Will the New European Fiscal Rules Raise the Debt-to-GDP Ratio? An Analysis of the Italian Case Claudia Ciccone*

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ABSTRACT

The recent reform of the European fiscal governance framework has been portrayed as a break with the austerity logic of the past. Yet its core logic remains largely unchanged.

This paper investigates the possible effects of the fiscal consolidations required under the new European fiscal rules on Italy's debt-to-GDP ratio. Drawing on the reference trajectory for net primary expenditure transmitted by the European Commission to Italy in June 2024, the analysis shows that the projected decline in the debt-to-GDP ratio relies on an assumption for which the Commission gives no justification: that the contractionary effects of fiscal consolidation on GDP are only temporary and fully dissipate three years after the adjustment period.

Once this assumption is removed and the effects of consolidation are allowed to persist — as suggested by empirical evidence on hysteresis — GDP growth weakens substantially, and the debt-to-GDP ratio may increase rather than decrease.

The findings suggest that the new governance framework may lead to the pro-cyclical tightening, weaker growth and adverse debt dynamics that characterized earlier phases of EU fiscal governance.

^{*} Graduate in Economics (MSc), Roma Tre University.

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As outlined in the new European economic governance framework under the recent reform of the Stability and Growth Pact, on 21 June 2024 the European Commission transmitted to all Member States with public debt exceeding 60% of GDP or a public deficit greater than 3% of GDP a country-specific reference trajectory for net primary expenditure. This trajectory sets, for each year of the adjustment period (lasting four or seven years, as is the case for Italy), a maximum growth rate for net primary expenditure, and its purpose is to reduce the structural primary deficit¹ by an amount determined by the Commission on the basis of its Debt Sustainability Analysis (DSA). According to the Commission's forecasts, in fact, these adjustments should ensure that, at the end of the adjustment period, the structural primary balance reaches a level which, if maintained over the following ten years, would guarantee the medium- to long-term reduction and sustainability of public debt. In practice, the Commission will monitor the strict compliance of the agreed path of net primary expenditure over the adjustment period. Compliance is assessed solely on the basis of net expenditure developments, together with the overall deficit and debt ceilings.

Under the previous rules of the Stability and Growth Pact, instead, the fiscal stance of Member States was assessed mainly through the structural balance, that is, the cyclically adjusted budget balance net of one-off measures. The Commission monitored the annual improvement in this indicator, which had to amount to at least 0.5 percentage points of GDP per year until the medium-term objective was reached. This approach relied heavily on the estimation of potential output and the output gap, both of which are unobservable and subject to large revisions.

The 2024 reform was widely expected to mark a significant change — allowing for more room for public investment and a lesser emphasis on austerity. However, many of the expectations have been disappointed. Although the reform replaces the monitoring of the structural balance with that of net primary expenditure, the estimation of potential GDP continues to play a crucial role, since it underlies the definition of the expenditure trajectory itself. In practice, this trajectory is designed so that the growth rate of net expenditure remains below the projected growth of potential GDP, thereby ensuring a gradual decline in the debt-to-GDP ratio over the adjustment period.²

This article adopts a theoretical approach that differs from that of the European Commission and examines the impact of the fiscal consolidations required by the reference trajectory on Italy's debt-to-GDP ratio — a trajectory designed to place this ratio on a plausibly downward path.

The Commission's forecasts rest on a fundamental assumption, common to all countries, which, if removed, would yield markedly different outcomes. This assumption is that the output gap will close

Risk-Based Framework for Fiscal Rules - Overly Complex, Opaque and Self-Defeating', Institute for New

Economic Thinking.

COM(2022) 583 final, November 2022). See footnote 14 below for the definition of the (non-structural)

¹ The structural primary deficit is the government budget deficit net of interest payments on public debt, cyclically adjusted to remove the effects of temporary economic fluctuations and one-off fiscal measures. It is intended to capture the underlying fiscal position of a country, excluding both cyclical and transitory components. However, this indicator is unobservable and relies on estimates of potential output and of the output gap that are highly uncertain and subject to large ex-post revisions. These methodological limits have been widely discussed in the literature and acknowledged by the European Commission itself (see European Commission, *Communication on orientations for a reform of the EU economic governance framework*,

primary balance.

² For further discussion of the new EU fiscal rules, see Schuberth, H. (2024), 'The European Union's New

in the third year following the end of the adjustment period. In other words, while the Commission acknowledges a (moderate) negative impact of fiscal tightening on GDP performance, it assumes this effect to be-temporary. Consequently, after three years the GDP growth trajectory is expected to return to its potential path, determined solely by the availability of labor, capital, and productivity, under the assumption that these supply-side factors are unaffected by fiscal policy. In previous exercises, the Commission typically assumed that the output gap would close within five — rather than three years. The shortening of this horizon to three years is a change for which no justification is provided in the official documents.³

Throughout this paper, we rely on the Commission's estimates and forecasts for Italy pertaining to the reference trajectory communicated in June 2024. These scenarios have since been superseded by the national medium-term fiscal-structural plans submitted by Member States. However, the aim of the analysis presented here is to highlight the conceptual implications of the Commission's methodological framework.

The Commission's forecasts

Table 1 presents the forecast for Italy's real GDP over the adjustment period (2025-2031) and for the following three years (2032-2034). Real GDP is projected to grow throughout the entire period considered, with the output gap closing — consistent with the underlying assumption — in 2034. It is worth noting that, according to these forecasts, from 2026 to 2031 actual output would remain below its potential level, reflecting a negative cyclical phase resulting from the ongoing reduction of the public deficit (i.e., an increase in the primary surplus), achieved through spending cuts and/or higher tax revenues.

Table 1. Actual GDP, Potential GDP, and Output Gap under the European Commission's Policy Scenario (real terms, billion euros)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
GDP											
Level	1.805,5	1.816,1	1.822,4	1.829,9	1.837,1	1.843,3	1.848,6	1.853,2	1.864,7	1.875,3	1.890,5
Annual growth rate (%)	0,9	0,6	0,3	0,4	0,4	0,3	0,3	0,3	0,6	0,6	0,8
Potential GDP											
Level	1.787,3	1.807,1	1.824,5	1.839,5	1.852,8	1.862,9	1.870,5	1.876,2	1.880,1	1.883,0	1.890,5
Output gap (% of potential GDP)	1,0	0,5	-0,1	-0,5	-0,8	-1,0	-1,2	-1,2	-0,8	-0,4	0,0

Source: European Commission estimates.

³ See Heimberger, P., Welslau, L., Schütz, B., Gechert, S., Guarascio, D., Zezza, F. (2024), "Debt Sustainability Analysis in Reformed EU Fiscal Rules", Intereconomics, 59(5), p. 278.

Commission prior guidance calculation sheet - Italy, 21 giugno 2024 (https://economyfinance.ec.europa.eu/economic-and-fiscal-governance/stability-and-growth-pact/preventive-arm/nationalmedium-term-fiscal-structural-plans en#italy).

1,890.5 1,895 1,885 1,876.2 1,875 1,865 1,853.2 1,855 1,845 1,824. 1,835 1,825 1,815 1.805.5 822.4 1,805 1,795 1,785 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 Actual GDP Potential GDP

Figure 1. Actual and Potential GDP under the European Commission's Policy Scenario (real terms, billion euros)

Source: European Commission estimates.

The tendency of actual output to converge towards potential output — and thus the closing of the output gap — is a consequence of the assumption that the restrictive effect generated by the annual correction of the structural primary deficit is only temporary. Formally, for each year (t) of the adjustment period, this effect can be expressed as:

$$m\left(\Delta SPB_{t}-\Delta SPB_{t}^{npc}\right),$$
 [1]

where:

m =fiscal multiplier;

 ΔSPB_t = planned change in structural primary balance for year t;

 ΔSPB_t^{npc} = planned change in structural primary balance for year t under the no-policy-change scenario.

In its calculations, the Commission adopts a fiscal multiplier of 0.75.

The term ΔSPB_t represents the correction of the structural primary deficit determined by the Debt Sustainability Analysis (DSA),⁵ while ΔSPB_t^{npc} denotes the change that would occur under the nopolicy-change scenario. This scenario, produced by the Commission itself, serves as the counterfactual baseline and reflects what would happen if the fiscal measures implemented in the base year, 2024, were extended into the following years (in Italy's case, 2025-2031). In other words, it assumes that the structural primary balance achieved in 2024 remains constant throughout the

⁵ The DSA, conducted by the European Commission, projects the evolution of a country's debt-to-GDP ratio up to ten years after the adjustment period and defines the annual structural primary balance adjustment required to ensure debt sustainability over the medium to long term.

adjustment period. Consequently, ΔSPB_t^{npc} is equal to zero by definition. Nevertheless, the variable is made explicit for conceptual completeness: the formulation would allow, in principle, for a comparison of two alternative fiscal policy strategies — each implying a distinct adjustment in the structural balance — rather than between a single policy scenario and a no-policy-change baseline, as is done here.

The Commission assumes that the restrictive effect — relative to the no-policy-change scenario — generated in each year (t) expressed in formula [1] is gradually phased out over the subsequent three years (t+1, t+2, t+3). That is, an immediate contractionary impact is initially assumed, but it begins to fade in the following year. This reabsorption process ultimately leads to the closing of the output gap in the third year following the end of the adjustment period, which for Italy is 2034. However, the Commission's documents provide no explanation regarding the nature of these compensatory mechanisms.

The compensatory mechanisms the Commission assumes to operate in the three years following the restrictive effect of the consolidation are presumably linked to increases in aggregate demand components resulting from the deficit reduction. The ones that can be logically inferred from the existing literature are:

- A possible reduction in interest rates in response to lower inflation, which would stimulate private spending (investment and/or consumption). However, this circumstance is unlikely in the euro area, where monetary policy is centralized and cannot respond to the conditions of an individual Member State. Moreover, it seems implausible that the Commission would assume a decline in interest rates driven by a perceived reduction in the riskiness of Italian public debt, given that its own forecasts project an increase in Italy's debt-to-GDP ratio during the initial years of the adjustment period (2025-2028);⁶
- Lower growth, or even a decline, in nominal wages and prices compared to other countries
 would favor exports. However, this outcome also appears unlikely in a context where many
 countries are simultaneously implementing policies to restrain domestic demand, and even
 less so given the current geopolitical environment, which is characterized by rising trade
 barriers and increasing global instability.

Under the new rules the 'automatic stabilizers' – that is, progressive taxation and transfers - would be left free to operate since, once the structural plan is approved, the variable that will be monitored is the growth of net expenditure⁷ which must follow the path agreed at the beginning of the structural adjustment plan, but no discretional countercyclical measure will be allowed.⁸ Note that the effects

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⁶ Table 3.

⁷ Net expenditure is defined as net of temporary changes in unemployment subsidies due to unemployment fluctuations

⁸ See Capacci, A. and Franzetti, E., 'Le nuove regole europee sui conti pubblici: effetti su deficit, debito e Pil', *Osservatorio sui Conti Pubblici Italiani*, December 2024, pp. 9-10 (https://osservatoriocpi.unicatt.it/ocpi-pubblicazioni-le-nuove-regole-europee-sui-conti-pubblici-effetti-su-deficit-debito-e-pil).

of automatic stabilizers are already captured in the empirical estimation of fiscal multipliers, which are derived from historical data on GDP.

The Commission itself produces estimates for actual GDP under an alternative, so-called 'intermediate' scenario, which does not foresee the closing of the output gap. However, this scenario appears in the Commission's calculation sheet⁹ without a clear explanation of its purpose. It can be presumed that it serves as an intermediate step in the elaboration of what we call 'policy' scenario, but it's not considered relevant for the Commission's policy prescriptions towards Member States, as the convergence of actual output towards potential output remains unquestioned.

An alternative view

Adopting an alternative perspective in which there is no reason to believe in the existence of a potential level of output towards which actual output naturally converges, and thus no reason to assume that the contractionary effects of fiscal consolidation are merely temporary, the scenario the Commission labels 'intermediate' becomes relevant. It is important to specify that the data underlying this scenario — presented in Table 2 and Figure 2 — derive from the Commission's calculation sheet, ¹⁰ which provides the annual "GDP intermediate growth rates". The levels of actual GDP shown here for the intermediate scenario have been reconstructed by the author using those growth rates, starting from the Commission's estimate of actual GDP in 2024. Both the policy and the intermediate scenarios are elaborated in connection with the reference path of net primary expenditure imposed on Italy. They differ only with respect to one assumption: in the policy scenario, the negative impact of fiscal consolidation on GDP is considered temporary and fully dissipated within three years after the adjustment period; in the intermediate scenario, those effects persist over time.

Since the European Commission assumes that the restrictive effects of consolidation vanish after a few years and actual output naturally converges towards potential output, only the policy scenario is regarded as relevant for policy purposes, while the intermediate one is disregarded in its official prescriptions.

Table 2. Actual GDP – Commission's "policy" and "intermediate" scenarios (real terms, billion euros)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Intermediate											
Level	1.805,5	1.816,1	1.819,7	1.818,8	1.818,9	1.819,8	1.818,6	1.815,9	1.819,6	1.822,5	1.829,7
Annual growth rate (%)	0,9	0,6	0,2	-0,1	0,0	0,1	-0,1	-0,1	0,2	0,2	0,4
Policy											
Level	1.805,5	1.816,1	1.822,4	1.829,9	1.837,1	1.843,3	1.848,6	1.853,2	1.864,7	1.875,3	1.890,5
Annual growth rate (%)	0,9	0,6	0,3	0,4	0,4	0,3	0,3	0,3	0,6	0,6	0,8

Source: Author's calculations based on European Commission estimates.

¹⁰ See footnote 4 above.

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⁹ See footnote 4 above.

1890.5 1,895 1,885 1,875 1,865 1853.2 1,855 1837.1 1,845 1.829,7 1,835 1,825 1.815.9 1,815 1.805.5 1,818.9 1,805 1,795 1,785 2024 2025 2028 2032 2026 2027 2029 2030 2031 2033 2034 Intermediate scenario Policy scenario

Figure 2. Actual GDP – Commission's "policy" and "intermediate" scenarios (real terms, billion euros)

Source: Author's calculations based on European Commission estimates.

As shown in Figure 2, the difference between the two trajectories of actual GDP is substantial. In the policy scenario, GDP grows steadily, reflecting the assumed disappearance of fiscal-policy effects; in the intermediate scenario, GDP remains almost flat for several years, indicating that the contractionary impulse is not offset by any compensatory mechanisms.

The abandonment of the assumption that actual output naturally converges towards a predetermined potential level — and thus the idea that the restrictive effects of fiscal consolidations are merely temporary — finds support in the literature on hysteresis. In economics, the term 'hysteresis' refers to the phenomenon whereby the effects of negative shocks, such as recessions or fiscal consolidations, on variables like GDP and employment tend to be persistent. This phenomenon, supported by empirical evidence, ¹¹ not only challenges the notion that the economy naturally returns to its potential output but also questions the existence of a 'natural' equilibrium unemployment rate, which is assumed to be associated with the level of potential output. The Commission's latest estimate for Italy's natural unemployment rate stands at $10\%^{12}$ — a rather high level, above the current actual rate. The hysteresis phenomenon thus calls into question the notion of a predetermined, demandindependent equilibrium unemployment rate and potential output, towards which the economy would tend to converge.

Let us now turn to the Commission's forecasts for Italy's debt-to-GDP ratio, the reduction of which represents the ultimate goal of the planned fiscal consolidation. The estimates for both the policy

¹¹ See, for example, Stirati, A., 'Beyond the NAIRU - The Godley-Tobin Memorial Lecture', *Review of Keynesian Economics*, 13(1), 2025, pp. 1-20.

Ufficio parlamentare di bilancio, *Rapporto sulla politica di bilancio*, giugno 2024, p. 37 (https://www.upbilancio.it/wp-content/uploads/2024/06/Rapporto 2024 pol bil.pdf).

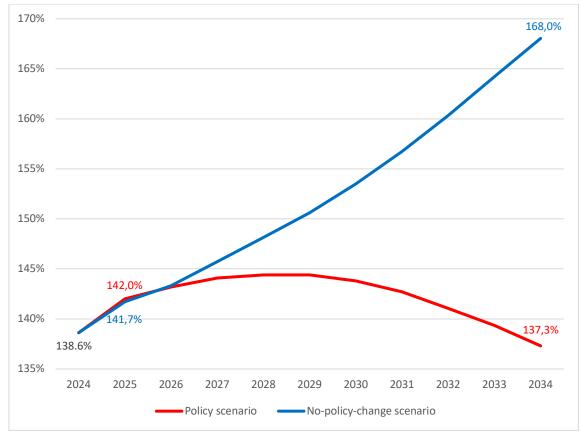
scenario with a seven-year adjustment period and the no-policy-change scenario are presented in Table 3 and illustrated in Figure 3.

Table 3. European Commission Forecasts for the Debt-to-GDP Ratio under the Policy Scenario and the No-Policy-Change Scenario (percentage values)

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Debt/GDP, policy scenario (a)	138,6	142,0	143,2	144,1	144,4	144,4	143,8	142,7	141,1	139,3	137,3
Debt/GDP, no-policy- change scenario (b)	138,6	141,7	143,3	145,7	148,2	150,6	153,5	156,7	160,4	164,2	168,0
(a) - (b)	0,0	0,3	-0,1	-1,7	-3,7	-6,3	-9,7	-14,0	-19,3	-24,9	-30,7

Source: European Commission estimates.

Figure 3. European Commission Forecasts for the Debt-to-GDP Ratio under the Policy Scenario and the No-Policy-Change Scenario



Source: European Commission estimates.

It is worth noting that even under the policy scenario, the debt-to-GDP ratio is projected to increase until 2028, and that in 2025 its level is higher than in the no-policy-change scenario. The ratio would begin to decline in 2030, but it would not fall below the base-year level until 2034 at the earliest (137.3%) — the year in which the output gap is assumed to close.

Let us now outline an alternative scenario assuming that the restrictive effects of fiscal consolidation are persistent, thereby eliminating the offsetting mechanisms that, according to the Commission's assumptions, would implicitly come into play starting from the second year of the adjustment period, 2026. In all other respects, we keep to the Commission's assumptions and data, in order to highlight the implications of taking for granted that the restrictive effects of fiscal consolidations are only temporary.

To analyze what would happen to the debt-to-GDP ratio in this case, we will refer to Nuti's (2013) contribution¹³ on calculating the change in the ratio $\left(\Delta \frac{D}{Y}\right)$ resulting from consolidation compared to the no-policy change scenario, assuming persistence of the fiscal multiplier effects. Applying the quotient rule, we can express this as follows:

$$\Delta \frac{D}{Y} = \frac{\Delta D \cdot Y^{npc} - \Delta Y \cdot D^{npc}}{(Y^{npc})^2},$$
 [2]

where:

 D^{npc} = debt stock under the no-policy-change scenario;

 Y^{npc} = nominal GDP under the no-policy-change scenario;

 ΔD = change in the debt stock due to fiscal consolidation, relative to the debt level of debt under the no-policy-change scenario in the same year $(D_t^{cons.} - D_t^{npc})$;

 ΔY = change in nominal GDP due to fiscal consolidation, relative to GDP under the no-policy-change scenario in the same year $(Y_t^{cons.} - Y_t^{npc})$.

Nuti expresses ΔD and ΔY as:

$$\Delta D = -xY^{npc}$$
 [3a]

$$\Delta Y = -mxY^{npc}, [4]$$

where *x* denotes the fiscal consolidation.

¹³ Nuti, D. M., 'Perverse Fiscal Consolidation' (http://www.insightweb.it/web/files/perverse_fiscal_consolidation.pdf), Italian version (2013) 'Gli effetti perversi del consolidamento fiscale', *Sbilanciamoci*.

Setting aside the assumption that actual output tends to converge towards potential output, we define x in terms of the primary balance — rather than the structural primary balance, ¹⁴ as in the Commission's calculations (equation [1]) — as a percentage of actual GDP:

$$x = \Delta P B_t - \Delta P B_t^{npc}.$$
¹⁵

It should be noted, from relation [3a], that in calculating the change in the debt stock generated by the fiscal measure relative to the no-policy change scenario, Nuti considers only the direct effect of the measure. However, we find it appropriate to reformulate the equation as follows:

$$\Delta D_t = -xY^{npc} - z\Delta Y + \Delta D_{t-1} \cdot i_t$$
 [3b]

By reducing GDP by an amount equal to ΔY , the fiscal measure results in a loss of government revenue equal to $z\Delta Y$, where z denotes the tax rate, thereby leading to a smaller reduction in debt. Furthermore, assuming that interest accrues on the debt stock of the previous year, the reduction of the debt stock in year t-1 results in lower interest expenditure in year t, equal to $\Delta D_{t-1} \cdot i_t$, where i_t denotes the implicit interest rate on public debt, thus contributing to a further reduction of debt in year t.

By defining ΔY as in equation [4], the change in the debt stock can therefore also be expressed as follows:

$$\Delta D_t = -xY^{npc}(1 - zm) + \Delta D_{t-1} \cdot i_t^{16}$$
 [3]

By substituting equations [3] and [4] into equation [2], we obtain:

$$\begin{split} \Delta D_{2025} &= -x_{2025} Y_{2025}^{npc} (1-z_{2025}m) \\ \Delta D_{2026} &= -x_{2026} Y_{2026}^{npc} (1-z_{2026}m) + \Delta D_{2025} \cdot i_{2026} \\ \Delta D_{2027} &= -x_{2027} Y_{2027}^{npc} (1-z_{2026}m) + \Delta D_{2026} \cdot i_{2027} \\ &\qquad \cdots \\ \Delta D_{2031} &= -x_{2031} Y_{2031}^{npc} (1-z_{2031}m) + \Delta D_{2025} \cdot i_{2026} \end{split}$$

¹⁴ The primary balance is the difference between government revenues and expenditures, net of interest payments on public debt. It therefore indicates the public sector's capacity to finance its current spending without resorting to additional borrowing to cover interest payments. This balance differs from the structural balance, which is calculated net of cyclical fluctuations and temporary measures (see footnote 1 above).

 $^{^{15}}$ x, as well as PB, are expressed in percent points of GDP.

¹⁶ For each year of the adjustment period, the change in the debt stock would be:

$$\Delta \frac{D}{Y} = \frac{-x(Y^{npc})^2 (1 - zm) + \Delta D_{t-1} \cdot i_t \cdot Y^{npc} + mxY^{npc} D^{npc}}{(Y^{npc})^2}$$

$$= -x + xzm + \frac{\Delta D_{t-1} \cdot i_t}{Y^{npc}} + \frac{mxD^{npc}}{Y^{npc}}$$

$$\Rightarrow \Delta \frac{D}{Y} = -x + xzm + mx \left(\frac{D}{Y}\right)^{npc} + \frac{\Delta D_{t-1} \cdot i_t}{Y^{npc}},$$
[5]

whence:
$$\Delta \frac{D}{Y} > 0 \Leftrightarrow mxz + mx \left(\frac{D}{Y}\right)^{npc} > x - \frac{\Delta D_{t-1} \cdot i_t}{Y^{npc}} \Leftrightarrow mx \left[\left(\frac{D}{Y}\right)^{npc} + z\right] > x - \frac{\Delta D_{t-1} \cdot i_t}{Y^{npc}}$$

$$\Rightarrow \Delta \frac{D}{Y} > 0 \Leftrightarrow m > \frac{1}{\left(\frac{D}{Y}\right)^{npc} + z} \left(1 - \frac{\Delta D_{t-1} \cdot i_t}{Y^{npc}}\right)$$
 [6]

This means that the debt-to-GDP ratio will increase, rather than decrease, as a result of fiscal consolidation, whenever the value of the multiplier (m) exceeds the right-hand side of the inequality.

The threshold identified by Nuti's analysis is instead the inverse of the initial debt-to-GDP ratio — the counterfactual — which in our study (in line with the European Commission's estimates) corresponds to the no-policy-change scenario. Therefore, if we had expressed ΔD as in relation [3a], following Nuti's approach, we would have obtained $\Delta \frac{D}{Y} > 0 \Leftrightarrow m > \frac{1}{\left(\frac{D}{Y}\right)^{npc}}$. Naturally, the higher the

initial debt-to-GDP ratio, the lower its inverse, and the greater the likelihood that the multiplier exceeds it. Nuti therefore concludes that for countries with a high debt-to-GDP ratio, such as Italy, fiscal consolidation — implemented precisely to reduce this ratio — would actually produce the opposite result. Such a measure would thus have the effect expected by the Commission only for those countries that, having a relatively low debt-to-GDP ratio, do not actually need it. For example, in Italy, the debt-to-GDP ratio for 2024 is estimated at 135.8% according to the Commission's September forecasts (a downward revision compared to the June estimates shown in Table 5, which refer to the reference trajectory analyzed in this study). Its inverse is 0.74, lower than the multiplier adopted by the Commission (0.75).

The threshold we obtained, described in relation [6], compared to the inverse of the debt-to-GDP ratio under the no-policy-change scenario $\left(\frac{1}{\left(\frac{D}{V}\right)^{npc}}\right)$ is:

- lower, due to +z in the denominator;
- higher, due to the term in brackets, which is greater than one (recall that ΔD_{t-1} is negative).

The effect of +z more than offsets that of the term in brackets, making the threshold in relation [6] even lower than the one identified by Nuti as the inverse of the debt-to-GDP ratio. As a practical demonstration of this, we estimate the value of both thresholds for each year of the adjustment period to compare them. To this end, we use the inverse of the debt-to-GDP ratio under the no-policy-change

scenario according to the Commission's June estimates, reported in Table 3, the series of implicit interest rates on public debt projected by the Commission, and the ratio of total receipts from taxes and social contributions to GDP in 2023 for Italy $(41.7\%)^{17}$ as the average tax rate (z).

Table 4. Multiplier Thresholds Beyond Which the Debt-to-GDP Ratio Would Increase

	2025	2026	2027	2028	2029	2030	2031
$\frac{1}{\left(\frac{D}{Y}\right)^{npc}}$	0,72	0,71	0,70	0,69	0,67	0,66	0,65
$\frac{1}{\left(\frac{D}{Y}\right)^{npc} + z} \left(1 - \frac{\Delta D_{t-1} \cdot i_t}{Y^{npc}}\right)$	0,55	0,55	0,54	0,54	0,53	0,53	0,52

Source: Author's calculations based on European Commission estimates.

It is therefore evident that the fiscal multiplier adopted by the Commission — set at 0.75, constant over time and uniform across all Member States — exceeds the identified thresholds. These assumptions regarding the multiplier's value lack specific justification, aside from a reference to a working paper published by the Commission in 2015. However, that paper estimates a range of 0.8-0.9 and highlights both the uncertainty of the estimates and the importance of the composition of the fiscal measure and the specific macroeconomic conditions in determining the effects of fiscal consolidation on growth. Consistent with these conclusions, other studies show that multipliers tend to be higher during recessions than during expansions. Other factors are also relevant for estimating multipliers. For example, some studies suggest that fiscal multipliers may be lower in small open economies compared to large, relatively closed economies. Moreover, some authors point out that the fiscal multiplier may be higher (lower) when interest rates are low (high), as this would incentivize

Total receipts from taxes and social contributions (including imputed social contributions) after deduction of amounts assessed but unlikely to be collected, Eurostat

¹⁸ Carnot, N., de Castro, F. (2015) 'The Discretionary Fiscal Effort: An Assessment of Fiscal Policy and its Output Effect', *European Commission*, *European Economy*, Economic Papers 543.

¹⁹ See, for example, Fernández-Romero, D. (2023), "The Fiscal Multiplier in Presence of Unconventional Monetary Policy: Evidence for 17 OECD countries", Paper prepared for presentation at the October, 2023 Forum for Macroeconomics and Macroeconomic Policy (FMM) Conference, p. 2; Heimberger. P., Welslau, L., Schütz, B., Gechert, S., Guarascio, D., Zezza, F. (2024), 'Debt Sustainability Analysis in Reformed EU Fiscal Rules', Intereconomics, 59(5), p. 278.

²⁰ See, for example, Chinn, M. D. (2013), 'Fiscal Multipliers', *Working Paper Series*, La Follette School Working Paper No. 2013-002, p. 6.

(disincentivize) agents to borrow and spend.²¹ In light of these considerations, the assumption of a constant multiplier of 0.75 and common to all Member States appears, to say the least, questionable.²²

If the multiplier were higher than the one used by the Commission, as several studies suggest, our results would be further reinforced. Indeed, several Member States, including Italy, have experienced substantial upward revisions of their debt-to-GDP projections over time. For example, in 2016, the Commission forecasted an Italian debt-to-GDP ratio of 110.1 % for 2026. This figure was revised upward in 2020, before the pandemic outbreak, to 137.7%, and again in 2022 to 150.3%.²³ Such revisions, even in the short term, may cast doubt on the assumptions underlying the DSA and signal that the Commission tends to underestimate fiscal multipliers.

Using formula [5] and maintaining a multiplier of 0.75, we can calculate the annual change in Italy's debt-to-GDP ratio relative to the no-policy-change scenario, generated by the fiscal consolidations foreseen in the reference trajectory, under the assumption that their restrictive effects are persistent. We can thus obtain a forecast path for the ratio over the adjustment years that differs significantly from the European Commission's policy scenario.²⁴

$$\Delta \frac{D}{V} = -x + xzm + mx \left(\frac{D}{V}\right)^{npc} + \frac{\Delta D_{t-1} \cdot i_t}{V^{npc}}$$
 [5]

This formula expresses the annual change in the ratio, relative to the no-policy change scenario, generated by each fiscal consolidation required by the governance rules. The no-policy-change data and the multiplier (m) are those provided by the Commission. The annual fiscal consolidation (x) corresponds to that imposed by the rules, but, unlike the Commission's calculations, it is expressed in terms of the primary balance rather than the structural primary balance, since we do not assume actual output converges to potential output. Formula [5] is derived by expressing the change in GDP as that generated by the fiscal multiplier. The change in the debt stock, meanwhile, accounts for both the direct effect of consolidation (deficit reduction) and: a) the loss of tax revenues (using the ratio of total receipts from taxes and social contributions to GDP in 2023 for Italy provided by Eurostat as the average tax rate z) due to the contraction in GDP; b) the lower interest expenditure resulting from the reduction in the debt stock from the previous year, assuming that interest accrues on the previous

²¹ See, for example, Fernández-Romero, D. (2023), 'The Fiscal Multiplier in Presence of Unconventional Monetary Policy: Evidence for 17 OECD countries', Paper prepared for presentation at the October 2023 Forum for Macroeconomics and Macroeconomic Policy (FMM) Conference, p. 3.

²² See Audizione del Presidente dell'Ufficio parlamentare di bilancio dell'1 marzo 2023 presso le Commissioni di bilancio congiunte del Senato della Repubblica e della Camera dei deputati nell'ambito dell'esame della Comunicazione della Commissione al Parlamento europeo, al Consiglio, alla Banca centrale europea, al Comitato economico e sociale europeo e al Comitato delle regioni – Comunicazione sugli orientamenti per una riforma del quadro di governance economica dell'UE (COM(2022)583 final) (https://www.upbilancio.it/wp-content/uploads/2023/03/Audizione-governance-europea.pdf), p. 9.

²³ Heimberger, P. (2023), 'Debt sustainability analysis as an anchor in EU fiscal rules. An assessment of the European Commission's reform orientations, in-depth analysis requested by the ECON committee of the European Parliament', p. 15.

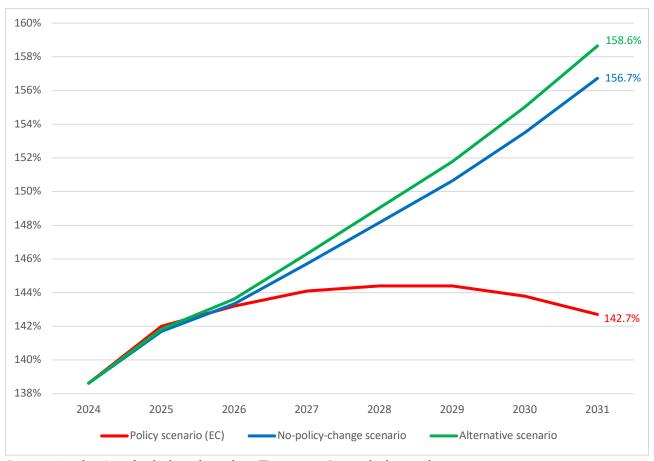
²⁴ The alternative forecast scenario for the debt-to-GDP ratio presented here is obtained by starting from the debt-to-GDP ratio under the no-policy-change scenario for the years 2024-2031, as provided by the European Commission. To these data, we have applied the change in the ratio generated by the consolidation measures, calculated using formula [5], which does not assume any offsetting of the restrictive effects of each fiscal adjustment:

Table 5. Debt-to-GDP Ratio Forecasts under Different Scenarios (percentage values)

	2024	2025	2026	2027	2028	2029	2030	2031
Alternative scenario (persistent restrictive effects)	138,6	141,8	143,6	146,3	149,0	151,8	155,0	158,6
Policy scenario (EC)	138,6	142,0	143,2	144,1	144,4	144,4	143,8	142,7
No-policy-change scenario	138,6	141,7	143,3	145,7	148,2	150,6	153,5	156,7

Source: Author's calculations based on European Commission estimates.

Figure 4. Debt-to-GDP Ratio Forecasts under Different Scenarios



Source: Author's calculations based on European Commission estimates.

The values obtained clearly show that, once the assumption of compensatory mechanisms offsetting the restrictive effect of fiscal consolidation is removed, the debt-to-GDP ratio is projected to grow exponentially, even exceeding the no-policy-change scenario. This is evidently due to output reductions that are proportionally larger than the reductions in the debt stock. Compared to the Commission's forecasts, these results would also imply additional negative effects on employment

year's capital stock and using the series of implicit interest rates on public debt projected by the Commission (i_t) .

levels. Naturally, if the fiscal multiplier were higher, the restrictive effect on output and the 'perverse' effect on the debt-to-GDP ratio would be even greater. It is worth noting that in 2025 the debt-to-GDP ratio projected by the Commission under the policy scenario is actually higher than the one derived from our alternative calculation. This is due to the presence, in the Commission's estimate for 2025, of a stock-flow adjustment (the portion of the change in debt not explained by the public deficit) of 2.3%. For 2025, this adjustment includes the accounting of a portion of the tax credits related to the so-called 'Superbonus', a measure providing substantial support for residential renovation projects aimed at improving energy efficiency and reducing emissions.

We have shown that, if one rejects the assumption that actual output tends to converge towards its potential level and instead assumes that a fiscal tightening can have persistent effects, the restrictive policies implied by the new governance framework would slow growth and undermine the sustainability of public debt. This would, in turn, lead to further tightening measures, additional depressive effects, and so on. Moreover, the fact that a large share of Euro Area economies would simultaneously be forced to implement austerity measures could amplify the recessionary effects: given the Euro Area's high degree of trade integration, simultaneous reductions in demand would generate significant negative spillover effects among member states.²⁵ These effects would add to, and could be exacerbated by, protectionist measures implemented by the United States. Furthermore, slower growth could undermine financial market confidence, making public debt even less sustainable.²⁶

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²⁵ Blanchard, O. J., Leandro, A., Zettelmeyer, J. (2021), 'Redesigning EU fiscal rules: from rules to standards', Economic Policy, 36(106), p. 209; Heimberger, P. (2023), 'Debt sustainability analysis as an anchor in EU fiscal rules. An assessment of the European Commission's reform orientations, in-depth analysis requested by the ECON committee of the European Parliament', p. 10.

²⁶ Cottarelli, C., Jaramillo, L. (2012), 'Walking Hand in Hand: Fiscal Policy and Growth in Advanced Economies', IMF Working Paper WP/12/137, p. 6.

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