# Revising the European Fiscal Framework

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## 1. Introduction

During the pandemic crisis, the fiscal rules of the Stability and Growth Pact have been temporarily suspended, invoking the general escape clause. Returning to a strict implementation of the pre-pandemic European fiscal framework in 2023 would require excessive fiscal adjustments, especially for countries with high legacy debt, and would allow limited space for spending on desirable public investment projects and on expenses that contribute to European public goods. A revision of the European fiscal framework should take into consideration three developments.

First, the global macroeconomic environment is largely different from the one prevailing in the years when the existing fiscal rules were initially conceived. The current environment is characterized by low natural interest rates and a high world demand for safe assets. In this environment, monetary policy is more often constrained in its ability to achieve macroeconomic stabilization by the effective lower bound on nominal interest rates. This creates a larger need for coordination between fiscal and monetary policy. Lower interest rates also reduce the cost of servicing debt, freeing up fiscal space. A new framework should aim to make good use of this fiscal space, designing robust rules that allow the use of fiscal policy to fight recessions, move the economy away from the effective lower bound, and help normalize monetary policy, while, at the same time, guiding countries to rebuild fiscal space during expansions.

The second development is the launch of the Next Generation EU (NGEU) programme. On the governance side, the experience with the national recovery and resilience plans so far, makes us optimistic about the capacity of the EU to mobilize resources for growth-friendly public investments. In particular, it points to (1) the ability to achieve fruitful cooperation and oversight in the relation between national governments and European institutions; (2) the potential of successfully exploiting the complementarity between investment and pro-growth reforms; (3) the definition of common objectives of EU policy to determine areas of intervention (for example, the green and digital transition). On the market side, the experience with Next Generation EU debt issuances confirms the existence of a strong demand for safe European debt instruments.

The third development is the urgent need of significant amount of spending if EU countries are to reach the ambitious targets they are setting themselves in many areas. These include the fight against climate change; defence; industrial policy, including semiconductors; public health; international aid.

The suspension of the fiscal rules until the end of 2022 provides a good window of opportunity to define a renewed European fiscal contract that addresses these challenges. The new rules should preserve a primary objective of debt sustainability, but, at the same time, allow for a stronger pro-growth stance, which, in the long term contributes to sustainability itself.

We propose a two-pronged reform effort. First, a debt assumption plan, that is, a plan to transfer a portion of national debts accumulated during the pandemic from the balance sheet of the European Central Bank to a European debt management agency. The pandemic was an extraordinary and exogenous common shock, so there is no risk of moral hazard associated with this plan, while there are substantial benefits, both in terms of reduced funding costs for EU countries and in terms of normalizing the conduct of monetary policy.

Second, a revision of the existing fiscal rules based on a medium-term debt anchor with a speed of adjustment that depends on the share of spending devoted to public investment, to contribute to European public goods, and to fight recessions. The target would be implemented through a spending rule.

These two pieces, combined, can contribute to a coherent European strategy to foster durable growth and sustainable public finances.

## 2. A Debt Assumption Plan

The last two years saw a sharp increase in public debt, in response to an unprecedented exogenous shock,

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the pandemic, which required a forceful fiscal response. The use of the general escape clause was crucial to allow the necessary fiscal space for countries to support their health systems and provide relief for people forced into inactivity. While this effort was necessary, it also produced a significant accumulation of debt, putting at greater risk countries that already entered the crisis with high debt levels.

There are two important additional considerations on the demand side of the European debt market: first, the European Central Bank holds a large portfolio of national debts and would greatly benefit in its operations and in its independence by replacing it with European debt instruments; second, financial markets have shown great appetite for European debt.

**A. Debt transfers and contributions.** A debt assumption plan would consist of a gradual transfer of a portion of national public debts to a European Debt Management Agency.[1] The Agency would receive contributions from national governments to cover future interest payments. The debt would clearly not be eliminated. However, the fact that it will be intermediated by the Europan Agency will produce a reduction in the debt burden, given that the Agency will be able to issue debt at more favorable conditions than highly indebted countries. The reason for this reduction in the debt burden is twofold: first, European institutions have accumulated, over the years, a degree of credibility in their capacity to enforce payments from member countries; second, there is high demand for highly liquid, common European debt.[2]

Under the plan the Agency would acquire a portion of debt of each Member State, over a period of five years. The idea is to acquire each country's "Covid debt," measured by the increase in the debt-to-GDP ratio experienced by each country in 2020 and 2021. The first two columns in Table 1 report current projected numbers for the member countries' total debt at the end of 2021 and each country's Covid debt. The acquisition part of the plan would take place over a period of five years, with the Agency acquiring an amount of debt—as a fraction of GDP—equal to 1/5 of the target acquisition each year. If one wanted to expand the scope of the plan, an alternative to consider is to include not only Covid debt but also debt accumulated during the 2008-09 recession—also the result of a large, common, exogenous shocks. The third column of Table 1 reports debt accumulated in those two years for each country. In the calculations below, we work under the assumption that only Covid debt is included in the plan.

To make an example, take the case of Italy. The second column of Table 1 shows a Covid debt accumulated of 19% of GDP. So, according to the baseline plan, the agency will acquire debt equal to 3.8% of GDP in each year from 2022 to 2026. In the years after the fifth, the Agency will acquire Italian debt so as to keep its debt at 19% of Italian GDP. The Agency would pay for the sovereign bonds acquired with newly-issued Agency bonds, using reference market prices for EU bonds of similar maturities. After the Agency bonds reach maturity, the Agency will refinance them on the market.[3]

In exchange for the assumption of debt, the Agency will receive each year from each Member State a stream of revenue sufficient to support the debt transferred. The contribution will be set equal to $(r-g)\cdot d\cdot Y_{t-1}$, where $r$ is the interest rate on the European debt issued by the Agency, $g$ is the growth rate of the country's GDP, $d$ is the country's debt to GDP acquired by the Agency so far, and $Y_{t-1}$ is the country's GDP in the previous year.[4] The logic for this way of computing contributions is that each year, following the initial acquisition, the agency will issue fresh debt to acquire more national bonds, so as to keep the cumulated acquisitions of national bonds equal to a fraction $d$ of the country's GDP. [5]

The choice of $r$ in the calculation of the transfer would be conservative, using a steady state scenario in which rates go back to levels higher than today's.[6] The choice of $g$ would differ country by country and

[1] The European Stability Mechanism could take on this role, or a new agency could be created.

[2] The experience with the EU debt issued under the NGEU provides a clear illustration of how the perceived EU's enforcement capacity leads to low borrowing costs. NGEU is financed by EU debt issues, which are backed by countries' repayments for the loan component of NGEU and by the EU budget for the grant component. Although the Commission has the power to raise funds from member countries, this power is subject to ceilings that limit its ability to tap into the fiscal capacity of AAA rated countries to cover missed payments by other members. Nevertheless, the NGEU debt issued has been treated by the markets as close to equivalent to debt from AAA countries and debt issuance from highly-indebted countries does not appear to have suffered from the implicit commitment of resources to the EU budget made to cover future debt repayments.

[3] An alternative option would be to design an Agency with only a transitory role, both in its acquisitions and in its debt issues. In that case the speed of the Agency's phasing out will have to be coordinated with the debt reduction paths of each country.

[4] For a country with $g > r$ the contribution will be set to zero.

[5] The Agency new debt issues are then equal to $d\cdot g\cdot Y_{t-1}$. The interest payments on Agency debt issued so far against debt acquisitions from that country are $r\cdot d\cdot Y_{t-1}$. So the Agency's net outlays for managing that country's debt are $(r-g)\cdot d\cdot Y_{t-1}$.

[6] In the calibration reported below as an example, we use as a reference rate the average rates for German debt between 1999 and 2014 and add 20 basis points, obtaining $r = 1.6\%$.

**Table 1. Total Debt and Covid Debt by Country**

| Country | Total Debt (2021) | Covid Debt | 2008-09 Debt |
|---|---|---|---|
| Austria | 82.8 | 12.3 | 14.8 |
| Belgium | 113.9 | 15.8 | 12.9 |
| Cyprus | 107.7 | 13.7 | 0.3 |
| Estonia | 17.7 | 9.3 | 3.4 |
| Finland | 71.2 | 11.7 | 7.6 |
| France | 115.3 | 17.8 | 18.5 |
| Germany | 72.2 | 12.6 | 9.0 |
| Greece | 197.9 | 17.4 | 23.6 |
| Ireland | 55.2 | -2.2 | 37.7 |
| Italy | 153.5 | 19.2 | 12.7 |
| Latvia | 48.8 | 11.8 | 28.4 |
| Lithuania | 46.0 | 10.1 | 12.1 |
| Luxembourg | 25.8 | 3.8 | 7.9 |
| Malta | 61.3 | 19.3 | 4.4 |
| Netherlands | 57.8 | 9.1 | 13.8 |
| Portugal | 126.9 | 10.1 | 15.1 |
| Slovakia | 61.5 | 13.3 | 6.0 |
| Slovenia | 78.5 | 12.9 | 11.7 |
| Spain | 119.6 | 24.1 | 17.5 |

*Note*: Covid Debt is the change in the debt-to-GDP ratio between the beginning of 2020 and the end of 2021 (the latter taken from the Fall 2021 Draft Budgetary Plans). 2008-09 Debt is the change between the beginning of 2008 and the end of 2009.

would reflect realistic estimates of future output growth. Given existing borrowing costs for highly indebted countries, the cost of the fiscal contributions to the Agency would be substantially lower than the current interest payments on the same stock of debt. For example, in a baseline calibration for the Italian case, the contributions would be roughly 38% of Italy's current interest expenses on the same stock of debt.[7] Basically, the plan exploits the difference in returns between sovereign bonds and EU bonds, so the transfers to the Agency can be designed so that each participating country sees its fiscal space increased or kept unchanged.[8]

The ECB has accumulated large holdings of national public debts in recent years. A good way of implementing the plan in its first five years would be to conduct a sequence of off-market securities swaps between the Agency and the National Central Banks that make up the Eurosystem. This would be a favorable development from the point of view of the ECB, removing a large portion of its current portfolio of national sovereign bonds and replacing it with EU bonds.[9] This would further reinforce the capacity of the ECB to conduct an independent monetary policy, both by expanding the supply of European debt instruments that are the natural tool for ECB purchases, and by helping separating monetary operations from European debt management interventions, which effectively belong to the fiscal realm. To give a practical example of these advantages, in coming months the ECB is poised to scale back its pandemic bond purchases. The plan would allow the ECB to proceed in that direction with fewer concerns about potential side effects on individual sovereign debt markets, as the Agency would be able to continue its debt acquisitions independently of the ECB monetary policy stance.

**B. Governance.** Under this plan the Agency would have resources to purchase new issuances of countries' debt as old debt comes to maturity, so as to keep its holdings of national debt growing at the same rate as EU GDP. Therefore, the Agency will become a permanent element of the set of EU fiscal institutions and will require an appropriate governance structure.

The statutory process for managing the scheme would foresee periodic reviews—say every five years. In these reviews the governments will have to define plans on how to use the Agency's budget surplus, how to manage debt purchases and issuances, and how to manage its liquid reserves.

Given the conservative assumptions used to define the countries' contributions, the Agency will be running a surplus as long as rates remain low,[10] and will accumulate a sizeable stock of liquid reserves. This accumulation would spur a debate on the appropriate size of future contributions. There are essentially three options: (1) cut back on the contributions or, equivalently, rebate some of the reserves accumulated back to the participating countries; (2) maintain the accrued war chest as an increased safety buffer; (3) assign the surplus to funding additional centralized spending.

Using some of the Agency's resources for centralized spending can be justified by the fact that the Agency is offering, on behalf of the Union, an interme-

[7] Considering the first year acquisition, 3.8% of 2021 Italian GDP is equal to 68 billions of debt acquired. Using $r = 1.6\%$ and a potential growth rate of $g = 0.75\%$ the contribution would be set at 0.58 billion. Current interest expenses on 68 billions of debt are about 1.51 billion.

[8] For countries with low yields like Germany using the contributions above can lead to small losses. The contributions of these countries can be easily re-calibrated to eliminate these losses.

[9] This solution would make it easier for the ECB to stay within the limit on its holdings of sovereign bonds, now set at 33% of the issuer's total debt. At the same time, it would require a decision by the Governing Council of the ECB to increase the maximum purchasable share of supranational debt issuers—now set at 50% of the issuer's debt—so as to allow it to absorb the Agency's debt).

[10] Contributions from Member States will exceed the Agency's interest payments net of revenue from new debt issued.

diation service to highly indebted countries—reducing their exposure to crises and lightening their debt costs. Therefore, a fraction of the intermediation margin could go to the general EU budget. After all, it is the financial strength of the EU and the efficiency of its mechanisms to monitor national public finances that make this intermediation possible.

## 3. Fiscal Rules

A revision of the existing set of fiscal rules should have three objectives.

The first objective is to simplify. The current set of fiscal rules comes from the accumulation over the years of a series of reform efforts that leave us with a system that is cumbersome and not transparent. This implies that there is always a substantial interpretative effort on the side of the Commission when examining Member States' proposed budget laws. When disagreements arise, the negotiations end up focusing too little on substantive trade-offs of economic policy and too much on formal notions of compliance. Moreover, the existing set of rules relies heavily on national measures of the output gap and on measures of the elasticity of various budget items to the output gap. Measurement issues with the output gap are well-known and, not surprisingly, output gap measures have become an occasional point of contention in the Commission's evaluation of national budget laws.

The second objective is to have rules that are realistic in their aims and whose objectives of debt reduction are shared by member countries as contributing to European financial stability. This calls for a clear target, that is easy to communicate and share with citizens, and that citizens can easily use to evaluate ex post the job done by their elected officials.

The third objective is to give more room to national fiscal authorities for stabilization purposes, for public investment, and for spending that contributes to European public goods, while still ensuring debt sustainability. This is desirable for three reasons: the cost of debt is currently low; fiscal support during recessions can limit medium-run scars to potential growth; public investment can both directly promote growth, which in turns helps debt sustainability, and be a complement to structural reforms. Aiming for more counter-cyclical rules is also beneficial as it implies rules that encourage rebuilding fiscal space during economic expansions, leaving member countries better prepared for future unexpected events.

We believe these objectives can be achieved by designing rules that focus squarely on a medium-term target for the debt-to-GDP ratio, to be achieved by a single instrument: a multi-year ceiling on net primary spending. This combination of target and instrument is in line with several proposals circulated recently.[11] A crucial part of our proposal is to integrate in this system a form of golden rule to incentivize certain forms of public spending.

We identify two categories of public spending the EU needs to promote: public investment that is beneficial for the long-run growth prospects of the country; and expenditures that contribute to European public goods that benefit future generations. We label them "spending for the future." The issue of what goes under this label and how it is monitored is discussed in Section E.

The golden rule we propose has two elements, one in the spending rule, one in the debt target. In the spending rule we give preferential treatment to the flow of spending for the future, by not subjecting it to the spending ceiling. However, this is only an incomplete incentive, because even though the flow is not constrained by the ceiling, it still adds to debt accumulation. We therefore provide an additional adjustment mechanism, by changing the speed of future debt adjustments in function of the investments made in the past. In this way investing today has a weaker constraining effect on future fiscal policy. The details of this scheme are described below.

**A. The medium-run debt target.** The existing Stability and Growth Pact includes a debt rule that requires each member state to achieve a long run debt-to-GDP target of $60\%$ at a speed of adjustment of $1/20$ per year. This debt rule is so removed from reality for highly indebted European countries, as to be *de facto* useless. For example, the existing debt rule would require for Italy a debt reduction of almost 5 percentage points of GDP per year under current conditions. This lack of realism is the reason why the debt level has not played a more central role in the practical implementation of the SGP in past years.

A reform that centers on a debt anchor must be accompanied by a revision of the long-run target and/or of the speed of adjustment in existing legislation. Here we focus on changing the speed of adjustment.

We consider a rule that keeps the long-run target for the debt-to-GDP ratio at $d^* = 60\%$, but sets a medium-

[11] Andrle et al. (2015); Bénassy-Quéré et al. (2018); Darvas et al. (2018); European Fiscal Board (2019, 2020); Martin et al. (2021).

term debt target, $\hat{d}_{t+10}$, the debt-to-GDP ratio in 10 years, based on a speed of adjustment towards $d^*$ that is sensitive to the composition of past spending.

We take the current level of the debt to GDP ratio $d_t$ and decompose it in two parts $d_t = d_{F,t} + d_{S,t}$, the first is the fast-speed portion $d_{F,t}$, and the second is the slow-speed portion $d_{S,t}$. The medium-term target for the debt-to-GDP ratio is then set to:

$$\hat{d}_{t+10} = d_t - 10 \cdot [\beta \cdot (d_{F,t} - d^*) + \gamma \cdot d_{S,t}]\,. \qquad [1]$$

Choosing two different parameters $\beta$ and $\gamma$, with $\beta > \gamma$, implies that the larger is the slow portion of debt, the lower is the speed of adjustment required. The parameters $\beta$ and $\gamma$ in our baseline calibration are set to $\beta = 0.05$ and $\gamma = 0.02$.[12]

The slow-speed part is computed adding two elements: the debt accumulated in response to crises and the debt accumulated to finance spending for the future. Including debt accumulated in crisis years is motivated by the desire to avoid premature consolidation coming out of recessions. To define crisis debt we simply measure the increase in the debt-to-GDP ratio in years in which the escape clause is active. Including spending for the future is part of our golden rule scheme and is justified by two arguments: such spending has a positive impact on medium-term growth and/or it will benefit future generations. The fast-speed part is the residual stock of debt.

The distinction between slow-speed and fast-speed debt does not mean that there are two different types of government bonds or that government bonds issued in different years are treated differently. The rule requires distinguishing the two components of the debt-to-GDP ratio only for the purpose of computing the desired speed at which debt must be reduced in future years. The financing strategy of the government is independent of the rule.

Moreover, the distinction between the two components of debt does not change the fact that debt needs to be reduced. If, for example, a country increases its spending to curb carbon emissions in a given year and this increases the deficit, the country still needs to reduce its debt-to-GDP ratio in the following years. However, the speed at which the reduction needs to occur is lower than in the the case in which the same deficit had been used to finance other forms of spending.

Numerical simulations presented in the Annex show that overall this rule would imply speeds of adjustment in debt-to-GDP ratios that are feasible and in line with projected budgets of Member States in the coming years. In particular, for France, Italy, and Spain the deficits in current budgetary plans are below those required by the rule by less than 0.3 percentage points of GDP, both in 2023 and 2024.

Nonetheless, it is important to recognize that no numerical rule is perfect and that in the future the rule may require excessive adjustments for some country, in some circumstances. We therefore propose a governance process by which a member country can request a weakening of the rule. Namely, if a member country finds that the rule requires an excessive fiscal effort, as measured by the increase in the primary balance in the coming 3 years, the country can request a slower speed and therefore a higher target $\hat{d}_{t+10}$. The request would be based on a review of cyclical indicators (growth, unemployment, inflation, etc.) both for the country considered and for the Euro area as a whole. The request will also take in consideration the capacity of the ECB to provide monetary support and whether the ECB is constrained by the effective lower bound. In response to the country's request, the Commission will consider granting a temporary reduction of the adjustment speed. This mechanism can allow additional room for fiscal stimulus in situations in which the ECB is falling short of its inflation target.

Of course, the additional tool that ensures flexibility in case of a deep recession is the use of the general escape clause, which has proved so useful during the pandemic crisis. The fact that debt accumulated during the escape clause is counted towards the slow-adjusting portion, would help ensure a smoother transition after the clause is lifted.

The logic of a multi-speed system is coherent with the debt assumption plan of Section 2: that plan implies that the portion of debt acquired by the European Debt Management Agency is effectively considered zero-speed debt and hence not used in the calculation of the medium-term national debt targets.

**B. Spending rule.** The medium-term debt target is achieved using a single instrument: a spending rule.

The spending rule defines a ceiling for the growth

[12] In the case $d_F < d^* \leq d$ the expression in square brackets is replaced by $\gamma(d - d^*)$; if $d < d^*$ the expression is replaced by zero and the target is $\hat{d}_{t+10} = d_t$. The law of motion of the slow component is

$$d_{S,t} = (1-\gamma) d_{S,t-1} + \text{qualifying expenses},$$

so the parameter $\gamma$ is also used as the implicit depreciation rate for the slow component.

rate of primary expenditure net of interest payments, automatic stabilizers, and spending-for-the-future items. The exclusion of spending-for-the-future items from the ceiling is the other component of our golden rule scheme.

As argued above, the two pieces of the golden rule go together: the spending rule part gives countries space to increase public investment, the two-speed rule ensures that higher investment today does not trigger a fast readjustment in the immediate future.

The ceiling is chosen so that the economy achieves in 10 years the medium-term debt target, $\hat{d}_{t+10}$. The ceiling is revised every 3 years. The projections made to check the achievement of the debt target in 10 years, would be made under realistic assumptions about the future evolution of output growth, fiscal revenues, automatic stabilizers, interest rates, spending-for-the-future items, and stock-flow adjustments. The country's government will make these projections, which are then certified by a national Independent Fiscal Council (IFC). The IFC therefore certifies that these projections are based on credibly parametrized structural macro models and are consistent with information from forecasting models.

When the country implements tax reforms that affect future tax revenues, the spending ceiling is adjusted to take into account the change in revenue projections due to the new legislation. However, in making revenue projections, governments should not be allowed to use future contingent tax change clauses, to avoid non-credible backloading of the fiscal effort.

As discussed above, projections for budget items excluding net spending are based on realistic point estimates of future values. An alternative approach, considered in some proposals, is to replace realistic projections for revenues and other budget items, with projections "at potential" to choose a spending path that would ensure reaching the target $\hat{d}$ in normal circumstances. We find this approach too sensitive to the way in which the potential path is computed and sensitive to an unobservable variable. We also find it less appealing in terms of communication and transparency, given that, under our approach, the projected path for the debt-to-GDP ratio in the coming 3 years can be explicitly communicated to the citizens and constitutes a realistic benchmark against which they can evaluate realized policies. The same objective of realism is behind our choice of setting the horizon of the medium-term debt target to 10 years, so that the calculations made in the spending rule rely less on more uncertain long run paths.

A delicate choice is how often the spending ceiling should be revised. A natural solution would be to synchronize the setting of the ceiling with the term of a government, making it part of the government political plans.[13] However, the different duration of government terms in different countries can make this route difficult. For these reasons, here we opt for a common 3-year term.

**C. Advantages of debt target and spending rule.** There are several advantages of basing a fiscal rule on a medium-run debt target using a spending rule as an instrument.

First, the debt-to-GDP ratio is easy to measure and easy to communicate. Debt sustainability fundamentally means that the stock of debt grows at a pace that is consistent with investors' willingness to absorb it. A rule by which the government balance is adjusted when the debt stock increases is a natural way of ensuring that this condition is satisfied.[14]

Second, targeting a given reduction in debt-to-GDP gives automatically a rule that is sensitive to changes in expectations regarding interest rates and GDP growth ($r$ and $g$). Consider the basic dynamic equation for the debt-to-GDP ratio:

$$d_{t+1} - d_t = \frac{r-g}{1+g} d_t + \frac{1}{1+g} \cdot \text{primary deficit}.$$

If a country sets its objective in terms of a given reduction of the debt-to-GDP ratio, the expression on the left-hand side, a lower value of $r-g$ immediately translates into larger feasible levels of the primary deficit.[15] This is in line with the argument by Blanchard (2019) that low levels of $r-g$ should be taken into account in evaluating countries' available fiscal space.[16]

Third, setting an objective in terms of the debt-to-GDP ratio presents a country with a clear intertemporal

[13] This happens, for example, in the Dutch model in which the spending ceiling is an integral part of the party platforms and of electoral competition, see Vierke and Masselink (2017).

[14] Bohn (1991, 1998).

[15] The argument easily extends to a ten-year debt target, with the advantage that the country can use realistic projections about $r$ and $g$ in that interval of time.

[16] Other proposals, such as Blanchard et al. (2020) and Martin et al. (2021), make an additional step. They argue that low levels of $r-g$ also affect long-run fiscal sustainability calculations, so low values of $r-g$ should also affect the target value of debt to GDP $d^*$ that a country aims to reach. However, given substantial uncertainty about the long-run paths of $r$ and $g$, and given how hard it is to evaluate what is the maximum sustainable primary balance that a country can politically sustain, and given also that high debt countries in the EU have faced confidence crises in the past, we find it harder to embed this second step in the rules.

trade-off, since debt accumulation today requires fiscal adjustment in the future, while debt reduction today is rewarded with more future fiscal space. Some proposed amendments of the existing rules suggest introducing compensation accounts across budget shortfalls in different years that essentially enforce a similar intertemporal logic. Using a debt target for this purpose is the natural choice.

The main advantage of using a spending ceiling is in terms of countercyclicality: since tax revenues are sensitive to the state of the business cycle, a rule based on the budget balance would require an adjustment of spending in a recession. Current rules focus on the cyclically adjusted balance to correct for this, but that is reliant on the use of measures of the output gap that have proved unreliable over the years.[17] An additional advantage of a multiyear spending ceiling comes from the fact that it provides a higher degree of predictability in budgeting.

**D. Simplicity and communication.** The system of rules described has two advantages in terms of simplicity and communication. The first is that focusing on a realistic objective of debt reduction makes it easy to communicate and to monitor by the general public. In particular, it is crucial that the level of debt-to-GDP to be reached in the coming 3 years becomes a heavily advertised and visible element in the public communication of the government budget proposals. It is important that the communication focuses on the 3-year-ahead projection of the debt-to-GDP ratio, because that is an objective that would be achieved under current projections. This number is easy to compute, relatively hard to manipulate, and one with which the general public is broadly familiar. This observation also reinforces our view that projections should be based on realistic forecasts, rather than on potential output.

The second advantage of our proposal is that it emphasizes a central trade-off between medium-term debt reduction and short-term budget adjustment. This is the economically significant trade-off that a policy maker should focus on, when choosing an appropriate fiscal stance. A plan that focuses on an explicit balance between these two sides of the problem should facilitate communication between national policy makers and European institutions.

[17] See e.g., Coibion et al. (2018), Darvas et al. (2018).

**E. Spending for the future.** We have argued in favor of a fiscal framework that favors public investment and spending that contribute to European public goods under the label "spending for the future". It is useful to lay down the economic rationale for the special treatment of these two spending categories.

Public investment should be prioritized because it contributes to potential output growth and enhances the asset side of the government's balance sheet.[18]

Expenditures that contribute to European public goods, on the other hand, should be included in "spending for the future" to the extent that they contribute to the welfare of future generations.

The green transition provides a good example of this logic. Policies that reduce greenhouse emissions are desirable because they reduce the risk of catastrophic events in the future. However, they can create current social costs, e.g., by displacing workers in high-emission sectors, increasing the need for fiscal transfers. These transfers are an example of non-investment spending that can be reasonably included in "spending for the future" as it is spending that makes it possible to pursue costly policies today, whose benefits will accrue to future taxpayers.

The difficult question is how to identify specific spending projects that are included in "spending for the future," limiting the scope for opportunistic mislabeling of other expenditures. The experience of the NGEU can provide a useful blueprint, both by defining specific areas of intervention, chosen at EU level, and by defining a monitoring and enforcement system. If countries want to include some spending project in the favored category, they will accept an increased degree of scrutiny by the Commission and possible forms of conditionality. The threat of suspending transfers in the NGEU if some milestones are not met would be replaced here by the threat of losing favored status for the spending project.[19]

To get a sense of the incentives for a country to keep a spending project in the favored category notice that, given the calibration above, if a spending of, say, 10 million euros is included in favored spending, it reduces the future speed of debt adjustment and,

[18] Some forms of public investment produce directly revenue streams (e.g., highway tolls), but here we mostly have in mind the indirect effects on potential growth and thus on future tax revenues (Blanchard and Giavazzi (2004)). Aghion and Mhammedi (2021) offer recent arguments on the long-run growth benefits of some forms of public investment.

[19] For some categories, it may also be useful to refine the scheme by allowing some spending to be only partially included in "spending for the future," by introducing a system of differential weights.

therefore, it frees up resources in next year's budget by 0.3 million.[20]

Darvas and Wolff (2021) recently proposed a "green golden rule" to exclude green public investment from the calculations of both public deficit and public debt in the years going forward. Our approach is similar in spirit and would produce similar outcomes for green investment. The difference is that in their proposal the speed of adjustment due to past green spending is effectively set to zero, by excluding it completely from the calculation of public debt.

The version of the golden rule proposed here can be interpreted as a first step in the direction of including measures of the government net worth in fiscal rules, as, for example, advocated by Gaspar, Harris and Tieman.[21] The idea is that public investment adds both to the asset and to the liability side of the government balance sheet. Our two-speed design implicitly captures a repayment rule that is sensitive to the net worth effects of investment spending.

The definition of the slow-adjusting portion of debt in terms of cumulated, discounted values of past investments and other favored expenses means that the slow-adjusting part has the nature of a stock variable and requires defining an initial condition, when the system is started. The choice of this initial condition has significant effects on the way the rule would work in the initial years. Since it seems hard to do any type of retrospective reconstruction of what past investment would have fallen in the favored category, a reasonable solution is either to start at zero (as we do in our simulations) or to use a conventional value, proportional to the country's GDP.

## 4. Conclusions

The EU fiscal framework is in need of reform. A reform of the fiscal rules should have two main objectives: to ensure sustainability while giving the needed space to fiscal policy as a macro stabilization device; and to protect desirable forms of spending, including public investment and spending that promotes common European goals.

We have proposed a rule that focuses explicitly on stabilizing the debt-to-GDP ratio and that provides countercyclicality and a gradual fiscal adjustment by aiming for a medium-term target. The rule is designed to incentivize desirable forms of spending and to promote European cooperation on these objectives.

The debt assumption plan is a natural complement to the new rules, as it gives highly indebted countries a better starting point in their debt-reduction effort. The plan has the additional benefits of reducing aggregate funding costs for EU countries, contributing to deepen the market for EU debt, and freeing up space in the ECB balance sheet.

[20] The difference between the $\beta$ and $\gamma$ parameters, times the investment amount. The reductions in future years will be gradually smaller, as the calculations for the slow-moving part include depreciation of past expenditures.

[21] See IMF (2018).

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## Annex: Simulations

**Table 2. Required Adjustments by Country**

| Country | Total Debt (2022) | Slow-adjusting | Fast-adjusting | Covid Debt | Required speed of Adjustment |
|---|---|---|---|---|---|
| Austria | 79.1 | 7.1 | 59.8 | 12.3 | 0.007 |
| Belgium | 114.3 | 9.6 | 88.9 | 15.8 | 0.030 |
| Cyprus | 100.9 | 23.9 | 63.4 | 13.7 | 0.016 |
| Estonia | 19.7 | 4.7 | 5.8 | 9.3 | — |
| Finland | 71.3 | 8.9 | 50.7 | 11.7 | — |
| France | 113.5 | 12.6 | 83.1 | 17.8 | 0.026 |
| Germany | 71.2 | 5.1 | 53.5 | 12.6 | — |
| Greece | 190.4 | 26.0 | 147.0 | 17.4 | 0.037 |
| Ireland | 51.9 | 38.7 | 15.4 | -2.2 | — |
| Italy | 149.4 | 12.7 | 117.5 | 19.2 | 0.035 |
| Latvia | 51.7 | 14.7 | 25.2 | 11.8 | — |
| Lithuania | 45.6 | 7.6 | 27.9 | 10.1 | — |
| Luxembourg | 26.6 | 8.5 | 14.3 | 3.8 | — |
| Malta | 61.8 | 3.3 | 39.1 | 19.3 | — |
| Netherlands | 57.7 | 14.6 | 34.0 | 9.1 | — |
| Portugal | 122.8 | 25.0 | 87.7 | 10.1 | 0.030 |
| Slovakia | 61.5 | 11.4 | 36.9 | 13.3 | — |
| Slovenia | 77.5 | 17.4 | 47.2 | 12.9 | 0.005 |
| Spain | 115.1 | 27.3 | 63.7 | 24.1 | 0.013 |

*Note*: Debt over GDP is taken from countries' Fall 2021 draft budgetary plans. Pandemic debt is computed as the difference between the debt to GDP ratio at the end of 2021 (projected) and at the beginning of 2020. Slow-adjusting debt is the debt accumulated during the 2008–09 recession and that accumulated during the 2011–13 recession, depreciated at a rate of $\gamma$. The fast-adjusting part is the entire debt, minus the slow-adjusting part and the pandemic debt. The computation of the required adjustment is detailed in the Annex.

The simulations reported in the Figures below are produced using as a baseline the projections for nominal GDP, revenues, and interest rates from the Fall 2021 Draft Budgetary Plans, for Italy and France, and forecasts from the Spring 2021 Stability Programs, for all other countries. For future dates beyond the horizon of the Budgetary Plans and Stability Programs, we use projections from the 2020 Debt Sustainability Monitor.

Relative to the baseline, our paths for spending and primary balances are computed assuming GDP and interest rates are exogenous (i.e., setting multipliers to zero) and setting spending paths to satisfy the 10 year debt target according to our rule. In particular, on each year $t$ in which the spending ceiling is reset, the debt target is given by (1) and the growth rate of spending $x$ is chosen so that iterating on the debt law of motion

$$D_s = D_{s-1} \cdot (1 + i_s) + (1 + x)^{s-t} \cdot G_t - T_s,$$

for $s = t + 1, ..., t + 10$ yields $D_{t+10} = \hat{d}_{t+10} Y_{t+10}$.

To compute slow-speed debt we only include recession debt, and set it to:

$$d_{S,t} = \sum_{\tau \leq t} [w_\tau \cdot (d_\tau - d_{\tau-1})] \cdot (1 - \gamma)^{t-\tau},$$

where $w_\tau$ are weights set to 1 for 2008, 0.5 for 2009, 0.5 for 2011, 1 for 2012, and 0.25 for 2013, excluding recession years in which $d_t$ decreased. To set the weights we use the timing of European recessions from the CEPR and use the proportion of quarters spent in recession that year. Covid debt is removed gradually over the first 5 years, by 1/5 of the Covid debt in Table 1 each year.

**Fig. 1. France**

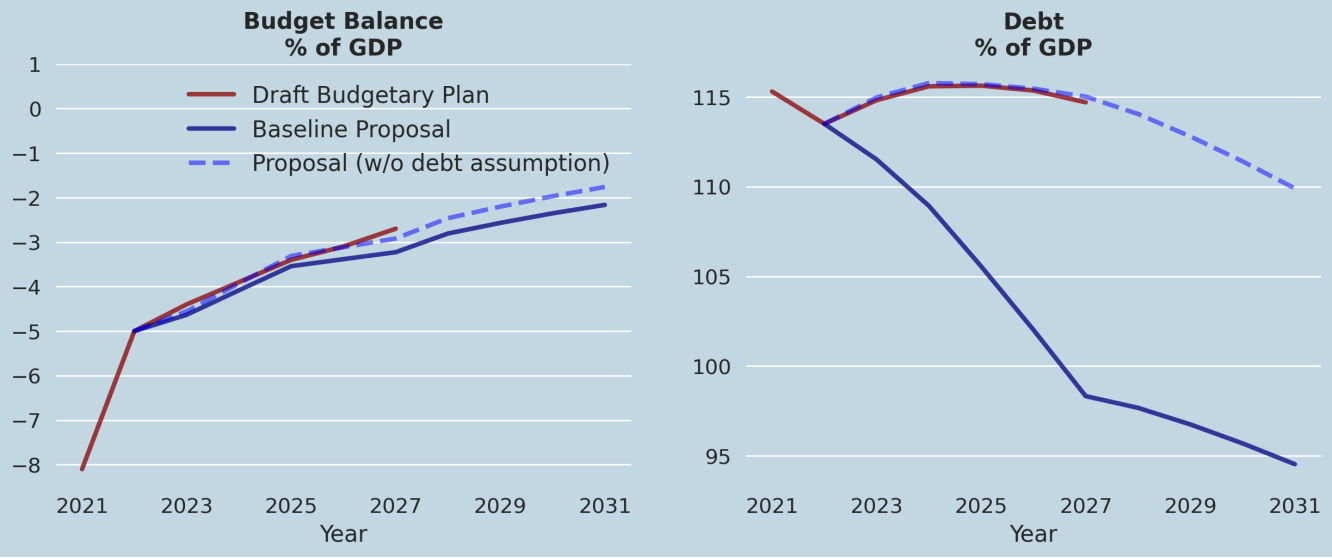



**Fig. 2. Germany**

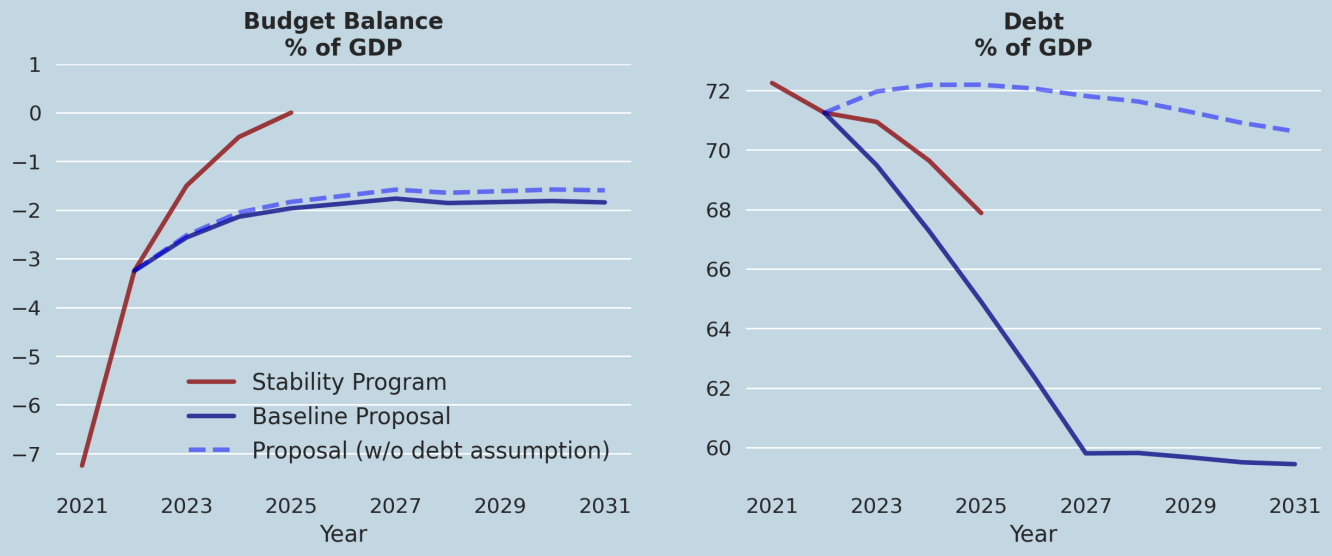


**Fig. 3. Greece**

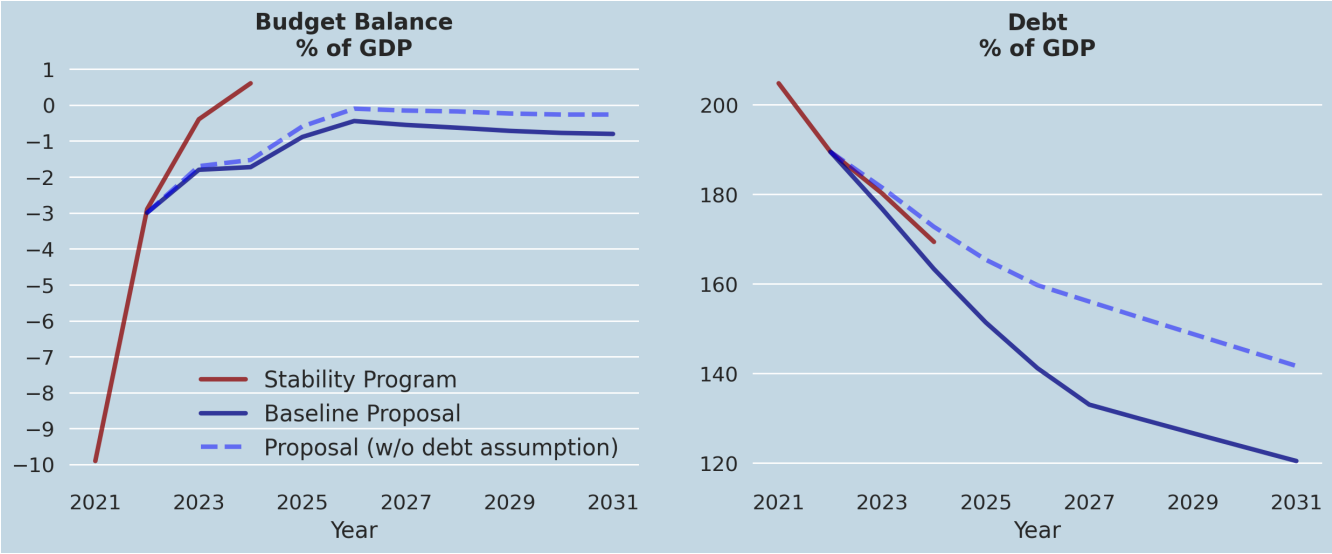



**Fig. 4. Italy**

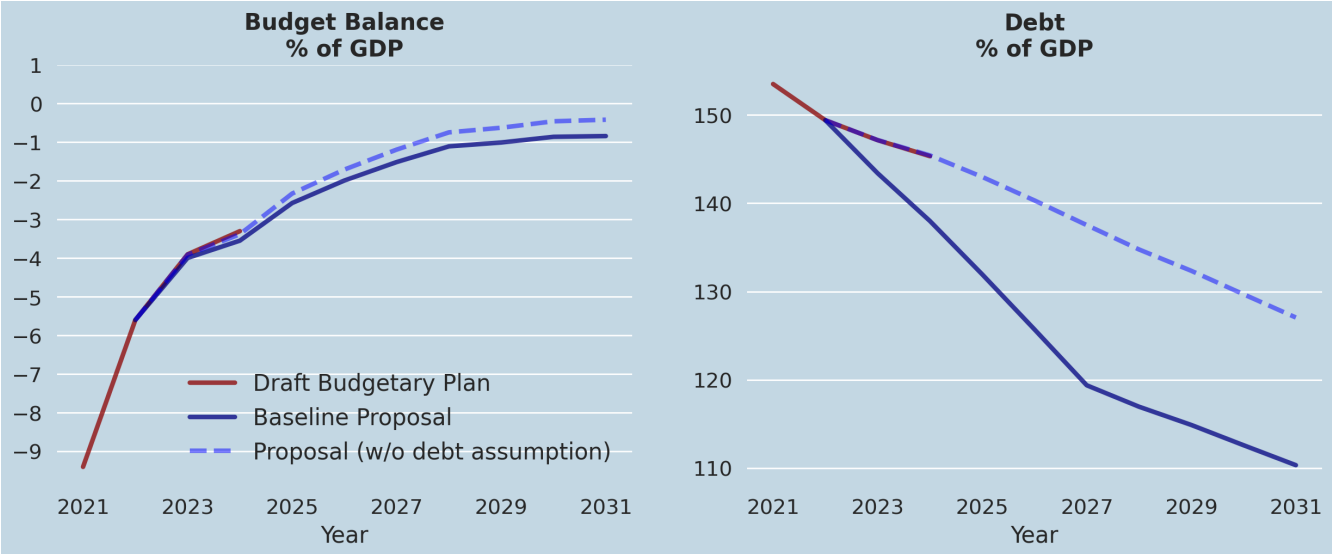


**Fig. 5. Portugal**

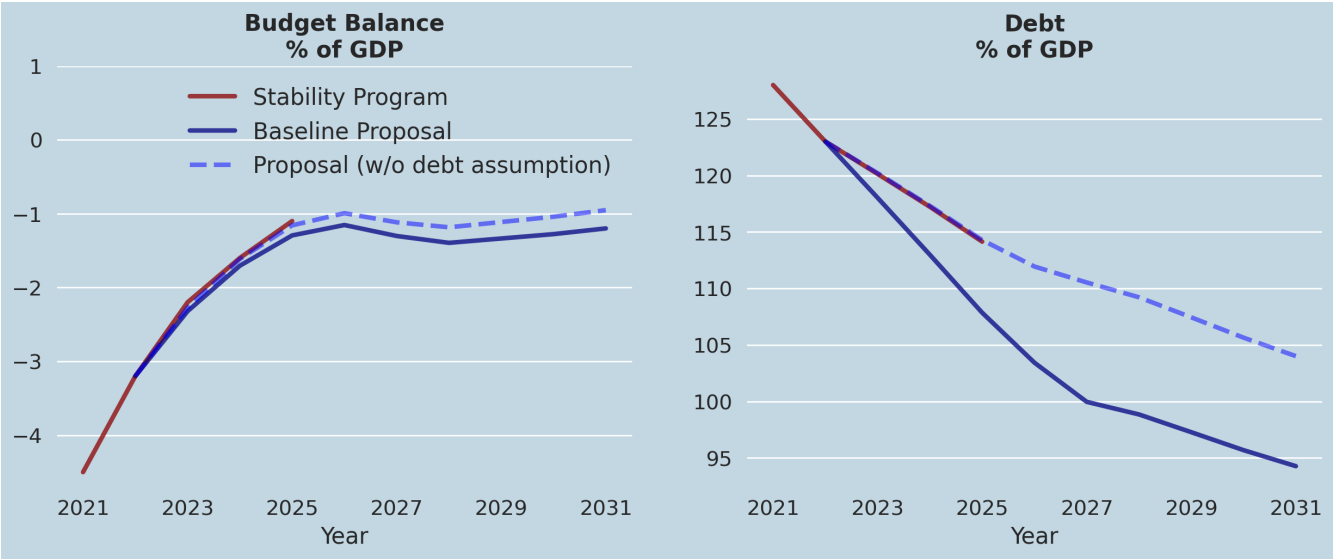
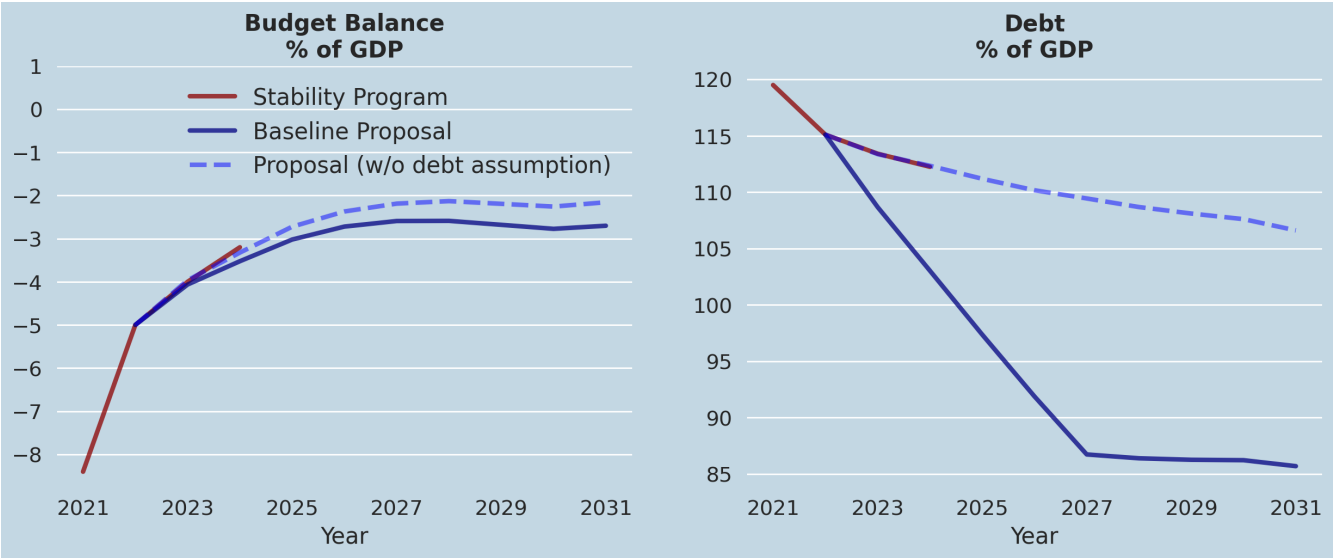



**Fig. 6. Spain**



The red lines plot paths under existing budget plans. The blue lines plot simulated paths under our proposed rule combined with the debt assumption plan of Section 2. For reference, the dashed blue lines plot simulated paths under our proposed rule, but without including the debt assumption plan.

To include the debt assumption plan in the simulations, we assume that for the years 2023 to 2027, each year, at the beginning of the year, a fraction of debt (in proportion to GDP) is removed, according to the numbers in Table 1. Due to the debt assumption plan, the debt dynamics under the proposal are below the debt dynamics under existing budget programs even though the proposal entails larger deficits. Notice however that to compute the spending rule at time $t$ we compute *future* debt dynamics without the debt assumption plan. That is, we assume that the debt reduction from $d_t$ to $\hat{d}_{t+10}$ must be achieved only by adjustments in future deficits. The dashed lines show that existing budgetary plans essentially comply with the proposed rule even without the help of the debt plan.