

SECTOR IN-DEPTH

23 May 2024



TABLE OF CONTENTS

Summary

Some countries' credit strength likely to weaken in the absence of policy action

Ageing populations will limit growth potential and create headwinds for the public finances

Costs of the climate transition will be material but overall manageable

Rising geopolitical risks will add to budgetary pressures

New EU fiscal rules are unlikely to alter debt trajectories materially

10

Contacts

Sarah Carlson, CFA +33.1.5330.3353 Senior Vice President sarah.carlson@moodys.com

Lenaic Couderc +44.20.7772.1799

Analyst

lenaic.couderc@moodys.com

Marco Santaniello +44.20.3314.2032 Ratings Associate marco.santaniello@moodys.com

Dietmar Hornung +49.69.70730.790
Associate Managing Director
dietmar.hornung@moodys.com

Marie Diron +44.20.7772.1968
MD-Global Sovereign Risk
marie.diron@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Sovereigns – Europe

Some EU sovereigns will face accumulating debt pressures and hard policy choices

Summary

Many EU sovereigns face upward pressure on their debt burdens due to ageing populations, the costs of the green transition and higher defence spending in the absence of mitigating policy action. Debt dynamics will evolve differently across the region but collectively governments will be forced to prioritise their spending or find additional resources. Governments could allow debt levels to continue rising, but the credit strength of those with already-high debt levels would clearly weaken.

- » Some countries' credit strength will weaken in the absence of policy action. Absent policy changes, debt burdens will continue to grow in two-thirds of <u>European Union</u> (Aaa stable) countries in the next decade because of anemic growth, structural fiscal imbalances and larger long-term spending pressures. For some countries such as <u>Slovakia</u> (A2 negative), <u>Romania</u> (Baa3 stable), <u>Belgium</u> (Aa3 stable) and <u>France</u> (Aa2 stable), the fiscal effort needed to stabilise debt by the end of the decade would require significant policy change.
- » Ageing populations will weigh on growth potential and public finances. Given current demographic trends, only policy changes that increase labour supply or increase productivity growth will prevent a slowdown in potential growth. Implementing reforms as part of the NextGenEU programme will support productivity growth to varying degrees, but in almost all cases these gains will not be enough to offset the impact of population ageing.
- » The cost of climate transition will be high but on its own manageable. These costs to governments average 0.5% of GDP a year over the next decade. The cost is largest in Central and Eastern Europe (CEE) countries where the transition is less advanced.
- » Rising geopolitical risks will add to budget pressures. Defence spending is rising and on average European states need to increase defence spending by 0.5% of GDP to meet NATO's funding requirement. Greater defence spending may benefit some states with an established industrial base and could drive wider innovation, although capacity constraints will limit short-term gains.
- » New EU fiscal rules are unlikely to alter debt trajectories materially. New rules due in 2025 offer more lenient debt reduction targets than the previous Growth and Stability Pact, which was flouted by many EU states. However, only Portugal (A3 stable) among highly indebted EU sovereigns is currently on track to meet the new requirements.

About our research

In this report we run debt simulations that are based on several central assumptions. Firstly, we assume that economic growth will converge towards potential estimated in the European Commission's (EC) 2024 Ageing Report. We assume that no economic shock will occur besides the gradual negative impact of ageing populations on economic growth. We also assume primary balances remain constant beyond 2026. We add three of the key spending pressures EU sovereigns will face during the next decade:

- » **Ageing costs** as presented in the EC's latest Ageing report. Those include healthcare, long-term care and pension spending covered by governments, but do not include the fiscal impact of very recent reforms.
- » **Green transition costs** as estimated in the EC's National Energy and Climate Plans.² For countries where those are not available, we assume that the average of the subregion is representative of the cost pressures they face as shown in Exhibit 8.
- » Higher military spending. We assume that countries realise their publicly stated policies in full and on time. In the absence of public statements, we assume that NATO member states will gradually ramp up defence spending to the 2% of GDP NATO target. For countries that have already met that target and have not stated further planned increases, we keep military spending flat at 2023 levels.

In spite of forthcoming rate cuts, interest rates will not return to the levels that prevailed during the years leading up to the pandemic; this will make financing higher spending more expensive and compound pressure on budgets. We assume that interest rates will remain higher than before the pandemic but that funding costs halve from their recent peak over the next decade, standing 1.5% higher than their 2019 levels by 2031 on average across the EU at 2.4%.

The purpose of these simulations is to illustrate the severity of the challenges policymakers are facing, and the debt trajectories that are produced in these simulations often differ from our current baseline assumptions. Moreover, we still expect some further form of policy response to ease the impact on debt and growth from rising spending pressures. The reforms to the Stability and Growth Pact could put additional downward pressure on fiscal balances (particularly for the most indebted countries) if the new rules were to be adhered to more strictly than the previous fiscal rules were (see the discussion of the new fiscal rules below). Nevertheless, the size of the challenge and each sovereign's macroeconomic and fiscal policy effectiveness provide indications about the likelihood that credit pressures will emerge.

While the future debt challenges in the EU are significant, they have not prevented upward movement of individual member states' ratings. In fact, in the last year, we have taken a number of positive rating actions in the European Union. Portugal, <u>Cyprus</u> (Baa2 stable) and <u>Greece</u> (Ba1 stable) have all been upgraded by two notches, and <u>Croatia</u> (Baa2 positive) and <u>Spain</u> (Baa1 positive) both have had their outlooks changed to positive. In the cases of Greece, Cyprus, Portugal, and Croatia we have observed double-digit declines in debt relative to their levels in 2019 and their interest burdens are also falling relative to 2019 levels in spite of higher official interest rates in the euro area. In all of these cases, we have seen countries take action to boost economic growth potential and, in some cases, fundamentally rebalance the economy.

Some countries' credit strength likely to weaken in the absence of policy action

Many European governments face public debt burdens at levels without precedent outside of wartime. European debt problems were exacerbated by the economic shocks caused first by the 2009 euro area sovereign debt crisis and then the COVID-19 pandemic. However, in the coming decade EU sovereigns will face the convergence of a number of additional budgetary pressures stemming from ageing populations and increasing spending needs to fund the green transition and counter rising geopolitical risks. While the latter costs are relatively modest for most countries and would be manageable in isolation, taken collectively mounting spending needs will likely require governments to prioritise or find additional resources. These rising costs also come at a time of higher interest rates which we do not expect to fall back to pre-pandemic levels.

The credit impact will vary between countries depending on starting levels of indebtedness, the extent of government spending pressures and the likelihood that policymakers will be able to offset them with other measures such as social spending cuts or tax rises.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

For those who currently have relatively low debt burdens, there is the fiscal space to allow debt to rise modestly in a controlled manner that would be broadly credit neutral. This is not the case for those with already-elevated debt burdens.

In this report, we present illustrative debt simulations out to 2031 to help show the scale of the economic and fiscal pressures that EU member states will face. We also assess the political and social feasibility of the fiscal effort required to stabilise debt (see Exhibit 1).

- » Debt levels will pose the greatest challenge for many of the countries that are highly indebted today (Belgium, France, Greece, <u>Italy</u> (Baa3 stable), Spain), others who will be particularly affected by the coming fiscal pressures though from a position of lower initial indebtedness include Romania and Slovakia.
- » Ageing costs will be the most pressing issue for some of these high-debt countries, such as Italy, which also faces weak growth prospects. Other more moderately indebted states such as Romania and Slovakia face the risk of a rapid rise in debt as changing demographics combine with other cost pressures such defence and green transition costs for which they are weakly positioned.
- » Complying with NATO's defence expenditure guidance will be a challenge for a large number of EU sovereigns, including Italy, Spain, Belgium and <u>Slovenia</u> (A3 stable).
- » Climate change costs are also challenges for a large number of EU sovereigns, though <u>Estonia</u> (A1 stable), <u>Finland</u> (Aa1 stable), <u>Germany</u> (Aaa stable), Portugal and <u>Sweden</u> (Aaa stable) are better positioned than most.
- » The fiscal effort to maintain debt at current levels varies significantly. Some highly indebted countries, particularly Belgium, face material challenges to avoid becoming even more indebted. However, some low-debt countries will also face an uphill battle if they want their debt burdens to remain low, including Bulgaria (Baa1 stable).

Exhibit 1
Sovereign's relative positioning with respect to fiscal challenges

	Debt 2023	Debt 2031	Ageing costs	Additional defence costs	Climate change costs	Fiscal effort
Austria (Aa1 stable)						
Belgium (Aa3 stable)						
Bulgaria (Baa1 stable)						
Croatia (Baa2 positive)						
Cyprus (Baa2 stable)						
Czech Republic (Aa3 stable)						
Denmark (Aaa stable)						
Estonia (A1 stable)						
Finland (Aa1 stable)						
France (Aa2 stable)						
Germany (Aaa stable)						
Greece (Ba1 stable)						
Hungary (Baa2 stable)						
Ireland (Aa3 stable)						
Italy (Baa3 stable)						
Latvia (A3 stable)						
Lithuania (A2 stable)						
Luxembourg (Aaa stable)						
Malta (A2 stable)						
Netherlands (Aaa stable)						
Poland (A2 stable)						
Portugal (A3 stable)						
Romania (Baa3 stable)						
Slovakia (A2 negative)						
Slovenia (A3 stable)						
Spain (Baa1 positive)						
Sweden (Aaa stable)						

Green = strongly positioned, yellow = fairly positioned, red = weakly positioned. Fiscal effort refers to the difference between our expected primary balance in 2031 and the primary balance that would stabilise debt in these simulations.

Source: Moody's Ratings

Debt will rise across most of the EU in the absence of policy action

According to our simulations, less than a third of EU governments will be able to reduce their debt burdens in the next decade without taking decisive policy action (see Exhibit 2). In our baseline fiscal forecasts, we assume that many of these governments will undertake policy changes in the future that mitigate these risks, but it is clear that, in the absence of policy action, debt will continue to rise for the others by varying degrees because of a combination of anemic growth, structural fiscal imbalances and larger long-term spending pressures.

Some of the highly indebted countries that were hardest hit by the 2009 euro area sovereign debt crisis are now reaping the benefits of ongoing fiscal consolidation efforts and structural reforms. In some, but not all, cases these have generated fiscal space to accommodate higher spending needs. We expect the largest declines in debt burdens in the EU to be in Greece, Cyprus, Ireland (Aa3 stable) and Portugal despite slowing growth, relatively large investment needs for the green transition and increasing ageing costs.

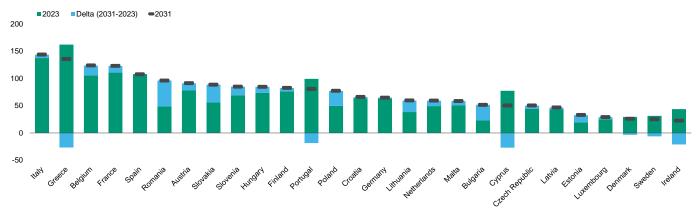
By contrast, the simulation shows rising debt burdens in Italy, Belgium and France, which is consistent with our baseline assumptions. In Spain, the burden remains stable in our simulations; this is more pessimistic than our current baseline because our house view on growth potential is more optimistic than that of the European Commission. These trends are because of high structural budget deficits in the case of France and Belgium, weak growth prospects for Italy (and, to a lesser extent, Spain) and increasing ageing costs in Italy, Belgium and Spain.

These simulations show debt burdens increasing most in Central and Eastern Europe (CEE) countries. This is from relatively moderate levels of debt averaging 51% of GDP in 2022, compared to 85% at the EU level. However, the countries in this region face particular pressure from rapidly ageing populations as well as larger green investment needs. These simulations show that Slovenia, Romania and Slovakia will be among the most highly indebted countries in the EU by 2031 in the absence of offsetting policy measures. In our baseline forecasts, we anticipate that these governments will take some action. Specifically, we expect an important tax reform in Romania next year (it forms part of the country's NextGenerationEU programme). Slovakia's linkage of the retirement age to longevity will reduce the impact of ageing on the public finances over time, though the impact of demographics on the public finances remains material.

Exhibit 2

Absent offsetting policies, debt will decline in less than a third of the EU over the coming decade

Debt (% of GDP)



Source: Moody's Ratings

For some, stabilising debt requires unprecedented and politically difficult fiscal consolidation

For some sovereigns where a decline in the debt burden is unlikely without additional policy action, this would involve unprecedented fiscal consolidation to prevent their national finances deteriorating further. This will be politically difficult because of the hard choices about changes to spending and revenue that this implies. These sovereigns' credit standing will increasingly depend on their ability to implement consistent and credible policies which foster growth and allocate finite government resources to maximise economic and social stability. Strong policy effectiveness remains a key support factor for now and underpins our expectation that sovereigns will address this trend in due course.

Slovakia and Romania would need to consolidate their budgets by more than 4% of GDP over the next 10 years to maintain their debt at current levels while accommodating the additional spending pressures we incorporated in our simulations. In Belgium, France and Slovakia, doing this would imply unprecedented fiscal consolidation, which would require strong political will to address fiscal deficits. These countries' credit strength are likely to deteriorate by 2031 if they take no policy action to avert the rise in debt ratios.

Ageing populations will limit growth potential and create headwinds for the public finances

The EU working-age population will shrink by 2.9% between 2023-31, according to EC population projections. This is twice as fast as in the preceding decade. The decline will be greatest in Central, Eastern and Southern European countries. Only Malta (A2 stable), Luxembourg (Aaa stable), Ireland, Sweden, Belgium and Spain will see an increase in working-age populations, mostly because of sustained high immigration rates (Exhibit 3). For many member states, we have identified population ageing as a key driver of social risks under our environmental, social and governance (ESG) framework although demographic trends will affect credit strength to varying degrees. Our debt simulations incorporate these age-related pressures on growth as well as the cost of ageing.

Reforms implemented to support higher labour market participation will partly but not fully offset the impact on labour availability (Exhibit 4). Factoring in the reforms, there will be a 1.9% decline in the number of employees across the EU by 2032. Only in the
Netherlands (Aaa stable), France and Denmark (Aaa Stable) will participation rates rise enough to offset the reduction in their working-

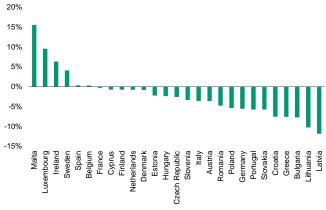
age population. Pension reforms raising the retirement age will be the most effective counter to the decline, with an average 10% increase in the participation of 55-65 year-olds by 2070.

2024 Ageing Report. Economic and Budgetary Projections for the EU Member States (2022-2070)

Female labour force participation will also continue to rise, reflecting higher participation in younger generations and the gradual alignment of women's retirement age with men. While the EU already has high female labour force participation by global standards, there are wide disparities from as high as 85% in Sweden to around 65% in Italy.

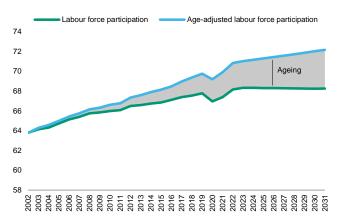
Exhibit 3
Most EU countries will see their working-age population decline in the next decade

Percentage change in working-age population (2023-2031)



Sources: European Commission and Moody's Ratings

Ageing will increasingly weigh on the availability of labour supply EU labour force participation rate (20-74 years)

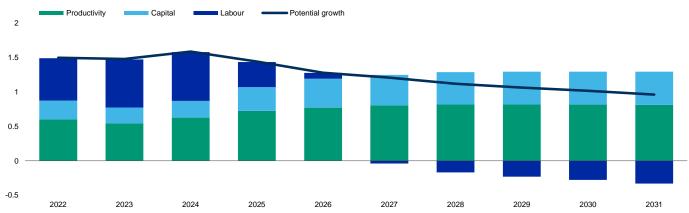


The age-adjusted participation rate keeps the working-age population shares constant as they were in 2002

Sources: Eurostat, Ageing Report 2024 and Moody's Ratings

Given current demographic trends, only substantial changes in other areas--such as migration trends, labour force participation rates, or total factor productivity growth--would prevent a slowdown in potential growth across Europe (see Exhibit 5). Absent changes to economic policy, labour force participation, or migration patters, productivity growth in Cyprus, Malta, Portugal, Hungary (Baa2 Stable), Bulgaria and Croatia would have to increase the most compared to its average over the past 20 years to offset the impact of the projected decline in their labour force. In some of these cases, we think that migration patterns, higher labour force participation rates, and structural reforms will offset some of these downward pressures. For example, in the case of Portugal, we think that sustained net migration, higher labour force participation rates, and an increase in labour productivity growth will offset many of these downward pressures.

Exhibit 5
Growth potential will decline in the next decade
Potential growth of EU-27 (%)



Source: European Commission and Moody's Ratings

The implementation of reforms as part of the NextGenEU programme presents the potential for a boost to productivity growth, especially for large recipient countries like Italy, Spain and Portugal. However, in our previous research we have found that Italy.Spain and Cyprus are the only cases where our estimates of NGEU gains almost or more than wholly offset the broader decline in potential growth rates caused by the negative effects of population ageing.

New technologies such as generative artificial intelligence (GenAI) may help accelerate productivity growth. However the speed with which this will happen is uncertain. Historically it has taken time for major new transformative technologies to be adopted widely enough for productivity growth to accelerate.

Fiscal positions will deteriorate because of rising age-related spending

Many European states will find their budgets under pressure from two sides with both increasing age related costs and dwindling labour taxation revenue from declining working age populations. Ageing-related spending will increase most in Romania, <u>Lithuania</u> (A2 stable), Portugal and Austria although from widely varying starting points (Exhibit 6).⁴ While the projected changes in size and age distribution of the population drive the expected increases in age-related spending, the structuring of provisions to support the elderly will help dictate different resulting spending pressures.

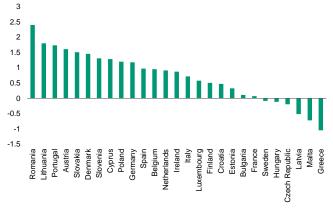
Overall, cost of ageing for the EU as a whole will stand at 24.7% in 2031. However, the level of age-related spending varies considerably between member states. At just over 29% of GDP, France has the highest level of age-related spending in the EU, though it is relatively stable over time. In contrast, Ireland has the lowest level of age-related spending (11.6% in 2023, rising to 12.5% in 2031), though particularly large distortions in real and nominal GDP numbers in Ireland (due to a limited number of transactions by multinational corporates based in Ireland) flatter these ratios. Malta, Hungary, and the three Baltic states will also have age-related spending below 18% of GDP in 2031.

Pension spending will decline in seven EU countries during the next decade as a result of past pension reforms, including measures reducing the benefit ratio and increasing the retirement age. However, reforms that lead to declining pension generosity will be politically difficult to sustain over the long run and pension expenditure projections may need revising higher. Recent policy reversals governments have introduced to soften the effect of past pension reforms in a number of countries illustrate the importance of such risks.

For example, in Spain, the government accompanied a hike in social security contributions and incentives to reduce early retirement with an indexation of pensions to inflation and a hike to minimum pensions, materially increasing pension spending. In Italy, the government introduced early retirement schemes in 2019, undermining the benefits of previous pension reforms. France increased the retirement age but also increased minimum pensions, significantly reducing the long-term fiscal benefits of the reform. The picture in Slovakia is more mixed, as the government halted the planned increase in the pensionable age in 2019 and allowed mothers to retire earlier, but in 2022 linked the retirement age to longevity.

All EU member states will also be confronted with increasing spending pressures arising from healthcare and pension provisions (Exhibit 7). Demographic factors alone increase healthcare costs. Moreover, a number of non-demographic drivers will increase cost pressures, including innovations in medical technologies and the rising prevalence of chronic diseases, such as cardiovascular disease or Type 2 diabetes, that are (in part) the result of lifestyle habits. The complexity of funding and spending models and the wide array of stakeholders — including governments, medical practitioners and pharmaceutical companies among others — also makes healthcare system reform more difficult. So too do sometimes diverging incentives. However several EU countries have already started reforms to enhance efficiency, reduce drug and procurement costs or alter patient behaviours. Member states have included a number of reforms and investments in the healthcare sector as part of their NextGenEU programmes such as digitalisation.

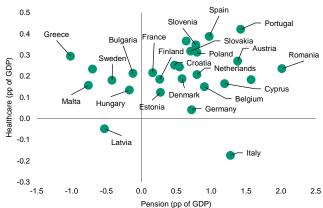
Exhibit 6
Most EU countries will see a sharp increase in age-related spending Increase in age-related spending by 2031 compared to 2023 (pp of GDP)



Sources: European Commission and Moody's Ratings

Exhibit 7

Healthcare and pension costs will increase for most EU countries
Percentage point change between 2023 and 2031

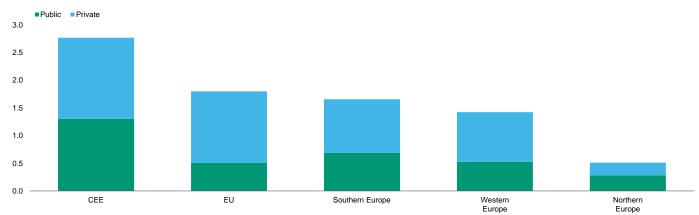


Sources: European Commission and Moody's Ratings

Costs of the climate transition will be material but overall manageable

To meet the EU greenhouse gas emission reduction target of 55% by 2030 compared to 1990 levels, the EC estimates that public and private investment of €620 billion a year, or 3% of GDP, is needed between 2021-2030. A substantial portion of this would have been incurred anyway because of maintenance, upgrade and expansion needs, so the additional investment need is closer to 1.6% of GDP (Exhibit 8).

Exhibit 8
Green transition requires substantial investment
Annual investment needs for the green transition (% of GDP)



Simple average for regional aggregates; GDP-weighted for the EU. Western Europe includes Austria, Belgium, Estonia, France, Germany, Ireland, Italy and Luxembourg. Northern Europe includes Denmark, Finland, Netherlands and Sweden. Southern Europe includes Cyprus, Greece, Malta, Portugal and Spain.

Sources: National Energy and Climate Plans and Moody's Ratings

While the private sector will finance most of this, governments will need to contribute, and most of these costs are not currently incorporated into our baseline forecasts (though they are included in the simulations in this paper). These contributions will include finance for common infrastructure for energy distribution and transport networks, increased efficiency in public buildings, additional funding to incentivize private investment and financial support for those on low incomes. The EU itself will also play a role in funding climate-related spending. For example, €578 billion of the EU budget for 2021-27 will be allocated to climate action, of which €203 billion will come from NGEU funds.⁶

Carbon taxes can mobilise a significant amount of additional revenue to fund green investment needs. Despite evidence that carbon pricing is effective in reducing emissions, adoption so far has been limited in part because of political difficulties in its implementation. Currently fewer than 40% of EU carbon emissions are covered by carbon pricing instruments.⁷

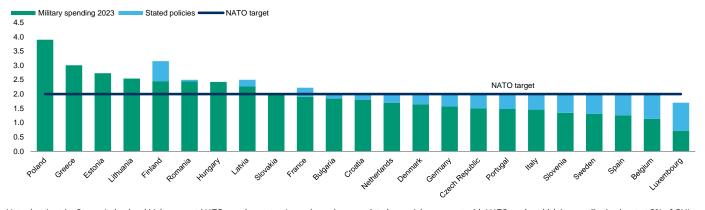
Based on estimates in the 2019 National Energy and Climate Plans (NECP), we calculate EU governments will contribute around 0.5% of GDP a year to fund the climate transition or around 28% of the extra green investment needed; this is additional spending that would not have been incurred anyway. CEE countries need to spend more because they started the decarbonisation process later. Countries where the transition is more advanced, like Finland, Sweden and Denmark, need less investment.

While the cost of green transition policies will be significant, countries will also have to bear some costs associated with the impact of climate change, the scale of which will depend on international efforts to limit global warming. Rising temperatures will increase the frequency and severity of intense climate events, with significant fiscal and economic costs. Estimates suggest that the EU will face annual welfare losses of €42 billion, or 0.3% of GDP, relative to current economic conditions if global temperatures rise 1.5°C above preindustrial levels. However, in the absence of greater global efforts, the impact would rise to €175 billion or 1.4% of GDP in a scenario where temperatures rise 3°C above preindustrial levels.

Rising geopolitical risks will add to budgetary pressures

European governments plan to permanently increase defence spending in response to Russia's invasion of <u>Ukraine</u> (Ca Stable), adding to spending needs over the coming decade (Exhibit 9).

Exhibit 9
Most EU countries are spending less than 2% of GDP on defence % of GDP, 2023



Note that Austria, Cyprus, Ireland and Malta are not NATO member states. Luxembourg has negotiated a special agreement with NATO, under which its contribution is set at 2% of GNI. Sources: NATO, national budget plans and Moody's Ratings

The number of European NATO members meeting the target of 2% of GDP in defence spending rose to 9 in 2023 from three in 2014. Most EU countries have stated their ambition to increase military spending. We estimate that to achieve these ambitions, member states would need to increase defence spending by around 0.5% of GDP on average relative to 2023; however, where concrete spending plans are absent, we have not included these expenditures into our current baseline forecasts, though we have included them in the debt simulations in this paper. Some countries with low levels of defense spending like Luxembourg, Belgium and Slovenia will need to ramp up spending more. Should the <u>US</u> (Aaa Negative) reduce or eliminate its military support for Ukraine, EU countries' defence spending needs would likely increase significantly.

Some large EU member states such as France, Germany and Italy have well-established defence industries. Greater defence spending creates an opportunity to develop the EU's defence industrial base, which could be an engine for innovation, as it has been in the US. However, we expect that capacity constraints will limit the short-term financial gains for defence manufacturers and the economic impact will be limited and not large enough to counteract the greater fiscal pressures.

New EU fiscal rules are unlikely to alter debt trajectories materially

New EU fiscal rules, due to come into operation in 2025, following formal adoption by EU countries and the European Parliament, aim to strike a balance between fostering a reduction in debt burdens for highly indebted countries and political realism. The previous framework under the Stability and Growth pact suffered from low compliance among many large member states who did not find the rules to be particularly binding in a period of ultralow funding costs.

Although the new rules are more flexible than their predecessors, the Maastricht anchors that limit general government deficits to 3% of GDP and debt stocks to 60% of GDP are written into the treaty, and are therefore unchanged. However, there are material changes to the fiscal adjustment path toward these anchors that are codified in the new rules.

The centrepiece of the revised framework is a medium-term fiscal plan that focuses on the net primary spending path agreed between the European Commission (EC) and an individual member state covering a minimum adjustment period of four years. The adjustment period could be extended to seven years if the country commits to a set of growth-enhancing reforms and investments beyond those stipulated in their respective Recovery and Resilience Programmes (RRPs).

The rules also introduce new quantitative indicators that specify the average annual size of debt adjustments varying from 0.5 percentage point yearly reduction in debt-to-GDP ratio for countries with debt burdens between 60% and 90% of GDP, to a 1 percentage point yearly reduction for those with debt burdens above 90%.

For high-debt sovereigns such as Italy, Portugal, Spain, Belgium, France and Greece, this will require unprecedented fiscal consolidation, both in terms of its size and its duration, when compared to their track records (Exhibit 10). Although the 1 percentage point annual reduction in debt is less onerous than the previous 1/20th rule of the Stability and Growth Pact¹⁰ (Exhibit 11), it still implies a substantial annual fiscal tightening. Moreover, the 1/20th rule was never really respected by highly indebted member states.

Exhibit 10

Most high debt sovereigns' have struggled to materially reduce debt since the financial crisis

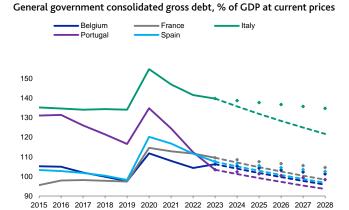


A green cell indicates a year when the sovereign reduced debt by more than 1 percentage point of GDP Source: European Commission and Moody's Ratings

We have estimated a structural primary balance and debt reduction path using a methodology published by Bruegel, a Brussels based think tank, and incorporating our own macroeconomic forecasts. This analysis illustrates that, even if high debt sovereigns were to implement the necessary reforms to unlock the longer seven-year adjustment periods, they would still be required to achieve highly ambitious structural primary balances (SPBs) by 2031 under the new fiscal rules (Exhibit 12). Our simulations indicate that only Portugal is on track to achieve the required SPB by the end of the seven-year adjustment period in 2031 without additional material fiscal policy adjustment.

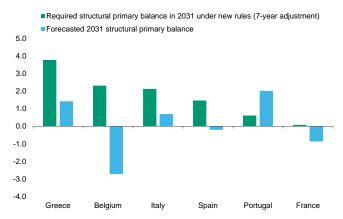
Sovereign And Supranational **Moody's Ratings**

Exhibit 11 High debt sovereigns will need to reduce debt more gradually compared to previous rules...



The dashed line represents the debt trajectory under the former 1/20th rule. The rectangular markers represent the debt trajectory under the new 1 pp of GDP rule. Sources: European Commission and Moody's Ratings

Exhibit 12 ... but ambitious fiscal adjustments will still be required Structural primary balance, % of GDP



Required structural primary balance refers to the minimum SPB at the end of the sevenyear adjustment period consistent with meeting all the requirements of the new fiscal rules including the debt sustainability analysis criteria, 3% deficit cap, deficit resilience safeguard, debt sustainability safeguard

Sources: European Commission and Moody's Ratings

We expect that strict fiscal policy requirements will remain politically difficult to implement for the most indebted sovereigns. This raises the risk that highly indebted countries' debt burdens under the new rules will remain high. Political cycles will create an additional challenge because seven-year adjustment plans will inevitably transcend electoral cycles and, therefore, bind future governments to policy choices that they may disagree with. Ultimately, many seven-year plans may end up being scrapped by future governments, thus reducing the predictability of fiscal policy strategy.

Endnotes

- 1 2024 Ageing Report. Economic and Budgetary Projections for the EU Member States (2022-2070), European Commission
- 2 National energy and climate plans: EU countries' 10-year national energy and climate plans for 2021-2030, European Commission
- In November 2023, Romania passed a major pension reform that increases Romania's debt burden and weakens debt affordability metrics until the late 2020s, but will bring about savings in the 2030s and beyond. See Government of Romania: Pension reform raises medium-term fiscal risks, a credit negative, but reduces long-term cost pressures.
- 4 Defined as government spending on pensions, healthcare, long-term care and education.
- 5 Strategic Foresight Report 2023, European Commission
- 6 See Climate mainstreaming, European Commission
- 7 EU carbon market continues to deliver emission reductions, European Commission
- 8 According to the European Investment Bank (EIB), the NECPS estimated investment needs are not enough to achieve the EU climate objectives.
- 9 Economic analysis of selected climate impacts, 13 May 2020, Publications Office of the European Union. Welfare losses are broader than monetary losses and include, among other things, increased human mortality due to extreme heat.
- 10 The EU tightened its fiscal rules in the wake of the 2010 euro area debt crisis by introducing a 1/20 rule. This required countries with debt levels above 60% of GDP to reduce their debt by at least 1/20th of the difference between their current debt-to-GDP ratio and the 60% target every year, though the rule was never implemented by high-debt sovereigns.
- 11 Darvas, Z., L. Welslau and J. Zettelmeyer (2023) 'A quantitative evaluation of the European Commission's fiscal governance proposal', Working Paper 16/2023, Bruegel

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODE!

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials. To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Businesses", and are not subject to the regulations applicable to "Credit Rating Businesses" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

REPORT NUMBER

1385098