indonesia	28.0	30.6	36.6	41.4
Malaysia	55.8	57.2	67.5	67.0
Philippines	37.3	37.0	47.1	51.9
Singapore	106.5	129.0	128.4	129.5
Thailand	41.7	41.0	49.6	55.9
Russian Federation	14.8	13.8	19.3	18.1
Latin America	**56.4**	**68.4**	**77.7**	**75.9**
Argentina	53.1	90.2	103.0	
Brazil[2]	78.3	87.7	98.9	98.4
Mexico	56.7	53.3	60.6	60.5
South Africa	51.5	62.2	77.1	80.8

Source: IMF