

# Debt sustainability analysis as an anchor in EU fiscal rules

---

An assessment of the European  
Commission's reform orientations



External author:  
Philipp HEIMBERGER

*Supporting EU economic governance scrutiny*





# Debt sustainability analysis as an anchor in EU fiscal rules

---

## An assessment of the European Commission's reform orientations

### **Abstract**

The Commission's reform orientations propose that debt sustainability analysis (DSA) should serve as an anchor in EU fiscal rules. After discussing the main assumptions of DSAs in projecting public debt ratios, we analyse four critical aspects in designing such a reform: making judgement calls with regard to DSA assumptions; ensuring transparency and democratic legitimacy; promoting public investment in the context of climate goals; and tackling cross-border effects of fiscal policy, in particular related to the euro area dimension.

This document was provided by the Economic Governance and EMU Scrutiny Unit at the request of the Committee.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

### **AUTHORS**

Philipp HEIMBERGER, Vienna Institute for International Economic Studies.

### **ADMINISTRATOR RESPONSIBLE**

Samuel DE LEMOS PEIXOTO

### **EDITORIAL ASSISTANT**

Donella BOLDI

### **LINGUISTIC VERSIONS**

Original: EN

### **ABOUT THE EDITOR**

The Economic Governance and EMU Scrutiny Unit provides in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact the Economic Governance and EMU Scrutiny Unit or to subscribe to its newsletter please write to:

Economic Governance and EMU Scrutiny Unit

European Parliament

B-1047 Brussels

E-mail: [egov@ep.europa.eu](mailto:egov@ep.europa.eu)

Manuscript completed in March 2023

© European Union, 2023

This document and other supporting analyses are available on the internet at:

<http://www.europarl.europa.eu/supporting-analyses>

### **DISCLAIMER AND COPYRIGHT**

The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

---

## CONTENTS

<b>LIST OF ABBREVIATIONS</b>	<b>6</b>
<b>LIST OF FIGURES</b>	<b>7</b>
<b>EXECUTIVE SUMMARY</b>	<b>8</b>
<b>1. INTRODUCTION</b>	<b>9</b>
<b>2. DEFINING DEBT SUSTAINABILITY</b>	<b>10</b>
<b>3. MAIN ASSUMPTIONS IN THE EUROPEAN COMMISSION'S DSA FRAMEWORK</b>	<b>12</b>
<b>4. THE COMMISSION'S DSA-RELATED REFORM ORIENTATIONS: IMPORTANT ASPECTS FOR DEBATE</b>	<b>16</b>
4.1. Judgement calls and self-fulfilling prophecies	16
4.2. Transparency and democratic legitimacy	17
4.3. Public investment in the context of climate goals	18
4.4. Cross-border effects of fiscal policy related to the euro area dimension	19
<b>5. CONCLUSIONS</b>	<b>21</b>
<b>REFERENCES</b>	<b>23</b>

## LIST OF ABBREVIATIONS

<b>DSA</b>	Debt Sustainability Analysis
<b>DSGE</b>	Dynamic Stochastic General Equilibrium
<b>ECB</b>	European Central Bank
<b>EDP</b>	Excessive Deficit Procedure
<b>EFSF</b>	European Financial Stability Facility
<b>ESM</b>	European Stability Mechanism
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>ICMA</b>	International Capital Market Association
<b>IMF</b>	International Monetary Fund
<b>TPI</b>	Transmission Protection Instrument

## LIST OF FIGURES

Figure 1: Public-debt-to-GDP projections for the EU27 under different assumptions	14
Figure 2: Public-debt-to-GDP projections produced by the European Commission (baseline scenarios at different projection vintages)	15

## EXECUTIVE SUMMARY

This paper assesses the European Commission's reform orientations with regard to using debt sustainability analysis (DSA) as an anchor in EU fiscal rules. The European Commission (hereafter Commission) would conduct a DSA for each member state, thereby projecting the public-debt-to-GDP ratio over more than 10 years with the goal of deriving a reference fiscal adjustment path consistent with a declining or stabilising public debt ratio. DSA inputs would in turn serve as the basis for negotiations of multi-annual expenditure plans between the Commission and the respective national government. We review definitions and concepts behind the analytical framework and show that conducting a DSA is not simply a technical task; it heavily relies on assumptions on the future evolution of economic growth, interest rates, non-interest fiscal balances, and inflation.

Technical analysis and policy judgement cannot be neatly separated: projections of interest rates, growth and inflation depend on the outlook of monetary policy and other policy choices to be taken by European policy-makers. Changing the assumptions involving policy judgement leads to different debt trajectories. Debt sustainability analysis is useful in assessing fiscal risks under different assumptions on the future evolution of fiscal and macroeconomic variables; however, it is not designed for delivering one precise (baseline) debt trajectory for deriving an expenditure path. Against this background, we discuss four critical aspects concerning the reform of EU fiscal rules based on the Commission's orientations: addressing judgement calls in setting DSA assumptions; ensuring transparency and democratic legitimacy in using DSA inputs; promoting public investment in the context of climate goals; and tackling cross-border effects of fiscal policy, in particular related to the euro area dimension.

DSAs are only as informative as the methods and inputs used to generate them. Therefore, all relevant data and code files should be publicly available to ensure replicability. The European Parliament should be more heavily involved than suggested by the reform orientations, including parliamentary debates on the assumptions that enter the regular DSA exercises, where parliamentary scrutiny could be facilitated by independent assessments of the European Fiscal Board.

The reform could aim at enabling the Commission to approve member states' fiscal-structural plans based on DSA inputs by delegated act; the European Parliament and the Council of the European Union (hereafter Council) would then both have the possibility to overturn the Commission's decision within a deadline. Furthermore, the European Parliament could be given a mandatory vote whenever the Commission takes far-reaching decisions, such as starting an Excessive Deficit Procedure or rejecting a draft budgetary plan of a national government. National parliaments could also be involved after the Commission has negotiated multi-annual expenditure plans with the respective government based on DSA inputs.

The reform orientations suggest that member states can get a time extension for their fiscal adjustments if they propose investments and reforms that are consistent with debt sustainability and in line with EU priorities. However, the criteria for deciding which investments qualify remain unclear. The emphasis on reducing public debt ratios may be incompatible with an expansion of climate public spending. The reform orientations do not address how to increase the scope for additional public investment required to meet climate goals while using DSAs as an anchor. The introduction of an EU investment fund for climate and energy could help ensure that the reformed EU fiscal rules can be enforced more strictly in the future.

The Commission's reform orientations fall short when it comes to addressing cross-border effects of fiscal policy. The aggregation of the expenditure paths of individual member states derived from the DSA exercises need to make sense for the fiscal stance of the euro area as a whole; otherwise, financial



stability risks could increase. This could be addressed by using technical analysis on how the fiscal stance derived from DSA exercises would affect the euro area fiscal stance.

## 1. INTRODUCTION

While debates on whether and how to reform EU fiscal rules have been going on for a long time, the negative impact of the Covid-19 pandemic on public finances across EU member countries has further raised the political stakes. After finishing its public consultation process on the EU's economic governance framework, the European Commission has published orientations on how to reform the EU's fiscal rules (European Commission 2022a). The Commission's orientations, which were welcomed by the conclusions of the Council on March 14<sup>th</sup> 2023 (Council 2023), propose an enhanced role for debt sustainability analysis (DSA) in assessing fiscal risks in a forward-looking manner. According to the Commission's orientations, DSA analysis would be the basis for negotiations between the Commission and individual governments on multi-annual expenditure paths that are supposed to ensure that the public-debt-to-GDP ratio declines or at least stabilises over time.

To ensure a stable or declining public debt trajectory, the Commission would conduct DSA for each member country. For countries that are assessed to face a substantial or moderate public debt challenge, the Commission would set a reference fiscal adjustment path covering at least four years based on the respective DSA. This adjustment path would be expressed in terms of net non-interest (i.e. primary) expenditures – expenditures net of discretionary revenue measures and excluding interest payments and cyclical unemployment expenditure – and should ensure that the public debt ratio is plausibly on a downward path for ten years after the period of the plan, while the fiscal deficit should not exceed 3% of GDP (European Commission 2022a).

The Commission has been using DSAs for years, thereby contributing to the monitoring of fiscal policy under the Stability and Growth Pact (SGP), the formulation of country-specific recommendations in the European Semester, and surveillance after adjustment programmes (European Commission 2022b, p. 36). However, DSAs would gain importance with the implementation of the Commission's reform orientations, as they would have a new role in providing an anchor for bilateral negotiations and surveillance. This article offers an assessment of DSAs by highlighting critical aspects for upcoming reform debates.

## 2. DEFINING DEBT SUSTAINABILITY

When does the public debt stock of a country become too large for governments to fully service their payment obligations? Answering this question based on technical analysis is anything but easy. Debt sustainability is a complex and contested concept; there is no single, universally accepted definition. In general, the concept of debt sustainability is forward-looking; it requires passing judgment on events (far) in the future that are difficult or even impossible to predict (e.g. Wyplosz 2011; Guzman 2016).

The Commission's DSA framework defines debt as a situation "*where fiscal policy can be maintained unchanged over the post-forecast horizon (without changes in public spending, nor taxation, that would affect the government primary balance), without causing public debt to rise continuously as a share of GDP.*" (European Commission 2016, p. 22).<sup>1</sup> Institutions such as the IMF and the ECB use similar definitions (e.g. IMF 2014; Bouabdallah et al. 2017).

The Commission's sustainability focus is on ensuring that the public-debt-to-GDP ratio declines or at least stabilises over time. The underlying debt concept refers to gross consolidated general government debt, which includes financial liabilities related to currency, deposits, debt securities and loans; assets owned by the government vis-à-vis counterparts are not netted out (European Commission 2022b, p. 120). The focus on reducing gross public debt in percent of GDP is also key in the Commission's orientations for reforming the EU's fiscal rules (European Commission 2022a).

Alternative views are based on different definitions of debt sustainability. Blanchard et al. (2021) argue that sustainability should be understood more as a probabilistic concept: as there is no absolute safety at any debt ratio, one should not aim for absolute debt sustainability, but rather for debt sustainability with high probability. Hence, while a lack of fiscal sustainability in the Commission's current approach would be a situation in which there is no feasibility of a fiscal adjustment that puts the public debt ratio on a stable trajectory, Blanchard et al. (2021) analyse the probability that the public debt ratio of a specific country will explode based on its current set of policies. Blanchard et al. (2021) do not use a strict public-debt-to-GDP ratio as the appropriate anchor of fiscal policy; but they still define fiscal sustainability via the public debt ratio.

High public debt levels can have negative cross-border effects in the euro area context, for example by raising the probability of a fiscal crisis or by complicating the task of monetary policy-makers who need to take high public debt levels in individual member countries into account when taking decisions for the euro area as a whole. However, Blanchard et al. (2021) point out that there are situations in which fiscal policy can have spillovers in the sense that a fiscal contraction in one country not only affects domestic demand for goods and services, but also demand in other countries of the monetary union, which cannot be offset by using supranational monetary policy. This may lead governments to underuse fiscal policy, with negative macroeconomic spillovers to other member countries. Notably, the debt sustainability approach used by the Commission focuses on debt spillovers but not on demand spillovers.

Still other approaches do not share a strong focus on the public debt ratio in assessing a country's fiscal position, as the public-debt-to-GDP ratio can be seen as a potentially misleading metric of a country's fiscal sustainability (e.g. Furman and Summers 2021).<sup>2</sup> The functional finance approach argues that the

<sup>1</sup> Debt sustainability defined in the sense of the solvency of the public sector is fulfilled when governments are able to meet all their debt obligations through future primary fiscal surpluses. Solvency therefore requires that the public debt level may not exceed the present value of all future primary fiscal balances.

<sup>2</sup> Furman and Summers (2020) discuss three reasons why the public-debt-to-GDP ratio is a problematic metric. First, while debt can be repaid over time, the debt ratio compares the stock of debt at a particular point in time to one year's GDP. Second, the public debt ratio does not reflect interest payments, which may point in the opposite direction. Third, it is backward-looking, i.e. it does not consider future

goal of policy-makers should be to achieve full employment and price stability, and that public debt should be managed so that it is consistent with reaching these goals (Lerner 1943). As fiscal policy affects aggregate demand, it should be used actively as a macroeconomic tool to stabilise the economy by running larger fiscal deficits in times of adverse macroeconomic shocks, and not only when the scope for monetary policy is limited (e.g. Sigl-Glöckner et al. 2021). This may imply the need for much larger variations in primary fiscal balances than a debt sustainability approach such as the Commission's allows for.

In sum, the Commission's DSA framework is based on a specific way of conceptualising and defining debt sustainability, which remains contested.

---

policies that are likely to be needed, such as costly measures in response to future emergencies. Fundamentally, their criticisms are about comparing a stock (debt) to a flow (GDP).

### 3. MAIN ASSUMPTIONS IN THE EUROPEAN COMMISSION'S DSA FRAMEWORK

In practice, debt sustainability assessment is anything but easy; “it is a prediction, an informed judgment on a known unknown”. (Debrun et al. 2019, p. 151) The assessment gets even harder in considering the large uncertainty around any prediction, as projections on how the public-debt-to-GDP ratio will evolve strongly depend on assumptions regarding the future evolution of economic growth, borrowing costs, inflation and the primary balances entering the DSA. Therefore, some even regard the assessment of debt sustainability as a “mission impossible” (Wyplosz 2011).

The implementation of the Commission's orientations for reforming the EU's fiscal rules would give a much more prominent role to DSAs than they currently enjoy (European Commission 2022a). The Commission would be able to build on its existing DSA framework, which has been developed over recent years. In the aftermath of the sovereign debt crisis in Greece and with the establishment of the European Financial Stability Facility (EFSF) and European Stability Mechanism (ESM), the Commission published its detailed framework for the DSA for the first time (European Commission 2016), which has since then undergone a number of changes (European Commission 2022b).

In facing the conceptual fuzziness of debt sustainability and its myriad complexities, institutions have developed rather simple DSA frameworks to inform their judgement. The stability of the trajectory of the public-debt-to-GDP ratio over time is operationally easier than guessing the present value of future primary fiscal balance over an indefinite period of time. Assessments whether the debt ratio is dynamically stable are at the heart of DSA frameworks of organisations such as the IMF, the ECB, and the Commission. This focus allows for linking debt sustainability to measures of policy adjustments such as the gap between the structural primary fiscal balance and the primary balance that would be required to reach an agreed public debt level at a predetermined date.

The Commission's DSA framework is an analytical toolkit for assessing fiscal risks as defined in the previous section. The DSA centres around a baseline projection of the public-debt-to-GDP ratio over (more than) 10 years based on macroeconomic forecasts and assumptions beyond the forecast horizon. The no policy change assumption is important: the Commission assumes that current fiscal policy remains unchanged after the horizon of the plan, so that primary government spending is only affected by changes in costs related to ageing. This baseline is complemented by deterministic sensitivity tests based on alternative assumptions on key fiscal and macroeconomic variables, and a stochastic analysis that is supposed to capture uncertainty around macroeconomic developments.

The Commission's DSA framework allows for projecting the trajectory of the public-debt-to-GDP ratio based on assumptions with regard to future developments in the government's fiscal balance, interest payments, economic growth, and inflation (European Commission 2022b). The primary fiscal balance measures the fiscal stance; it consists of the components “structural” primary balance, costs of ageing and others (taxes and property incomes). The estimation of the “structural” fiscal balance rests on the Commission's methodology for cyclically adjusting the headline fiscal balance based on estimates of potential output. This methodology has been shown to suffer from procyclical estimation problems which hamper the provision of stable fiscal policy guidance (e.g. Fatas 2019; Heimberger 2020; Sigl-Glückner et al. 2021). The costs of ageing included in the primary balance projections strongly rely on assumptions with regard to changes in population.

Key factors that impact public debt dynamics are interest rates, economic growth and inflation. Assumptions on interest rates are important. Monetary policy affects both the level of interest rates as well as differences in financing costs across euro area countries (e.g. De Grauwe and Ji 2013). The Commission does not explicitly forecast interest rates and the behaviour of the ECB, but projects bond

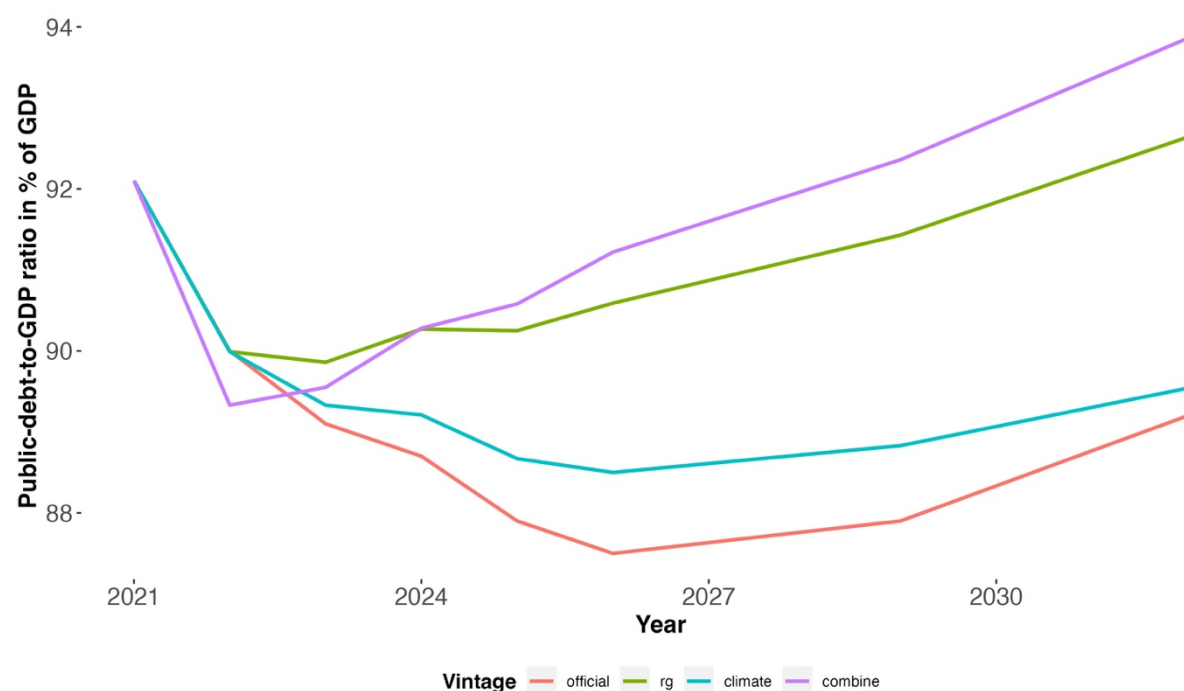
yields based on market expectations. Using market expectations of interest rates, however, does not eliminate the problem that interest rates depend on expectations about what the ECB and other European policy-makers will do. The reason is that the market expectations used in the Commission's DSA price in policy considerations on how ECB policy and the EU's institutional framework will affect bond yields. Importantly, using market forecasts on interest rates can introduce a procyclical bias in the DSA, whenever market participants are more likely to think that interest rates will remain high when current interest rates are high – and vice versa.

Another important assumption relates to real GDP growth, which is estimated based on the first two years in the Commission's projection. For the following three years of the projection horizon, the DSA assumes that economic growth converges to the potential growth rate, which is estimated based on the Commission's potential output model (e.g. Heimberger and Kapeller 2017; Heimberger et al. 2020). If there is a fiscal adjustment, growth is revised downwards by 0.75 percentage points for every 1 percentage point in fiscal consolidation (European Commission 2022b, p. 38). This implies the assumption of a fiscal multiplier of 0.75. The fiscal consolidation multiplier could, however, be substantially larger than 1, especially during downturns (e.g. Heimberger 2017; Gechert and Rannenberg 2018) and when negative spillover effects come into play (e.g. in 't Veld 2013); this could imply more negative growth effects than assumed by the Commission. Growth paths have recently also been revised to include the impact of Next Generation EU based on simulations from the Commission's New-Keynesian DSGE model QUEST (European Commission 2022b, p. 135-137). Finally, the estimation includes the assumption that inflation converges to 2% in the longer run.

However, not all changes in the public-debt-to-GDP ratio can be explained by the components of the primary fiscal balance and the effects of the interest-growth differential and inflation. The stock-flow adjustment reflects changes in the public debt level that cannot be explained by the other factors. This may include effects of debt adjustments, statistical discrepancies, or the impact of the net acquisition of financial assets.

This overview of the Commission's DSA framework shows that the projection of public-debt-to-GDP ratios depends on main assumptions with regard to interest rates, economic growth, inflation, and fiscal policy. Some of these assumptions rest on the estimation of unobservable variables (potential output) and are endogenous to expectations about policy decisions to be taken by the ECB, the Commission and other policy-makers. The projections of public debt ratios in DSAs can be quite sensitive to (small) changes in underlying assumptions for key fiscal and macroeconomic variables (e.g. Darvas and Hüttl 2014; Van Dijk et al. 2022), and should particularly be taken with caution when the projections include a time horizon of more than 10 years as in the Commission's proposal for reforming EU fiscal rules.

**Figure 1:** Public-debt-to-GDP projections for the EU27 under different assumptions



Source: European Commission (2022b); own calculations. official: projection in European Commission (2022b, p. 220). rg: interest(r)-growth(g) differential increases by 1 percentage points. climate: incremental climate spending by 1% of GDP per year. combine: combination of rg and climate.

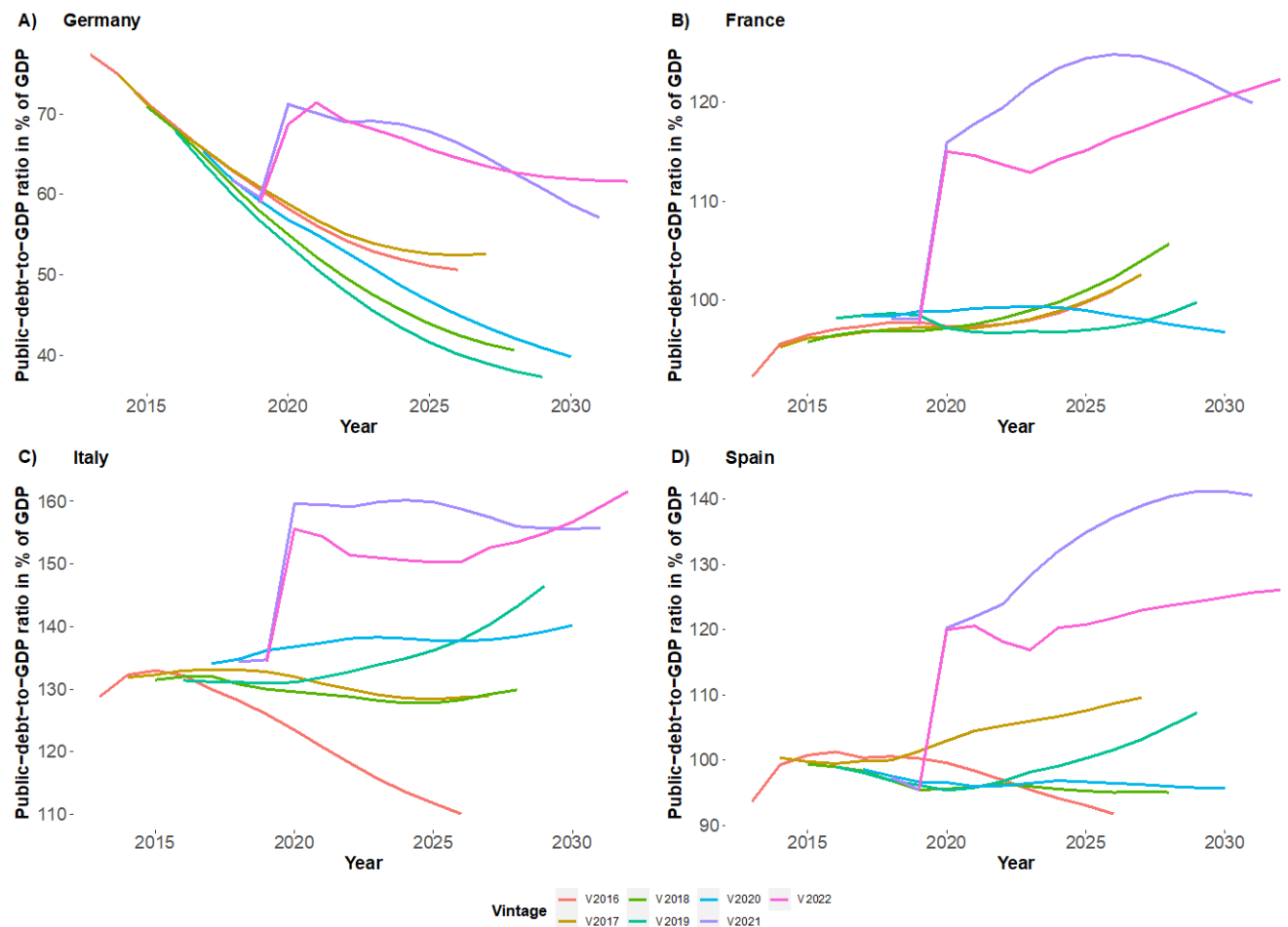
For illustration purposes, Figure 1 shows projections for the public-debt-to-GDP ratio of the EU27 under different assumptions. The official projection from the Commission’s Fiscal Sustainability Report points to a decline in the public debt ratio from 2023 up to 2026, and an increase afterwards; however, the debt ratio in 2032 is projected to be lower than in 2022 (89.2% compared to 90%). To illustrate the impact of a change in assumptions, we first look at a more unfavourable interest-growth differential, which can be thought of as a 1 percentage point increase in interest rates on government bonds relative to growth rates (in comparison to the official baseline). All other assumptions are kept constant. We observe a more adverse development of the public-debt-to-GDP ratio, which steadily increases to 92.6% in 2032. In another separate scenario, we assume an incremental increase in public climate spending by 1% of GDP per year. This additional spending has been argued to be a requirement for meeting climate goals (Heimberger and Lichtenberger 2023), but also pushes up the primary fiscal deficit. We consider feedback effects on economic growth by setting a fiscal multiplier of 0.8, which is in the same ballpark as the Commission’s assumption on the fiscal consolidation multiplier and consistent with conservative estimates on average spending multipliers (Gechert 2015). Under this climate spending scenario, we find that the public debt ratio falls slightly from the year 2023 up to 2026, but then rises and eventually turns out higher than under the official baseline. If we combine these two scenarios, i.e. a more unfavourable interest-growth environment and an increase in climate spending, we get the most adverse impact on the public debt ratio, which rises to 93.9% in 2032; this would be about 4.5 percentage points higher than the 2022 level.

Figure 2 shows the history of actual revisions in projected debt ratios based on the Commission’s DSA results for the four largest EU countries – Germany, France, Italy and Spain. Notably, the results compare the baseline scenarios at different forecast vintages, where the baseline refers to the assumptions that are considered as the point of reference against which alternative scenarios would need to be

compared. We focus on baseline scenarios because the Commission's proposal for reforming the EU fiscal rules also proposes that reference adjustment paths for individual member countries should be derived from DSAs. The DSA baseline scenario would then be a crucial element in anchoring the negotiations of expenditure plans between the governments of individual member countries and the Commission.

Figure 2 suggests that the euro area's largest member countries have all seen substantial revisions in their projected public debt ratios, even before the pandemic hit. For example, the Commission in 2016 projected Italy's debt ratio at 110.1% of GDP in 2026; in early 2020 (right before the pandemic hit), this number had been revised to 137.7%; and in 2022, after the start of the pandemic, the projection for 2026 stood at 150.3%. These large revisions raise questions about underlying assumptions and robustness of the baseline scenarios produced by the Commission's DSAs, which should be considered in the reform debate on whether and how to use DSAs in the context of EU fiscal rules.

**Figure 2:** Public-debt-to-GDP projections produced by the European Commission (baseline scenarios at different projection vintages)



Source: Various publication vintages of the European Commission's Debt Sustainability Monitor. For example, the vintage "V2016" refers to the Debt Sustainability Monitor published in the year 2016.

## 4. THE COMMISSION'S DSA-RELATED REFORM ORIENTATIONS: IMPORTANT ASPECTS FOR DEBATE

Fiscal rules run into limits when it comes to accounting for the complexity of the factors that actually drive the sustainability of public finances (e.g. Blanchard et al. 2021; Wyplosz 2013). Upgrading the role of DSAs in EU fiscal rules could be seen as a way of using discretion in country-by-country analysis anchored in a common assessment framework. Member states may operate with more scope in designing their fiscal trajectories under the Commission's supervision and surveillance, thereby improving national ownership. Using a single operational indicator – net primary expenditures – consistent with a projected path of the public debt ratio would reduce operational complexity compared to the current rules, where recommendations and surveillance rely on unobservable indicators subject to frequent revisions, such as the structural fiscal balance and the output gap (e.g. Heimberger and Kapeller 2017; Sigl-Glöckner et al. 2021). While the current fiscal rules focus on the same target level of the public-debt-to-GDP ratio for each country (60% of GDP), a move towards using individual debt sustainability analysis may provide more leeway in tailoring fiscal policy paths that increase the respective government's chance of success in terms of delivering a falling public debt ratio while taking economic challenges into account. However, important elements still need to be developed in designing the common assessment framework. In what follows, we discuss four critical aspects for the upcoming debate around using DSAs as an anchor in EU fiscal rules as suggested in the Commission's orientations.

### 4.1. Judgement calls and self-fulfilling prophecies

DSA is not simply a technical tool to compute public debt trajectories and derive optimal fiscal policy. The analysis heavily relies on assumptions, especially with regard to the future evolution of fiscal and macroeconomic variables. Changes to these assumptions can easily lead to very different debt trajectories. Making these assumptions is not merely a technical task, but also involves the estimation of unobservable variables (in particular potential output growth) and policy judgement (e.g. Wyplosz 2011; Alcidi and Gros 2018; Corsetti 2018). For example, the Commission's DSAs project interest rates on government bonds based on market expectations (e.g. European Commission 2022b) – different from the International Monetary Fund, which uses expert judgement (IMF 2021a). However, market expectations are formed based on what the ECB and other policy-making institutions are expected to do. European policy-makers' announcements with regard to economic policy and the European institutional architecture have an impact on differences in financing costs for euro area member countries (e.g. De Grauwe and Ji 2013), thereby affecting public debt ratios. Growth expectations depend on a set of policy choices in which the Commission and other policy-making institutions are involved.

This leads to the problem of multiple equilibria or self-fulfilling prophecies (e.g. De Grauwe 2012). If the DSA suggests that public debt is sustainable, market reactions may turn out to be limited so that financing costs remain contained, which tends to relax the fiscal constraints and to increase the probability of a favourable outcome. But if the debt trajectory is assessed to be unsustainable, rating agencies will downgrade the sovereign debt, financial market investors will react by selling bonds, and this will increase financing costs, thereby pushing up the public debt ratio. These dynamics will make it more difficult for the ECB to backstop the bond markets. An activation of the ECB's "Transmission Protection Instrument" (TPI) has to take the Commission's assessment whether the respective member country's public debt is sustainable into account (ECB 2022). The ECB's internal collateral framework is based on market-based assessments of sovereign debt (van 't Klooster 2022). Hence, doubts over the sustainability of the public debt trajectory based on the Commission's DSAs could set in motion a



feedback loop that leads to the outcome that is to be avoided. In a similar vein, the projection of low (potential) growth rates in the DSA will lead to higher projected public-debt-to-GDP ratios, which requires a tighter fiscal policy stance under EU fiscal rules. The resulting additional fiscal consolidation may then have negative growth effects (which could spill over to other member states; see section 4.4), thereby rendering the public debt less sustainable than in a scenario where the potential growth rate projection would have been less pessimistic (e.g. Heimberger and Kapeller 2017).

In sum, using DSAs to determine one specific (baseline) debt trajectory and to derive a reference fiscal adjustment path, as suggested in the Commission's proposal, is not a clear-cut endeavour. Technical analysis and policy judgement cannot always be neatly separated when conducting a DSA. This leads to high requirements for democratic scrutiny and control both at the supranational and national level.

## 4.2. Transparency and democratic legitimacy

DSAs are only as informative as the methods and inputs used to generate them. Transparency about the "black box" behind the analysis is essential. All relevant data and code files should be publicly available to ensure that DSA findings are fully replicable. This is consistent with the Council conclusion that the "Commission trajectory should be based on a common methodology to be agreed that is replicable, predictable and transparent." (Council 2023, p. 4) More parliamentary control than currently envisaged could make the process more transparent. Many of the most important technical assumptions involve judgement on policy choices that involve EU institutions. DSAs can indeed be very useful in showing how public debt trajectories change given certain assumptions. Hence, they are helpful when it comes to indicating fiscal risks. However, there are thousands of different ways to set assumptions (on interest rates, growth etc.) in projecting debt ratios. This raises the question about how to take decisions on the assumptions underlying the reference multiannual adjustment path derived from the DSA. The assumptions behind the Commission's reference adjustment paths should receive special attention, as DSA is not well suited to determining a specific path but rather to indicate debt risks under different assumptions.

DSA results would be crucial inputs for judgement calls on the categorisation of countries with potentially far-reaching political and economic consequences. For countries that are judged to face a "substantial" public debt challenge, the Commission's orientations suggest an automatic opening of an Excessive Deficit Procedure (EDP) if the respective government deviates from the agreed expenditure path. Hence, if the DSA raises a red flag, governments could by default be put under tighter surveillance and face sanctions, which may have direct effects on the pricing of sovereign debt and would reduce the scope for democratic fiscal policy decisions at the national level. For member states with a "moderate" debt challenge, the Commission would have additional discretion in deciding whether to open an EDP (European Commission 2022a, p. 9). This implies political risks related to unequal treatment of member states.

The Commission's orientations suggest that the Council should adopt plans negotiated between the Commission and individual member states based on DSA inputs. If there is no agreement on an adjustment path between the member state and the Commission, the reference multiannual expenditure path derived from the DSA would be used for fiscal surveillance and enforcement. What is not included is that after the Commission finishes its DSA exercises, there could be a debate in the ECON Committee of the European Parliament on the plausibility of the main assumptions underlying the Commission's DSA framework, and what kind of judgements on EU policy-making they involve. Independent work by the European Fiscal Board could play an important role in informing and promoting parliamentary scrutiny of DSA results and fiscal-structural plans (Hagelstam and De Lemos 2022).

It would be a possibility to design the reform of EU fiscal rules so that the Commission approves member states' fiscal-structural plans by delegated act. The European Parliament and the Council would then both have the option to overturn the decision within a predetermined period of time. There could be a mandatory vote in European Parliament when the Commission takes far-reaching decisions, such as the opening of an Excessive Deficit Procedure or the rejection of a member state's draft budgetary plan based on DSA inputs.

Giving a larger role to the European Parliament does not violate the principle of subsidiarity, as decisions on fiscal policy informed by DSA inputs with an EU dimension are to be taken at the EU level, where a strengthened European Parliament could enhance democratic accountability. However, it would not automatically promote greater coherence and coordination, which requires high-quality interactions between national governments and the European Commission on fiscal policy. Nor would a larger role of the European Parliament have to unduly delay decision-making, since there could be deadlines within which the Parliament has to act when it comes to scrutinising and debating DSA assumptions, confirming the approval of fiscal-structural plans by the Commission or rejecting the opening of an excessive deficit procedure.

Furthermore, national parliaments could be involved after the respective government has negotiated expenditure plans with the Commission based on DSA inputs. Within a deadline, the members of national parliament would have to sign off on the expenditure plan negotiated between the European Commission and the respective government based on DSA inputs. Furthermore, there could be an option for new governments to amend the multi-annual expenditure plan in case of early elections based on an updated DSA, even if the four-year period is not yet over (Van Dijk et al. 2022). The Council conclusions point to a convergence of the views of member states so that "all plans could be aligned, upon request, with the national electoral cycle, revised with the accession of new governments, and updated in objective circumstances, while upholding the ambition of the fiscal adjustment" (Council 2023, p. 4). However, there is a trade-off between granting additional options for changing fiscal-structural plans and ensuring that initially agreed fiscal-structural plans are indeed implemented.

### **4.3. Public investment in the context of climate goals**

The Commission's orientations rest on the idea of protecting some public investment from fiscal adjustment pressures, i.e. to treat selected investment separate from the net primary expenditure path derived from the DSA. Member states can commit to a set of investments and reforms to lengthen the fiscal adjustment path if the Commission agrees that they are consistent with debt sustainability. The implicit assumption is that this will provide member states with sufficient space to meet their public investment needs in the context of pursuing their climate goals. The Commission argues in its orientations document that "investment and reforms that enhance sustainable growth are both indispensable and mutually reinforcing in ensuring fiscal sustainability and in enabling the green and digital transition" (European Commission 2022a, p. 1). Currently, the Commission's orientations do not provide details on the common assessment framework. The quantitative analysis of both the medium-term budgetary impact and the potential growth impact of the set of investments underpinning the longer adjustment period is tricky but crucial. By boosting potential output and productive capacity, some public investment may, even if it initially increases the public debt ratio, pay for itself and contribute to a reduction of public-debt-to-GDP ratios in the long run (e.g. DeLong and Summers 2012; Fournier 2016).

It is doubtful whether applying the DSA framework will put member states in a position to do what is necessary in terms of public investment for climate and energy to reach the EU goal of climate neutrality by 2050. If public investment were to fall short of what is needed, governments would face

increased compensation payments due to non-compliance with climate targets or expensive purchases of CO<sub>2</sub> certificates, as well as greater future economic damage from climate change due to a lack of adaptation investment, and could even experience higher interest rates on government debt. This in turn would burden national budgets in the long term (Zenios 2022; Wildauer et al. 2020; Dafermos and Nikolaidi 2019).

To promote the transition to a net-zero economy, the public capital stock needs to grow and become restructured to make it fit for the future. Public investment contributes to public asset creation (e.g. IMF 2018); e.g., investments in public transport infrastructure create assets from which present and future generations can benefit. However, the relevance of asset creation due to public investment is not even mentioned in the Commission's reform orientations, although public assets are important for debt sustainability. IMF research shows that countries with stronger government net worth – defined as the difference between total assets and liabilities – tend to recover faster in the aftermath of recessions and experience shallower economic downturns (Yousefi 2019). The public balance sheet positions of countries that invest in a stronger, future-fit public capital stock are stronger than those of countries that do not undertake the required investments. However, the DSA framework focuses on public debt rather than public net worth (i.e. assets minus liabilities), which can lead to a bias against investment (e.g. IMF 2021b).

Tackling the challenges in transforming the energy and transport systems in order to meet the climate targets would require additional public investment of at least €146.5 billion per year (in 2021 prices), which amounts to 1% of the EU's GDP (Heimberger and Lichtenberger 2023). However, substantial parts of climate investment cannot be expected to be consistent with a favourable or at least neutral impact on the medium-term public debt trajectory (e.g. Darvas and Wolff 2021). The application of the Commission's DSA framework with its focus on ensuring declining public debt ratios must therefore be expected to lead to insufficient public investment at the national level. The Commission's orientations suggest that the reformed fiscal rules should be enforced more strictly, but this points to a contradiction: if there is insufficient space for public investment on climate and energy, while national governments still want to take their climate and energy goals seriously, then it will not be possible to enforce the EU fiscal rules more strictly. The question whether the rules can be enforced more strictly will depend on the establishment of an EU investment fund to finance investments in climate and energy, which is currently not part of the Commission's orientations. The current reform ideas do not open up a credible path for increasing the scope for relevant investments to meet the climate goals. Meeting the investment needs would require the establishment of a new EU investment fund, since the requirements for additional climate investment are at least ten times the green investment share of the Recovery and Resilience Facility in Next Generation EU, which will in any case only provide funds up to the year 2026 (Heimberger and Lichtenberger 2023).

#### **4.4. Cross-border effects of fiscal policy related to the euro area dimension**

The Commission's orientations emphasise that a reformed "risk-based" fiscal governance framework should prevent fiscal policy mistakes in some member countries that would cause negative cross-border effects (spillovers) for other euro area countries. However, there is a risk of assuming that future fiscal policy mistakes will only come in terms of a fiscal stance that is too expansionary. There are situations in which the fiscal stance in some member countries can turn out to be too restrictive, thereby affecting demand in other member countries negatively. In the euro area context, this cannot be offset by using monetary policy, because the ECB sets monetary policy for the whole euro area.

Accordingly, governments have an incentive to underuse fiscal policy (Blanchard et al. 2021). The Commission's orientations do not address this coordination problem.

A lack of considering the importance of coordinating fiscal policy across euro member countries may also enhance financial stability risks in the euro area. Government bonds are essential as collateral for money markets and private credit creation in Europe. The €9 trillion repo market is Europe's largest money market; it has more than quadrupled in size since 2001 (ICMA 2021). The repo market<sup>3</sup> is strongly intertwined with the euro area government bond markets, because two thirds of all the money lent by banks and institutional investors is based on sovereign bond collateral. Private credit creation through the repo market fundamentally relies on the euro area's sovereign bond markets, which provides most of the collateral for the financial system (Gabor 2021). In this context, a simultaneous focus on reductions of public debt levels in various member states based on using DSAs as an anchor may lead to a reduction of available collateral and, therefore, increase financial stability risks.

All this raises coordination issues for the revised EU fiscal governance framework. Let us imagine a situation in which the expenditure paths derived from the DSAs imply a simultaneous fiscal contraction in a number of (large) euro area countries in order to ensure a decline or stabilisation of public debt ratios. Negative cross-border effects of simultaneous fiscal contractions in several member countries may aggravate the negative growth effects of fiscal consolidation, so that the assumption for the fiscal multiplier used in the Commission's DSA framework turns out too low. As economic growth declines, public debt ratios face more upward pressure than the DSA initially suggested. Higher debt may then cause higher borrowing costs for individual governments, putting pressure on the ECB when it comes to backstopping the government bond market.

While the Commission's orientations rightly stress the importance of strengthening the euro area dimension with regard to the Macroeconomic Imbalances Procedure, the reform of the fiscal rules currently envisaged falls short when it comes to improving the ability to steer the euro area fiscal stance. The aggregated fiscal paths derived from the Commission's DSAs for individual member countries should be sensible for the euro area as a whole. Notably, the European Fiscal Board produces a yearly report on the appropriate euro area fiscal stance (e.g. European Fiscal Board 2022). Each year, the European Commission also provides a euro area recommendation based on analysing the euro area fiscal stance and other aspects (e.g. European Commission 2022c). The Commission could be required to consider the impact of the fiscal policy paths derived from the DSAs of individual member states for the fiscal stance of the euro area as a whole, and member states would in turn have to take euro area recommendations into consideration when drafting their country-specific plans.

---

<sup>3</sup> The essence of a "repurchase agreement" (repo) is that one financial institution (the lender) agrees to buy an asset (i.e. an existing government bond) from another institution (the borrower) and sell the asset back at a pre-agreed price later on with the lender receiving a fee.

## 5. CONCLUSIONS

The implementation of the Commission's reform orientations would make the operational details of EU fiscal rules significantly simpler, because there would only be one operational indicator (net primary expenditures) for surveillance. However, the complexities of getting the details of the underlying DSA framework right should not be underestimated. This paper has shown that while the Commission would be able to build on the DSA framework it has developed over the last years, important questions regarding the common assessment framework remain unanswered. Debt sustainability is very difficult to assess, as it involves making judgements on events (far) in the future, which are very hard or impossible to predict. Debt sustainability analysis is useful in assessing fiscal risks under different assumptions on the future evolution of growth, interest rates, inflation, and fiscal policy. But it is not well suited for delivering one precise (baseline) debt trajectory on which a multi-year fiscal policy plan can be based. Results of DSAs should not be taken as a final verdict but rather as a contestable technical input into a political process. Hence, there is a need for debating the role of DSAs as an anchor in EU fiscal rules, and for introducing safeguards that are not present in the current reform orientations.

One important point for debate involves the question of how to deal with judgement calls and self-fulfilling prophecies. Main assumptions in the DSA framework involve policy judgement, e.g. with regard to setting interest rates that depend on the outlook for monetary policy, the European institutional architecture and other policy choices involving EU policy-makers. If the DSA uses unfavourable projections of interest rates and growth, financing costs must be expected to increase as a result, which leads to fiscal consolidation pressures that may reduce growth and thereby trigger the result the Commission wants to avoid: a rise in the public debt ratio. Technical analysis and policy judgement cannot always be neatly separated when conducting a DSA. We have argued that this leads to high requirements for transparency and democratic scrutiny. Although this is currently not envisaged in the reform orientations, the reform of EU fiscal rules could put the Commission in the position to approve member states' fiscal-structural plans by delegated act, so that the European Parliament and the Council would then both have the chance to overturn the decision within a deadline. The European Parliament could have a mandatory vote whenever the Commission takes far-reaching decisions, e.g. on starting an Excessive Deficit Procedure or rejecting a draft budgetary plan. To sign-off the plans, national parliaments could be involved after the Commission has negotiated multi-annual expenditure plans with the respective government based on DSA inputs. For the European Parliament and national parliaments to be able to perform the democratic checks-and-balances function, it would be useful to have independent advice, notably by independent fiscal institutions, to support the parliamentary scrutiny processes.

An implicit assumption in the Commission's reform orientations is that a reduction of public debt ratios and an increase in public investment – which is required to meet climate goals (e.g. Darvas and Wolff 2021) – can go hand in hand. In fact, it is unclear how the Commission would decide which investments (and reforms) are consistent with debt sustainability, and therefore merit special treatment. The quantitative analysis of the budgetary impact and the potential growth impact of investments would be important. But it may well be that a significant part of the required additional climate spending will contribute to higher public debt levels, at least in the short- and medium-run.

The Commission's orientations suggest that the reformed fiscal rules should be enforced more strictly. But as national governments face insufficient space for public investment on climate and energy, it may not be possible to enforce the EU fiscal rules more strictly over the economic cycle, notably if the climate and energy goals are to be reached. Hence, whether the rules can be enforced more strictly will depend on introducing an EU investment fund to finance investments in climate and energy over the

next decades. Such an investment fund, however, is currently not part of the Commission's proposals (Heimberger and Lichtenberger 2023).

Similarly, the Commission's orientations fall short on addressing the important issue of cross-border effects of fiscal policy. The aggregation of the expenditure paths of individual member states derived from the DSA exercises need to make sense for the fiscal stance of the euro area as a whole; otherwise, financial stability risks could increase. While the Commission rightly emphasises the importance of the euro area dimension with regard to the Macroeconomic Imbalances Procedure, it is not even mentioning demand spillovers of fiscal policy. This could be addressed by using technical analysis on how the fiscal stance derived from DSA exercises would affect the euro area fiscal stance.

Finally, it is to be emphasised that using the Commission's DSAs still requires the estimation of unobservable variables: potential output estimates are used for the projections of growth rates, but also for the cyclical adjustment that underlies the structural primary balance. Furthermore, the Commission uses the semi-elasticity of the budget balance to proxy the size of automatic stabilisers in estimating the cyclical component of the budget balance. The estimation of potential output and structural balances is subject to the criticism of systematic estimation bias contributing to pro-cyclical fiscal policy guidance (e.g. Heimberger und Kapeller 2017; Fatas 2019; Sigl-Glöckner et al. 2021). Therefore, upgrading the role of DSAs in EU fiscal rules would not do away with the need to further improve the potential output methodology used by the European Commission.

## REFERENCES

- Alcidi, C., Gros, D. (2018): Debt Sustainability Assessment: The state of the art, in-depth analysis requested by the ECON committee of the European Parliament (November 2018).
- Blanchard, O., Leandro, A., Zettelmeyer, J. (2021): Redesigning EU fiscal rules: from rules to standards, *Economic Policy*, 36, 195-236.
- Bouabdallah, O., Checherita-Westphal, C., Warmediger, T., de Stefani, R., Drudi, F., Setzer, R., Westphal, A. (2017): Debt sustainability analysis for euro area sovereigns: a methodological framework, ECB Occasional Paper No. 185.
- Corsetti, G. (2018): Debt Sustainability Assessments: the state of the art, Study requested by the ECON committee of the European Parliament (November 2018).
- Dafermos, Y., Nikolaidi, M. (2019): Fiscal policy and ecological sustainability: A post-Keynesian perspective, FMM Working Paper No. 52.
- Darvas, Z., Hüttl, P. (2014): The long haul: debt sustainability analysis, Bruegel Working Paper No. 2014/06.
- Darvas, Z., Wolff, G. (2021): A green fiscal pact: climate investment in times of budget consolidation, Bruegel Policy Contribution No. 18/2021.
- Debrun, X., Ostry, J., Willems, T., Wyplosz, C. (2019): Public debt sustainability, in: Abbas, A., Pienkowski, A., Rogoff, K. (ed.): *Sovereign debt. A guide for economists and practitioners*, Oxford: Oxford University Press, 151-191.
- De Grauwe, P. (2012): The governance of a fragile Euro area, 45(3), 255-268.
- De Grauwe, P., Ji, Y. (2013): Self-fulfilling crises in the Euro area: an empirical test, *Journal of International Money and Finance*, 34, 15-36.
- De Long, B., Summers, L. (2012): Fiscal policy in a depressed economy, *Brookings Papers on Economic Activity*, 43(1), 233-297.
- ECB (2022): The Transmission Protection Instrument, Press release by the European Central Bank (July 21st 2022), <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220721~973e6e7273.en.html> [last download on January 25<sup>th</sup> 2023].
- European Commission (2016): Fiscal sustainability report 2015, European Economy – Institutional Paper No. 018.
- European Commission (2022a): Communication on orientations for a reform of the EU economic governance framework, COM(2022) 583 final.
- European Commission (2022b): Fiscal sustainability report 2021, European Economy – Institutional Paper No. 171.
- European Commission (2022c): 2023 report on the euro area, COM(2022) 782 final.
- European Fiscal Board (2022): Assessment of the fiscal stance appropriate for the euro area in 2023, Report published on June 22<sup>nd</sup> 2022, [https://commission.europa.eu/system/files/2022-06/efb\\_assessment\\_of\\_euro\\_area\\_fiscal\\_stance.pdf](https://commission.europa.eu/system/files/2022-06/efb_assessment_of_euro_area_fiscal_stance.pdf) [last download on January 25<sup>th</sup> 2023].
- Furman, J., Summers, L. (2020): A reconsideration of fiscal policy in the era of low interest rates, mimeo (November 2020).

- Fatas, A. (2019): Fiscal policy, potential output, and the shifting goal-posts, *IMF Economic Review*, 67(3), 684-702.
- Fournier, J. (2016): The positive effect of public investment on potential growth, *OECD Economics Department Working Papers No. 1347*.
- Gabor, D. (2021): Revolution without revolutionaries: interrogating the return of monetary financing, study published in the course of the Transformative Responses to the crisis projected funded by Finanzwende and Heinrich-Böll-Foundation.
- Gechert, S. (2015): What fiscal policy is most effective? A meta regression analysis, *Oxford Economic Papers*, 67(3), 553-580.
- Gechert, S., Rannenberg, A. (2018): Which fiscal multipliers are regime-dependent? A meta-regression analysis, *Journal of Economic Surveys*, 32(4), 1160-1182.
- Guzman, M. (2016): Definitional issues in the IMF debt sustainability analysis framework: a proposal, *CIGI Policy Brief No. 77*.
- Hagelstam, K., De Lemos, S. (2022): What role for the Advisory European Fiscal Board?, PE 733.721 (November 2022).
- Heimberger, P. (2017): Did fiscal consolidation cause the double-dip recession in the euro area?, *Review of Keynesian Economics*, 5(3), 539-558.
- Heimberger, P., Kapeller, J. (2017): The performativity of potential output: Pro-cyclicality and path dependency in coordinating European fiscal policies, *Review of International Political Economy*, 24(5), 904-928.
- Heimberger, P., Huber, J., Kapeller, J. (2020): The power of economic models: the case of the EU's fiscal regulation framework, *Socio-Economic Review*, 18(2), 337-366.
- Heimberger, P., Lichtenberger, A. (2023): RRF 2.0: A permanent EU investment fund in the context of the energy crisis, climate change and EU fiscal rules, *wiiw Policy Notes and Reports No. 63*.
- ICMA (2021): International Capital Market Association European Repo Market Survey, Number 41 – published in November 2021.
- IMF (2011): Modernizing the framework for fiscal policy and public debt sustainability, *IMF Policy Paper*, IMF Policy Paper (August 2011).
- IMF (2018): Unlocking public wealth, *Finance and Development*, March 2018, 45-46.
- IMF (2021a): Review of the debt sustainability framework for market-access countries, *IMF Staff Paper* January 2021.
- IMF (2021b): Why public assets are key to debt sustainability: a moral goal, *IMF Public Finance Management Blog* (April 19<sup>th</sup> 2021), <https://blog-pfm.imf.org/en/pfmblog/2021/04/why-public-assets-are-key-to-debt-sustainability-a-moral-goal> [last download on March 9<sup>th</sup> 2023].
- i 'nt Veld, J. (2013): Fiscal consolidations and spillovers in the euro area, *European Economy Economic Papers No. 506*.
- Lerner, A. (1943): Functional finance and the federal debt, *Social Research*, 10(1), 38-51.
- Sigl-Glöckner, P., Krahé, M., Schneemelcher, P., Schuster, F., Hilbert, V., Meyer, H. (2021): A new fiscal policy for Germany, *Dezernat Zukunft Policy Paper* (July 2021).



- Van Dijk, J., Schuster, F., Sigl-Glöckner, P., Ziesemer, V. (2022): Building on the proposal by the EU-Commission for reforming the Stability and Growth Pact, Dezernat Zukunft and Institute voor Publieke Economie Policy Paper (December 2022).
- van 't Klooster, J. (2022): The politics of the ECB's market-based approach to government debt, *Socio-Economic Review*, forthcoming.
- Wildauer, R., Leitch, S., Kapeller, J. (2020): How to boost the European Green Deal's scale and ambition, FEPS Policy Paper (June 2020).
- Wyplosz, C. (2011): Debt sustainability assessments: mission impossible, *Review of Economics and Institutions*, 2(3), 1-37.
- Wyplosz, C. (2013): Fiscal rules: Theoretical issues and historical experiences, in: Alesina, A., Giavazzi, F. (ed.): *Fiscal policy after the financial crisis*, Chicago: University of Chicago Press, 495-525.
- Yousefi, R. (2019): Public sector balance sheet strength and the macro economy, IMF Working Paper No. 2019/70.
- Zenios, S. (2022): The risks from climate change to sovereign debt, *Climatic Change*, 172(30), 1-30.

---

The Commission's reform orientations propose that debt sustainability analysis (DSA) should serve as an anchor in EU fiscal rules. After discussing the main assumptions of DSAs in projecting public debt ratios, we analyse four critical aspects in designing such a reform: making judgement calls with regard to DSA assumptions; ensuring transparency and democratic legitimacy; promoting public investment in the context of climate goals; and tackling cross-border effects of fiscal policy, in particular related to the euro area dimension.

This document was provided by the Economic Governance and EMU Scrutiny Unit at the request of the ECON Committee.

---