DOES DEBT STILL MATTER?

ABN·AMRO

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Government debt in major advanced economies has soared over the past year, reflecting the largest fiscal support measures we have ever seen, and sharp contractions in economic activity. In our latest flagship publication we decompose the drivers of the rise in budget deficits and debt. We then go to assess the outlook for public finances over the coming years, and subsequently the consequences for credit worthiness on the one hand, and future economic prosperity on the other. Our scope is the largest six eurozone economies, the US and the UK.

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- For most countries, the government debt ratio looks set to peak this year and gradually decline in the coming years, albeit ending above pre-pandemic levels. The exceptions to this trend are the US, France and Belgium, where an upward trend is likely to continue, but even in these countries the rise is relatively moderate. This relatively benign picture reflects that a lot of the fiscal measures are temporary in nature, while economic growth is expected to recover strongly. Meanwhile, debt service burdens are expected to remain low, assuming a gradual normalisation of interest rates. So even though debt will remain relatively high, governments' payment capacity will likely remain strong.

- Although governments are unlikely to experience difficulty in servicing a high debt stock, a case has been made by studies that higher debt levels weigh on economic growth over time. We think this time really is different. It is difficult to argue that government measures have crowded out the private sector. To the contrary, compared to the counterfactual of no government support, there will be considerably less long-term economic scarring. Crisis periods aside, there is clear evidence that public investment can boost an economy's growth potential. Looking across the selected major advanced economies, public investment will likely be stepped up significantly in the coming years, with the exceptions of Germany, France and Belgium. In particular, a public investment boom is on the cards in Italy, which could revolutionise its growth performance.

- Overall, in the current circumstances, high debt levels are not a concern and actually will be a force for good in the sense that they will likely lead to better economic outcomes than if governments would be frugal. Sharply higher interest rates could of course change this picture. However, equilibrium rates have fallen over recent years. There is a caveat here. If inflation rises by more than expected, central bank policy rates will need to go well-above normal levels to slow the economy and get inflation back down. Having said that, debt service costs are impacted significantly only if the rise in interest rates lasts for many years, as the average maturity of debt is long. So we would need to see a large, durable and stubborn rise in inflation for interest rates to remain high enough for long enough to lead to a problematic rise in debt service costs.

DECONSTRUCTING THE DETERIORATION IN PUBLIC FINANCES

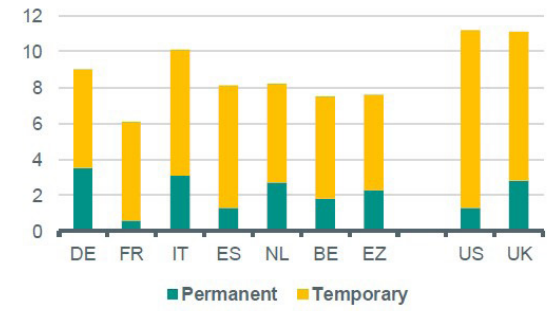
The deterioration in the public finances due to the pandemic can be broken down into discretionary measures (policy changes by governments) and cyclical influences. Discretionary measures can be split up in to three categories. First, there are permanent fiscal measures, which have an impact on the budget balance that sustains in the years after, unless there is in future active policy change to reverse the measure or to offset its impact. Second, there are temporary discretionary measures, which have a specified end date and therefore the impact on the budget balance reverses once the policy measure ends. Third, there are liquidity support measures (such as tax deferrals and government bank loan guarantees). In theory, these liquidity support measures do not cause a deterioration in government finances, if the tax is eventually paid back and as long as the bank loans perform. If that is not the case, they impact government debt (as a one-off) rather than the budget balance. These could be deemed contingent liabilities.

The cyclical deterioration in government finances is due to the operation of automatic stabilisers (such as lower tax income and higher government expenditure on social security due to economic slowdown), and unwinds automatically as the economy fully recovers. The distinction between these various elements is therefore crucial in forecasting the change in the budget balances in the years after the pandemic. That distinction has been made complicated by the nature of the fiscal measures and their impact on economic growth, and the nature of the pandemic itself (see Box 2 later in this publication for more on this).

The charts below show that a relatively small proportion of the cumulative deterioration in budget balances is likely to stick, as the cyclical rise in the deficits is likely to reverse over time, while the impact of temporary discretionary measures will unwind. On the other hand, deficits will remain larger than before the pandemic (on the basis of current policies) and in some countries they were already high before the pandemic.

Deterioration in budget balance mostly temporary

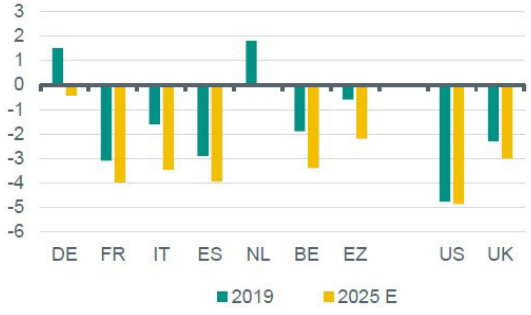
Deterioration in budget balance during pandemic, % GDP



Source: ABN AMRO Group Economics, various statistics agencies

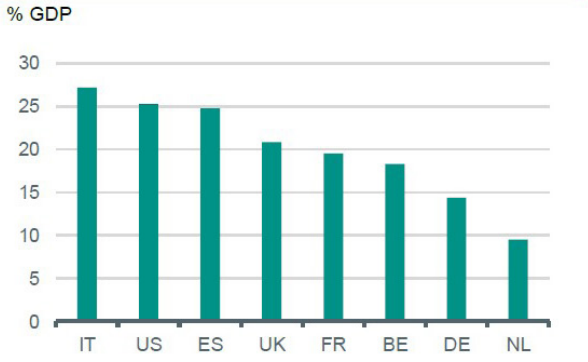
Budget balances before and after the pandemic

Government balance, % GDP



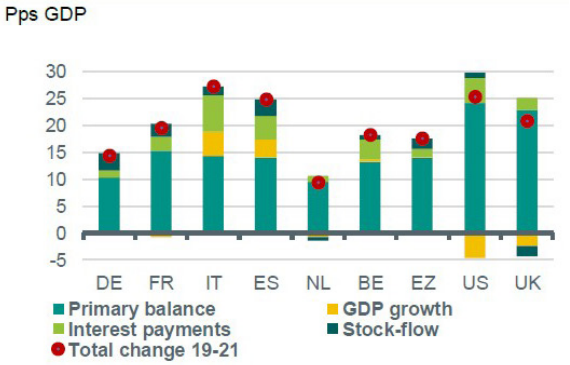
Source: ABN AMRO Group Economics, various statistics agencies

Change in debt ratios 2019-2021



Source: ABN AMRO Group Economics, various public institutions

Contribution to change in debt ratio 2019-2021



Source: ABN AMRO Group Economics, various public institutions

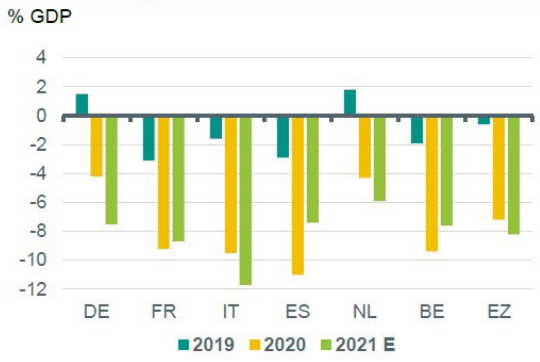
Meanwhile, the surge in budget deficits has been a key factor behind the jump in debt ratios. The biggest jump in debt ratios has been in Italy, the US and Spain. While in the US, the jump in the primary deficit was the predominant factor, in Italy and Spain, the contraction in nominal GDP and interest payments (though this is a regular upward pressure) also played an important role. Below we go into more detail on this decomposition by region.

Eurozone deficits surge on policy response to pandemic and collapse in growth

Since the start of the pandemic, eurozone governments announced a flurry of discretionary fiscal measures. Besides these discretionary support measures, the working of automatic stabilisers during the economic downturn also resulted in deteriorating government finances. As a result, the eurozone budget deficit rose sharply in 2020. According to calculations by the European Commission (EC), the total eurozone budget balance dropped to -7.2% in 2020, down from -0.6% in 2019. The expectation for 2021 is for a further deterioration to -8.0%. This further rise in the budget deficit in 2021 results from new or extended emergency support measures in response to the need for renewed restrictions on economic activity and mobility after the summer of 2020. In contrast, the expected sharp rebound in growth in the second half of the year should have a favourable impact on budget balances.

According to the EC's assessment of May 2021, discretionary policy measures amounted to around 2.5% of GDP in 2020 for the eurozone as a whole. New policy initiatives and the extension of existing measures during the third wave of the pandemic in the autumn/winter of 2020-21 will result in an estimated further 2.5% of GDP in discretionary measures in 2021. Of the cumulative 5% of discretionary measures over the last two years, only half will persist into 2022.

Eurozone budget balances

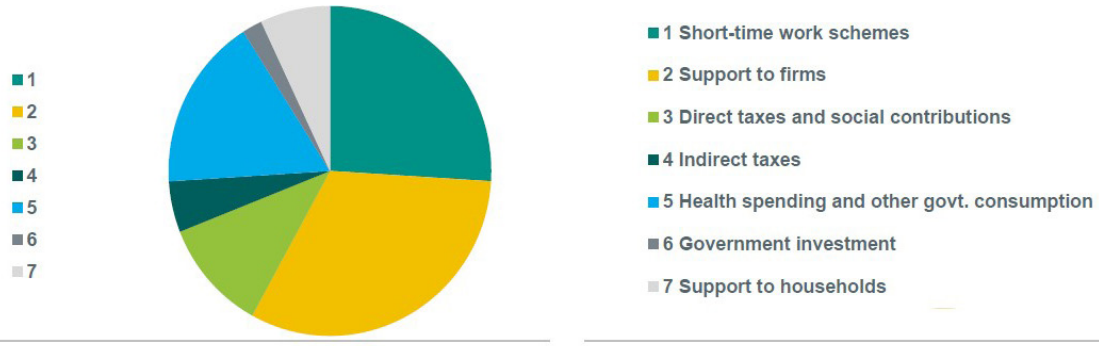


Source: EC, ABN AMRO Group Economics, forecasts ABN Amro

Contribution to the change in the budget balance

Source: EC, ABN AMRO Group Economics, forecasts ABN Amro

Estimated composition of EZ stimulus measures



Source: ECB, ABN AMRO Group Economics

Source: ECB, ABN AMRO Group Economics

Liquidity measures do not impact budget, but can have a one-off impact on debt

Besides discretionary policy measures and fiscal support from the working of automatic stabilisers, eurozone governments have handed out huge amounts of liquidity support (such as tax deferrals and state guarantees) during the pandemic. In theory, these liquidity support measures do not cause a deterioration in government finances. For instance, even if tax payment is deferred to the following years, the expected revenue is accrued to the year in which the tax liability arose. Moreover, a large amount of state guarantees have been put in place. The ECB estimates that these were equal to about 16% of GDP in 2020. State guarantees will only raise government debt when they are called upon. Finally, capital injections have been made in companies (such as in the aviation sector) in a large number of countries, which raise government debt (it is recorded as a one-off stock-flow adjustment in the debt calculations – see Box 1 below), but do not have an impact on the budget balance. The EC estimates and calculations show that these capital injections and other stock-flow adjustments were equal to around 2.3% of GDP in 2020.

Fiscal rules have been suspended

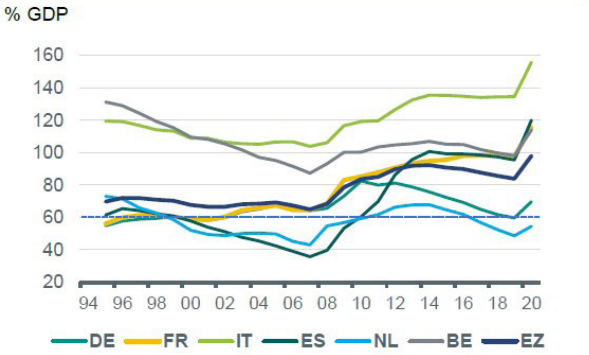
Looking ahead, the EC activated a 'general escape clause' in March 2020, which enabled all governments to temporarily and significantly deviate from the requirements of the Stability and Growth Pact (SGP) and pursue very expansionary fiscal policies. Subsequently, in March 2021, the EC called on member states to continue to support economic activity this year and in 2022, and suggested that the general escape clause was likely to be extended to cover 2022. We think that the existing support measures will remain largely in place this year and next, and will only be scaled down gradually when lockdown measures are unwound.

Looking at the estimated composition of stimulus during the pandemic (see pie-chart above), roughly 80% of the total support can be categorized as temporary emergency support, and the rest (e.g. government investment, health care spending and other government consumption, changes in direct taxes and social security) is permanent in nature.

Surge in debt ratios across the eurozone

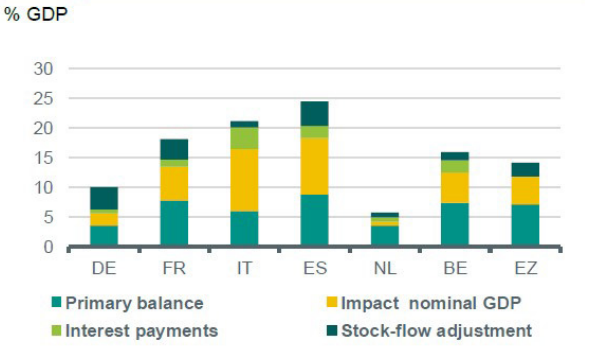
The eurozone's gross government debt as a percentage of GDP increased to 100% in 2020, up from 85.8% in 2019. Within the group of the six largest eurozone countries huge differences exist. For instance, the debt ratio of the Netherlands remained well below 60% of GDP in 2020 (at 54.5%); that of Germany ended up close to 70%; France, Spain and Belgium were in a range of around 114-120%; and Italy's turned out the highest, at close to 156% GDP.

Government debt eurozone and main countries



Source: EC, ABN AMRO Group Economics, forecasts ABN Amro

Change in debt ratio and contributions 2020



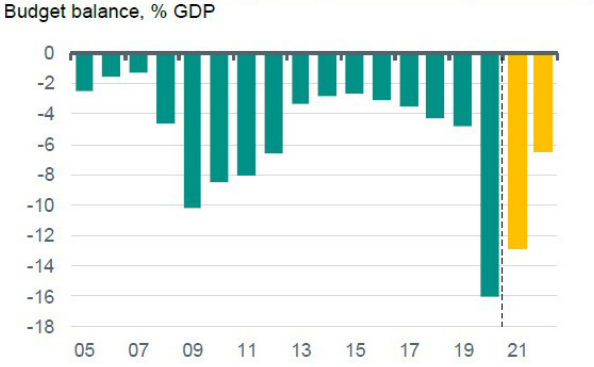
Source: EC, ABN AMRO Group Economics

US budget deficits rising even before the pandemic

The US saw the biggest rise in the budget deficit of the countries we focus on in this note. Even before the pandemic, the political trend in recent years – particularly during the Trump administration – had been towards much less concern over deficits and rising debt than during the post-GFC recovery period. This meant that the path of least resistance had already been for tax cuts and looser spending policies. Indeed, during the Trump administration, the budget deficit increased from 2.6% of GDP at the tail-end of the Obama presidency in 2015, to nearly 5% of GDP just prior to the pandemic. The effect of the pandemic was therefore merely to accelerate these trends, and to break further political taboos over the degree to which the government could support households and businesses through a crisis.

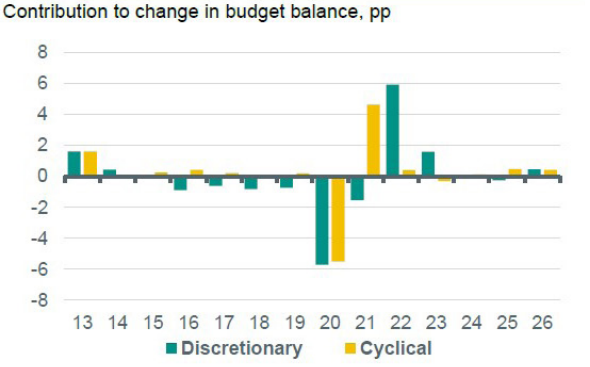
Congress did not hesitate to provide maximum support via the landmark $2.2tn CARES Act, which alongside replacing lost incomes, went further by distributing 'stimulus checks' – direct cash transfers to households – as a means of spurring consumption in the few areas of the economy that remained open. The aggressive nature of the support helped to significantly limit the downturn and prevent some of the longer term scarring to the economy, and US GDP ultimately contracted by only 3.5% in 2020 – a much more shallow contraction than initial consensus predictions, and one of mildest downturns among developed economies. However, as a consequence of government actions, the deficit ballooned to an eye-watering 16% of GDP in 2020, and the debt ratio jumped by a similar magnitude to 103% of GDP, from 83% in 2019.

US deficits were already rising ahead of the pandemic



Source: Refinitiv, ABN AMRO Group Economics

Decomposition of shifts in US budget deficit



Source: Refinitiv, ABN AMRO Group Economics

US government spending is aggressive, but offset by revenue raising measures

The CARES Act was succeeded by further massive rounds of fiscal support, with a $900bn package at the tail-end of 2020, and a $2.3tn package (the American Rescue Plan) early this year, making for a total $5.9tn of support (around 30% of GDP). However, the spending binge has not stopped there. The Biden administration has since wasted no time in following through on presidential election campaign pledges to shift focus to longer term growth challenges, by proposing further massive packages involving infrastructure and renewable energy via a $1-1.2tn bipartisan infrastructure plan, as well as structural changes to the American social contract by significantly increasing support for higher education and childcare via the American Families Plan.

The total size of these packages is likely to be even bigger than that proposed during the election campaign at c. $4.5tn, but there are caveats: 1) the pace of spending is significantly less aggressive (for example, the infrastructure plan will now to take place over 8 years rather than 4 years), and 2) spending is to be almost entirely offset by revenue-raising measures, including a surprisingly ambitious overhaul of corporation tax that involves seeking global agreement on new minimums among advanced economies, and a closure of significant loopholes that have essentially subsidised American corporate expansion overseas for the past few decades. The plans have yet to get through Congress, and there remains significant uncertainty over the final shape of spending. Should the bipartisan infrastructure plan fail in Congress, the most likely scenario is that it is incorporated into the $3.5tn Democrat-only plan, which focuses largely on social spending. However, this requires agreement from all 50 Democrat Senators, including centrist Joe Manchin, who has raised concerns about the aggressive size of the plans and how they will be funded. Indeed, the risk that some revenue-raising measures are delayed (indefinitely) is high given the lack of market pressure to restrain spending (see below).

The bulk of spending measures in the CARES Act and in the American Rescue Plan are by their nature temporary – for instance, stimulus checks and unemployment benefit top-ups are explicit one-offs. More permanent measures are contained in the subsequent, longer term spending plans. These plans are mostly funded, so their longer term impact on the deficit is expected to be small. However, as we discuss later, revenue-raising measures are subject to delays and a watering down.

Along with the US, the UK has seen the largest jump in the budget deficit

Like the US, the UK government has been among the most fiscally aggressive in supporting the economy through the pandemic. After years of austerity policies under successive governments for most of the 2010s, the budget deficit had been contained to a little over 2% of GDP in the immediate pre-Covid period, allowing for a modestly declining debt ratio. However, the onset of lockdowns brought with it a sharp increase in government spending, chiefly due to the Coronavirus Job Retention Scheme (CJRS), a wage subsidy scheme that at its peak paid 80% of wages for

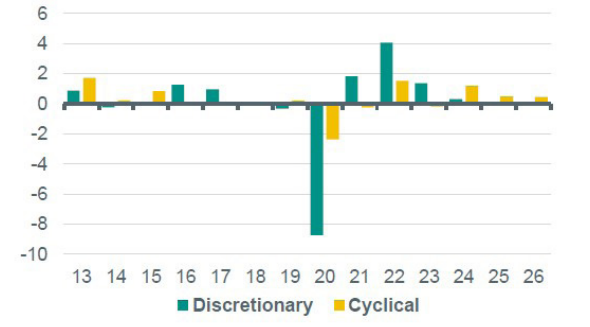
UK budget deficit

Budget balance, % GDP

Source: Refinitiv, ABN AMRO Group Economics

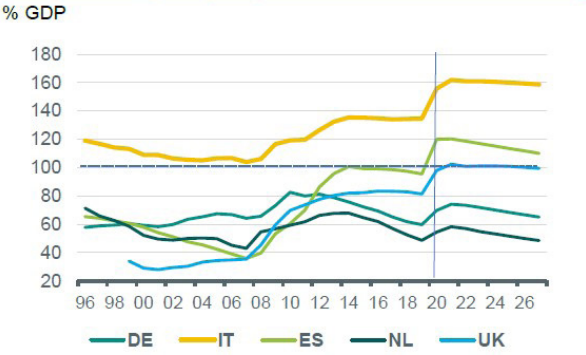
Decomposition of shifts in UK budget deficit

Contribution to change in budget balance, pp



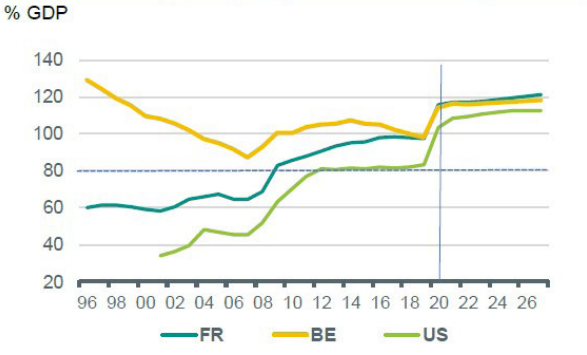
Source: Refinitiv, ABN AMRO Group Economics

Long-term trajectory in government debt: down



Source: EC, ABN AMRO Group Economics, forecasts ABN Amro

Longer-term trajectory in government debt: up



Source: EC, ABN AMRO Group Economics, national statistics bureaus

some 8.9mn people – over one quarter of the employed labour force.

This, alongside other measures, caused the budget deficit to surge to over 13% of GDP in 2020, and the debt ratio to jump to 98% from 81% in 2019. While an aggressive response, this also reflected the severity of the pandemic in the UK – the economy contracted by 10% in 2020, among the worst performances among major advanced economies. Indeed, the current Conservative government has otherwise been among the most eager to roll back support measures, for instance initially signalling the CJRS would end in October last year, before being forced to extend it because of the second and third waves of the pandemic (it is now proposed to end in September of this year).

DEBT RATIOS WILL PEAK SOON IN MOST ECONOMIES

For most countries, the government debt ratio looks set to peak this year and gradually decline in the coming years, albeit very modestly in some countries (Italy and the UK) and ending above pre-pandemic levels (except for the Netherlands). The exceptions to this trend are the US, France and Belgium, where an upward trend will likely to continue, but even in these countries the rise is relatively moderate (see charts above). We will explain the assumptions behind these projections below. Meanwhile, Box 1 provides an explanation of debt ratio arithmetic.

Assumptions behind eurozone debt projections

When calculating the longer-term debt scenarios for the eurozone's six largest individual countries we had to make a number of assumptions. The first one is that we have assumed that, in line with the recommendations by the EC, that the pandemic emergency stimulus will be scaled down when lockdown measures are unwound and GDP growth rebounds. We have assumed that a small part will be unwound in the second half of 2021 and the rest in 2022-2023. As discussed above, some proportion will persist beyond that. This implies that the primary balance of all countries is expected to remain below the pre-pandemic levels in the coming years, with the gap expected to be the widest in the countries that have implemented the most discretionary policy stimulus during the pandemic (Germany and Italy). The cyclical deterioration of the budget balance during the pandemic will gradually disappear in line with the closing of output gaps, which will be in 2024. Also, we have assumed that interest payments as a percentage of GDP should decline further thanks to ECB policy measures.

Box 1: Calculating long-term debt scenarios

The longer-term dynamics in government debt can be calculated by using the following simplified formula:

$$d_t = -pb_t + (1+i)/(1+n)d_{t-1} + sf$$

where:

d = government debt % GDP
pb = primary budget balance % GDP (total budget balance minus interest payments)
i = nominal interest rate
n = nominal GDP growth
sf = stock-flow adjustment % GDP

The formula $(1+i)/(1+n)d_{t-1}$ represents the autonomous part of debt, i.e. the part that is influenced by the existing level of debt, the level of nominal interest rates and nominal GDP growth.

The combined impact of nominal GDP growth and the level of interest rates is called the 'snow-ball effect'. In general terms the following relationship roughly holds:

If interest rate > GDP growth, debt-to-GDP tends to rise
If interest rate < GDP growth, debt-to-GDP tends to fall

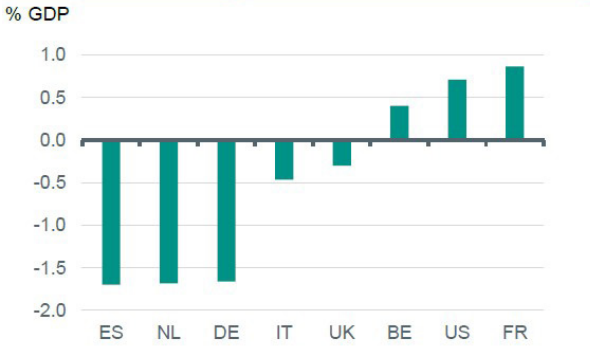
As the formula shows, the higher the debt ratio is at the starting point, the bigger the impact changes in GDP growth or interest rates.. This non-linearity can be particularly disadvantageous when a country with a high debt ratio experiences a recession, which raises investor worries about debt sustainability and pushes government bond yields higher. For instance, at the peak of the eurozone crisis in 2012, the autonomous rise in the debt ratio (that is the rise without the impact of the change in the primary budget balance or any one-off stock-flow adjustments) was almost 20pps in Greece, more than 10pps in Portugal, 7pps in Italy and more than 5pps in Spain.

Impact European Recovery and Resilience Facility

During the years 2021-2026 a number of countries will receive large sums (consisting of grants and loans) from the European Recovery and Resilience Facility (RRF). Spain will receive grants for a total amount of EUR 80bn (equal to a total of around 6% of GDP) and Italy around EUR 90bn (equal to almost 5% of GDP). The other countries in the group of the eurozone big-6 will receive less spectacular amounts (France around 1.5% of GDP, Germany, the Netherlands and Belgium each around 1%). Italy and Spain can also borrow from the RFF at favourable conditions (Italy around 7% of GDP and Spain around 6.5%). The money from the RRF will have to be invested by governments. Therefore, it should not result in improvement of the budget balance. However, it will lift nominal GDP growth (we look in to the growth impact in detail later in the note), which will have a favourable impact on the government debt ratio. As a result we expect the snow-ball effect on government debt (see text Box 2) to become favourable for Italy for the first time since the introduction of the euro.

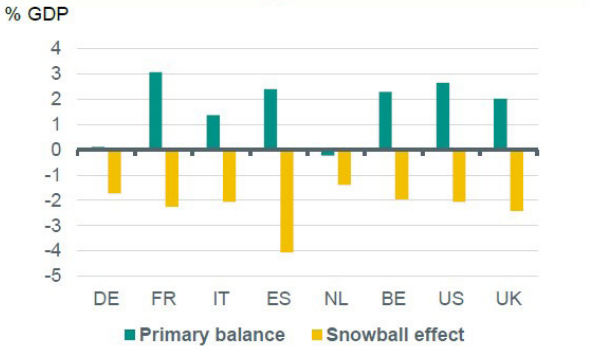
Summing up, based on the assumptions explained above, we expect the debt ratios of Germany, the Netherlands and Spain to decline convincingly during the five years after our current economic forecasting period (i.e. 2023-2027). Italy's debt ratio is expected to decline only very modestly and is expected to still be at levels well above 150% GDP by 2027. Finally, the debt ratios of France and Belgium will most likely continue to rise modestly, although they are expected to remain well below the level of Italy.

Average annual change in debt ratio 2023-2027



Source: EC, ABN AMRO Group Economics, forecasts ABN Amro

Main factors behind change in debt ratio 2023-2027



Source: EC, ABN AMRO Group Economics, national statistics bureaus

US debt ratio to rise only gradually

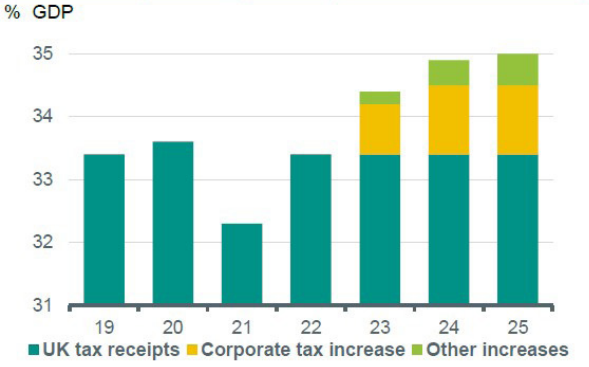
Assuming only modest rises in interest rates over the coming years (rates rise very slowly from end-2023 onwards to around 2.5% by the end of the 2020s), we expect the debt ratio to continue rising, reaching a peak of around 112% of GDP in the second half of the 2020s and stabilising near this level. In this scenario, nominal growth exceeds nominal interest rates by some margin, offsetting some of the upward pressure on the debt ratio from the large primary budget deficit. Our scenario also assumes that revenue-raising measures in the upcoming packages are fully implemented. However, there is a risk of slippage in these plans, which could well put the debt ratio on an unsustainable trajectory if spending is not reined in. Indeed, the current plan is for these revenue-raising measures to fully offset spending over a 15 year timeframe – already longer than the traditional window of 10 years – and therefore leaving little wiggle room for future spending increases. This is raising concerns among the few deficit hawks that remain on Democrat benches in Congress (although such concerns could also constrain the size of the spending plans). Meanwhile, the high level of debt means that it is vulnerable to changes in assumptions on interest rates and GDP growth. As a base case, we assume nominal GDP growth of c.3.8% after 2022 – consistent with the pre-pandemic pace of growth. For interest rates, we assume the fed funds rate rises gradually over 2024-2025, peaking at 2.5% in the late 2020s. However, an inflation overshoot could lead to bigger and more rapid interest rate rises – in our recent Global Monthly, we sketched out such an over-heating scenario, in which rates rise to 4% by 2024.

Significant fiscal tightening to put UK debt ratio back on a downward path

In the UK, we expect a pro-active tightening of fiscal policy to lead to a modest decline in the debt ratio over our forecast horizon. The UK government is among the most aggressive in the degree of fiscal tightening it is proposing over the coming years, with significant rises in the corporate tax rate of 6pp to 25% by 2025. The effect of this rise will be amplified by the broadening of the tax base in recent years. This will see corporate tax receipts rise to a share of GDP last seen in the late 1980s, and overall receipts reaching 39.1% of GDP by 2025 – the highest since 1984. As a result of the significant fiscal tightening over the coming years, the deficit is expected to fall back to its pre-pandemic level of near 2% of GDP by the mid-2020s, and this will put the debt ratio comfortably on a declining trend.

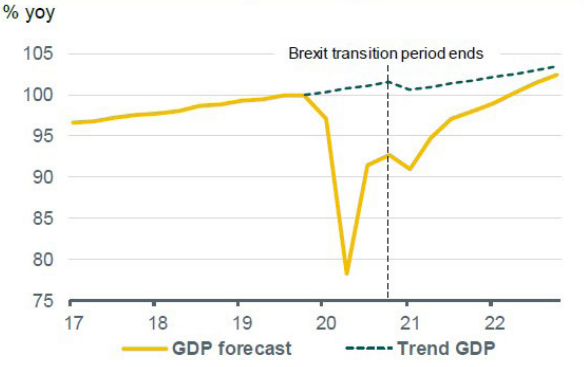
As a base case, we expect the debt ratio to peak at 101% in 2024, before dipping gradually back below 100% by the late 2020s. As with the US, this expectation rests on some key assumptions. First, we assume that the proposed fiscal measures are fully implemented. However, governments have a track record of delaying or watering down revenue-raising measures, particularly ahead of an election. In this case, given the main source of new revenue will be from corporations rather than individuals, we judge this risk to be relatively low.

UK tax receipts to surge on corporate tax hike



Source: Refinitiv, ABN AMRO Group Economics

UK: Brexit has lowered potential growth



Source: Refinitiv, ABN AMRO Group Economics

Decline in UK potential growth a headwind for public finances

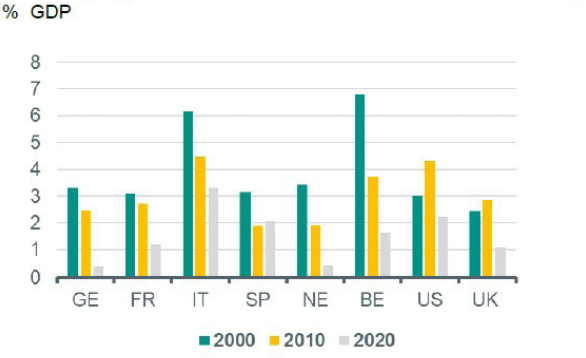
The other key element of our debt calculations is our assumption on nominal GDP growth. We assume nominal GDP growth of c.3.3% after 2022. This is lower than the pre-pandemic rate of c.3.6%, reflecting our assumed fall in potential growth in the UK following Brexit. We estimate that Brexit will leave the economy 5pp smaller over the next 10-15 years than it would have been had Brexit not happened. The OBR meanwhile estimates the post-referendum real potential growth rate at 1.6% - well below the 2% trend rate over 2010-15. It is possible that the effect of Brexit on potential growth might be even bigger than assumed. All else equal, reduced growth potential means greater upward pressure on the debt ratio, meaning the government must run a lower budget deficit than it otherwise would to put the debt ratio on a sustainable trajectory. Finally, as with the US, interest rates are also a key risk to our forecast. As a base case, we assume Bank Rate begins rising gradually from 2023, peaking at around 2% in the mid-2020s. However, as we discuss below, there is a distinct possibility that the Bank of England reacts more aggressively than in our base case.

WILL A SURGE IN INTEREST RATES SPOIL THE PARTY?

Although government debt ratios have surged, the capacity of governments to repay the debt has actually improved because of low interest rates. Below we set out the interest payments of governments relative to GDP. As can be seen, debt service costs were much lower last year than at any point in recent history for all economies covered, with the exception of Spain, where they were not far off those levels.

Of course the big question that arises is what happens if government bond yields rise. Would this picture change to the extent where debt servicing becomes problematic? The question of course is how far interest rates are likely to rise. There are a number of reasons to think that the rise in interest will not be very large. The most important determinant of long rates is (the expectation for the future trajectory of) the policy rate set by the respective central bank. Policy rates are very low at the moment (near zero in the US and UK and below zero in the eurozone) but they will rise back to more normal levels eventually. However, the normal level of interest rates, known as the neutral or equilibrium interest rate, has declined over the last few years. Estimates vary, but it is probably around 1.5-2.5% in nominal terms in the jurisdictions we focus on. This means risk-free 10y rates would also be capped at around those levels. In addition, 10y rates will take a while to reach those levels as policy rates will also take a few years to get back to normal. Finally, central banks hold a large proportion (25-40% for the countries covered) of outstanding government bonds. Although purchases will end

Interest payments



Source: IMF, ABN AMRO Group Economics

Maturity of debt

Source: IMF, ABN AMRO Group Economics

(in the case of the Fed and BoE) and slow significantly (in the case of the ECB), central banks will likely continue to reinvest the proceeds of maturing government bonds, meaning their holdings will remain at elevated levels.

Inflation rise would need to be large and stubborn to be an issue

There is a caveat here. If inflation rises by more than expected, central bank policy rates will need to go above normal levels to slow the economy and get inflation back down. Although higher inflation means higher nominal growth, in these circumstances real interest rates will need to rise so the net impact on debt dynamics will be negative. Having said this, debt service costs are impacted significantly only if the rise in interest rates lasts for many years, as the average maturity of debt is long (see chart above). So we would need to see a large and durable rise in inflation (as we did in the late 1960s and 1970s) for interest rates to remain high enough for long enough to lead to a problematic rise in debt service costs. This does not seem very like to us. The 60s and 70s were characterised by a combination of many years of very tight labour markets, huge commodity price shocks and policy mistakes.

Eurozone sovereign credit risk capped by the ECB and Recovery Fund

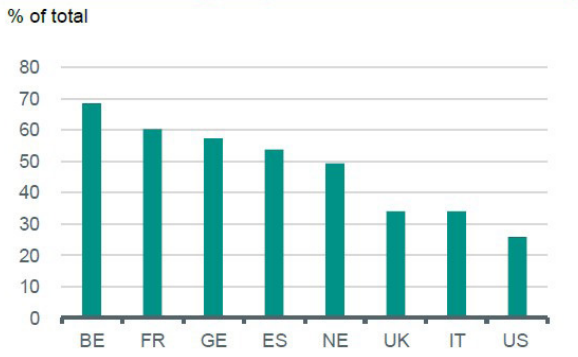
Aside from a sharp rise in inflation, another possible source of a rise in interest rates for some countries is a rise in credit risk. This is most likely for non-core member states in the eurozone (Italy and Spain and to a much lesser extent France and Belgium). The government bond yield of these member states is currently above the risk-free rate (the yield on German government bonds), however only modestly so. This implies that not much credit risk is priced in.

How big is the risk that this changes as it did in the euro crisis? Again here there are important limiting forces reflecting improvements in the European institutional framework since then. In particular, since 2012 the ECB has committed to prevent fragmentation in the eurozone (rising credit spreads) by making large scale purchases of government bonds. Second, the European Recovery Fund which will allow major investments in South European member states is an important development. It will help to boost economic growth in those countries, which will be supportive of debt dynamics. In addition, it is an important signal of European solidarity and commitment to sustaining the eurozone.

US has the advantage of reserve currency status

Turning to the US, if revenue-raising measures indeed fall short, and/or if interest rates rise by more than expected, what would an unsustainably rising debt ratio mean in practise? For most countries such a scenario is undesirable, as market pressure would

Non-resident holdings of government debt



Source: IMF, ABN AMRO Group Economics

Neutral interest rate

Source: Holston-Laubach-Williams, New York Fed

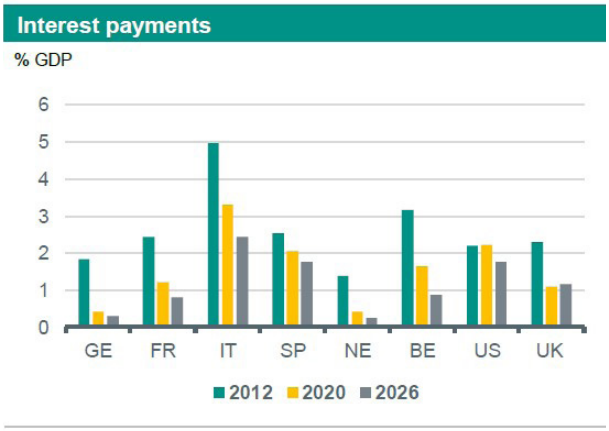
ultimately push yields on government bonds higher, or – if the central bank were to intervene by purchasing government bonds – the currency would weaken, potentially significantly. However, the US is in a unique position in global markets, both in terms of its government bond market and its currency. US Treasury securities continue to be – and will likely remain for decades to come – the number one global safe liquid asset. Meanwhile, the dollar will also likely remain by far the biggest reserve currency. As such, even with a continually rising debt ratio, we would not expect significant market responses to such a scenario to manifest for many years – likely decades. Indeed, US non-resident holdings of US government debt are a relatively low proportion of the total, while a relatively large share of those are foreign official holdings.

UK could see earlier policy rate hikes, but maturity of debt is very long

Unlike the US and especially the eurozone, the UK has not had a 'problem' with below target inflation. Inflation has actually averaged above the Bank of England's 2% target, at 2.2% in the decade prior to the pandemic, while market-based measures of inflation expectations have also been significantly above target, at 2.7%. As a result, the Bank of England does not have the same need nor desire as the Fed or ECB to accommodate overshoots of inflation to make up for past shortfalls, or to push up inflation expectations. This means that its reaction function is likely to be more hawkish than other central banks in its eagerness to raise rates – and this poses the risk that debt service payments increase by more than in our base case over the coming years. Having said that, the long maturity of debt would partly cushion the blow. For instance, estimates by the Office for Budget Responsibility (OBR) suggest a 1pp higher base rate would increase debt interest spending by 0.8% of GDP, and only by 2025-26.

Payment capacity should remain strong

Assuming a gradual normalisation of interest rates, debt service burdens are expected to remain extremely low across the major advanced economies. So even though debt will remain higher for many years compared to pre-pandemic levels, governments' payment capacity will likely remain strong.



Source: IMF, ABN AMRO Group Economics

WHAT DOES HIGH GOVERNMENT DEBT MEAN FOR LONG-TERM GROWTH?

Although low interest rates and central bank purchases may mean that governments will not experience difficulty in servicing a high debt stock, a case has been made by many economic studies that higher debt levels weigh on economic growth over time. However, a closer look at the issue suggests the circumstances in the economy and the reasons for higher debt matter. Indeed, a strong case can be made that under current circumstances, fiscal largesse will lead to better economic outcomes.

The case that debt is bad for growth

Most academic studies show a negative correlation between debt ratios and economic growth (see here for an overview of studies). They also often identify a threshold level – around the 90% GDP mark – where the negative effects become more significant. A number of

studies suggest that every 10 percentage point rise above a threshold level reduces subsequent growth rates by around 0.2%. The debt ratio for the G7 economies rose from around 118% in 2019 to an estimated 138% GDP in 2022, which would on that basis point to a reduction of long-term growth of around 0.4%.

However, this line of reasoning is far too simplistic. Correlation is not causation. There could be a third factor that drives both – for instance countries with high debt levels historically may have a poor institutional framework. Indeed, it could even be that the chain of causation works the other way around, so countries with weaker trend growth tend to have higher debt burdens. As explained above, if trend growth is below the interest rate on the debt, a country would need to run constant primary budget surpluses in order to stabilise debt, which is challenging. Italy is a case in point.

It is important therefore to think about the macroeconomic channels through which higher debt ratios might impact trend growth and whether they are relevant today. Three channels are generally put forward. One is the 'crowding out' argument. As high levels of government borrowing competes for funds in the capital markets, interest rates could rise and this may crowd out private investment. If fiscal largesse leads to a rise in inflation, this may exacerbate the rise in interest rates. Second, a country with high debt levels may need to make fiscal choices that are suboptimal. For instance, high tax rates, or in the case where current spending is too high, lower public investment. Third, a high starting level of debt going into a slowdown may restrict a government's ability to put in place a counter-cyclical fiscal stimulus.

This time actually has been different (so far)

None of these channels look particularly relevant for the current situation in most advanced economies, though they could arguably become so in the case of the US economy over the next year or two. High starting levels of debt did not prevent advanced economies putting in place unprecedented fiscal support last year. Long term interest rates remain at historically low levels. This reflects two factors. First central banks have bought a large proportion of the new debt issued by governments, which has prevented crowding out effects. Second, across the advanced world, a lot of spare capacity has opened up and this looks likely to keep a lid on medium-term inflationary pressures in most cases. Given this, central banks will likely keep their policy rates low and continue asset purchases for a while to come.

Could the case of the US be different? Given the size of the fiscal stimulus passed by Congress (and still in the pipeline), the US economy looks set to exhaust spare capacity in the economy over the next couple of years. This has caused speculation that long-term interest rates could rise sharply, reflecting some combination of the Fed dramatically reversing course on monetary policy and/or an acceleration of inflation. While the probability of such a scenario has risen, it is not our base case. We judge that the economy will be back at full employment levels in 2023. This would take the economy back to the situation we saw in 2018, when there was only moderate upward pressure on inflation. Given this and the Fed's new inflation framework (where it plans to make up for past inflation target misses with modest future overshoots), it will likely remove policy accommodation very slowly.

The case for stimulus

The experience of the last few years is more supportive of the argument that fiscal stimulus in the appropriate circumstances leads to better economic outcomes. It is difficult to compared the global financial crisis, which was a balance sheet recession, with the current pandemic shock, where the fall in activity was driven by government decree to tackle the health crisis.

However, we do think that there are lessons with regards to fiscal policy, government debt and economic growth. Fiscal stimulus in 2009 was significant, but arguably not large enough, while governments stepped on the breaks too hard in subsequent years in order to rein in deficits at a time when the private sector was engaged in balance sheet repair. As a result, economic growth was sluggish and labour markets took many years to heal.

Fast forward to the Covid-19 shock and the unprecedented actions by governments have almost certainly led to a less significant rise in unemployment, and less corporate stress and defaults. Compared to the counterfactual, there will very likely be less long-term economic scarring. So the twenty percentage point rise in debt ratios for the advanced economies looks likely to result in higher rather than lower economic growth in the years ahead. The box below explains how the stimulus measures that were taken during the pandemic in the eurozone have differed from regular fiscal stimulus measures, and how their impact on growth also differs from stimulus during a normal cyclical downturn.

Box 2: The characteristics of the fiscal emergency measures and their impact on growth

In its Economic Bulletin 1/2021 (see here) the ECB explains that the interpretation of the fiscal stance during and after the pandemic is challenging owing to the one-off impact of the emergency measures. This implies that a massive fiscal expansion in 2020-2021 will be succeeded by some scaling down of fiscal support in the subsequent years. However, this mainly results from the expiry of the fiscal emergency measures, which have different economic implications from standard stimulus measures, with a more durable positive effect on growth. The rationale for the measures that were taken during the pandemic was not to boost growth, but rather to preserve those firms and employment relationships that would not otherwise have survived the lockdown. The effect of such measures on economic activity will be felt more strongly during the recovery, as in the counterfactual situation of widespread firm collapses and dismissals, the catch-up would have been slowed down by time-consuming restructuring processes in otherwise healthy firms and distortions in the labour market.

The substantial fiscal measures taken during the pandemic counteracted the output losses related to the crisis. The specific features of the COVID-19 crisis had an impact on the effectiveness of fiscal measures. Therefore, the estimation of their growth effects based on historical elasticities can be misleading, as any model should take into account the economic characteristics of the pandemic. Early model-based evidence suggests that the emergency measures implemented at the start of the COVID-19 crisis strongly counteracted the pandemic-related output loss and speeded up the recovery. It estimates that the stabilisation gains from short-time work schemes and guarantees reduced the pandemic-related macroeconomic loss by a quarter, in other words an improvement in real GDP by more than 4 percentage points. In the model context, short-time working schemes are assumed to stabilise investment by firms, as they reduce costs and therefore increase liquidity. Moreover, they reduce the persistence of the recession, as they help firms to avoid the costly and time-consuming hiring process during the recovery period. Moreover, the more generous nature of short-time work schemes compared with unemployment payments supports household demand. Liquidity support measures are assumed to stabilise investment and employment by firms that are liquidity-constrained during the crisis.

Not all fiscal measures are equal

Crisis periods aside, there is clear evidence that fiscal stimulus can lead to higher long-term economic growth in more normal economic conditions. However, not all fiscal stimulus measures are equal in this regard. First of all, public investment has been shown to be more beneficial than current expenditure. Secondly, reducing taxes on work can also boost long-term economic growth. Given that governments can borrow at low – and in many cases negative interest rates – there is a case to be made that the right fiscal programme can lead to both better economic outcomes without increasing debt over the long-term. Below we will focus on public investment.

Public investment and long-term economic growth

Studies suggest that public investment can have significant effects on long-term economic growth. An extensive study by the ECB (see here) found that a sustained increase in public investment of 1% GDP led to almost a 2 percentage point increase in GDP over its base line level over the long-term. This central estimate assumed that the spending increase was debt financed and that the starting level of the capital stock was around 50% GDP. The paper offered alternative estimates of the economic impact by modifying some of these assumptions. If the increase in public investment was financed by raising taxes that had harmful long-term supply-side effects on

Public capital stock

% GDP in current prices, 2017

Source: IMF, ABN AMRO Group Economics

Eurozone government investment

% GDP in current prices

Source: EC, ABN AMRO Group Economics

the economy, then the impact on economic growth would be lower. For instance, the impact would be around 0.5 percentage points lower if it was funded by hiking taxes on labour.

Meanwhile, the higher the starting level of the capital stock, the less favourable the long-term impact on economic growth. Intuitively, this is because the added value of the extra investment would be less. For instance, if there are already sufficient bridges over a river, an extra one would not contribute much to long-term economic growth. The chart below on the left shows that the capital stock in Italy and Spain is roughly in line with the assumption made in the central estimate. It is even lower in Germany, the UK and Belgium, implying that higher public investment in these countries could be particularly effective in increasing potential economic growth.

In France, the Netherlands and the US, the public capital stock is higher, implying the supply-side benefits could be more moderate. However, even for these countries, the case for public investment is strong. The investment needed to support the energy transition means that green investment would be productive, whatever current levels of the capital stock (see above). Finally, there is some evidence that the public capital stock estimate for the US might not be an accurate reflection of developments on the ground. The American Society of Civil Engineers has made the case in a recent report that the investment gap over the next ten years is USD 2.6 trillion, given the current poor state of the country's infrastructure (see report here).

Public investment will be stepped up in coming years

Looking across the selected major advanced economies, public investment will likely be stepped up significantly in the coming years, with the exception of Germany, France and Belgium, where the increase relative to GDP will be modest according to the current plans (see chart below on the left). We think that the balance of risks to government plans are skewed to the upside. First, this reflects the likely additional investment needs from the energy transition. The IEA estimates that globally, investment would need to more than double by 2030 to be on the path to achieve net zero emissions (see here). While, most of this will fall to the private sector, governments will also need to step up direct investment. We will look into these plans in more detail below and then go on to set out the implications of these plans for long-term economic growth. Second, for the eurozone countries, we based our projections on the planned take-up of the European Recovery and Resilience Facility (RRF) to date. However, countries may eventually take up more in the form of loans in some cases (this especially holds for Spain).

In the major eurozone member states, public investment has picked up over recent years

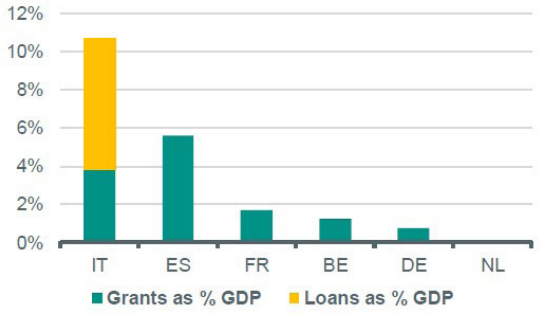
Government investment outlook

Peak change in government investment-GDP ratio to 2025-2026

Source: ABN AMRO Group Economics, various government sources

Planned take up of European RRF 2021-2026

% GDP



Source: EC, ABN AMRO Group Economics

to normal growth rates, following sharp falls during and after the euro crisis. Looking ahead, the main public investment impulse over the coming years will come from the RRF, but the distribution of funds under the facility are heavily skewed towards the southern eurozone member states (see above). This means that public investment resulting from the facility for Germany, France, Belgium and the Netherlands will be much more moderate. Having said that, public investment in the Netherlands will get a significant boost from its National Growth Fund.

The EC has estimated that the eurozone's government investment as a proportion of GDP will rise to 3.3% in 2022, up from 2.8% in 2019 and back to its highest value since 2010. It should continue to rise in the years after 2022. In order to receive funds from the RRF governments had to present longer-term Recovery and Resilience Plans (RRPs) to the European Commission. According to the EC, it can be assumed that about 50% of the RRF funds will be used for general government investment and around 50% will take the shape of capital transfers, which will support private investment.

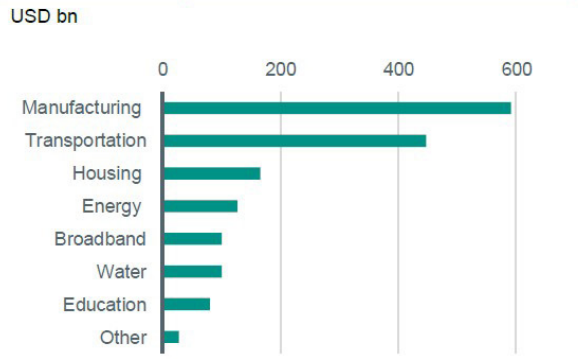
For instance, Spain's government has estimated that thanks to its RRF-financed extra government investment, the level of public capital stock as a percentage of GDP will rise by 3pp compared to the baseline scenario during the years 2021-2023, after falling non-stop in every year during the period 2012-2019. Government investment in R&D as a percentage of GDP is expected to increase from 0.5% in 2019 to around 1% in 2023, and total investment in R&D (government plus private) from 1.3% to around 2.3-2.7%.

Italy's government plans to use more than EUR 190bn of RRF funds (equal to around 11% of annual GDP). It is the only country so far that has announced that it will not only use the grants from the RRF but also loans. A significant part of the plan will be implemented through public investment. Italy's RFF plan incorporates that around 35% of the funds will be made up of public investment, which is less than the base assumption of the Commission.

Turning to the US, the new Biden administration is proposing a roughly USD 1.6 trillion public investment plan largely focused over the next 8 years. This is part of the President's wider American Job Plan. It includes investment in R&D and job training in manufacturing, and broader investments in transportation infrastructure, housing, and high-speed broadband. Through many of the various categories shown in the chart above-left, there are investments to support the energy transition. Outside of these investment plans, USD 400bn is made available in clean energy tax credits, which could stimulate private investments. Finally, another EUR 174bn is earmarked in consumer rebates to purchase electric vehicles as well as grants and incentives to build new charging stations.

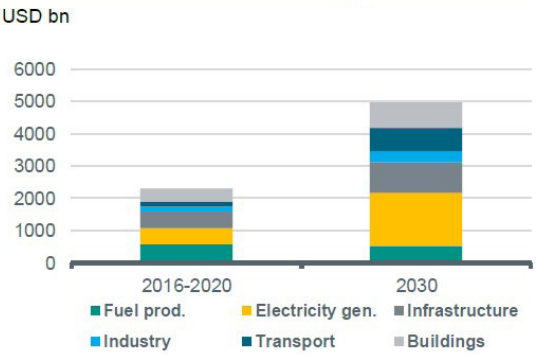
Meanwhile, the UK's public investment increase comes to a large extent in the form of the

US infrastructure plan breakdown



Source: ABN AMRO Group Economics, CFRB

Global investment needs for energy transition

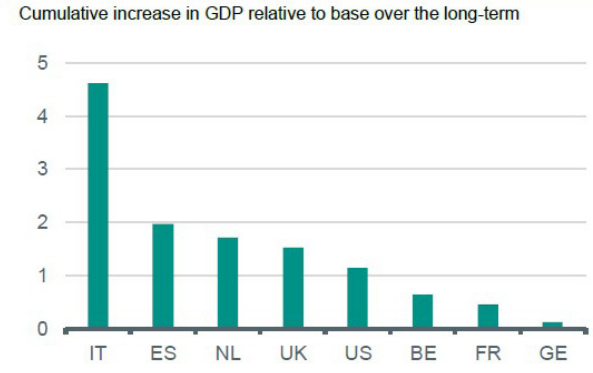


Source: IEA

government's 'Build Back Better' plan to stimulate economic growth. This involves investment in transport infrastructure, broadband and in cities. In addition, funding will be made available to support the energy transition. The UK government will also provide funds aimed at 'crowding in' private investment to this end.

In the chart below, we set out some stylised estimates of the impact of the government investment plans on long-term economic growth. We use the central estimate from the ECB Working Paper discussed above, as well as the increase in the investment to GDP rate implied laid out in government plans. The chart shows the increase in the level of GDP compared to a baseline over the long-term (the maximum impact on the level of GDP is after six years). It therefore captures the cumulative impact on growth over this time horizon.

Government investment plans to boost growth



Source: ABN AMRO Group Economics

Italy's growth revolution?

As can be seen, the impact of the European Recovery Fund could well be a game changer for the Italian economy, which has struggled for many years with anaemic growth potential. The impact could be even larger considering the government plans a significant reform agenda to go hand-in-hand with extra investment. Government investment plans could also have significant economic growth effects in the UK, the Netherlands and the US. However, it must be noted that the plans in the US and the UK will be financed by higher corporate tax rates, which could have negative supply side effects. Meanwhile, the impact on long-term economic growth will be negligible in Belgium, France and Germany, reflective of the modest size of the additional public investment.

We feel compelled to end with one very important caveat. The longer-term positive effects on the economy's potential output from public investment depends on the efficiency of investment and the productivity of the public capital stock. To put this in plain English: the money needs to be spent well! If it is spent poorly, we would still see short-term growth effects, but they would dissipate over the coming years.

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