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Is Belgium's public debt sustainable? A comparison with other high-debt countries

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Introduction

One of the persistent weaknesses of the Belgian economy is its high public debt-to-GDP ratio, which reached 104% in 2024 – a level that raises sustainability concerns. This figure is, however, sometimes downplayed in public discourse by pointing to other advanced economies with similarly high or even higher public debt ratios, such as France, Italy, the United States and Japan. Japan's debt ratio, for example, stood at 236% of GDP in 2024 – more than double that of Belgium – yet it has not experienced a debt crisis. In addition, the International Monetary Fund (IMF) assesses the longer-term debt sustainability risks for both countries as “moderate”, despite their very different debt levels.¹

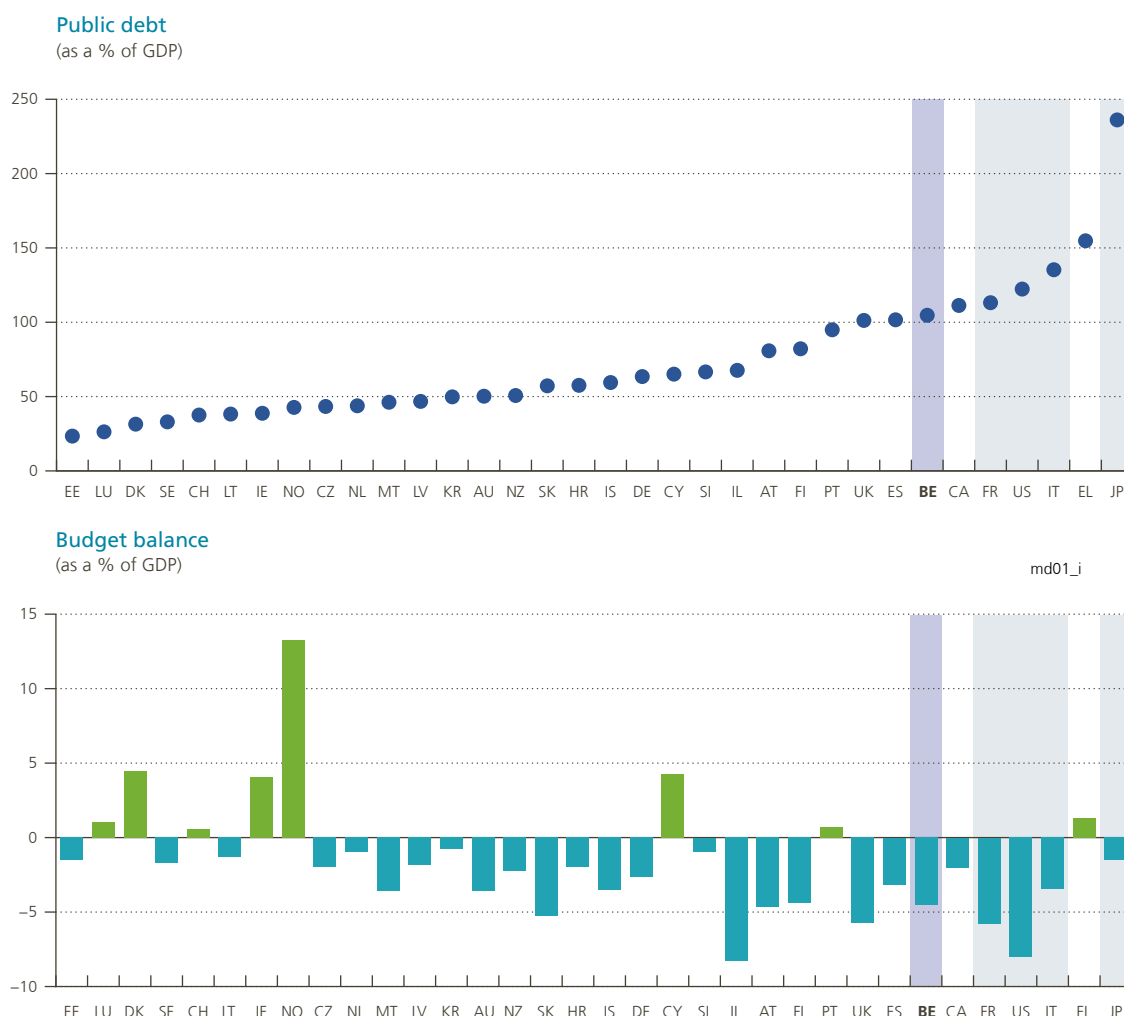
Does this mean that Belgium's public debt ratio can continue to edge upwards without inducing a crisis? Or are there other factors – beyond the debt level – that determine whether the public debt is sustainable? To explore the issue, this article compares Belgium's debt sustainability risks to those of four countries selected in view of their high debt level and – with the exception of Japan – high deficit in 2024.² The latter factor implies that, at unchanged policy, the debt ratio is likely to continue to increase. So, to determine the sustainability of public debt, it is essential to consider not just the level of debt but also the debt dynamics.

¹ See the IMF's Article IV reports for Belgium (Annex IV) and Japan (Annex VII), published in March and April 2025, respectively.

² Other euro area high-debt countries, such as Greece, have been excluded from our analysis. This is because, among other factors, they have a smaller deficit, implying that their upward debt dynamics appear much more contained and thus present lower debt sustainability risks.

Figure 1

Belgium's public debt and deficit were elevated in 2024 but were not the highest among advanced economies



Source: IMF.

It is worth noting that, in general, the current high debt ratios are a relatively recent phenomenon, with the global financial crisis and the Covid-19 pandemic having left a deep imprint on public finances. None of the selected countries have succeeded in reducing their debt ratio to pre-2008 levels, and only Japan has fully reversed the increase in its debt ratio caused by the pandemic. At the same time, pressures on government spending continue to mount due, for example, to population ageing, costs related to climate change and heightened defence needs.

It is therefore more important than ever to assess and monitor debt sustainability. After all, when unsustainable debt results in default, there are large economic, social and political costs. Conversely, sustainable government debt has economy-wide benefits: it enables countercyclical fiscal policy, whereby additional government borrowing to mitigate the impact of adverse shocks does not threaten debt sustainability, and underpins financial and price stability.

However, assessing the sustainability of government debt is not an easy task. This article briefly touches on the challenges involved. The main objective, however, is to compare the debt sustainability risks facing Belgium with those of four other countries with elevated debt ratios and government deficits. In order to do so, a classical debt sustainability analysis (DSA) has been carried out for Belgium, France, Italy, the United States and Japan, drawing on the well-established frameworks of the IMF and the European Commission (EC). The exercise indicates that debt sustainability is dependent on multiple factors, only one of them being the level of government debt, and emphasises that the results are subject to uncertainty and sensitive to changing circumstances given the forward-looking nature of a DSA.

The article is structured as follows. In Section 1 we clarify basic concepts such as debt sustainability, solvency and liquidity, and discuss three key sustainability indicators, i.e. the debt level, debt dynamics and gross financing needs. This section also introduces the more comprehensive framework that we use to assess debt sustainability. Sections 2 to 4 contain assessments of the short-, medium- and long-term risks to debt sustainability for the five selected countries, focusing on important aspects of the DSA frameworks used by the EC and the IMF. Section 5 discusses additional factors that could mitigate or aggravate the identified debt sustainability risks. The conclusion summarises the findings and compares Belgium's debt sustainability risks with those of France, Italy, the United States and Japan.

1. A framework for assessing debt sustainability risks

1.1 When is public debt sustainable?

Debt sustainability is difficult to define and challenging to assess. Wyplosz (2011) called debt sustainability analysis "mission impossible" as it involves predicting the future which is, by nature, uncertain. That said, in the current high-debt environment, the question of whether public debt is sustainable (or not) is more relevant than ever.

A commonly used definition – which forms the starting point for the analysis in this article – is that of the IMF (2013): "... *public debt can be regarded as sustainable when the **primary balance** needed to at least **stabilize debt** under both the baseline and realistic shock scenarios is economically and politically feasible, such that the level of debt is consistent with an acceptably **low rollover risk** and with preserving **potential growth** at a satisfactory level. [...] The higher the level of public debt, the more likely it is that fiscal policy and public debt are unsustainable.*"

In essence, the government debt-to-GDP ratio is considered sustainable if it can be stabilised without unrealistic fiscal adjustment (meaning major corrections in the primary balance). The definition thus acknowledges that there are social, political and economic limits to fiscal adjustments. In addition, the definition also requires that debt be stabilised under shock scenarios, thereby emphasising the importance of retaining control over the debt dynamics, even under adverse economic conditions. Stabilising the debt ratio is considered a minimum condition for debt sustainability, as the country is then likely to avoid debt distress under most plausible future scenarios. However, the level at which debt is stabilised also matters. The IMF definition explicitly mentions that higher debt ratios imply greater risk as these are associated, inter alia, with a higher debt servicing burden and a higher sensitivity to adverse shocks. Importantly, it does not prescribe a universal target beyond which sustainability can be called into question, acknowledging that such thresholds are difficult to define. Debt limits are highly country-specific and evolve over time, reflecting changes in the underlying drivers of debt dynamics (see e.g. Cao *et al.*, 2025).³ "High debt" is, therefore, a relative concept.

3 For a concrete safe public debt boundary for Belgium see for instance Debrun *et al.* (2020a).

Conversely, the IMF defines debt as unsustainable if fiscal adjustment and new financing (such as from the IMF) are insufficient to stabilise it. In such cases, exceptional measures will be necessary, including default, restructuring, hyperinflation, financial repression⁴ and exceptional official financing.

A widely used measure of public debt is the ratio of general government gross debt to nominal GDP. The debt instruments included within this metric are primarily loans and debt securities. Gross debt does not cover off-balance sheet debt vulnerabilities, such as contingent liabilities, and government assets are not deducted from it. However, these items are often taken on board in a debt sustainability assessment to enrich the analysis (see Section 5). Debt is expressed in terms of nominal GDP to provide an indication of the government's repayment capacity: public debt is serviced using government revenue, and GDP reflects the broadest source of the government's taxable revenue.

One advantage of using the concept of gross debt is that roll-over risk can be directly derived from it, implying that stock and flow features of public debt can be consistently analysed, delivering a more accurate picture of debt sustainability risks. The IMF definition of debt sustainability covers both solvency – a long-term concept – and liquidity – a short-term concept.

Solvency and liquidity

Solvency is at the core of debt sustainability. It implies that the government will be able to generate sufficiently high primary surpluses in the future to pay back its current outstanding debt. Or, in other words, that the government will be able to honour its financial obligations in full at all times and under all circumstances. In more technical terms, solvency requires that the intertemporal government budget constraint be satisfied, meaning that the current amount of debt must equal the net present value of all future primary balances. Solvency – and consequently sustainability – is thus a purely forward-looking concept: it boils down to a prediction of future fiscal policy (primary balances) over an infinite horizon. Practitioners have, however, been struggling to operationalise the concept. Thus, a stricter form of solvency is generally assessed (Debrun *et al.*, 2020b) whereby debt is defined as sustainable when current and projected fiscal policy does not cause the debt ratio to explode or, as proposed by the IMF, when it can be stabilised under feasible fiscal policies. This approach involves projecting future debt paths, usually over a specific horizon, using the debt dynamics equation:⁵

$$\Delta d_t \equiv d_t - d_{t-1} = \left(\frac{1 + r_t}{1 + g_t} - 1 \right) * d_{t-1} - pb_t$$

where d is the government debt-to-GDP ratio, r is the implicit interest rate on government debt, g is nominal GDP growth and pb is the primary balance-to-GDP ratio.

The change in the debt-to-GDP ratio is thus determined by three key factors: the difference between the implicit interest rate on debt⁶ and nominal GDP growth (“ $r-g$ ”), the debt level and the primary balance. The well-known snowball effect reflects the interplay between the first two factors as it is defined as the product of the interest rate-growth differential and the previous period's debt-to-GDP ratio. Under the conventional assumption that the implicit interest rate exceeds nominal GDP growth ($r > g$), the debt-to-GDP ratio tends to increase automatically as the additional borrowing needed to cover interest obligations raises the numerator, while GDP growth does not sufficiently expand the denominator. A primary surplus is then needed to stabilise

4 A situation in which (real) borrowing costs of the government are kept artificially low using interest controls, high reserve requirements for banks, international capital controls and/or publicly owned banks.

5 For the sake of simplicity, the formula describes only the endogenous change in the debt ratio. It excludes exogenous factors (also known as deficit-debt adjustments or stock-flow adjustments) which influence the debt but not the budget balance. Exogenous factors can be high and persistent, however, and are therefore relevant to consider in a DSA (see e.g. Casalin *et al.*, 2023). They can also be relevant for distinguishing between gross and net debt as they capture, among other things, the net acquisition of financial assets by the government, including, for example, government shareholdings in or loans to the private sector. The simulated debt trajectories shown later in the article include exogenous factors up to 2030, beyond which date they are considered to be zero.

6 The implicit interest rate is calculated as interest payments in a given year divided by the debt stock in the previous year.

the debt ratio. It is important to note here that the snowball effect will be bigger, the higher the initial debt level. Consequently, a larger primary surplus will be needed to stabilise the debt ratio. In the case of a positive interest rate-growth differential and a primary deficit, the debt ratio will start to rise continuously, following an explosive path that is unsustainable. In a DSA, rising debt paths are flagged as entailing high risks – regardless of whether they stem from an unfavourable interest rate-growth differential or persistent primary deficits. In addition, elevated debt levels are themselves a source of vulnerability, given that they amplify the adverse effects of weaker economic growth or tighter financial conditions.⁷

As future debt trajectories are based on projections of several key variables – including interest rates, GDP growth, and primary balances – the reliability of the former depends on the quality of the latter. However, the accuracy of such projections diminishes rapidly with the length of the forecasting horizon. Therefore, although debt sustainability is a long-term concept, sustainability assessments typically rely on medium-term debt projections, which usually have a five to ten-year horizon.

Whereas solvency is a long-term concept, liquidity is a short-term one. It implies that the government is able to finance its upcoming short-term obligations, by securing new funding from the financial markets, drawing on existing cash buffers, converting liquid assets into cash or generating a budget surplus. To assess liquidity risks, short- to medium-term projections of annual gross financing needs are essential. These basically consist of the government deficit and redemptions of short- and long-term debt:⁸

$$\text{gross financing needs}_t = -\text{primary balance}_t + \text{interest payments}_t + \text{maturing debt}_t$$

with all variables expressed as a percentage of GDP.

In general, large gross financing needs increase liquidity pressures and raise the probability of the sovereign being unable to cover its upcoming obligations. Assessing liquidity risks is challenging though, not least because lenders' behaviours and beliefs may alter suddenly and significantly, thereby triggering a spike in financing costs and causing funding to dry up.

Solvency and liquidity risks are deeply intertwined, making it difficult to disentangle their effects in practice. Liquidity issues may result in a solvency crisis, while (perceived) solvency problems can trigger liquidity stress. Alarming, the mere fear of debt default can become a self-fulfilling prophecy as higher interest rates driven by market anxiety may render the debt path unsustainable. This vicious circle – where expectations of default lead to actual default – was, for instance, evident during the European sovereign debt crisis. Market sentiment therefore directly influences a DSA.

All in all, the forward-looking nature of debt sustainability makes it an inherently difficult concept to assess as it involves future policy actions and macroeconomic conditions, as well as market expectations and their effects on a country's ability to meet its obligations.

⁷ For instance, the rapid and strong increase in the Belgian debt-to-GDP ratio in the 1980s illustrates how difficult it is for a government to regain control of its debt dynamics once the snowball effect starts to kick in. Initially, the positive interest rate-growth differential combined with growing deficits resulted in a spiralling debt ratio. However, while the primary balance steadily improved from 1984 onwards, it was not until the mid-1990s that the primary surplus became large enough to reduce the debt ratio.

⁸ As stated above, for the sake of simplicity, the formula excludes exogenous factors. These are, however, included in the simulations.

1.2 Three core indicators: gross financing needs, debt level and debt dynamics

The debt level, debt dynamics and gross financing needs form the core of a debt sustainability analysis. As sustainability is a forward-looking concept, this section calculates projections for these three indicators for the five countries under review.

To determine the path of government debt over the next decade, i.e. until 2034, we use the debt dynamics equation described above, which relies on several forward-looking inputs. Projections for the macroeconomic and fiscal drivers of debt are obtained from the Federal Planning Bureau's (FPB) June 2025 economic projections for Belgium, and from the IMF's October 2025 World Economic Outlook for the other countries. Both sets of projections run to 2030. It should be noted that those of the FPB incorporate the policy measures specified in the federal government agreement of 28 March 2025 and in the Easter agreement of 11 April 2025.⁹

Beyond 2030, we use simplifying assumptions to extend the debt trajectories to 2034. More specifically, potential GDP is assumed to continue to grow at the same pace as in 2030 and the output gap is assumed to have closed as of 2031. Concretely, for the low-growth economies – Japan and Italy – real GDP growth was 0.1% and 0.7%, respectively, in 2024 and is projected to return to potential (0.5% and 0.7%, respectively) by 2034. For Belgium and France, potential GDP growth is projected to be slightly above 1% in 2034. In contrast, the United States is expected to maintain its growth advantage, with real GDP increasing by 2.8% in 2024 and softening to potential, or 1.8%, by 2034. In addition, GDP deflator growth is expected to linearly converge towards professional forecasters' expectations of inflation for 2034. Interestingly, Japan recorded the highest inflation rate of the group in 2024 (2.9%), which is expected to gradually decline to 1.8% by 2034. The inflation surge that started in 2022 marked a significant departure from the past as Japan had experienced decades of very low or slightly negative inflation, which motivated very low policy rates. In the euro area countries, inflation was around 2% in 2024 and is expected to stay around this level in the longer term. Inflation in the United States was slightly higher, at 2.5%, in 2024 and is expected to remain relatively sticky until 2034.

On the fiscal front, the primary balance (expressed as a percentage of GDP) is assumed to remain constant at its 2030 forecast value, except for a rise in ageing-related spending which we incorporate, resulting in a slight deterioration.¹⁰ Italy stands out as the only country in the group to have a primary surplus which is set to improve from 0.4% of GDP in 2024 to 1.4% by 2034. In contrast, Belgium and Japan are projected to see a further deterioration in their primary deficit, from 2.1% of GDP and 0% of GDP, respectively, in 2024 to 3.7% and 1.8% in 2034. Meanwhile, France and the United States posted the largest primary deficits in 2024 – in excess of 3% of GDP, but these are projected to narrow somewhat to 2.9% and 3.4%, respectively, by 2034.

Interest rates on new and rolled-over debt equal country-specific market-based nominal forward rates for the period 2025–2034. In addition, the implicit interest rates on outstanding government debt are derived endogenously using the formulas set out in the EC's 2024 Debt Sustainability Monitor (EC, 2025). These are based on the above assumptions on market interest rates, the maturity structure of government debt, and projected financing needs. Ten-year bond yields are expected to increase most sharply in Japan – rising about 250 basis points from their relatively low levels in 2024 – to 3.5% by 2034. In Belgium and France, ten-year yields are expected to rise by about 190 basis points to around 4.9% by 2034. In Italy and the United States, long-term interest rates were already more elevated, at 3.7% and 4.2%, respectively, in 2024 and are projected to climb further, to 5.1% and 5.5%, by 2034. As a result, interest payments (expressed as a percentage of GDP) are projected to rise significantly across countries over the period 2024–2034. In Japan they are set to roughly triple, reaching 5.2% of GDP by 2034. and in France and Belgium, they are projected to more than double, reaching around 5% of GDP by 2034. The United States is expected to record the highest interest burden, with spending increasing

⁹ For more information, see FPB (2025).

¹⁰ For Belgium, estimates of ageing-related costs are obtained from the 2025 Report of the Study Committee on Ageing, whose outlook includes the impact of the pension reforms recently agreed by the government. For France and Italy, projected ageing-related costs are taken from the EC's 2024 Ageing Report; OECD projections are used for the United States and Japan (see Guillemette and Château, 2023).

by 2.9 percentage points to 6.9% of GDP. Italy, meanwhile, is projected to see the smallest increase in interest payments (1.6 percentage points) to 5.5% of GDP. Interestingly, while interest payments (expressed as a percentage of GDP) were at or close to record lows in 2024 in most countries, this was not the case in the United States.

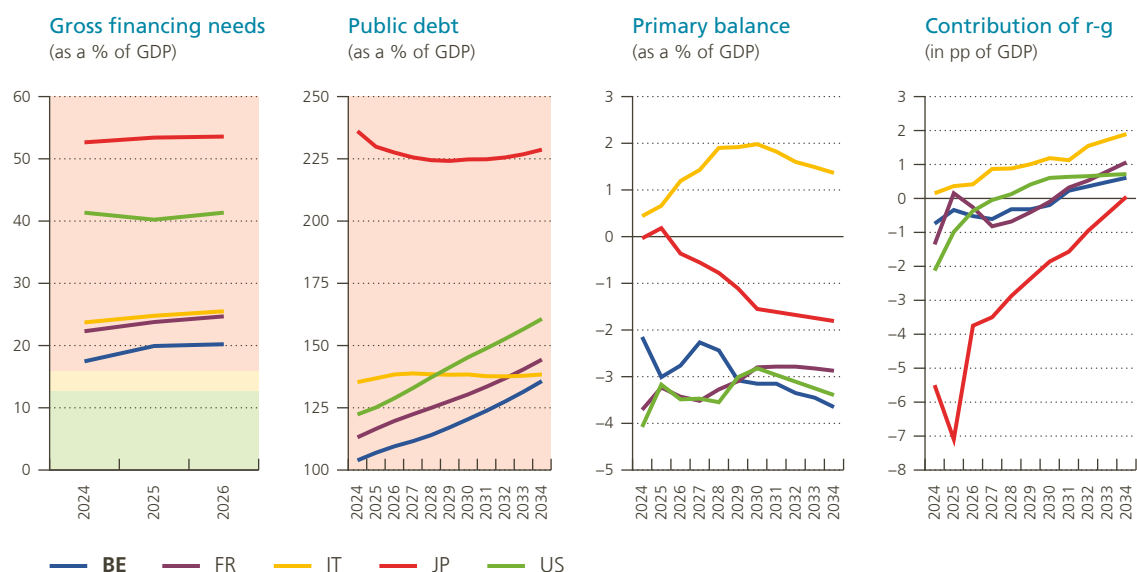
The resulting debt trajectory represents the baseline scenario. It reflects our best guess as to where the debt ratio is heading at unchanged policy. As mentioned above, the reliability of the predicted debt path – and thus of the resulting sustainability assessment – directly depends on the accuracy of the underlying forecasts for the primary balance, interest rates, GDP growth, etc.¹¹

Figure 2 illustrates that debt sustainability risks, implied by gross financing needs, the debt level and debt dynamics as projected under a baseline scenario, are high in all five countries. In other words, this exercise clearly justifies our selection of countries for this article.

In the near term, gross financing needs – an important predictor of short-term fiscal sustainability risks – are expected to remain elevated, ranging from 20% of GDP in Belgium to 40% in the United States and over 50% in Japan. These levels thus generally exceed the critical threshold of 16% of GDP as set by the EC – this threshold applies specifically to EU countries – and of 20% of GDP by the IMF, indicating high liquidity vulnerabilities in all countries. The sizeable gross financing needs primarily reflect large amounts of maturing debt. The United States and Japan, in particular, appear heavily dependent on the financial markets' willingness to roll over their existing debt at favourable terms.

Figure 2

The debt ratio is set to rise fastest in the United States, followed by Belgium and France due to their high primary deficit; short-term financing needs are highest in Japan and the United States



Sources: Consensus Economics, FPB, IMF, Refinitiv, OECD, SCA.

Note: According to the EC methodology (EC, 2024), gross financing needs above 16% of GDP signal high short-term risks (the red area), between 16% and 13% of GDP indicate moderate risks (the yellow area) and below 13% of GDP low risks (the green area). Similarly, a debt-to GDP ratio above 90% at the end of the projection horizon signals high medium-term risks (the red area on the graph), between 90% and 60% moderate risks (the yellow area) and below 60% low risks (the green area). Note that the EC thresholds used in this article are designed for EU countries and are applied here to the United States and Japan for illustrative purposes only.

¹¹ Note that the IMF's sovereign risk and debt sustainability framework includes several tools to assess the realism of the baseline projections for the key drivers of public debt and flag various optimism or pessimism problems therein (see IMF, 2022).

In addition, longer-term solvency risks are also high in all selected countries. The debt level, already high in 2024 in all countries, will remain high at the end of the projection horizon, exceeding the EC's upper threshold of 90% of GDP. Concretely, under the baseline scenario, the debt-to-GDP ratio amounts to 229% by 2034 for Japan, to 161% for the United States, to 144% for France, and to around 137% for Belgium and Italy.

Debt dynamics across the selected countries are set to diverge, however. The strongly upward debt dynamics in the United States, Belgium and France are worrisome. The debt ratio is expected to rise most strongly in the United States. In all three countries, large persistent primary deficits are the dominant driver behind the debt increase. The contribution of the interest rate-growth differential to the debt dynamics remains initially favourable in the three countries but it is projected to turn positive as of 2028 in the United States and from 2031 onwards in France and Belgium. The snowball effect that automatically pushes up the debt ratio thus starts kicking in. In Italy, the debt ratio is projected to rise modestly by three percentage points of GDP by 2034. Like in the past, the country needs to record large primary surpluses to offset the unfavourable interest-growth differential, which primarily reflects chronically low economic growth.

Japan is the only country projected to end the projection horizon with a lower debt ratio than it began with. However, the debt level is set to remain very high and, after an initial decline, it is likely to resume its upward path. The initial debt reduction is driven by an extremely favourable interest rate-growth differential, which is projected to disappear by the end of the projection horizon. Persistent primary deficits push up the debt ratio. It should be stressed that Japan's interest rate and macroeconomic outlook are currently surrounded by very high uncertainty as the economy is experiencing a big shift in inflation, which may or may not be structural.

1.3 A comprehensive framework covering risks on multiple horizons and across different dimensions

The previous section illustrated that, based on three key fiscal indicators, namely gross financing needs, the debt level, and debt dynamics, debt sustainability risks are assessed as high in all selected countries. A typical DSA, as conducted by the EC and the IMF, is much richer though and includes as much relevant information as possible to account for the many uncertainties inherent in a sustainability analysis. It also reflects the fact that debt sustainability risks stem not only from fiscal sources. Therefore, it is important to monitor the broader health of the economy in order to be able to identify timely warning signals. Interactions are also important. The probability of a debt crisis rises steeply when the economy shows multiple vulnerabilities (see, for example, Badia *et al.*, 2022).

A comprehensive debt sustainability analysis typically structures all relevant indicators into different building blocks, assessing risks across different time horizons. The main dimensions of the DSA frameworks commonly used by the EC and the IMF for surveillance and lending operations are summarised below.¹²

- **Short-term risks:** Several fiscal, financial and competitiveness indicators are used to detect fiscal stress over a one- to two-year horizon. Fiscal variables, including gross financing needs, have proven to be good predictors of emerging fiscal stress, but so have other indicators.
- **Medium-term risks:** A baseline simulation of the government debt ratio over a five- to ten-year horizon is key to assessing risks arising from the evolution of indebtedness in the medium term. However, as the baseline scenario is sensitive to the assumptions used, it is usually complemented by several alternative scenarios which test the sensitivity of the debt path to a change in assumptions and/or adverse shocks.

¹² For the detailed methodology, see the Debt Sustainability Monitor (EC, 2025) and the IMF's Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for Market Access Countries (IMF, 2022). The IMF publishes the results of country-specific debt sustainability analyses in an appendix to its country-specific Article IV consultations.

The assessment is further enriched by a stochastic analysis which simulates debt trajectories resulting from a broad range of shocks to the drivers of debt dynamics. The shocks are calibrated based on the historic volatility of the debt drivers and the correlation between them. Stochastic analysis thus allows for a broader assessment of the uncertainty surrounding the baseline debt scenario, based on past experience.

- **Long-term risks:** The impact of longer-term spending pressures, such as the projected rise in ageing costs, on the debt ratio are identified.
- **Additional risk mitigating or aggravating factors:** Other informative indicators – including for instance the structure of government debt, contingent liabilities and government assets – are monitored to ensure a balanced and comprehensive assessment of risks to fiscal sustainability.

The remainder of this article reviews the risks to debt sustainability across these four dimensions for the five selected countries. In our analysis, we combine those elements of the EC and IMF methodologies we consider most relevant to assess the risks to debt sustainability. These risks are labelled low, moderate or high. We do not signal whether government debt is sustainable or not, as this is impossible to determine *ex ante*.

2. Short-term risks to debt sustainability

In addition to the fiscal indicators mentioned above, other short-term indicators have been found to be important predictors of fiscal stress. One of the lessons learned from the global financial crisis is that macro-financial imbalances can easily turn into fiscal imbalances and that the latter often adversely affect economic conditions and financial stability. These interconnections are incorporated in the early-warning system for fiscal stress. In the following sections, we look at the markets' perception of sovereign risk and some key macro-financial variables. In the last section, we combine the risk signals from fiscal, macro-financial and competitiveness variables into a composite indicator of fiscal stress using the methodology of the EC, developed for EU countries. We apply this methodology, for illustrative purposes, to the US and Japan as well.

2.1 Financial markets' perception of sovereign risk

Recent developments in sovereign financing conditions are a source of valuable information for monitoring short-term debt dynamics. Sovereign yields indicate the cost of refinancing new and maturing debt, with high yields adding to the debt burden. Yields reflect the monetary policy stance, on the one hand, and a risk premium determined by the financial markets' assessment of sovereign risk, on the other. Looking at the evolution of ten-year sovereign bond yields over the last ten years, we note that sovereign yields increased sharply over the period 2022-2023 in all countries considered, as monetary policy normalised. This was followed by some easing in 2024 and 2025 from the peak reached in October 2023, especially in the euro area (Figure 3, middle graph). Despite this recent easing, yields remain high in both the euro area and the US compared to the past decade, thereby putting pressure on public finances. French and Italian sovereign spreads have narrowed recently, reflecting opposing trends in the budgetary situation of these two countries which led to a diverging assessment of sovereign risk. In Japan, sovereign yields have risen more gradually yet continuously, particularly since July 2023. At that time, the Bank of Japan began loosening its strict yield curve control policy, which it fully abandoned by March 2024 (see Section 5.2 for more information).

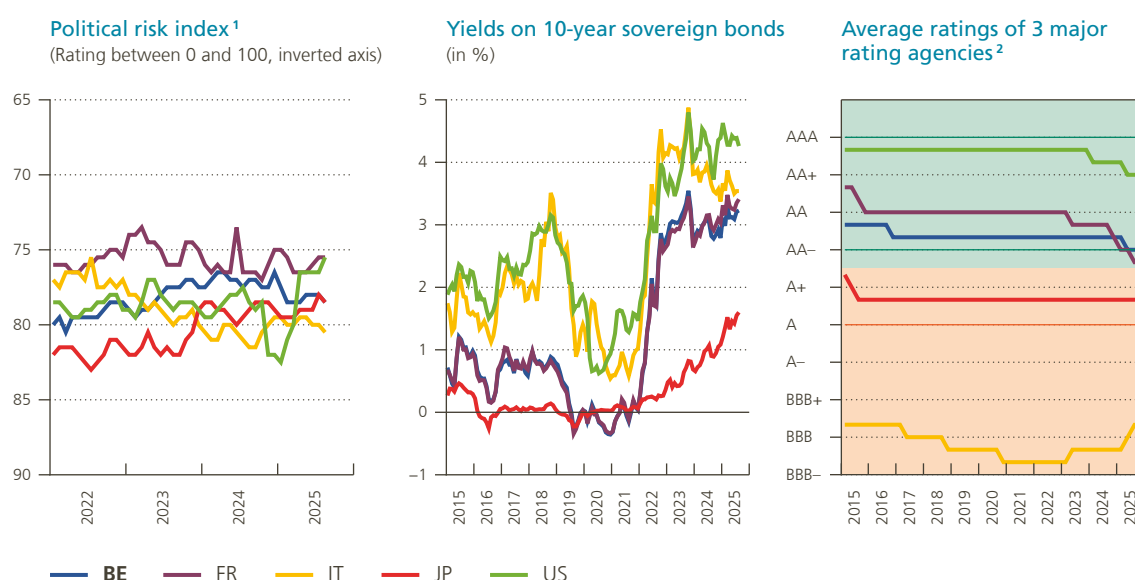
Political events such as government collapses, snap elections and policies undermining institutional quality have recently captured the headlines in France, the US and Japan. Political instability makes it harder to conduct sound fiscal policy as it is more difficult to reach a consensus on the need for fiscal rectitude. Moreover, politicians tend to refrain from adopting unpopular consolidation measures for fear of being punished at the polls.

The intensification of political risk¹³ is found to have had a significant effect on both ten-year sovereign bond yields and debt trajectories (Ajovalasit *et al.*, 2025).

Renewed debt sustainability concerns are reflected in recent changes in the average sovereign ratings assigned by the three main rating agencies (Moody's, Standard & Poor's and Fitch). After a relatively long period of stability, the sovereign ratings of France, the US and Belgium were downgraded recently by at least one agency, but remain favourable. The sovereign ratings for Belgium, France and the US are still in the green zone (Figure 3, right-hand graph), which indicates that rating agencies consider the risk of default by these countries to be low. By contrast, two agencies raised Italy's sovereign debt rating in 2025 due to improving public finances and political stability, albeit from a lower level of creditworthiness (at the bottom of the yellow range) which reflects the country's longstanding structural weaknesses and low growth performance.

Figure 3

Rise in sovereign yields and deterioration of market perceptions



Sources: Haver Analytics, PRS Group, S&P, Fitch, Moody's.

1 A lower value of the index corresponds to a higher political risk perception.

2 Calculated as a simple average, using an alphanumerical conversion table, of ratings assigned by the three largest agencies.

2.2 The current account and the net international investment position

External imbalances in key indicators, such as the current account and the net international investment position, have been found to be important determinant of fiscal crises. The current account balance indicates whether a country generates sufficient external revenue (from exports and labour and capital income earned abroad by residents) to meet its external obligations (in the form of imports and transfers to non-residents). In the case of a current account deficit, a country must use its foreign reserves or resort to borrowing from the rest of

¹³ A proxy for political risk is provided by the International Country Risk Guide (ICRG) ratings, developed on a monthly basis by the PRS group. The ratings cover twelve political risk factors: government stability, socioeconomic conditions, investment profile, internal and external conflict, corruption, military in politics, religious and ethnic tensions, law and order, democratic accountability and bureaucracy quality.

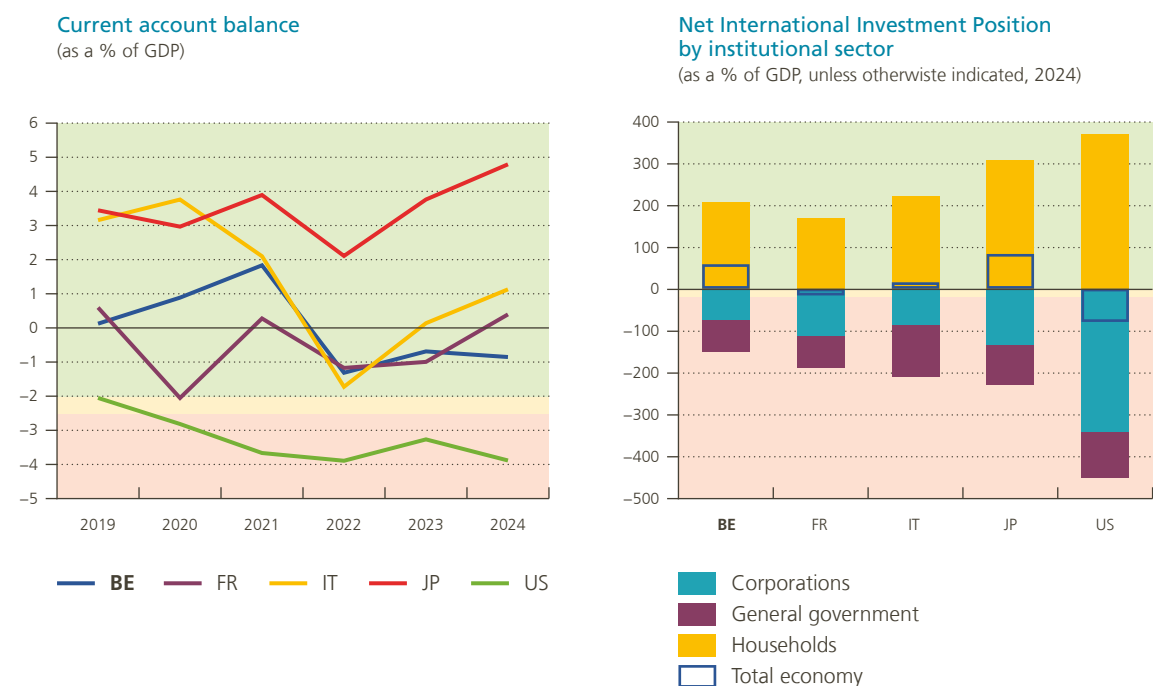
the world. Foreign borrowing can help a country to finance productive investment. However, it also renders the country vulnerable to a sudden stop in cross-border capital flows during a crisis.

Of the five countries considered, only the US has run a current account deficit in excess of the critical threshold of 3% of GDP over the last five years. In fact, the US has been running a persistently high current account deficit¹⁴ since the turn of the century, which can be attributed in part to its expansionary fiscal stance over this period (IMF, 2025b). This phenomenon is often referred to as the “twin deficits”. However, the status of the US dollar as the dominant international currency has thus far helped to ease the country’s external financing constraint (see Box).

A country’s net international investment position (NIIP) is determined by the sum of its past current account balances. More specifically, a current account deficit corresponds to a savings shortfall that is financed by international borrowing (= foreign liabilities), whereas a current account surplus reflects excess savings which are invested abroad (= foreign claims or assets). The net position represents either a net claim on (positive NIIP) or a net liability to (negative NIIP) the rest of the world. The change in the NIIP can also be explained by valuation effects impacting the underlying claims and liabilities (Boonstra, 2008). It is important in this regard to point out the emergence in recent decades of large cross-border investment flows, far in excess of trade flows which have magnified the outstanding stocks of gross external assets and liabilities in nearly every country and imply a larger role for valuation effects.

Figure 4

Belgium has a relatively limited current account deficit and a strong NIIP



Sources: IMF, OECD.

14 The US current account deficit reached 5%-6% of GDP between 2004 and 2007, in the run-up to the global financial crisis in which global imbalances played a central role.

Due to the accumulation of past current account surpluses, both Belgium and Japan have a positive NIIP, which serves as a buffer against a sudden loss of confidence by foreign investors in domestic assets. Indeed, in Belgium and Japan, households are (theoretically) capable of refinancing sovereign debt during an episode of capital flight. Evidence to support this view came to light during the European sovereign debt crisis of 2011 and 2012, when Belgian households increased their holdings of sovereign debt, at a time when foreign investors' appetite decreased.

By contrast, the US has a negative NIIP which in part reflects the accumulation of past current account deficits and, more recently, unfavourable valuation effects. As explained in the Box, the US NIIP has traditionally benefited from sizable returns on US gross external assets (mainly FDI and equities) in excess of returns on liabilities, consisting mainly of US Treasuries held by non-residents. This helped counterbalance the deterioration of the NIIP caused by its current account deficit. Over the past decade, however, these dynamics have changed, resulting in a sharp worsening of the US NIIP. Large capital inflows, mainly from private investors, have gone into the purchase of US stocks instead of Treasuries. With US stock markets largely outperforming their peers, these excess returns diminished. Another unfavourable valuation effect is due to the broad-based appreciation of the US dollar over the past decade ending in early 2025, which has led to a decline in the value of US external assets, mostly denominated in foreign currencies, while there has been no change in the value of dollar-denominated US external liabilities.

BOX 1

The “exorbitant privilege” of the US: are clouds gathering on the horizon?

The dominant status of the US dollar in the international monetary system grants the US an “exorbitant privilege”¹, or the ability to borrow at a lower cost (Rogoff, 2025). This dominant status stems in part from the perception of US Treasuries as among the safest and most liquid assets in the world, meaning they can be traded quickly and at very low transaction costs. US Treasuries, particularly Treasury bills, are also widely used as collateral on the worldwide financial markets. Their attractiveness to investors is boosted by the US's large, deep market, economic stability, robust institutions and strong military power, as well as the US dollar's role as the preferred reserve currency on the international financial markets. In addition to safety and liquidity, US Treasuries offer collateral properties that are valued by investors, which are willing to accept below market rates on this type of debt instrument. Economists use the term “convenience yield” to refer to the return investors are willing to give up in exchange for the convenience of holding US Treasuries.

A related benefit is that the US can pursue countercyclical fiscal policies during a global recession without the risk of triggering short-term outflows. Looking at the evolution over time (Figure, left-hand graph), we see that, historically, one measure of the convenience yield² rose, implying a more negative spread

1 Valéry Giscard d'Estaing (French finance minister under President Charles De Gaulle) coined the term “exorbitant privilege” in 1965 to refer to the situation whereby the American sovereign could borrow at below-market rates.

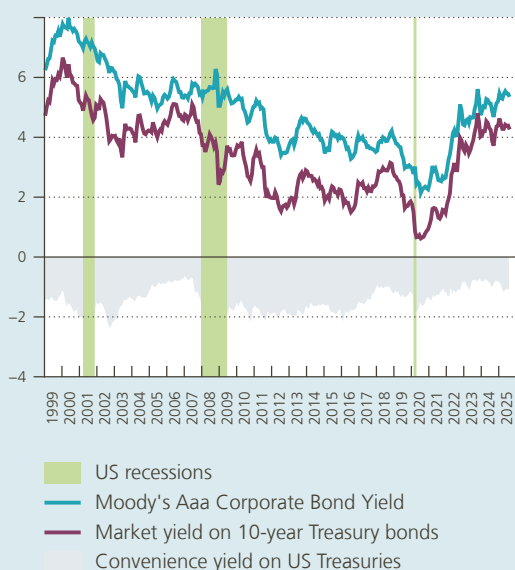
2 Following Szoke *et al.* (2024), we use a proxy for the convenience yield of Treasury securities measured as the spread between Aaa corporate bond yields and the yield on 10-year Treasury bonds.



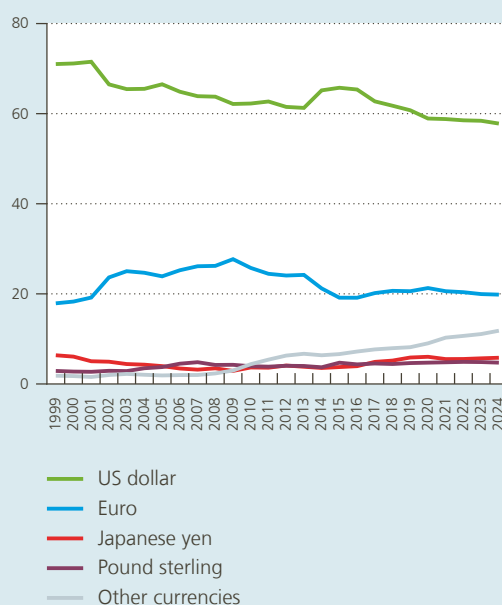
during global risk-off episodes such as the global financial crisis and the Covid-19 pandemic. This trend reflects investors' flight to safe assets during global crises, enabling the US Treasury to borrow at very low rates on the international markets.

The dominance of the dollar has contributed to the sustainability of US debt, but clouds are gathering

Convenience yield on US Treasuries
(Spread between Aaa corporate bond yields and 10-year Treasury yield, %)



The US dollar is the dominant reserve currency
(currency shares)



Source: IMF COFER, Federal Reserve Bank of Saint Louis (FRED).

The willingness of non-residents to hold large quantities of US Treasuries allows the US government to run a deep and persistent fiscal deficit without facing the same pressures as other countries in the same position. A recent model by Choi *et al.* (2024) estimates that this privilege increases the maximum sustainable debt by approximately 22% of GDP, mostly due to the ability to borrow at lower rates than other countries in similar circumstances. In addition, the US also derives minor benefits from its status as the world's supplier of the international reserve currency, as foreign entities' dollar holdings generate seigniorage revenue for the US government.

But the notion of "exorbitant privilege" goes even further: the revenue raised from the sale of US Treasuries on the international financial markets can be reinvested in risky foreign assets (FDI, equities) with higher returns (than government bonds) over the long term. As noted by Gourinchas and Rey (2022), the US enjoys a sizeable return on its gross external assets in excess of the return on its liabilities, which makes it possible for the country to run a large current account deficit without a significant worsening of its net international investment position or the loss of market confidence. This results in a much looser external borrowing constraint.



The question of whether the US dollar will remain the dominant international currency is again being raised. One cause for concern is the observed secular decline in the convenience yield on US Treasuries since the turn of the century, attributable to the persistently expansionary US fiscal stance over this period, which pushed the public debt ratio from 53% of GDP in 2001 to 121% in 2024. The resulting increase in the supply of Treasuries has been found to depress the convenience yield, especially for more sensitive long-term Treasuries (Jiang *et al.*, 2025a)³. The recently adopted One Big Beautiful Bill Act (OBBBA), which provides for the frontloading of expansionary fiscal policy followed by consolidation only after the end of President Trump's term, suggests that the US federal government is not yet ready to exercise greater fiscal prudence.

There is also evidence that the convenience yield on US Treasuries of all maturities was hit by President Trump's tariff announcement on 2 April 2025 (Jiang *et al.*, 2025b). Contrary to past experience with risk-off episodes, this announcement triggered a sell-off of US Treasuries, as foreign investors reassessed the safety of US Treasuries and the dollar, leading to higher interest rates and a broad-based depreciation of the dollar. The uncertainty affecting US assets has subsequently faded somewhat, but the dollar remains considerably weaker than at the start of the year as the unpredictability of US policies is keeping investors on their toes. There are, moreover, indications that institutions long regarded as stable are being undermined. However, even if investors would like to diversify away from the dollar, history teaches us that shifts in the use of international currencies proceed very slowly, as suitable alternatives are not readily available.

Another cause for concern is the dollar's slowly declining share in total foreign reserve holdings over the past two decades (Figure right-hand graph). By the last quarter of 2024, this share had fallen below 58%, from around 71% at the turn of the century. According to Arslanalp *et al.* (2022), this decline reflects active portfolio diversification by central bank reserve managers mainly to the benefit of non-traditional currencies (e.g. the Australian and Canadian dollars, the South Korean won) and the Chinese renminbi. However, the negative impact on official demand for US dollars was more than offset by the unprecedented, rapid accumulation of reserves by a number of mainly Asian central banks⁴ from \$2.5 trn in 2002 to \$11.5 trn 2014. When global reserves stabilised at a high level after 2014, total dollar holdings started to decline very gradually. The US dollar nevertheless remains the world's most important reserve currency.

3 The authors used two alternative measurements of the convenience yield: the spread between Treasury yields and maturity-matched swap rates and the Treasury basis, which measures the relative convenience yield on US Treasuries compared to hedged foreign government bonds with the same maturity.

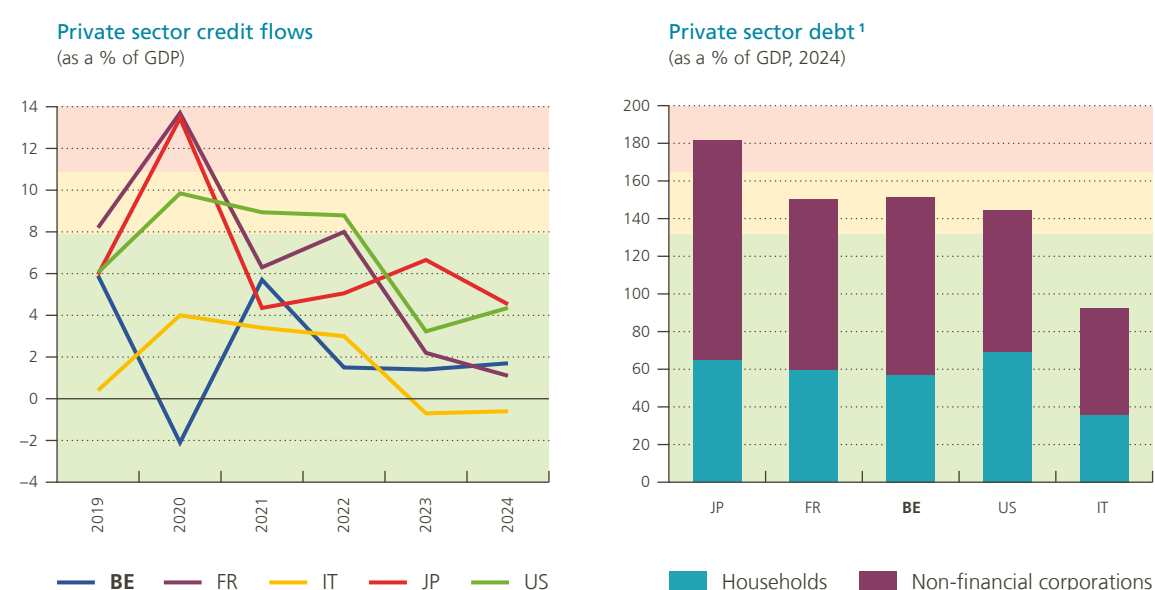
4 The main drivers were China's large current account surpluses and the build-up of large foreign currency reserves as a hedge against future crises by the Asian countries that were hit hard during the 1997 Asian financial crisis. This effect more than offset the impact of the diversification strategy of reserve managers on demand for the US dollar.

2.3 Private sector credit flows and debt

Large domestic imbalances can also lead to heightened fiscal pressures. In their empirical analysis of leading indicators of fiscal crises¹⁵, based on a large sample of countries at various stages of economic development, Cerovic et al. (2018) observed that a fiscal crisis is often preceded by a period of above-average private credit flows to the non-financial sector. Indeed, a debt crisis in the private sector may end up on the balance sheet of the government, either directly via a public bailout or indirectly through the ensuing recession, as private sector deleveraging weighs on economic activity. There are currently no signs of excessive private credit flows in any of the five countries in our sample. On the contrary, credit growth has recently slowed in all of these countries.

Figure 5

Private credit flows are not alarming, but debt levels remain high



Sources: HEurostat, OECD.

1 The high corporate debt in BE stems in part from intragroup loans which can be proxied by the sum of loans extended to domestic NFCs by captive money lenders and foreign non-MFI entities (32 % of GDP in 2025Q2).

Private sector debt¹⁶ ratios are elevated in the countries under consideration except for Italy. In Belgium, the US and Japan, the high private sector debt ratio reflects the slow pace of debt reduction after a period of rapid debt accumulation during the credit boom. More specifically, Belgium and the US both experienced very strong private sector credit growth in the run-up to the global financial crisis, as did Japan during its asset and housing bubble of the late 1980s. In France, non-financial corporations were increasingly turning to the international bond markets for financing until the outbreak of the pandemic, leading to a gradual increase in their debt levels. High debt levels, particularly when combined with high shares of short-term debt, make household and corporate balance sheets more vulnerable to a sudden tightening of financing conditions. In a more extreme scenario, private debt defaults may trigger a banking crisis, which in turn can spill over into a fiscal crisis.

¹⁵ Fiscal crisis episodes are broadly defined and include sovereign debt defaults, recourse to large-scale IMF financial support, implicit domestic public support (e.g. through high inflation rates) and loss of market confidence in the sovereign.

¹⁶ The statistics are not entirely comparable between the five countries considered here, as the debt levels are expressed on a consolidated basis for the euro area countries and on a non-consolidated basis for the US and Japan. The difference between the two concepts is most relevant for small open economies.

While the highest private sector debt levels are registered in Japan, it is worth noting that Japanese corporations have the lowest share of short-term borrowings (see the heatmap in the next section).

2.4 A composite indicator of fiscal stress

To summarise the signals sent by the various indicators discussed above, we follow the methodology used for the EC's early warning index (S0) which is based on a set of 25 variables (see Table 1 below), some of which are common to the EC's scoreboard for the surveillance of macroeconomic imbalances. The set includes 12 fiscal and 13 financial-competitiveness variables that have proven to be good predictors of fiscal stress in the EU. Within each category, the variables are ranked in descending order of their signalling power. For each variable, a critical threshold is determined to minimise the sum of two misclassification errors, balancing false positive signals (predicting fiscal stress when none occurs) and false negative signals (failing to predict fiscal stress when it occurs), using historical data for EU countries. The threshold thus obtained is also applied to the US and Japan. Variables in bold have been discussed in previous sections of this article.

Table 1

Variables used to analyse short-term debt sustainability risks

	BE	FR	IT	JP	US
Gross financing needs, % GDP	19.9	23.8	24.8	53.4	40.2
Cyclically-adjusted government balance, % GDP	-5.1	-5.3	-3.2	-1.7	-4.6
Net debt, % GDP	91.1	104.9	125.1	133.9	97.4
Short-term government debt, % GDP	8.0	8.6	12.5	10.4	19.8
Primary government balance, % GDP	-3.0	-3.2	0.7	0.2	-3.2
Gross debt, % GDP	106.9	116.5	136.8	229.9	125.1
Change in gross debt, % GDP	3.1	3.4	1.5	-6.2	2.8
Change in government expenditure, % GDP	1.2	0.1	0.1	-0.5	-0.1
Stabilising primary balance, % GDP	-0.7	0.2	2.2	-3.5	-0.3
Interest rate-growth differential	-0.3	0.1	0.3	-3.1	-0.8
Headline government balance, % GDP	-5.3	-5.5	-3.3	-1.6	-4.6
Change in government consumption expenditure, % GDP	0.5	-0.0	0.2	-0.0	-0.0
Fiscal index	0.6	0.6	0.6	0.7	0.7
Yield curve	1.1	1.3	1.5	0.6	0.3
Private sector credit flow, % GDP (t-1)	1.7	1.1	-0.6	4.5	4.4
Current account, 3-year backward MA, % GDP (t-1)	-0.9	-0.8	-0.2	3.5	-3.7
Net savings of households, % GDP (t-1)	4.3	6.7	2.4	0.5	3.5
Net international investment position, % GDP (t-1)	60.0	-22.9	14.6	86.9	-79.1
GDP per capita in PPP, % of US level	85.4	74.6	71.1	61.2	100.0
Construction, % value added (t-1)	5.4	5.6	5.9	5.0	4.5
Short-term HH debt, % GDP (t-1)	1.5	1.1	1.9	9.2	21.1
Short-term NFC debt, % GDP (t-1)	36.6	46.2	12.2	1.5	21.4
Private sector debt, % GDP (t-1)	151.1	151.2	92.0	183.8	144.2
Change (3 years) in nominal ULC (t-1)	15.4	12.0	9.6	4.6	8.9
Change (3 years) of REER based on export deflator, 37 countries	2.4	-0.8	-5.6	-29.6	0.7
Real GDP growth	1.1	1.1	0.7	0.1	2.8
Financial-competitiveness index	0.2	0.3	0.4	0.3	0.5
Overall S0 index	0.4	0.4	0.4	0.4	0.6

Sources: BIS, EC, Eurostat, IMF, Japanese Cabinet Office, Japanese Ministry of Finance, OECD, NBB, own calculations, US BEA.¹

The composite early warning indicator combining these 25 variables predicts short-term fiscal stress substantially better than each of the variables taken in isolation. The indicator is calculated for each country as the weighted proportion of variables that have reached or exceeded their critical threshold, with weights assigned based on their signalling power. If the value of the composite indicator exceeds the critical threshold, there is a potential risk of fiscal stress in the short run. According to the indicator, short-term debt sustainability risks are relatively low in Belgium and somewhat higher in France, Italy and Japan. Risks appear more worrisome in the US. However, the final assessment is based on a combination of the mechanical signal and other qualitative and country-specific factors, which will be discussed in more detail in the final section of this article. With regard to the US, as noted above, the special status of its currency in the international monetary system acts as a strong risk-moderating factor.

3. Medium-term risks derived from debt projections

Medium-term risks to debt sustainability are generally informed by future debt projections. The baseline scenario (described in Section 1.2) reflects the most likely future debt trajectory. As with any forward-looking exercise, it is subject to uncertainty. To take this uncertainty into account, a DSA typically also includes (i) narrative scenarios around the baseline and (ii) a stochastic analysis.

3.1 Narrative shocks and stochastic analysis around the baseline scenario

In general, narrative scenarios aim to gauge the sensitivity of debt drivers (i.e. interest rates, economic growth and fiscal policy) to adverse shocks. The primary concern is, after all, that the debt path could be significantly more concerning than envisaged in the baseline scenario. Often, a narrative scenario considers a worse-than-expected scenario for a single determinant of the debt dynamics in isolation, leaving the projections for all other variables unchanged. In principle, well-designed stress tests should help identify reasonable limits for adverse debt trajectories. As is the case for the baseline scenario, the alternative scenarios provide insight into (i) the debt level at the end of the projection horizon, (ii) the debt dynamics (e.g. the possibility of debt stabilisation over the period) and (iii) the fiscal effort required to bring debt back to a certain level.

Our analysis considers three stylised yet transparent narrative shocks to the baseline debt scenario. While these simulations are mechanically constructed and do not account for interactions between different debt drivers, they nonetheless allow for a clear “what if” analysis, thereby enriching the medium-term assessment of sustainability risks. In addition to two adverse shocks, we also introduce a debt stabilisation scenario.

- **Interest rate shock scenario:** Compared to the baseline, short- and long-term market-based interest rates (on new and rolled-over debt) rise permanently by 100 basis points as of 2026. Consequently, the ten-year rate on government bonds is assumed to rise to 4.5% by 2034 in Japan, to around 6% in Belgium, France and Italy, and to 6.5% in the United States. This scenario reflects a deterioration in market confidence, resulting in a rise in interest rate risk premia.
- **Defence spending shock scenario:** Building on the assumptions embedded in the baseline, this scenario captures the additional government expenditure required to gradually meet NATO’s revised spending target of 3.5% of GDP by 2035. In June 2025, NATO members reached an agreement to allocate 5% of their GDP to defence by 2035, with a minimum of 3.5% of GDP earmarked for core defence activities.¹⁷ In Belgium, defence spending stood at 1.3% of GDP in 2024, but the baseline projection already incorporates the FPB’s assumption that this will rise to 2% in 2025, in line with the commitment made by the government.

¹⁷ As Japan is not a member of NATO, the target does not apply to it, but we include the scenario for illustrative purposes. Japan is currently expected to increase its defence spending to 2% of GDP by 2027, with no further legislative increases beyond that horizon.

For comparison, defence spending in the United States amounted to 3.3% of GDP in 2024, but is projected to decline to 2.8% by 2034.¹⁸ Defence spending in Japan, Italy and France stood at 1.4%, 1.5% and 2%, respectively, in 2024.¹⁹

- **Debt stabilisation scenario:** In 2025, the debt-to GDP-ratio stabilises at its 2024 level. In this scenario, the selected countries adhere to a simple generic fiscal rule which requires that the debt be stabilised. It considers the fiscal effort needed (in terms of adjustments to the primary balance) to keep the debt ratio on a sustainable – meaning non-increasing – path, conform the IMF definition of sustainability (see Section 1.1).

Unlike the deterministic narrative projections discussed above, which produce a single debt path based on a specific scenario, stochastic projections generate a range of possible debt paths. Under the IMF's methodology,²⁰ shocks are derived as historical deviations of debt drivers relative to their mean. The shocks are then drawn randomly and assigned to the relevant debt drivers in the projection years. Applying the debt dynamics equation and repeating the process, a multitude of debt trajectories are constructed. The resulting debt distribution can be summarised in a fan chart, which illustrates the range of outcomes around the baseline debt projection. A stochastic analysis thus offers a more comprehensive perspective on uncertainty – as implied by past outcomes – around the baseline. In addition, it can illustrate the balance of risks around the baseline debt scenario and the probability of debt stabilisation over time.

For the stochastic analysis, we use the IMF's debt distributions for the next five years. These are published in an annex to the country-specific IMF Article IV consultations, in a section entitled "Sovereign risk and debt sustainability analysis".

3.2 Results

Figure 6 brings together the deterministic scenarios and the stochastic analysis. The fan chart captures 90% of the simulated debt trajectories obtained via the stochastic analysis. In other words, assuming future economic shocks mirror historical patterns, there is a 90% probability that a country's debt path will remain within this interval.

The stochastic analysis yields five main findings. First, based on historical patterns, the baseline debt path appears realistic for four out of the five countries examined. In the IMF methodology, a preliminary historical fan chart – reflecting only past developments – serves as a realism check for the baseline debt scenario.²¹ Put simply, if the baseline debt path is situated within the central range of the debt distribution, the preliminary distribution of debt paths is centred around the baseline. Japan is the notable exception: its baseline debt path lies well below the median of the simulated debt paths, indicating that the baseline is very optimistic relative to past outcomes. Second, the degree of uncertainty – as measured by the width of the fan chart – is highest for Japan and the United States, indicating elevated fiscal risk. Third, for all countries, but especially Italy and the United States, upside risks – defined as the difference between the 95th and 50th percentiles of the distribution – are more pronounced than downside risks – defined as the difference between the 50th and 5th percentiles of the distribution. This underscores the fact that risks are on the upside. Fourth, based on historical outcomes, the likelihood of debt stabilisation (depicted by the green line in Figure 6) appears lowest for France, the United States and Belgium. Finally, compared to narrative shock scenarios, the stochastic analysis is clearly more comprehensive when it comes to assessing uncertainty around the baseline debt path. Not only

18 The estimate combines projections from the Congressional Budget Office (CBO, 2025) with the additional defence spending put forth in the One Big Beautiful Bill Act.

19 For Japan, the data are retrieved from the SIPRI (Stockholm International Peace Research Institute) Military Expenditure Database; for the other countries, 2024 data are from NATO.

20 For more information, see IMF (2022).

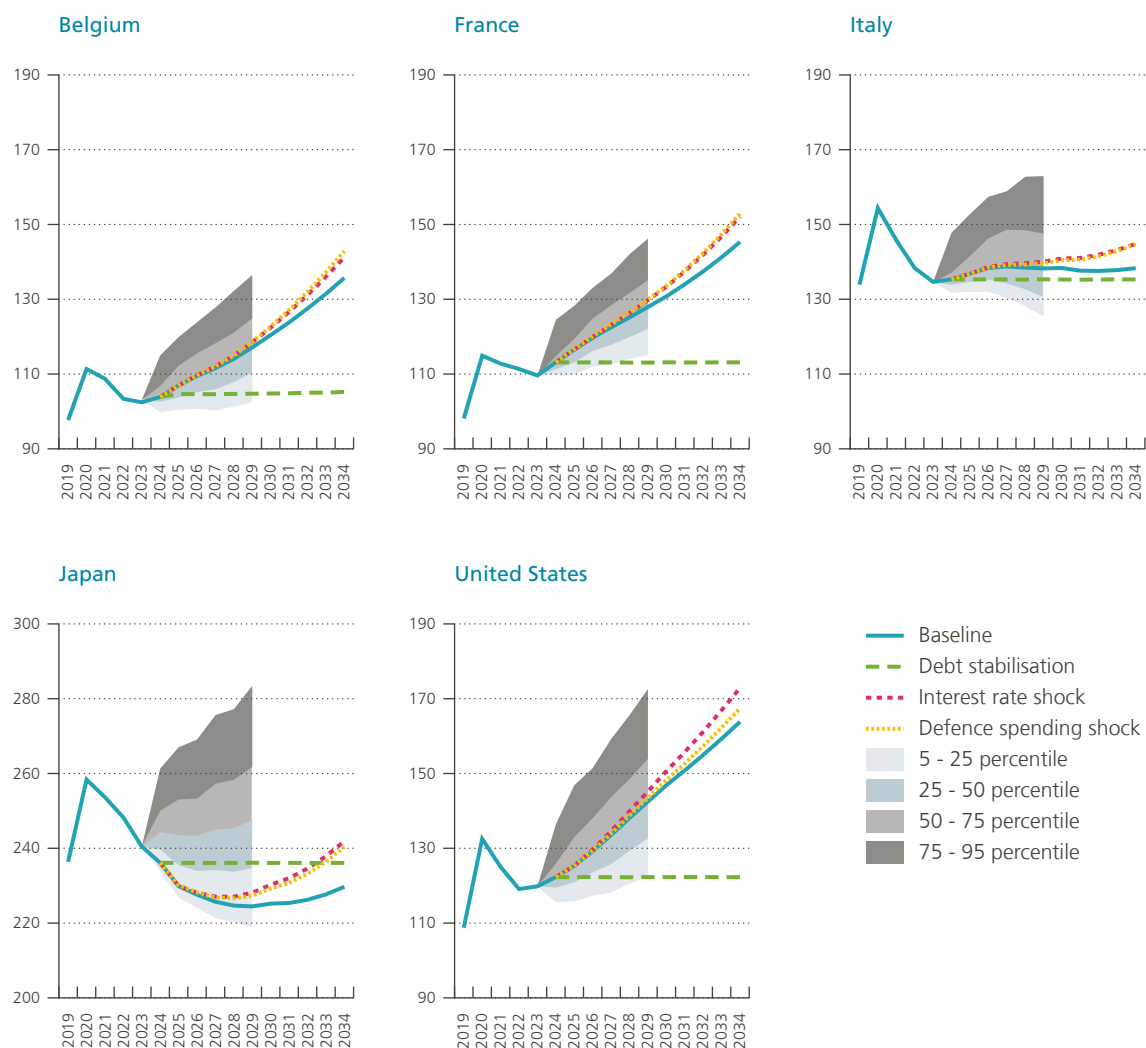
21 For more information, see IMF (2022).

does it capture the impact on the debt of a broader set of shocks, but it also allows for a probabilistic analysis, indicating, for example, the probability that debt will stabilise within a five-year horizon.

Figure 6

Stochastic analysis indicates that uncertainty around the baseline debt path is highest for Japan and the United States

Public debt projections (as a % of GDP)



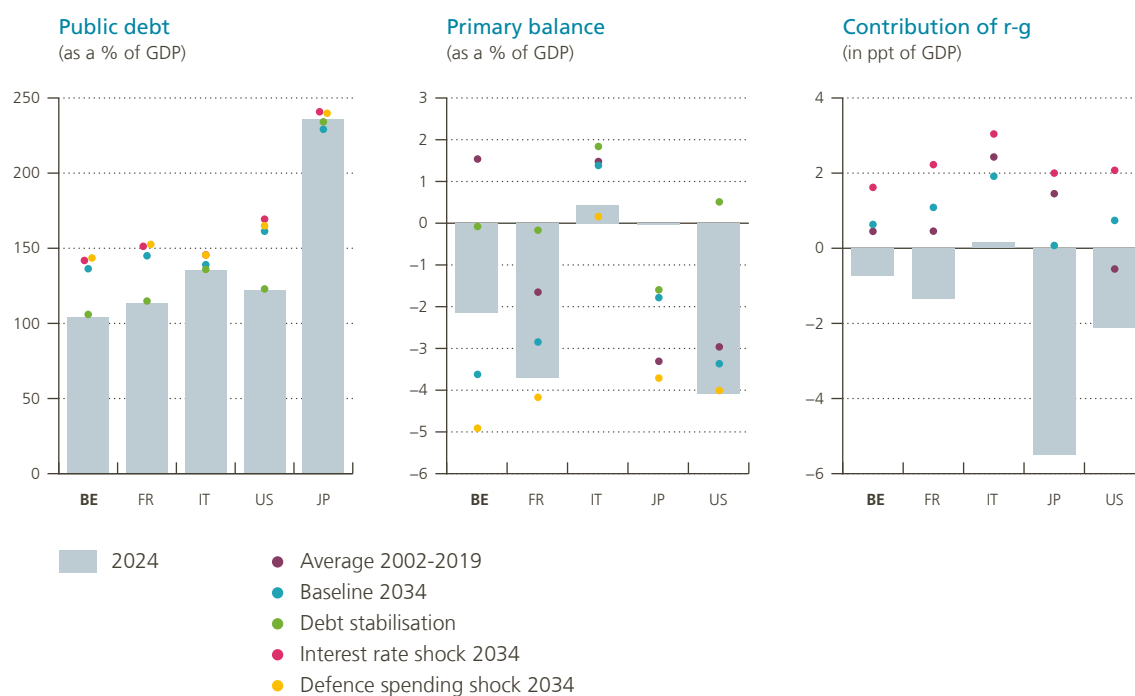
Sources: Consensus Economics, FPB, IMF, Refinitiv, OECD, SCA.

That said, narrative shock scenarios remain valuable for illustrative and communications purposes, given their more straightforward and transparent set-up. They may also be particularly useful when the future is expected to differ from the past. Figure 7 provides more information on the three narrative shock scenarios. The starting point is the baseline scenario for which data realisations for 2024 are shown (depicted by the grey bars) along with the predicted outcome by 2034 (depicted by the blue dots). It should be recalled that in the baseline scenario, the United States is expected to see the largest increase in its debt over the projection horizon, by 38 percentage points of GDP, followed closely by Belgium and France where debt rises by 30 percentage points of GDP.

The narrative shock scenarios yield several insights. First, in the interest rate shock scenario, Belgium's public debt is estimated to be around 6 percentage points of GDP higher in 2034 compared to the baseline scenario (Figure 7, pink dot on the left-hand chart). Japan, the country with the highest debt-to-GDP ratio, experiences the largest debt increase — by 12 percentage points of GDP. Japan's snowball effect is expected to turn unfavourable by the middle of the projection horizon (the pink dot on the right-hand chart). This would bring the snowball effect in line with past developments, when it was, on average, positive and thus unfavourable for the debt dynamics (the purple dot on the right-hand chart). The interest shock scenario thus serves as a valuable stress test for Japan's baseline scenario in which the interest rate-growth differential is to remain favourable until the end of the projection horizon. Crucially, a negative interest rate-growth differential does not counter the risks associated with elevated debt levels. Financial markets may suddenly perceive the debt level as excessive – regardless of the dynamics – and be unwilling to finance it. A sudden increase in interest rates that shifts the interest rate–growth differential into positive territory will trigger much stronger upward debt dynamics when the debt level is high.

Figure 7

The narrative scenarios indicate that Belgium and the United States will require the most substantial fiscal effort to stabilise their debt ratios, while Japan is the country most vulnerable to higher interest rates



Sources: Consensus Economics, FPB, IMF, Refinitiv, OECD, SCA.

Second, under the defence spending shock, Belgium's debt ratio increases by an additional 7 percentage points of GDP (the yellow dot on the left-hand chart) compared to the baseline in 2034. As mentioned, above, the United States will also need to increase its defence budget. The additional spending required to meet the 3.5% of GDP NATO target adds 4 percentage points to the debt ratio by 2034.

Lastly, to stabilise its debt ratio, Belgium will need, on average, to achieve a balanced primary budget (the green dot on the middle chart in Figure 7). The gap between the primary balance in the baseline scenario and in

the debt-stabilising scenario (indicated by the distance between the green and blue dots on the middle chart) captures the deviation of projected fiscal policy from policy consistent with debt sustainability. Of the selected countries, the fiscal adjustment needed to stabilise the debt ratio is greatest in the United States, followed by Belgium.²² Is the required primary balance in the debt-stabilising scenario plausible? Relative to past performance, this appears to be the case for Belgium, but not for the United States. Belgium recorded a primary surplus on average over the period 2002-2019 (the purple dot in the middle chart), with the highest surplus amounting to 5.8% in 2002. This contrasts with the other countries studied, where past primary balances have fallen short, on average, of the required debt-stabilizing primary balance.²³ However, achieving a primary balance may prove to be more difficult for Belgium today than in the past. One reason for this is rising ageing-related costs, which each year add around 0.1 percentage points of GDP to the budget. In addition, Belgium's relatively high tax burden limits the scope for further revenue increases. Yet another factor is that potential GDP growth is less likely to act as a tailwind than was previously the case.

All in all, the sensitivity analysis conducted here confirms that medium-term risks to debt sustainability are high in the five countries under scrutiny. The sources of these risks differ somewhat, however. Legacy debt is a major concern in Japan and Italy, while in Belgium, France and the United States, rising debt paths, under the baseline scenario, are worrisome. Remember that in the long term, ever increasing debt ratios are incompatible with debt sustainability. Japan's high debt ratio may be declining under the baseline scenario, but the upside risks dwarf the downside ones. Indeed, given the substantial uncertainty surrounding the baseline assumptions for the variables driving debt dynamics in Japan, economic developments and fiscal and monetary policy actions in the country warrant close monitoring. Given their high debt ratios, all countries considered here are sensitive to unfavourable developments in the interest rate-growth differential, whereby small but persistent increases in risk premia or setbacks in economic growth could have significant adverse effects on the debt dynamics. Especially in Japan, having a debt ratio of 236% of GDP in 2024, any rise in real interest rates due to a normalisation of inflation could become a serious problem.

4. Long-term debt sustainability risks

Beyond the short- and medium-term horizons, several policy challenges and structural developments are likely to exert downward pressure on the budget balance, which ultimately increases the risks to debt sustainability in the long run. When discussing long-term debt sustainability risks, a horizon beyond ten years is generally used. Consequently, some of these challenges are still completely unknown to us (e.g. acute economic shocks) while others are more predictable and are expected to (continue) to put pressure on public finances. Three of the challenges in this context are population ageing, climate change and its consequences, and geopolitical fragmentation leading to, among other consequences, further upward pressure on defence spending.

Of these longer-term policy challenges, the methodologies used to assess the long-term fiscal cost of population ageing are the best established, although uncertainty around the estimates remains substantial. Depending on the assumptions used (regarding productivity, migration and fertility, for example), the estimates vary widely. The changes in ageing-related fiscal costs over the period 2025-2060 shown in Figure 8 stem from three different sources using different methodologies, and may therefore not be perfectly comparable. For Belgium, we show the estimates produced by the Study Committee on Ageing,²⁴ which are updated annually. For France and Italy,

²² Indeed, the primary balance needed to stabilise the debt (and the fiscal effort required to reach it) does not rely on a specific government debt target. In other words, the debt-to-GDP ratio is stabilised at different levels for the selected countries.

²³ However, in a single year, the primary balance needed to stabilise the debt has been achieved in all countries, with the best primary balances observed over the period 2002-2019 being -0.1% of GDP in 2002 and 2006 for France, 3.4% in 2007 for Italy, 0.7% in 2006 for the United States and -0.6% in 2007 for Japan.

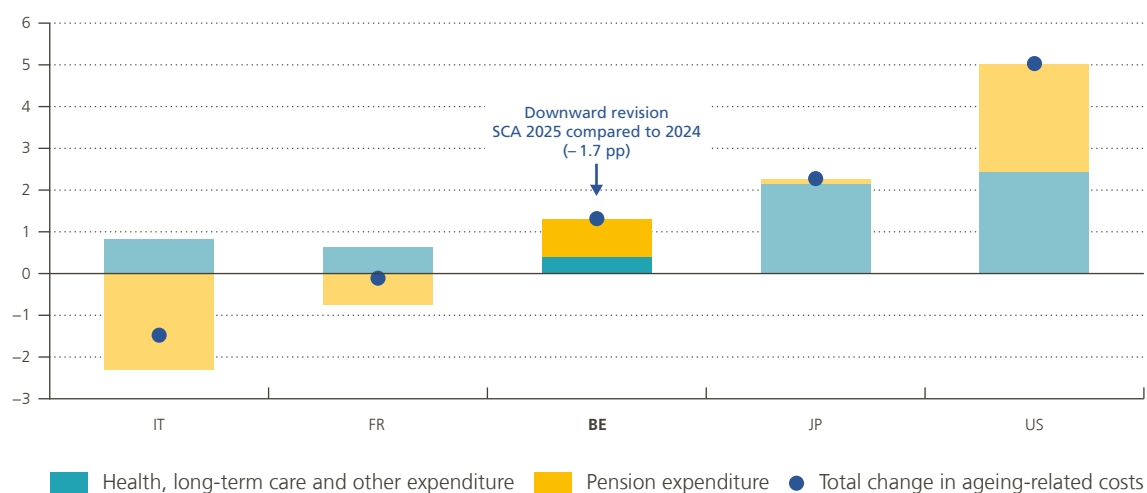
²⁴ The report was published on 10 July 2025 and takes into account budgetary notifications and specific policy information until 4 June 2025.

the projections are from the EC's 2024 Ageing Report, which is updated every three years. For the United States and Japan, the estimates are taken from the OECD's long-term scenarios published in 2023 (Guillemette and Chateau, 2023). It is interesting to note that ageing-related costs, expressed in percentage points of GDP, would decrease for Italy, remain more or less stable for France, and increase for the three other countries analysed. The level of fiscal pressure from ageing-related costs appears particularly high in Japan and the US. In the US, the fiscal cost of population ageing by 2060 will likely be lower than shown in the graph, however, as many structural reforms have been enacted since 2023, which primarily reduce healthcare expenditure on the elderly (e.g. reforms to Medicare and Medicaid). In Belgium, ageing-related costs are set to increase by 1.3% of GDP between 2025 and 2060 (Study Committee on Ageing, 2025). Note that the recent structural reforms regarding pension, social and unemployment benefits adopted by the federal government more than halved ageing costs until 2060 compared to the 2024 estimate (Study Committee on Ageing, 2025).

Figure 8

Ageing-related costs are a long-term risk to debt sustainability but recent policy reforms have significantly improved Belgium's position

Projected change in ageing-related budgetary costs between 2025 and 2060 (percentage points of GDP) ¹



Sources: Belgian Study Committee on Ageing (SCA), EC 2024 Ageing Report, OECD.

¹ The OECD projections for the US and Japan are expressed in percentage points of potential GDP. They date from 2023 and do not take into account any intervening structural reforms.

In contrast to the well-established methodology used to assess the fiscal cost of population ageing, quantification of the long-term impact of climate change on public finances is still in its infancy and subject to substantial uncertainty. Climate change gives rise to various costs, including those related to the repair and rebuilding of infrastructure after extreme weather events such as floods, storms and heat waves, as well as adaptation costs, such as for the construction of dykes, housing renovation and the development of drought-resistant crops. Mitigation costs, in turn, arise because of the necessary transition to a low-carbon economy. Examples include investments in renewable energy infrastructure, energy grid adaptation, energy efficiency improvements and other policies to reduce emissions. A carbon tax, the most efficient policy tool to reduce emissions, could be a (temporary) source of revenue for the government, while taxes on fossil fuels may be expected to garner ever-decreasing revenue or even to be entirely phased out. However, since such a tax does not affect households equitably in proportion to their income or consumption levels, policies to correct social distortions should also be considered. The macroeconomic and financial consequences of climate change may moreover have indirect adverse effects on public finances. For example, owing to a loss of productivity, disruptions to supply chains and lower agricultural output, climate change may lead to a decline in economic growth and a rise in interest rates.

In addition, the impact analysis of climate change on macroeconomic variables depends on the modelled speed of the energy transition, the steepness of the climate damage curve and how quickly carbon mitigation costs decline (see for example Guillemette (2025) for an assessment using six different scenarios). Part of the difficulty in estimating the effect on public finances also relates to the fact that further policy initiatives are likely to be taken to mitigate climate change and adapt to its consequences between now and 2035, particularly given that Belgium has committed to certain emission reduction targets under the European Green Deal. Moreover, there is considerable uncertainty regarding the precise allocation of adaptation, mitigation and transition costs between the public and private sectors. Therefore, even though climate change is likely to have a negative impact on public finances in the long term,²⁵ estimates to quantify this impact remain fraught with uncertainty.

Under the new EU fiscal framework, Member States are nevertheless required to provide, to the extent possible, a medium to long-term assessment of the macro-fiscal impact of climate change, including on contingent liabilities. In this context, several EU Member States have already published initial estimates. In Belgium, the Federal Planning Bureau and the Climate Risk Assessment Center (CeraC) have released a report (FPB and Cerac, 2025) tentatively appraising the macro-fiscal costs for Belgium of the physical impacts of climate change. The report does not consider additional adaptation measures and clearly acknowledges the uncertainty surrounding the exercise, while still providing clear conclusions. The report notes that worsening warming scenarios are associated with negative impacts on economic output. The models and scenarios used estimate the loss at between 2.8% and 5% of GDP by 2050, depending on the chosen warming scenario. This would sharply increase public debt, by up to 15 percentage points of GDP by 2050, compared to the baseline without further global warming. In order to compensate for this increase in the debt path, a fiscal effort ranging from 0.7% to 1.4% of GDP by 2050 would be necessary, depending on the warming scenario.

In the past year, there has been an intense public debate on defence spending, particularly the higher NATO guideline agreed at the 2025 The Hague Summit. As mentioned above, NATO members agreed to a new 5% of GDP defence spending target, including at least 3.5% of GDP annually on “core defence”. They have committed to reaching this target by 2035. For some member countries (particularly in eastern Europe), this implies a modest fiscal effort, while it will be a heavier exercise for others that are still far from this target, such as Belgium and Italy. Given the current geopolitical context, one could reasonably assume that this higher level of defence spending will continue after 2035, thereby maintaining upward pressure on debt dynamics in the long run. As shown in the narrative scenarios above, this would drive up debt ratios and worsen primary balances in all five countries under review.

5. Additional mitigating or aggravating factors

This chapter looks at several additional factors that can mitigate or aggravate debt sustainability risks. Certain aspects of debt management (co-)determine factors that impact sustainability, such as who holds sovereign debt and the maturity at which it was issued. We also discuss the importance of taking into account both government assets and liabilities when assessing public debt sustainability and the particular situation of Japan.

25 See, for example, Moshhammer, E. (2024), “Longer term fiscal challenges in the euro area”, ECB, Economic Bulletin, No. 4/2024.

5.1 Public debt management

5.1.1 Domestic and foreign holders of government debt

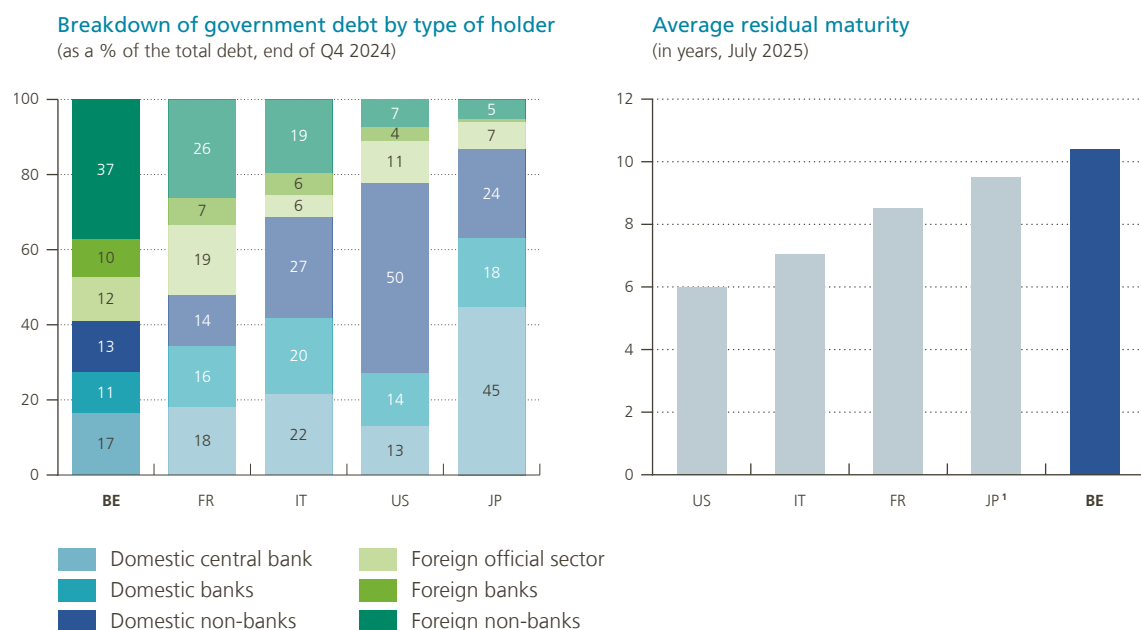
From a debt sustainability perspective, it is important to know who holds government debt. A high share of foreign investors carries a risk, as empirical research has shown that they are more responsive to yield, implying they are quicker to sell their holdings or demand higher yields in times of crisis (Beck *et al.*, 2025; Bhattacharya *et al.*, 2022; Fang *et al.*, 2024). On the other hand, it is worth noting that substantial foreign ownership, as is the case for Belgium's debt, also reflects wide investor interest and may help lower interest rates. Of the five countries studied here, Belgium has the highest share of foreign debt holders (59%), making it more vulnerable than the other countries. However, as mentioned above, its positive net international investment position could act as a buffer against shocks (see Section 2.2). With a majority of its sovereign debt held by foreign investors, Belgium is somewhat of an exception in the EU: in a majority of Member States, public debt is mainly held by domestic investors (EU Debt Sustainability Monitor 2024, 2025). In both the euro area and the US, foreign investors hold about a quarter of sovereign debt (Beck *et al.*, 2025). While this share is substantially higher in Belgium, it should be noted that most foreign investors in Belgian government debt are EU residents. The share of Belgian government bonds held by extra-EU investors is only around 25%. In Italy, this share amounts to 13%, while it is much higher in France, at 35%.²⁶ The level of foreign ownership of sovereign debt is closely monitored not only to gauge inherent fiscal risks (Gräß and Mehl, 2019) but also because this factor is indicative of the international role of a country's currency, which in turn influences monetary policy spillovers and shapes the global monetary system. In Japan, domestic ownership amounts to 87%, providing the country with a unique buffer as it largely insulates the Japanese debt market from external financial markets. This very large domestic investor base is often mentioned as one of reasons why Japanese sovereign debt remains sustainable despite the country's very high gross debt level. The IMF also cites this as a factor to explain why it assesses the overall risk of sovereign debt distress as moderate in Japan (IMF, 2025c).

The asset purchase programmes implemented by the ECB, the Federal Reserve and the Bank of Japan during the period of low inflation resulted in sizeable increases in the share of long-dated government debt held by central banks. Debt held on the balance sheet of the central bank increases the country's sensitivity to interest rate shocks, as long-term debt is de facto swapped for short-term debt (see the next section). After the spike in inflation following Russia's invasion of Ukraine, central banks in all major jurisdictions started to unwind their large stocks of sovereign assets. From an investor base perspective, the central bank is normally considered a stable domestic source of financing, mitigating selling risks. However, the build-up and subsequent unwinding of these large stocks of assets created somewhat more volatility and affected demand for sovereign bonds. Although the Bank of Japan has also begun tapering its large-scale bond purchases, it remains the main holder of Japanese government bonds. In the last quarter of 2024, 45% of outstanding Japanese government debt was still held by the Bank of Japan.

²⁶ These calculations are based on ECB data relating only to debt securities (not including government loans) at market value. In the remainder of the article, the government debt is usually assessed at face value.

Figure 9

A high share of Belgian sovereign debt is held by foreign investors but the average maturity is long



Sources: BBIS, ECB, IMF, US Treasury, JP Ministry of Finance.

1 Data for Japan are for June 2025.

5.1.2 Structure of government debt

Another important factor to consider when determining debt sustainability risks is the structure of government debt. In general, the longer the average residual maturity of government debt, the longer it will take for an interest rate shock to trickle through the debt stock. A longer average maturity also decreases the government's annual gross financing needs and thus helps reduce short-term liquidity risks. Belgium scores very well against the other countries under review from this perspective, as it has the longest average residual maturity. This characteristic ensures that Belgian interest expense climbs only gradually as interest rates increase and that $r-g$ remains favourable for the debt dynamics for a longer period of time.

The United States has the lowest average residual maturity and thus should – in theory – be most exposed to interest rate shocks. However, this assumption should be qualified having regard to the US dollar's role as the world's dominant reserve currency and the fact that US sovereign debt is considered a safe-haven asset (see the box in Section 2). US Treasuries, particularly Treasury bills which mature in less than one year, are considered a highly liquid and safe investment by foreign investors and are seen as a global benchmark for short-term interest rates. Consequently, global demand for these (short-term) securities is high. Therefore, the US issues them in abundance but is nevertheless less exposed to interest rate and liquidity risks than the other countries in our sample. The US government also uses its exorbitant privilege as an explicit debt management strategy: with an upward sloping yield curve, it is cheaper to issue short-term than long-term debt. In addition, unlike in the euro area, long-term interest rates on US debt were not close to 0% for a considerable time during the period of low inflation, so this debt management strategy (i.e. issuing a larger share of short-term debt) remained a rational choice in view of government funding costs.

As mentioned above, the central banks of all five countries under review increased their holdings of domestic government bonds, implying the consolidated public balance sheet (including both the central bank and general government) in all five countries became more sensitive to interest rate changes. When a central bank buys government debt, it creates a de facto swap from long-term to short-term debt (see also Cornille *et al.*, 2021). The central bank finances these securities (assets) by issuing central bank reserves (liabilities). Hence, the central bank receives interest on these long-term government bonds, while paying the overnight interest rate on the reserves. When the overnight interest rate increases, this reduces the central bank's interest margin, which can decrease the profits paid to the government. From the government's perspective, this means that instead of owing fixed, long-term interest to private investors, it now *indirectly* owes interest at the short-term policy rate on the central bank reserves held by commercial banks. As a result, the government's debt profile becomes more exposed to short-term interest rate fluctuations, even though the original bonds still exist on the central bank's balance sheet. The exposure is *indirect* because it only directly affects the government if and when the rising interest expense of the central bank leads to a lower or even no dividend distribution to the government. This scenario gained prominence in recent years as central bank balance sheets had massively expanded. When policy rates were subsequently raised to respond to very strong inflation in the period following the pandemic and Russia's invasion of Ukraine, several large central banks started to post losses after more than two decades of profitability (see El Joueidi *et al.* (2024)). In Japan, in particular, where the central bank held more than 45% of all outstanding government debt at the end of 2024, this dynamic could still play a significant role, despite the relatively long average residual maturity of Japanese government debt and the Bank of Japan's positive net interest income in fiscal year 2024.

5.2 Government financial assets and net debt

In general, a DSA focuses on the dynamics and level of *gross* government debt. This primary focus on gross debt is justified by the fact that gross debt is effectively what a government needs to borrow from the financial markets and defines its gross financing needs. However, it is also relevant to consider the assets side of the government balance sheet, since valuable assets increase a government's wealth. Financial assets can constitute a buffer against liabilities, to the extent that they can be mobilised to address governments' financing needs in times of stress, which depends on how liquid and tradeable they are. From a debt sustainability perspective, indicators of both gross and net government debt are therefore valuable, with the latter calculated by subtracting the government's financial assets from its liabilities. It should be noted, however, that financial assets can also entail significant risks and thus government investment in financial assets is generally not advisable, except for strategic reasons. Moreover, the private sector is normally better equipped than the government to allocate investments efficiently.

For all countries under review, the difference between their net and gross debt is between eight to 25 percentage points of GDP, with the exception of Japan, where financial assets represent more than 100 percentage points of GDP. Consequently, Japan's net government debt ratio stands at "only" 134% of GDP. This enormous difference partly explains why the markets (and the IMF) generally assess Japan's risk of debt distress to be only moderate, despite its record-high level of gross government debt.

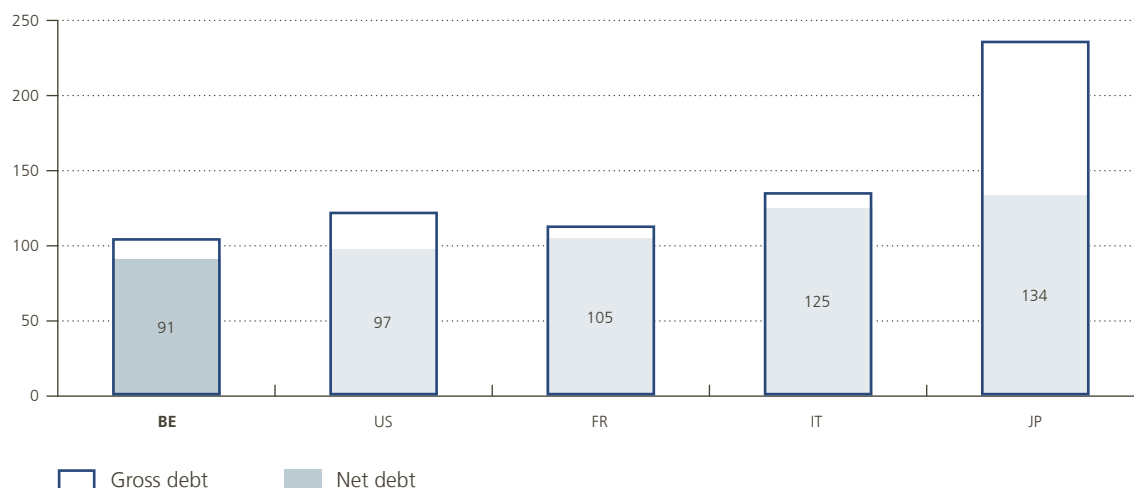
The Japanese government thus owns substantial financial assets. Combined with one of the world's largest net creditor positions and a very large and stable domestic investor base, as mentioned in Section 5.1.1, the sustainability of Japan's government debt is not as dire as a cursory look at its gross debt level would suggest. Nevertheless, the Japanese Ministry of Finance stated in its April 2025 Public Finance Fact Sheet that "many of the assets the government owns are not marketable, or, if so, their price can sharply drop in the case of a fiscal crisis" (Japanese Ministry of Finance, 2025). Hence, Japan's strategy of increasing (or at least not reducing) its gross debt in order to finance its financial assets is questionable given the short- to medium term risks to fiscal sustainability. Investors also seem to be increasingly concerned about Japan's fiscal sustainability, especially in the longer term. Figure 3 above clearly shows that stress has been building up at the long end of the Japanese Government Bond (JGB) yield curve in a context of higher inflation, somewhat tighter monetary

policy and risks of further fiscal profligacy following the resignation of Prime Minister Ishiba in September 2025 and his replacement by Sanae Takaichi, who is preparing an economic stimulus package.

Figure 10

Japan's record level of gross government debt is partly counterbalanced by substantial holdings of financial assets

General government gross and net debt (as a % of GDP, 2024)



Source: IMF.

A large share of Japan's financial assets consist of social security and pension funds, and foreign reserves. Since 2012, Japan has pursued a very specific strategy to finance its social security and pension systems: it borrows not only to finance its budget deficit but also to fund its social security and pension reserves. The reserves that have been built up accordingly have been consistently invested in longer-term, high-return assets, while its persistent social security deficit (without it, Japan would have been running fiscal surpluses) and new asset purchases have been financed by new debt at (very) low interest rates. Through this strategy of prioritizing asset growth in the low interest rate environment, Japan managed to earn an annual return on its public investments that exceeded its interest expense by 4.7% (~ 6% of GDP) on average between 2013 and 2023 (Chien *et al.*, 2025). However, most of the funds and their returns are earmarked for specific purposes. As such, these excess returns do not lead to deficit reduction but are used for further asset purchases or expenditures of the funds.

These high excess returns can be explained by two main factors: the absence of foreign currency risk hedging on the government's portfolio and quantitative easing by the Bank of Japan (BoJ). Japanese private financial institutions are unable to obtain the same level of returns as the consolidated government sector as they are required by the Financial Services Agency to hedge at least part of their portfolio against currency risk. The Japanese government's investment strategy is not without risk, however, as high returns on financial assets are not guaranteed and liquidating these assets in times of financial stress may not be easy and could not be done all at once. As mentioned above, many of these funds are moreover earmarked for specific purposes, so funds coming from their liquidation may in theory not be used for debt reduction. It could also be argued that this strategy constitutes evidence of inefficiencies in the Japanese financial markets as the government is investing instead of the private sector, which could be considered the equivalent of a 100% capital gains tax. This situation is also a historical legacy, as Japan's capital markets were undeveloped and capital market transactions prohibitively expensive for Japanese households until the late 1990s.

Furthermore, in order to sustain these kinds of excess returns, interest rates on government debt have to remain low. In a context of deflation to very low inflation, the BoJ indeed kept policy rates very low to slightly negative for many years to support its goal of raising inflation to 2%.²⁷ From 2016 onwards, it also employed new, unconventional monetary policy measures to circumvent the zero lower bound and boost demand. The previously implemented quantitative and qualitative monetary easing (QQE) was supplemented by the introduction of a negative policy rate and yield curve control (YCC). As such, starting in 2016, the BoJ aimed for short-term interest rates of around –0.1% and long-term interest rates (on ten-year bonds) of around 0% through purchases and sales of JGBs. This margin was later widened. To do so, the BoJ had to make massive purchases of JGBs (see Figure 11). At the end of fiscal year 2024, the BoJ still held 93% of GDP in JGBs (equivalent to around 45% of all outstanding JGBs). The YCC policy was officially abolished in March 2024, following the rise in inflation that began in 2022. JGB yields have been rising ever since (see Figure 3).

Figure 11

Massive purchases of government debt by the BoJ have helped keep Japan’s financing costs low

Bank of Japan (FY 2024)		Japanese general government (2024)	
Assets	Liabilities	Assets	Liabilities
Government debt (93 % of GDP)	Reserves (94 % of GDP)	Government financial assets (102 % of GDP)	Government liabilities (237 % of GDP)
Other assets (25 % of GDP)	Other liabilities (24 % of GDP)		

Source: Bank of Japan, Cabinet Office Japan, Chien *et al.*, IMF.

Note: The two balance sheets do not fully correspond as the Bank of Japan publishes balance sheets per fiscal year, e.g. March 2024 to March 2025 for fiscal year 2024. GDP numbers for fiscal year 2024 are projections from the Cabinet Office dating from August 2025.

These massive purchases of government debt by the BoJ artificially pushed down government borrowing costs for a long time. Several authors have assessed the role of the BoJ’s QE on Japanese bond yields. Hansen and Imrohorglu (2023) estimate the average interest rate benefit at 3%. Koeda and Kimura’s (2025) findings show an advantage of approximately 80 basis points by the end of the 2010s. Chien *et al.* (2025) use these two studies to assume that, without these BoJ policies, interest rates would have had to be 2% higher to reflect the risky assets held by the Japanese government.

The holding by the central bank of such large amounts of government bonds on its balance sheet is not without risk: as mentioned above, long-term government debt effectively becomes short-term debt through central bank purchases. If interest rates rise, the central bank will have a negative interest margin and could even suffer losses. In that case, it will distribute lower dividends to the government or even cancel them altogether in the event of a loss, which will increase the government’s financing costs. Japan’s strategy of investing in long-duration assets while continuing to borrow on the sovereign bond markets is thus only viable as long as interest rates remain low, and investors maintain their confidence in Japanese government debt. Otherwise, fiscal sustainability could quickly be eroded. This strategy also increases the risk of fiscal dominance, a situation in which fiscal policy takes precedence over monetary policy as the central bank feels obliged to support the government’s financing needs. The central bank may then be reluctant to raise interest rates too much or may allow inflation to stay higher for longer, thereby eroding the real value of debt rather than setting monetary policy independently.

27 For further reading on Japan up to 2015, see Boeckx *et al.*, 2015.

6. Conclusion

The question of debt sustainability is again being raised given the high public debt ratios seen around the world. At 104% of GDP in 2024, the public debt ratio in Belgium is substantial, but still lower than in France, Italy, the United States and Japan. This does not mean that Belgium's public debt is less vulnerable in case of a shock. After all, debt sustainability is about much more than just the level of debt; future debt developments are, for instance, a crucial element.

Our comparative analysis, based on the well-established debt sustainability frameworks of the EC and the IMF, highlights that for all five countries considered, fiscal indicators, such as gross financing needs, the public debt level and the debt dynamics, signal high risks to debt sustainability. That said, debt sustainability risks stemming from other factors appear more muted, with some countries, namely the United States and Japan, possessing unique characteristics that can significantly mitigate fiscal vulnerabilities.

Starting with Belgium, the short-term risks to debt sustainability are relatively low overall. A key vulnerability stems from the country's high gross financing needs (around 20% of GDP), which however are low compared to its high-debt peers. Its average government debt maturity (10 years) is the highest of the selected countries and helps mitigate rollover risks. Assuming unchanged policies Belgium's sharp upward debt trajectory over the next decade is concerning, however, flagging high risks to debt sustainability in the medium term. These reflect a weak budgetary starting point and mounting interest charges and ageing-related costs, even though the latter have been approximately halved due to reforms enacted in 2025. Belgium's impressive debt reduction over the period 1993–2007 demonstrates the country's consolidation capability, yet replicating past efforts may prove more difficult today given the numerous spending pressures and limited growth prospects. Strong private demand for government debt in the recent past – e.g. the successful one-year State note in 2023 – underscores the potential to tap private savings to finance public debt in times of stress.

France's debt sustainability risks appear similar to those of Belgium. Additional country-specific vulnerabilities stem from political instability and a weaker track record in terms of consolidation, with fiscal slippages in the past two years. On the upside, ageing-related costs are not projected to be a budgetary tailwind in the long run.

In contrast to Belgium, the key challenges to debt sustainability facing Italy stem from high legacy public debt combined with structurally low economic growth. Indeed, the snowball effect is automatically increasing the debt ratio, requiring Italy to run a primary surplus to stabilise its debt ratio. This is a cautionary tale for Belgium, underscoring the crucial role played by robust economic growth in debt sustainability. In the long term, Italy is projected to benefit even more than France from favourable ageing-related costs.

US debt dynamics over the next decade are the most concerning among the group as public debt is projected to rise the most. While strong economic growth is expected to continue to enable the United States to sustain a higher level of public debt, the increased interest burden is expected to offset the growth effects on the debt ratio. The United States is also facing a short-term risk posed by enormous gross financing needs of 40% of GDP and a twin deficit, coupled with long-term pressures stemming from strongly rising ageing-related costs. That said, as the provider of the world's preferred safe asset and global reserve currency, the United States enjoys a special status, which considerably lowers its financing costs and enhances its debt-carrying capacity. The dominance of the US dollar is not guaranteed indefinitely, however.

Finally, Japan's record debt ratio of close to 240% of GDP poses high risks to debt sustainability and brings with it massive refinancing needs, making Japanese debt sensitive to interest rate shocks. The debt ratio is set to decline initially under the baseline scenario but would resume its upward path later on as the favourable interest rate-growth differential reverses and primary deficits persist. While the Bank of Japan kept interest rates low for a long time, now that inflation expectations are rising, the focus is on the scale of interest rate hikes and to what extent the Bank of Japan will tolerate inflation. A large domestic investor base acts as a mitigating

factor to sustainability risks. In addition, the Japanese government's large holdings of financial assets provide a substantial buffer. However, it is uncertain to what extent these assets can be liquidated should the need arise. Downplaying Belgium's debt sustainability risks by referring to Japan's debt ratio, which is twice as high, thus reflects a very partial assessment.

Overall, none of the five countries seems to be facing imminent threats to debt sustainability, but persistent increases in their debt ratios, from already high levels, will be unsustainable in the medium to long term. Moreover, in a global environment marked by higher interest rates, (geo)political uncertainty and expanding sovereign bond issuance, market sentiment can shift abruptly, potentially triggering liquidity pressures that transform medium-term solvency concerns into immediate ones. This underscores the importance of committing to credible and prudent fiscal policies, including in the medium to long term. Investor confidence and country-specific structural strengths should not be taken for granted, as these can erode over time.

This article has also hinted at the many links between monetary policy and debt sustainability. Central banks steer interest and inflation rates, may engage in large-scale purchases of government bonds, and can act as lender of last resort in times of liquidity stress. However, monetary policy is not responsible for guaranteeing the sustainability of public debt. In a high-debt environment, the sovereign may be tempted to pressure the central bank to take debt concerns into account when setting monetary policy, thus compromising price stability. Indeed today, the prospect of fiscal dominance in advanced economies no longer appears far-fetched. It is likely easier to challenge central bank independence in a high-debt country with its own currency and central bank than in a member state of a monetary union. From a debt management perspective, reverting to financial repression – whereby interest rates are kept artificially low – and tolerating high inflation could be a successful strategy, yet this would signal that the public debt is in fact unsustainable. As is the case of debt default or restructuring, someone will have to bear the cost.

Bibliography

Ajovalasit, S., Consiglio, A., Pagliardi, G. and Zenios, S. (2025) *Are bad governments a threat to sovereign defaults? The effects of political risk on debt sustainability*. Bruegel Working Paper 01/2025. Available at https://www.bruegel.org/sites/default/files/2025-01/WP%2001%202025_0.pdf. [Accessed: 21 October 2025].

Arslanalp, S., Eichengreen, B. and Simpson-Bell, C. (2022) *The Stealth Erosion of Dollar Dominance: Active Diversifiers and the Rise of Nontraditional Reserve Currencies*. IMF Working Paper 22/58, <https://doi.org/10.5089/9798400204746.001>.

Badia, M.M., Medas, P., Gupta, P. and Xiang, Y. (2020) "Debt is not free", *Journal of International Money and Finance*, 127, October, <https://doi.org/10.1016/j.jimonfin.2022.102654>.

Beck, R., Burian, V., Georgiadis, G. and McQuade, P. (2025) *Geopolitics and Foreign Holdings of Euro Area Government Debt*, published as part of the report on the International role of the euro, ECB. Available at https://www.ecb.europa.eu/press/other-publications/ire/article/html/ecb.ireart202506_01~a8b7241329.en.html [Accessed: 4 September 2025].

475, <https://doi.org/10.2765/28160>. Bhattacharya, R., Johnson, K., Nkusu, M. and Wang, M. (2022) *Fiscal Crises: The Role of the Public Debt Investor Base and Domestic Financial Markets as Aggravating and Mitigating Factors*. IMF Working Paper 240, <https://doi.org/10.5089/9798400227776.001>.

Boeckx, J., Butzen, P., Cordemans, N. and Ide, S. (2015) "Deflation in Japan, Abenomics and lessons for the euro area", *NBB Economic Review*, I, 100-124. Available at <https://www.nbb.be/fr/publications-et-recherche/publications/toutes-les-publications/deflation-au-japon-abenomics-et> [Accessed: 21 September 2025].

Boonstra, W. (2008), "National Savings and the International Investment Position: What Does the Current Account Tell Us?", *Journal of Economics and Business*, 26(1), 9-40. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2268457 [Accessed: 14 June 2025].

Cao, Y., Jiang, W., Lam, W. R. and Wang, N. (2025) *Maximum sustainable debt across countries: An assessment using P-theory*. IMF Working Paper. Forthcoming. Washington D.C.: IMF.

Casalin, F., Cerniglia, F. and Dia, E. (2023) "Stock-flow adjustments, public debt management and interest costs", *Economic Modelling*, 129, 106531, <https://doi.org/10.1016/j.econmod.2023.106531>.

Cerovic, S., Gerling, K., Hodge, A. and Medas, P. (2018) *Predicting Fiscal Crisis*. IMF Working Paper 18/181, <https://doi.org/10.5089/9781484372555.001>.

Chien, Y., Cole, H. and Lustig, H. (2025) *What About Japan?*. NBER Working Paper 31850, November 2023, revised March 2025, <https://doi.org/10.3386/w31850>.

Choi, J., Dang, D., Kirpalani, R. and Perez, D. (2024) *Exorbitant Privilege and the Sustainability of US Public Debt*. NBER Working Paper 32129, <https://doi.org/10.3386/w32129>.

Congressional Budget Office (2025), *The Budget and Economic Outlook: 2025 to 2035*. Available at: <https://www.cbo.gov/publication/60870>. [Accessed: 1 July 2025].

Cornille, D., Deroose, M. and Van Parys, S. (2021) "Getting Fiscal Policy in Shape to Swing with Monetary Policy", *NBB Economic Review*, I, 51-68. Available at <https://www.nbb.be/en/publications-research/publications/all-publications/getting-fiscal-policy-shape-swing-monetary>. [Accessed: 2 September 2025].

Debrun, X., Jarmuzek, M., and Shabunina, A. (2020a), “Public debt: Safe at any speed?”, *NBB Economic Review*, 5 Available at [ecorevii2020_h5.pdf](#). [accessed 2 September 2025].

Debrun, X., Ostry, J.D., Willems, T., and Wyplosz, C. (2020b), “Chapter 4: Public Debt Sustainability”, in Abbas, S.A., Pienkowski, A., and Rogoff, K. (eds) *Sovereign Debt: A Guide for Economists and Practitioners*, Oxford University Press, pp. 151-191.

El Joueidi, S., Vincent, E. and Wauters, J. (2024) “Central Bank Losses: Causes and Consequences”, *NBB Economic Review*, 8. Available at <https://www.nbb.be/fr/publications-et-recherche/publications/toutes-les-publications/central-bank-losses-causes-and>. [Accessed: 15 September 2025].

European Central Bank (2025) *The International Role of the Euro*, June. Available at: <https://www.ecb.europa.eu/press/other-publications/ire/html/ecb.ire202506.en.html>. [Accessed: 25 July 2025].

European Commission (2025) *Debt Sustainability Monitor 2024*, Institutional paper 306, <https://doi.org/10.2765/870119>.

European Commission (2024) *2024 Ageing Report. Economic and Budgetary Projections for the EU Member States (2022-2070)*. Institutional Paper 279, <https://doi.org/10.2765/022983>.

Fang, X., Hardy, B. and Lewis, K.K. (2024) *Who Holds Sovereign Debt and Why It Matters*. NBER Working Paper 30087, May 2022, Revised September 2024, <https://doi.org/10.3386/w30087>.

Federal Planning Bureau (2025) *Economic Projections 2025-2030*, June. Available at: <https://www.plan.be/en/publications/economic-outlook-2025-2030-june-2025>. [Accessed: 16 June 2025].

Federal Planning Bureau and Cerac (2025) *Physical impacts of climate change: tentative appraisal of macro-fiscal costs for Belgium*, Report 13181. Available at: <https://www.cerac.be/en/publications/2025-09-physical-impacts-climate-change-tentative-appraisal-macro-fiscal-costs-belgium> [Accessed: 25 September 2025].

Ghosh, A. R., Kim, J. I., Mendoza, E. G., Ostry, J. D. and Qureshi, M. S. (2013) “Fiscal fatigue, fiscal space and debt sustainability in advanced economies”, *The Economic Journal*, 123 (566), F4-F30, <https://doi.org/10.1111/eoj.12010>.

Gourinchas, P.O, Rey, H. and Govillot, N. (2022) *Exorbitant Privilege and Exorbitant Duty*, CEPR Discussion Paper No. DP16944. Available at: <https://cepr.org/publications/dp16944> [Accessed: 1 September 2025].

Gräß, J. and Mehl, A. (2019) “Special feature A – The benefits and costs of the international role of the euro at 20” in European Central Bank, *The International Role of the Euro*. Available at: <https://www.ecb.europa.eu/press/other-publications/ire/html/ecb.ire201906~f0da2b823e.en.html> – toc15 [Accessed: 24 September 2025].

Guillemette, Y. and Château, J. (2023) “Long-term scenarios: incorporating the energy transition”, *OECD Economic Policy Papers*, 33, <https://doi.org/10.1787/153ab87c-en>.

Guillemette, Y. (2025) “OECD global long-run economic scenarios: 2025 update”, *OECD Economic Policy Paper* 36, <https://doi.org/10.1787/00353678-en>.

Hansen, G. D. and Imrohoroglu, S. (2023) “Demographic change, government debt and fiscal sustainability in Japan: The impact of bond purchases by the Bank of Japan”, *Review of Economic Dynamics*, 50, 88–105, <https://doi.org/10.1016/j.red.2023.07.007>.

IMF (2013), *Staff Guidance Note for Public Debt Sustainability Analysis in Market Access Countries*. Available at: <https://www.imf.org/external/np/pp/eng/2013/050913.pdf> [Accessed: 1 July 2025].

IMF (2022), *Staff guidance note on the sovereign risk and debt sustainability framework for market access countries*, Policy paper 2022/039. Available at: <https://www.imf.org/en/Publications/Policy-Papers/Issues/2022/08/08/Staff-Guidance-Note-on-the-Sovereign-Risk-and-Debt-Sustainability-Framework-for-Market-521884> [Accessed: 1 July 2025].

IMF (2025a) *World Economic Outlook: A critical juncture amid policy shifts*. Available at: <https://www.imf.org/en/Publications/WEO/Issues/2025/04/22/world-economic-outlook-april-2025> [Accessed: 23 April 2025].

IMF (2025b), *2025 External Sector Report: Global Imbalances in a Shifting World*. Available at: <https://www.imf.org/en/Publications/ESR/Issues/2025/07/22/external-sector-report-2025> [Accessed: 1 August 2025].

IMF (2025c), *Japan: 2025 Article IV Consultation- Press Release; Staff Report; and Statement by the Executive Director for Japan*, IMF Country Report 25/82. Available at: <https://www.imf.org/en/Publications/CR/Issues/2025/04/01/Japan-2025-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-565846> [Accessed: 22 April 2025].

Jiang, Z., Richmond, R.J. and Zhang, T. (2025a) *Convenience Lost*, NBER Working Paper 33940, <https://doi.org/10.3386/w33940>.

Jiang, Z., Richmond, R.J., Krishnamurthi, A., Xu, C. and Lustig, H. (2025b) *Dollar Upheaval: This Time is Different*. Stanford Institute for Economic Policy research (SIEPR) Working Paper 25-18, <https://dx.doi.org/10.2139/ssrn.5220444>.

Koeda, J. and Kimura, Y. (2025) "Government Debt Maturity and the Term Structure in Japan", *Japanese Economic Review March*, <https://doi.org/10.1007/s42973-025-00201-z>.

Ministry of Finance, Japan (2025) *Japanese Public Finance Fact Sheet*, April. Available at: mof.go.jp/english/policy/budget/budget/fy2025/02.pdf [Accessed: 26 September 2025].

Moshammer, E. (2024), *Longer term fiscal challenges in the euro area*. ECB Economic Bulletin No. 4/2024. Available at: https://www.ecb.europa.eu/press/economic-bulletin/articles/2024/html/ecb.ebart202404_02~d8159a215d.en.html [Accessed: 23 September 2025].

Rogoff, K. (2025) *Our Dollar, Your Problem*, Newhaven: Yale University Press.

Hoge Raad van Financiën (2025) *Studiecommissie voor de vergrijzing – Jaarverslag*, July. Available at <https://hogeraadvanfinancien.be/nl/publication/jaarlijks-verslag-2025-studiecommissie-voor-de-vergrijzing>; [Accessed: 21 October 2025].

Szoke, B., Xavier, I. and Vazquez-Grande, F. (2024) *Convenience Yield as a Driver of r^** . FEDS Notes, Board of Governors of the Federal Reserve System, September. Available at: <https://www.federalreserve.gov/econres/notes/feds-notes/convenience-yield-as-a-driver-of-r-20240903.html> [Accessed: 23 June 2025].

Wyplosz, C. (2011), "Debt sustainability assessment: mission impossible", *Review of Economics and Institutions*, 2(3). Available at <https://rei.unipg.it/rei/article/view/42> [Accessed: 1 July 2025].

Conventional signs

cf.	compare
e.g.	for example
<i>et al.</i>	et alia, and others
etc.	et cetera
i.e.	id est, that is
pp	percentage point
%	per cent

List of abbreviations

Countries or regions

AU	Australia
AT	Austria
BE	Belgium
CA	Canada
CH	Switzerland
CY	Cyprus
CZ	Czechia
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FR	France
FI	Finland
GR	Greece
HR	Croatia
IE	Ireland
IL	Israel
IT	Italy
JP	Japan
KR	Korea (South)
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	The Netherlands
NZ	New Zealand
NO	Norway
PT	Portugal
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United of Kingdom
US	United States
EA	Euro area
EU	European Union

Abbreviations

BIS	Bank for International Settlements
BoJ	Bank of Japan
CBO	Congressional Budget Office
CeraC	Climate Risk Assessment Center
COVID	Coronavirus disease
DSA	Debt sustainability analysis
EC	European Commission
ECB	European Central Bank
FDI	Foreign direct investment
FPB	Federal Planning Bureau
FX	Foreign exchange
GDP	Gross domestic product
GFN	Gross financing needs
JGB	Japanese government bonds
IMF	International Monetary Fund
NATO	North Atlantic Treaty Organization
NIIP	Net international investment position
OBBBA	One Big Beautiful Bill Act
OECD	Organisation for Economic Co-operation and Development
QE	Quantitative easing
QQE	Quantitative and qualitative easing
r-g	Interest rate-growth differential
SCA	Study Committee on Ageing
SIPRI	Stockholm International Peace Research Institute
S&P	Standard & Poor's
YCC	Yield curve control

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