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Taming Public Debt in Europe

Outlook, Challenges, and Policy Response

Saioa Armendariz, Ezequiel R. Cabezon, Larry Qiang Cui, Silvia Domit, Alina C. Iancu, Giacomo Magistretti, Rohan Srinivas, and Yu Ching Wong

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ABSTRACT: Public debt ratios in Europe increased significantly in response to the pandemic and energy shocks and have remained higher than before the pandemic in most countries. Going forward, the projected public debt trajectories are broadly flat overall in advanced Europe but have a rising profile in emerging Europe. Government financing needs are still elevated, and the unwinding of quantitative easing by major central banks adds to financing pressures. Moreover, there are important medium- to long-term spending pressures from defense, climate transition, and aging, which are not fully reflected in the projected baseline trajectories. Against this backdrop, the risk that debts will not stabilize in the medium term has increased. Debt stabilization will hinge critically on achieving ambitious fiscal consolidation and sustained growth. Facing these elevated risks, policymakers need to implement carefully-calibrated fiscal adjustments that ensure debt sustainability while supporting growth. They could target debt stabilization over a longer, 10-year, horizon—while adhering to credible fiscal rules such as the reformed EU Economic Governance Framework—but with a high probability to reassure markets that debts will indeed be tamed.

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I. Introduction

The outlook for public debt in Europe has deteriorated sharply in recent years. In most European economies, the public-debt-to-GDP ratio is now higher than before the pandemic, mainly reflecting fiscal support to mitigate the impact of the pandemic and of the subsequent energy shock. The public debt ratio is also projected to follow a worse trajectory in the medium term than expected in 2019. In advanced Europe, the average public debt ratio is projected to remain broadly unchanged in the next five years but at a higher level, while in emerging Europe the average ratio is now on an upward path.[1] At the country level, prospects for debt stabilization in the medium term have deteriorated in most European economies. Debt stabilization could prove particularly challenging if the projected fiscal consolidation does not materialize or growth disappoints.

At the same time, public gross financing needs remain elevated and face additional challenges from the unwinding of quantitative easing by major central banks. In most European countries, gross financing needs are projected to remain above pre-pandemic levels, reflecting sizable fiscal deficits and gradually increasing interest costs. In the euro area, the increased average maturity of new debt issuances has reduced exposure to short-term liquidity risks but increased future debt service obligations. The continued withdrawal of monetary policy support results in a shift in sovereign bondholders away from central banks and exposes individual countries, particularly those with high debt, to a sudden worsening of market conditions. In this environment, policy makers should implement carefully-calibrated and sustained fiscal adjustments that bolster fiscal buffers and ensure debt remains sustainable while supporting economic growth.

This paper quantifies the outlook for Europe's public debt and financing needs over the medium term and from a regional perspective, updating and extending earlier work (IMF, 2023b) and presents scenario simulations with a view to informing policy discussions on taming public debt in Europe. Baseline macroeconomic projections of all countries included in the paper are in line with the April 2024 World Economic Outlook (IMF, 2024b), and based on consistent global assumptions. The rest of the paper is organized as follows. Section II discusses recent trends and the medium-term outlook for public debt and financing, differentiating between advanced and emerging Europe. It also examines the implications of ECB's asset purchase programs for government financing in the euro area. Section III assesses risks to debt stabilization in the medium term, including from insufficient fiscal adjustment or subpar growth. Using a buffer-stock model of the government developed by Fournier (2019), Section IV illustrates how policymakers can tighten fiscal policy while balancing output stabilization as they aim to preserve fiscal sustainability amid elevated debt and financing risks. Section V concludes.

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[1] Group aggregate measures are calculated with PPP-GDP weighted average throughout the paper, unless noted otherwise.

II. Public Debt and Financing: Recent Trends and Outlook

Public Debt: A Legacy of the Pandemic and Energy Shocks

General government gross debt increased rapidly across Europe during the pandemic and the subsequent energy shock mainly due to increased fiscal support to cushion the adverse impact from these shocks.[2] Notably, the EU suspended its fiscal rule for 2020-23 to allow such support. Large fiscal deficits and output losses caused the debt-to-GDP ratio to rise by around 10 percentage points in 2020, with debt reaching around 100 percent of GDP in advanced economies and 55 percent of GDP in emerging markets (Figure 1). The increase in debt was large in most countries, but particularly elevated in those economies that faced a bigger impact of the pandemic on output and fiscal accounts, such as countries with large tourism industries (Figures 2 and 3).

Public debt ratios in Europe have since declined, on average, as growth rebounded and fiscal deficits shrunk with the withdrawal of pandemic and energy support schemes. There were also favorable denominator effects from higher inflation in most countries following Russia's war in Ukraine (Figure 4). However, while Emerging Economies (EEs) returned to pre-pandemic debt ratios by 2022, the upward debt level shift in Advanced Economies (AEs) points to a long-lasting impact of recent shocks (Figure 1).

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[2] This paper focused on the debt of individual EU member countries, and abstracts from debt of the EU as an entity (see discussion for instance in Claeys et al., 2024).

Figure 1. General Government Gross Debt
(Percent of GDP)
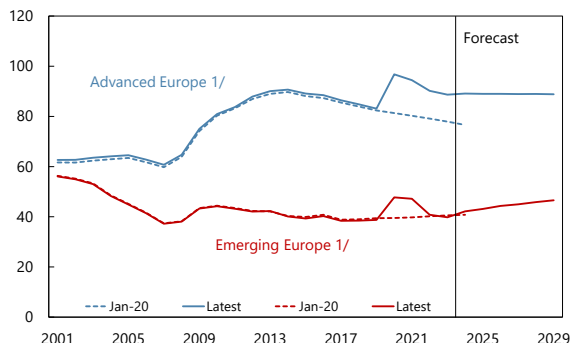
Sources: IMF World Economic Outlook; and IMF staff calculations.
1/ Aggregated with purchasing power parity weights. Excludes Andorra, Belarus, Norway, Russia, and Ukraine.

Figure 2. Changes in Public Debt and Output Losses (Percent)
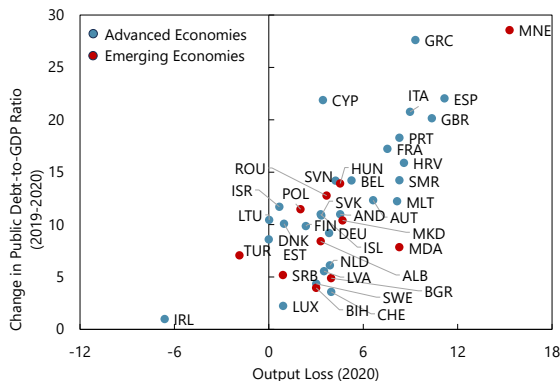
Sources: World Economic Outlook; and IMF staff calculations.

Figure 3. Changes in Public Debt and Fiscal Deficits (Percent)
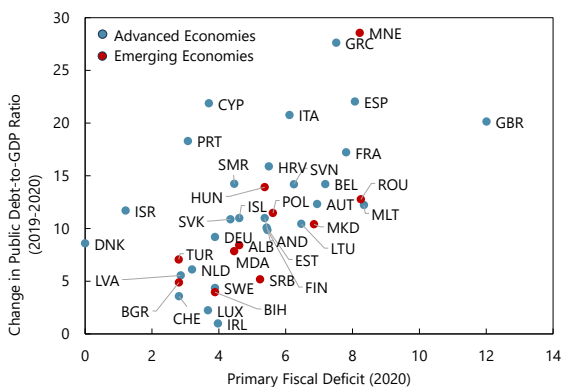
Sources: World Economic Outlook; and IMF staff calculations.

Figure 4. Drivers of Public Debt Ratios
(Percentage points; PPP-weighted average)
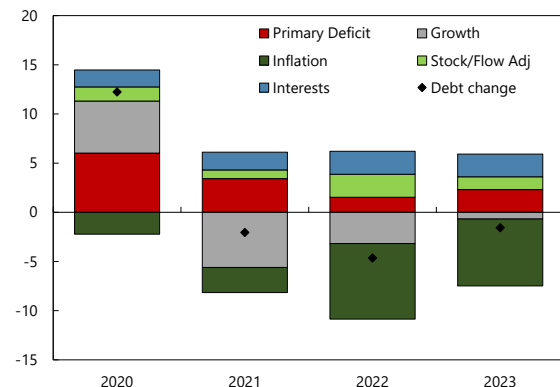
Sources: World Economic Outlook; and IMF staff calculations.

Public debt-to-GDP ratios in 2023 were higher than before the pandemic in around two-third of European countries (Figure 5). The average increase was about 7.6 percentage points of GDP. Moreover, the ratios are projected to follow worse trajectories in the medium term than expected before the pandemic (Figure 1). Over the six years preceding the pandemic, both AEs and EEs reduced their public debt ratios, supported by strong growth and good fiscal performance, which more than offset elevated interest payments. For the next six years going forward, persistent primary deficits and lower growth prospects, especially in AEs, is projected to coincide with the gradual increase of interest expenditures, resulting in a more moderate correction of debt stocks (Figure 6).

Figure 5. Changes in Public Debt by Country
(Percentage Points of GDP, 2023 vs 2019)

Sources: World Economic Outlook; and IMF staff calculations.

Figure 6. Debt Changes and Drivers
(Percentage Points of GDP; PPP weighted average)

Sources: World Economic Outlook; and IMF staff calculations.
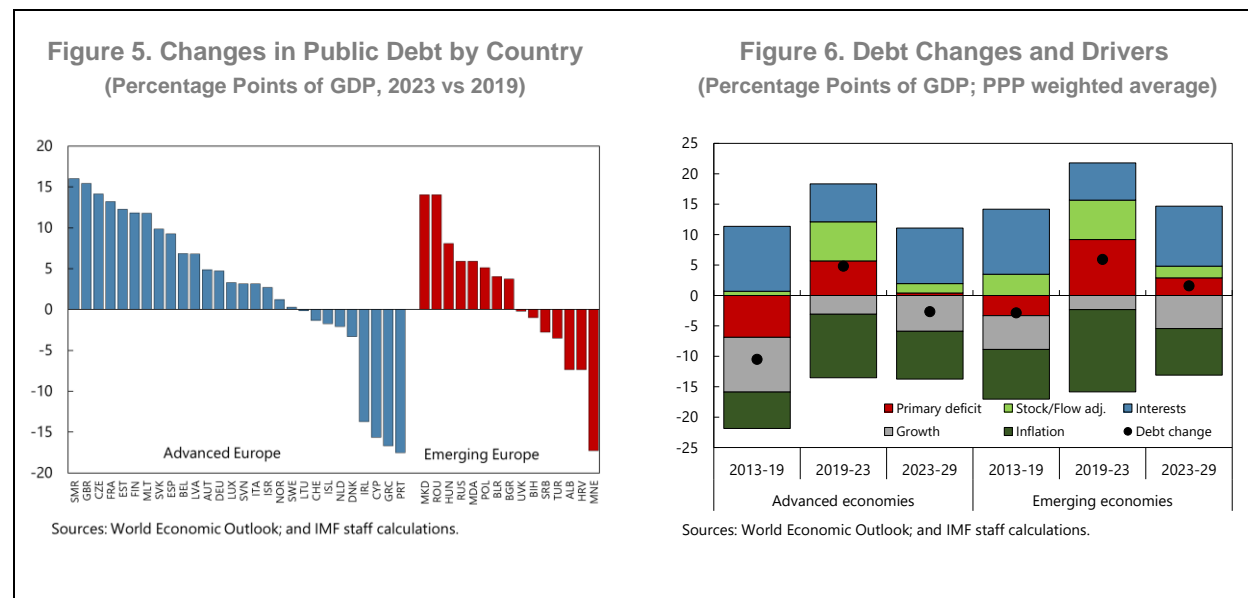
The deterioration of debt prospects seems to be largely driven by higher primary deficits even assuming gradual fiscal consolidation going forward. To quantify the deterioration of the public debt trajectory during pandemic, we calculate the differences between the changes in debt-to-GDP ratios in the next six years and the changes in the six years before the pandemic (Figures 7 and 8). Overall, public debt trajectories have worsened in about three-fifths of AEs and two-thirds of EEs. As inflation recedes and higher nominal interest rates translate into higher real effective interest rates for public debt, achieving the projected decline in medium-term public debt-to-GDP ratios in Europe will hinge critically on reducing primary deficits and sustaining robust growth.

**Figure 7. Drivers of Debt-to-GDP Changes
2023-29 vs. 2013-19: Advanced Economies**
(Percentage points)

Sources: World Economic Outlook and IMF staff calculations

**Figure 8. Drivers of Debt-to-GDP Changes
2023-29 vs. 2013-19: Emerging Economies**
(Percentage points)

Sources: World Economic Outlook and IMF staff calculations
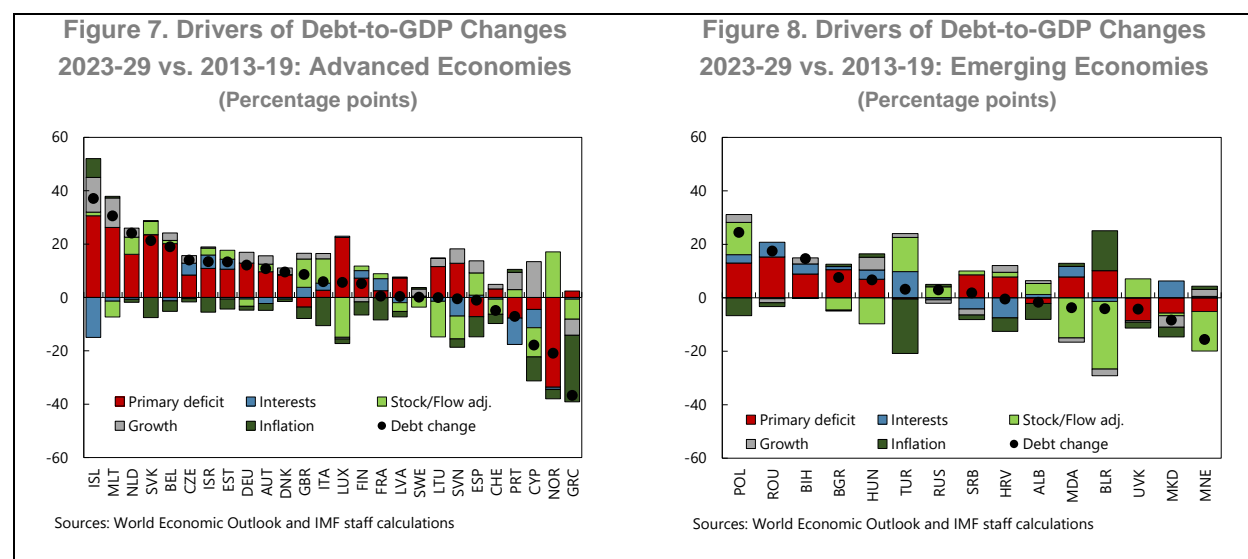
Elevated Government Financing Needs Amid Tighter Monetary Conditions

Gross financing needs (GFNs)[3] across Europe surged during the pandemic and have since remained at higher levels in most European economies. The surge in 2020 was effectively managed with support from accommodative monetary policy and liquidity conditions, with the increased sovereign bonds mainly held by central banks (Box 1). However, while financing needs in EEs decreased in 2021-23 to close to pre-pandemic levels, they remained above the 2019 level in AEs (Figure 9). In addition, GFNs measured as a share of banking sector assets are also above pre-pandemic levels in most European countries (Figure 10), pointing to potential domestic financing pressures in a context of tighter financial conditions.

Figure 9. Gross Financing Needs by Groups (Percent of GDP, PPP weighted)

Sources: Financing Survey; WEO database; and IMF staff calculations.

Figure 10. Evolution of GFNs: Post vs Pre-Pandemic (Percentage points)

Sources: Financing Survey; WEO and other databases; and IMF staff calculations.
1/ Based on 2023 or latest available data on banking sector assets.

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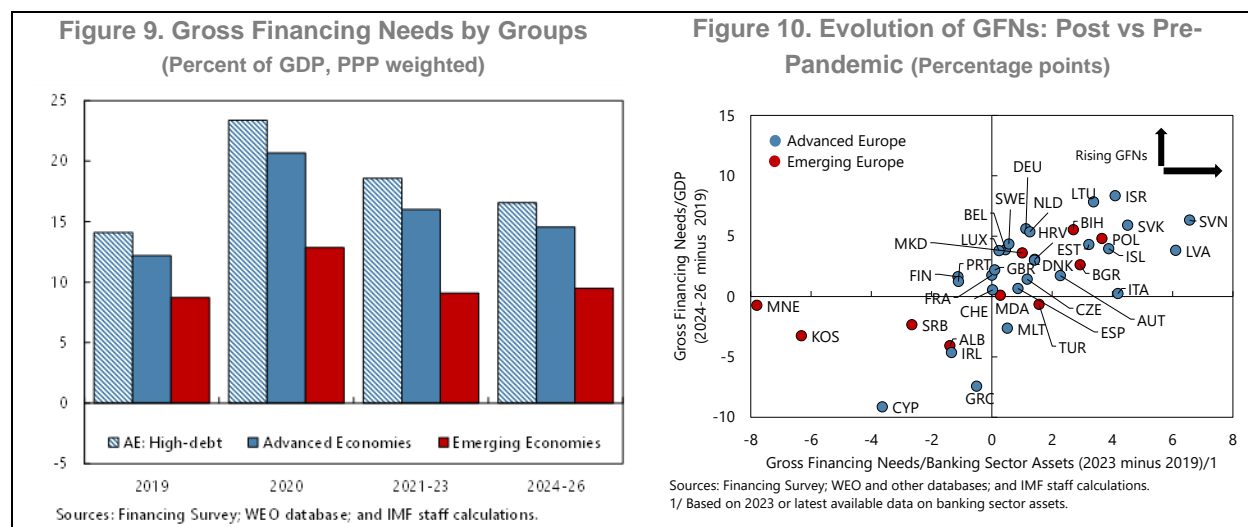
[3] GFNs are calculated as the sum of primary fiscal deficit, debt service (interest payments and amortizations), and stock/flow adjustments, such as a realization of contingent liabilities which needs to be funded.

Box 1. Quantitative Easing and Government Debt Holdings

Quantitative Easing (QE) by European central banks helped keep interest costs low and reduced the pressure on GFNs. Government securities holdings by domestic central banks increased by about 11 ppts of GDP between 2019 and 2022 in high-debt AEs, reflecting the ECB's asset purchase programs (Box 2), compared to about 8 ppts of GDP in AEs and about 2 ppts of GDP in EEs. On the other hand, the share of European public debt held by foreign investors has continued its decline since 2015, from about 50 percent to 42 percent in AEs and 35 percent in EEs. However, as central banks have started unwinding QE, public debt holdings by central banks have declined. For high-debt AEs, the decline in 2023 has been largely taken up by domestic and foreign nonbanks *, which are considered more risky than central banks.

* Nonbanks include institutional investors other than banks (insurance companies, pension funds, and investment funds), as well as households and non-financial corporations. The foreign official sector includes foreign central banks and other foreign official creditors.
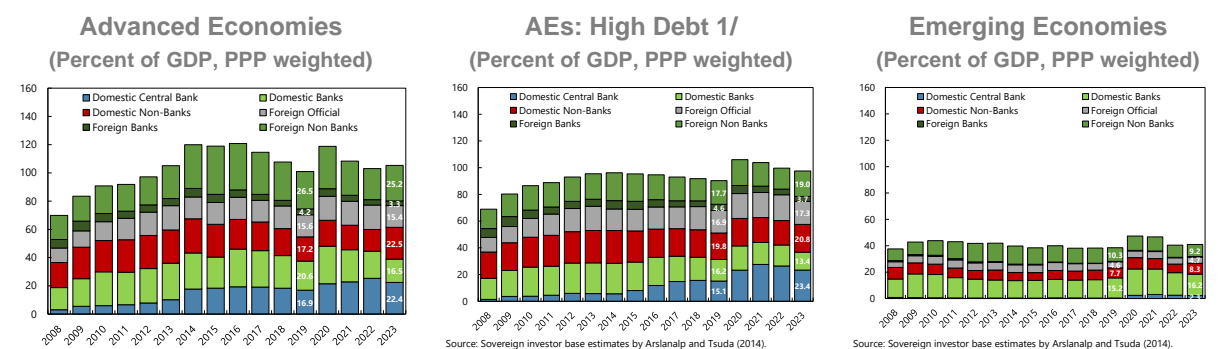
Source: Sovereign investor base estimates by Arslanalp and Tsuda (2014).

1/ Advanced Economies with debt-to-GDP above 60 percent by end-2023: AUT, BEL, CYP, FIN, FRA, DEU, GRC, ISL, ISR, ITA, PRT, SMR, SVN, ESP, and GBR.

While debt amortization is expected to remain stable compared to 2019, primary fiscal deficits and high interest costs are expected to keep GFNs elevated (Figure 11). Despite a decline from the pandemic peak, primary deficits in 2024-26 are projected to remain above 2019 levels in both AEs and EEs. However, EEs are more affected by higher interest payments, while AEs are more affected by the projected worsening of fiscal positions in the coming years. Moreover, a large amount of long-term government bonds issued in 2014-21—a period of ultra-low interest rates—is approaching maturity, very likely resulting in higher rollover costs. This is particularly the case for high debt AEs.

Figure 11. Public Gross Financing Needs Composition
(Percent of GDP, period average)

Advanced Economies

Sources: Financing Survey, WEO database, and IMF staff calculations.

AEs: High Debt 1/

Sources: Financing Survey, WEO database, and IMF staff calculations.

Emerging Economies

Sources: Financing Survey, WEO database, and IMF staff calculations.

1/ Advanced Economies with debt-to-GDP above 60 percent by end-2023: AUT, BEL, CYP, FIN, FRA, DEU, GRC, ISL, ISR, ITA, PRT, SMR, SVN, ESP, and GBR.

In 2024, new public debt issuances excluding the rollover of pre-existing debt point to rising financing pressures, particularly in high-debt countries in the euro area (EA). GFNs in EA in 2024 remain broadly at their 2015-20 level despite lower principal repayments resulting from the extension of the average maturity of debt (Figure 12a, Box 2). Notably, persistent primary deficits and higher interest payments require net debt issuances well above the 2019 level. Close to 70 percent of EU economies recorded positive net debt issuances in the first few months of 2024. Moreover, high-debt EA economies had even larger net issuances, about 8 ppts of GDP higher than in 2019 (Figure 12b).

Looking forward, GFNs are expected to remain high. Close to 60 percent of EU economies facing higher debt repayments in the short term (Figure 12d). While the extension of the average maturity of public debts has bolstered resilience against short-term liquidity risks in recent years, it also led to larger future debt service obligations (Box 2). In the EA, as the ECB's asset purchase programs gradually unwind, market demand will play a major role in government financing costs, potentially worsening debt stabilization risks.

Figure 12. Sovereign Debt Securities[4]

Figure 12a. Gross Issuance: Euro area
(Percent of GDP, period average)

Legend: Debt rollover · Net Issuance · Total issuance

Data:
- 2011-12: Debt rollover 25.0, Net Issuance 4.3
- 2013-15: Debt rollover 24.9, Net Issuance 2.2
- 2015-20: Debt rollover 19.6, Net Issuance 1.0
- 2024: Debt rollover 16.9, Net Issuance 3.5
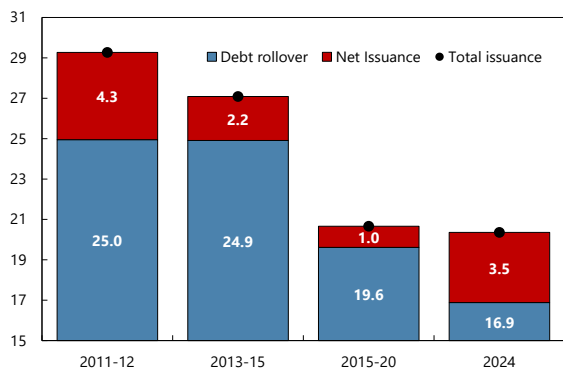
Sources: Haver Analytics; European Central Bank; and IMF staff calculations.

Figure 12b. Net Issuance
(Percent of GDP, February 24 annualized data)

Legend: Feb-24 · 2019

Categories: EA, EA>60%, EA <60%, Other AE, EE
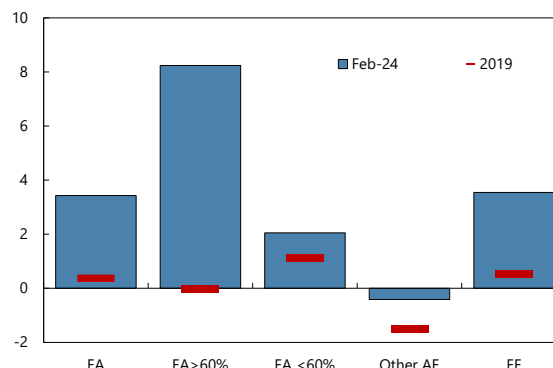
Sources: Haver Analytics; European Central Bank; and IMF staff calculations.

Figure 12c. Issuance vs. Stock- Debt Securities
(Percent of GDP, Data as of March 2024)

Net issuance of Debt Securities vs Stock of Debt Securities. Labels: SVK, POL, BEL, ESP, ITA, FIN, ROU, SVN, FRA, LTU, GRC, HUN, AUT, BGR, LVA, HRV, DEU, NLD, SWE, CZE, IRL, DNK, MLT, LUX, CYP, PRT

Legend: Euro Area · EU non-EA
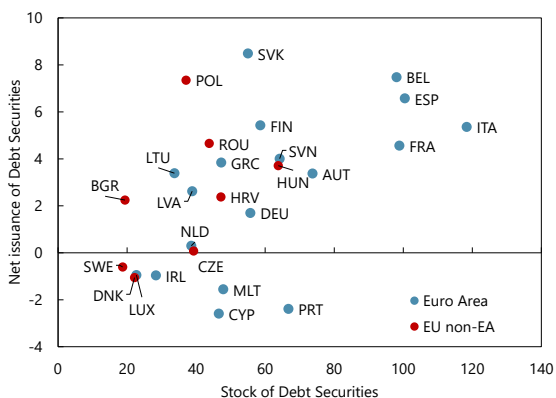
Sources: Haver Analytics; European Central Bank; and IMF staff calculations.

Figure 12d. Principal Repayments in 2Y
(Percent of GDP)

Legend: 2024 · 2019

Countries: ITA, ESP, FRA, BEL, FIN, DEU, HUN, AUT, CYP, HRV, POL, SVK, EST, GRC, PRT, ROU, SVN, CZE, LTU, MLT, NLD, LVA, SWE, DNK, BGR, IRL, LUX
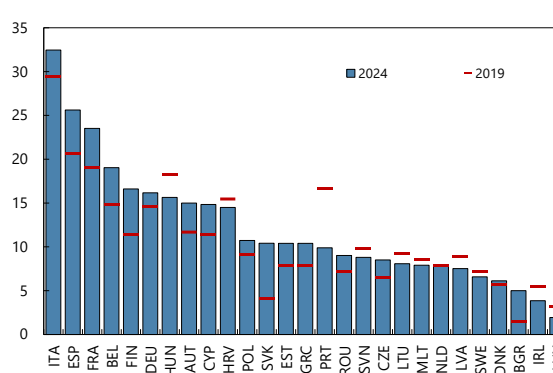
(*) EA countries in dark blue, EU non-EA countries in soft blue.
Sources: Haver Analytics; European Central Bank; and IMF staff calculations.

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[4] Due to data limitations, EA countries exclude Estonia. Other AE includes Czech Republic, Denmark, and Sweden; and EE includes Bulgaria, Croatia, Hungary, Poland, and Romania.

## Box 2. The Impact of the ECB's Asset Purchase Programs (APPs) on Euro Area Debt Markets

Despite tightening financing conditions since mid-2022, compressed spreads—thanks to ECB's APPs— allowed governments to continue issuing long-maturity bonds, reducing short-term liquidity risks. However, as financial conditions normalize, risk premia are expected to return to levels reflecting more the market conditions of individual member states.

The ECB's APPs had a major impact on public debt financing in the EA. From March 2015 to June 2022, the ECB acquired €2.7 trillion of debt securities under the Public Sector Purchase Program (PSPP) – or about 26 percent of the total public debt stock – and €1.7 trillion under the Pandemic Emergency Purchase Program (PEPP). From March 2023, the beginning of quantitative tightening (QT), to February 2024, the ECB reduced its sovereign bond holdings by about €214 bn. This release of sovereign bonds has been absorbed mostly by households and, to a lesser extent, by private banks (Ferrara et al., 2024). In addition, the high remaining weighted-average maturity (WAM) of debt holdings by the ECB (7 years) and a relatively low dispersion across countries, has contributed to maintaining narrow spreads, thereby mitigating short-term liquidity risks.

The long maturity of Eurosystem's debt holdings has ensured low term-premia in sovereign yields, supporting the issuance of long-term securities. Despite increased interest rates, yield curves have remained flat—or inverted, in some cases—allowing for continuation of long-term issuances. In March 2024, for the first time since the introduction of the euro, the gap between 2Y and 10Y sovereign yields—a key indicator of *term premia*—had remained positive for over two years. This, together with relatively-narrow spreads across countries, has allowed European country treasuries to continue issuing at long maturities with low cost, as higher interest rates have been partially compensated by the absence of a term premium. With persistent primary deficits in several EA economies, the flattening of the yield curve helped extend the WAM and thereby reduce short term financing needs.

ECB: Net Monthly Purchases under the PSPP
(EUR, bn)

Legend: ■ Net purchases under the PSPP   ■ 12-m ahead

Sources: Haver Analytics, ECB and IMF staff
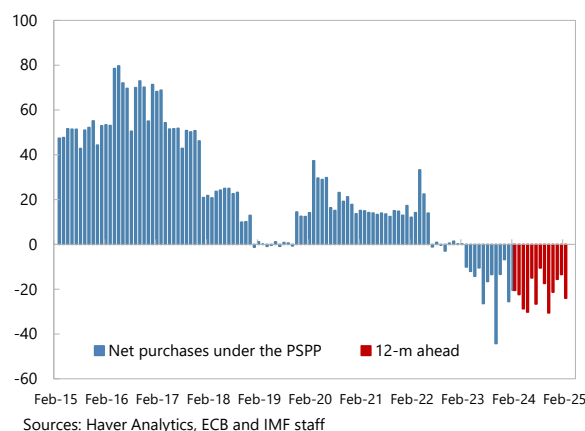
EA Sovereign Bonds Yield Curve
(Percent)

Legend: 2000-07   2011-Mid12   Mar15-Mid22   2022-23   Apr24

Sources: Haver Analytics and IMF staff
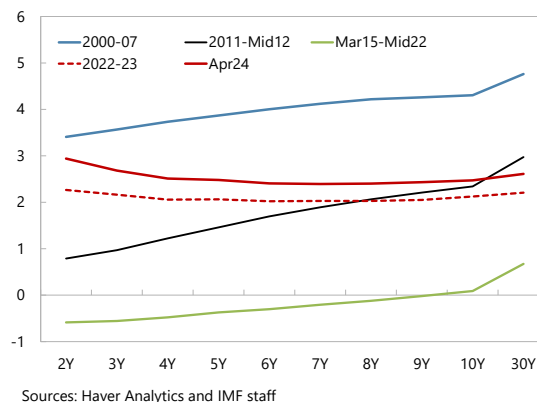
Box 2. The Impact of ECB's Asset Purchase Programs (APPs) on Euro Area Debt Markets (Concluded)

Since mid-2022, the average maturity of debt in the EA has increased modestly by two months to about nine years. This broadly-stable aggregate WAM masked its notable increase by high-debt EA economies, where the average maturity of debt increased by six months following the start of the QT. In addition, compressed cross-country and term spreads in early 2024 have also incentivized some national Treasuries to pre-finance GFNs to reduce potential liquidity risks that could arise from a shift in market sentiment.

Term Premia and Dispersion in EA
(Percent)

Debt Securities: WAM
(Years)

Sources: Haver Analytics, ECB and IMF staff

Sources: Haver Analytics, ECB and IMF staff calculations
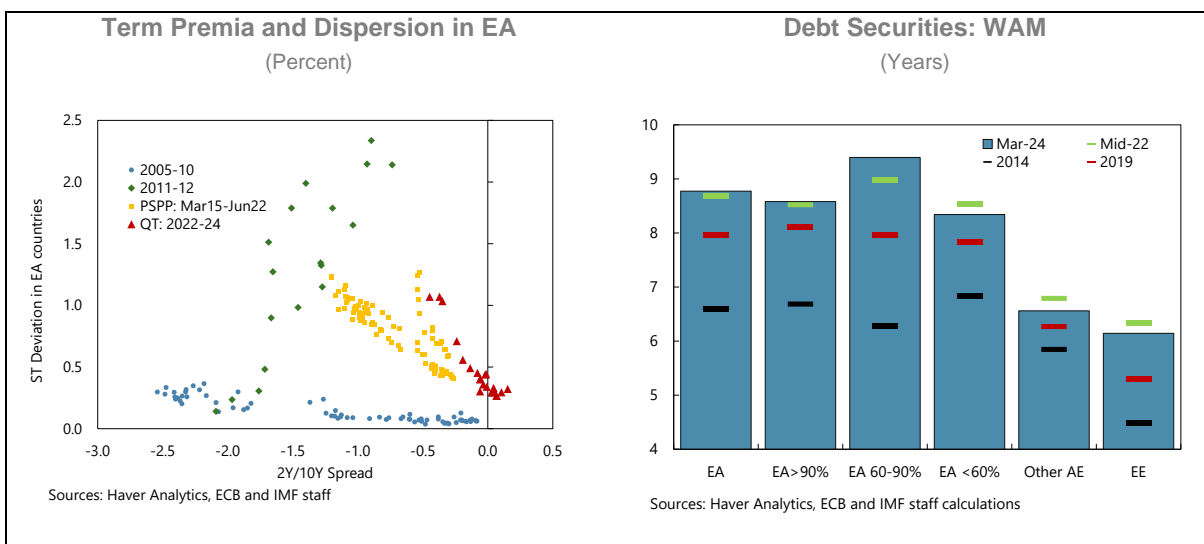
As QT continues, and market conditions normalize, the dampening effect of the PSPP on term and country spreads is expected to diminish. Domestic and global financial market factors would likely increase interest rates and risk premiums. While the extension of WAMs within the euro area has bolstered resilience against short-term liquidity risks in recent years, it has also increased future debt service obligations. As the PSPP is gradually phased-out, the supply of sovereign bonds in the market will increase, and market demand dynamics will come back into play, raising the exposures of EA countries to liquidity and solvency risks. High-debt EA economies are particularly exposed to a sudden change in market conditions.

EA: Dispersion in Nominal Yields at Issuance
(Standard deviation)

Sources: Haver Analytics, ECB and IMF staff
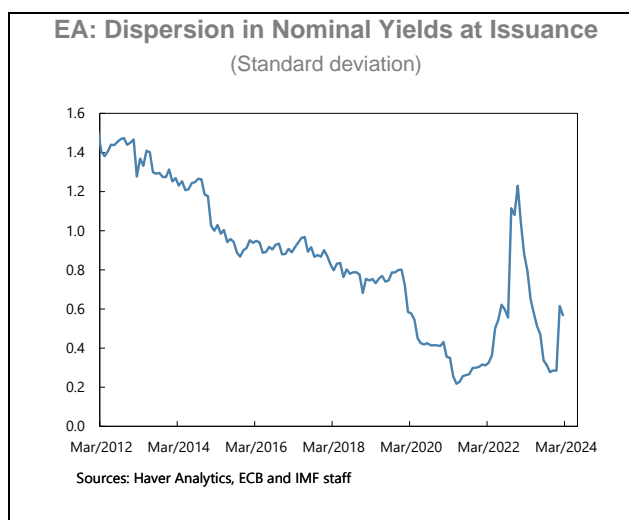
III. Risks to Medium-Term Debt Stabilization

Building on earlier discussions, we assess medium-term debt risks in Europe. To complement the analysis on debt-to-GDP risks, the key risk indicators considered include the probability of public debt stabilization and the primary balance required to achieve debt stabilization. The probability of the debt-to-GDP ratio not stabilizing in the medium term captures the likelihood of continually rising debt-to-GDP ratios, conditioned on the historical distributions of shocks to debt for the corresponding countries. This probability allows us to quantify risks around the baseline projections[5] of debt-to-GDP. We then compute the required debt-stabilizing primary balance and compare it with the projected primary balance, which helps us identify the need for further fiscal consolidation to stabilize debt. Downside debt risks are then quantified using an illustrative adverse scenario.

The probability of debt not stabilizing is derived from the IMF Sovereign Risk Debt Sustainability Framework (SRDSF)'s medium-term module (IMF 2022). This module simulates debt trajectories using a debt-dynamics equation and randomly drawn shocks to key variables derived from each country's historical observations. The stochastic trajectories imply distributions of debt for each year of the projection horizon. The probability of debt not stabilizing reports the share of paths simulated where debt-to-GDP increases between the four- and five-years-ahead forecasts which reflect medium-term dynamics. While probabilities of debt not stabilizing are analyzed in individual country reports (in SRDSAs), they have not been closely examined from a regional lens. This section exploits the cross-country dimension of these probabilities to assess regional risks.

After the 2020-22 shocks, the probability of debt not stabilizing five years out increased in most European countries, especially in several large economies (Figure 13). In the medium term, the main risks are insufficient primary balance adjustment to stabilize debt and lower-than-expected growth. Overall, about three-fourths of European sovereigns face a higher probability of medium-term debt non-stabilization.

Figure 13. Debt Stabilization Probabilities in 2019 and 2023

Sources: Country authorities; IMF WEO; and IMF staff calculations.
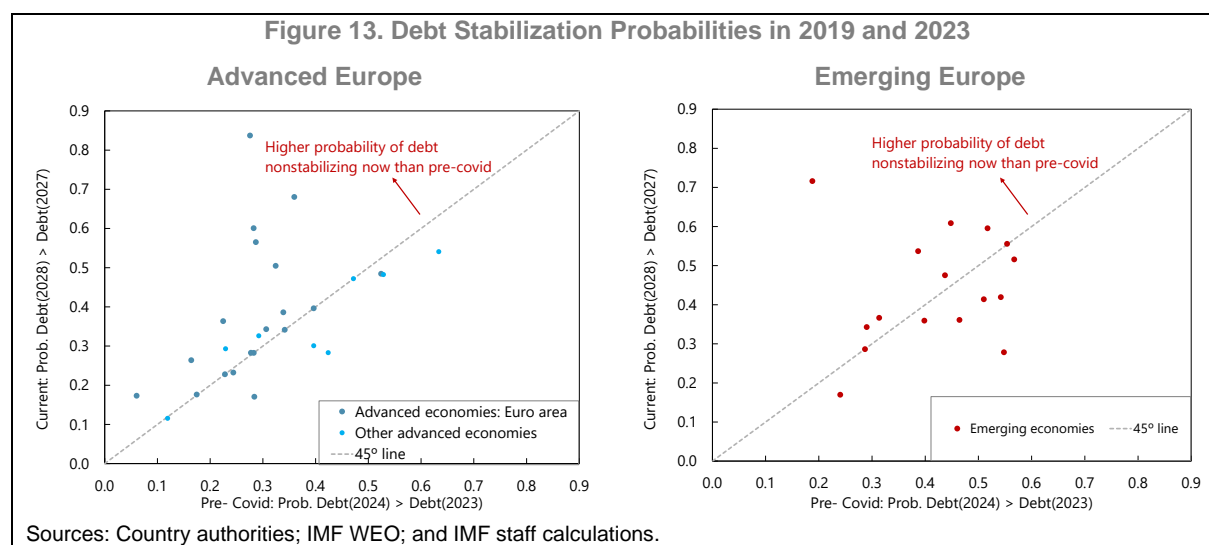
A key risk to debt stabilization is weaker-than-expected primary balances. With many European economies planning fiscal consolidations in the next five years, the primary balance-to-GDP ratios are expected to improve from 2024 to 2029 (Table 1 and Annex I). AEs are expected to decrease their primary deficit from 1 to 0

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[5] Baseline in this section refers to projections in the IMF's April 2024 World Economic Outlook.

percent of GDP, close to the level for the medium-term debt-stabilizing primary balance (DSPB, 0.1 percent of GDP), suggesting limited risks.[6] The adjustment in EEs, on the other hand, is projected to remain short of the DSPB required to stabilize debt by 0.8 percent of GDP.

Table 1. Selected Fiscal Indicators (Percent of GDP)							
	Primary Balance (PB)			Gap against	Gap against	Debt	
	Est. 2024	Stabilizing debt at 2024 level	Forecast 2029	2029 PB (+ means needed adj.)	2024 PB (+ means needed adj.)	2023	Forecast 2029
	[a]	[b]	[c]	[d] = [b - c]	[e] = [b - a]		
Advanced Europe	-1.0	-0.2	0.0	0.0	1.1	88.5	89.1
Euro Area	-1.0	-0.3	0.0	0.0	1.0	91.8	91.2
Other Adv. Economies	-1.1	0.3	0.1	0.3	1.5	77.9	82.4
Emerging Europe	-2.4	0.2	-0.5	0.8	2.7	40.3	46.8

Note: Aggregates correspond to GDP-PPP weighted averages. Data exclude Belarus, Norway, Russia and Ukraine.
Source: IMF staff estimates.

In addition, the projected fiscal consolidation is sizable. The gap between the medium term DSPB and the 2024 primary balance, which quantifies the fiscal adjustments needed, is 1.1 percent of GDP in AEs and 2.7 percent of GDP in EEs. These estimated large adjustment needs underscore additional risks to achieving debt stabilization given past delays in fiscal adjustment and optimism in projections. Earlier studies have shown that that IMF growth forecasts for nearly all European countries and over all forecast horizons overestimated growth, particularly in crisis recovery periods (e.g., Kangur et al, 2019 and IEO, 2014). Furthermore, as noted, recent studies indicate that increased and significant medium- to long-term spending pressures are likely to further increase deficits, including from security spending, climate transition, and population aging (IMF, 2024c and Hodge, 2024).

Moreover, risks surrounding the baseline debt projections differ between AEs and EEs (Figure 14). For AEs, the risks are tilted mainly to the adverse side. This suggests that that outturns of debt-to-GDP ratios are more likely to be higher than forecasted based on historical debt fancharts. In particular, fancharts excluding the largest AEs exhibit similar risk dynamics, indicating that the results apply broadly to most AEs. In contrast, for EEs, while the baseline debt trajectory still shows an upward trend, the risks surrounding the projected debt trajectory are skewed to the downwards, although once Turkey and Poland are excluded, risks are more balanced.

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[6] The results for the median economies are similar.

Figure 14. Historical Fancharts of Public Debt-to-GDP Trajectory
(Percent of GDP) 1/ 2/

Sources: IMF staff estimates.

1/ Historical fancharts are based on simulations drawing on shocks generated based on each countrie's historical debt drivers, and group-level debt-to-GDP paths are PPP-GDP weighted averages. Having a baseline (in red, with dotted line indicating projections) below the median simulation results implies more upside risks to public debt-to-GDP ratios.

2/ Data exclude Belarus, Norway, Russia, and Ukraine as conflict-affected countries and oil producers.

Furthermore, high debt levels and GFNs imply greater vulnerability to abrupt changes in market sentiment. Medium-term liquidity risks, as measured by the GFN Financeability Index (GFI) in the latest available SRDSF, suggest that most European economies fall in the low or moderate risk range (Figure 15). However, some EEs are in moderate and high risk GFI despite their lower public debt levels (Figure 16), likely reflecting their relatively lower average maturity of outstanding bonds, higher risk premia, and lower non-resident investor demand. Moreover, high existing banking system exposure to governments may constrain further bank financing and in turn limit the ability to provide reliable residual financing if stress materializes. As discussed in Box 2, this is a material risk in the euro area, where the unwinding of ECB's asset purchase programs is likely to increase risk premia and the interest costs for countries with high debt levels. Overall, against the backdrop of tighter financing conditions, insufficient fiscal consolidation could further deteriorate GFN financeability.


Figure 15. GFN Financeability Index and Components

Sources: SRDSF in Article IV Staff Reports published in 2022-24.
1/The signal is high risk if the GFI is above 17.9; low risk if the GFI is below 7.6; and otherwise it is moderate risk.

Figure 16. GFN Risk and Debt-to-GDP Ratio

Sources: SRDSF in Article IV Staff Reports published in 2022-24; and IMF WEO.
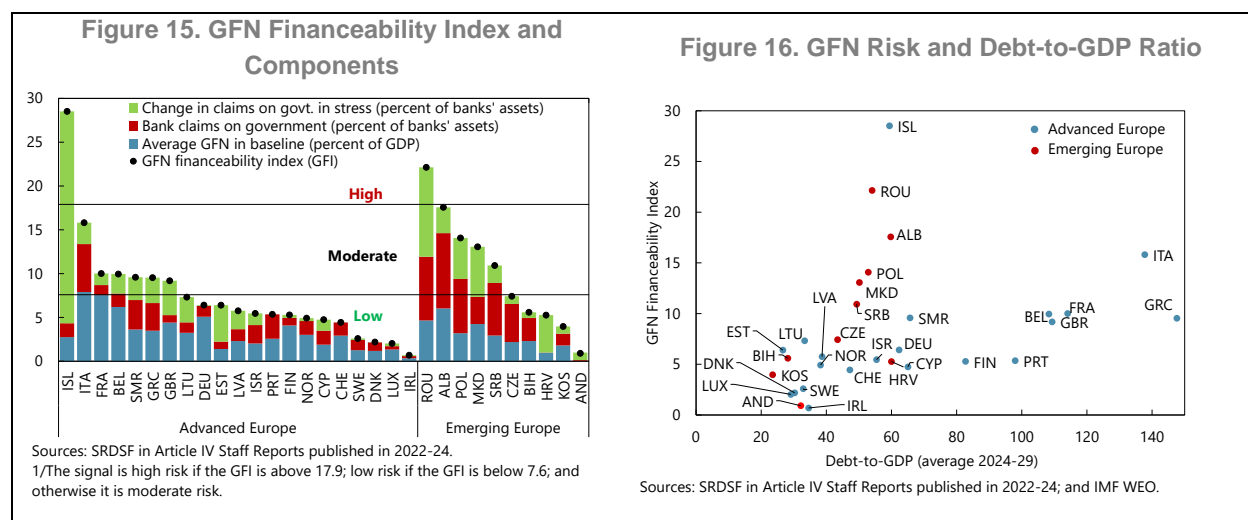
IV. Achieving Optimal Fiscal Adjustment

Elevated debt stabilization and financing risks call for fiscal consolidation to preserve fiscal sustainability. The reformed EU economic governance framework activated from 2024, for example, requires EU countries that face fiscal sustainability risks—manifested in high debt or deficit levels—to adopt credible fiscal adjustment plans (Annex II). Keeping public finances sustainable is even more challenging in the face of mounting spending needs for aging, defense, and the green transition, costs that are generally not yet fully reflected in the IMF's World Economic Outlook (WEO) baseline projections. For example, recent work estimates additional spending pressures of about 5½ percent of GDP annual by 2050 for advanced European economies, and about 8½ percent of GDP for Central, Eastern, and Southeastern European economies (Adilbish et al, 2024 and IMF 2024c). To illustrate how the fiscal adjustment can take place while balancing its output impact, we use a buffer-stock model of the government developed by Fournier (2019). This model provides an optimization framework that weighs output stabilization against debt sustainability in deriving optimal fiscal paths (Box 3).

We simulate the model for a representative AE and a representative EE, constructed based on the median values of key macroeconomic variables for European countries in the two income groups. For example, at end-2023, the representative AE had a positive output gap of 0.2 percent, closing in the medium term, and a public debt of 67 percent of GDP; the representative EE, in turn, had a negative output gap of 0.2 percent and a

public debt of 44 percent of GDP. We use average values of the model parameters for countries in the respective group.

Figure 17. Model-based Fiscal Adjustment Needs

Representative AE in Europe

Structural Primary Balance
(General Government, percent of potential GDP)

Representative EE in Europe

Structural Primary Balance
(General Government, percent of potential GDP)

General Government Gross Debt
(Percent of GDP)

General Government Gross Debt
(Percent of GDP)

Source: IMF staff based on Fournier (2019).

Note: WEO baseline refers to World Economic Outlook baseline projections as published in April 2024. Model results correspond to the median paths across stochastic simulations of the model, while confidence intervals correspond to the 5th and 95th percentile of the simulations.

Balancing output and debt stabilization, model results show that European economies generally need more significant and more front-loaded fiscal adjustment than currently is assumed in WEO projections over the period 2024-29 (Figure 17). A higher adjustment relative to the baseline is needed in the representative EE (about 1.5 ppts by 2029) than in the representative AE (about 1 ppt), mainly reflecting higher costs of financing and differences in the baseline fiscal paths between the two economies. Notably, the simulated medium-term debt path in the model is upward sloping for the representative EE, suggesting higher debt sustainability risks that warrant more adjustment than in the representative AE.

However, model results and policy recommendations need to be customized to specific country contexts. In AEs with relatively low debt levels, such as Germany and Sweden (IMF, 2023c and IMF, 2024a), IMF staff has recommended less consolidation than planned by the authorities, which would allow more support for growth-

enhancing green public investment. In AEs with relatively high debt levels such as Belgium, France, and Italy, IMF staff has recommended more significant and more front-loaded fiscal consolidation than envisaged under the authorities' current policies (IMF, 2023d, IMF, 2024d, and IMF, 2024e).

Box 3. A Buffer-Stock Model of the Government

Fournier (2019) develops a general equilibrium model in which a forward-looking government maximizes households' welfare by choosing the optimal structural primary balance given the level of public debt, the output gap, and output shocks. Expansionary fiscal policy increases output, thereby allowing the government to smooth households' consumption in the face of negative shocks. However, rising debt levels in the model economy are costly, as they imply higher interest rates on public debt and a higher probability of losing market access, which prevents fiscal stimulus in a downturn.

The key tradeoff for fiscal policy in the model is therefore between output stabilization and debt sustainability. The main insight is that the optimal fiscal stance should be less countercyclical the higher is the debt level in the economy. Therefore, the government has an incentive to build up and preserve buffers through fiscal consolidation to retain the possibility to boost the economy via debt-financed spending in case of negative shocks.

We closely follow Fournier (2019) and Fournier and Lieberknecht (2020) for model calibration, using the same sources and methodology. Country-specific parameters are set at the (unweighted) average across a set of representative countries in the two AE and EE groups (Table 1). The other parameters are set at the values reported in Fournier and Lieberknecht (2020). Sensitivity analyses are discussed in these two papers.

Table 1. Parameter Values

	Representative AE[1/]	Representative EE[2/]
Fiscal multiplier	0.81	0.50
Automatic stabilizers (primary balance semi-elasticity to the output gap)	0.57	0.51
Growth-adjusted interest rate, percent	0.2	-3.2
Potential GDP per capita growth, percent	0.9	3.6
Shock persistence	0.53	0.39
Shock standard deviation (%)	3.1	2.5
Debt level at which risk of losing market access is 50 percent, percent of GDP	150	100

1/ Simple averages of Belgium, France, Germany, Israel, Italy, Spain, the United Kingdom, and Portugal.
2/ Simple averages of Hungary, Poland, and Romania.

V. Conclusions

The challenging outlook for public debt and financing in most European countries calls for decisive economic policies that reinforce fiscal sustainability while preserving long-term growth. The probability of debt not stabilizing five years out has increased in most euro area and emerging European countries, mainly driven by higher primary deficits. In the medium term, the main risks are insufficient primary balance adjustment to stabilize debt and lower-than-expected growth. Sustained growth is expected to become a main driver for debt reduction in most countries, while risks to growth are tilted to the downside. Moreover, financing needs are expected to remain above pre-pandemic averages due to elevated public debt levels in most European economies. In the euro area, persistent positive effects from the ECB's asset purchase programs on sovereign and term spreads have allowed governments to maintain a long-maturity issuance strategy, alleviating short term financing pressures. Nevertheless, as market conditions normalize, sovereign bond holders will shift away from central banks, and domestic and global financial market factors will be reflected more in the risk premia, likely increasing the interest costs for more vulnerable countries.

Carefully-designed medium-term consolidation is key to address debt sustainability risks while supporting growth. Some countries need to phase out untargeted fiscal support more quickly, prioritize spending, and improve its efficiency, while others may need additional revenue-enhancing measures. Growth-enhancing reforms will be especially critical in high-debt countries. In EU countries, the implementation of the reformed EU economic governance framework (Annex II) can help advance toward credible medium-term fiscal adjustments that improve long-term debt sustainability. In addition, some have pointed out that an EU-level debt instrument could be an option to support fiscal adjustment, particularly in EU countries with high legacy debt (Ando et al., 2023 and Draghi and Macron, 2021). In non-EU countries, more efforts are needed to strengthen comprehensive national fiscal frameworks to achieve the same objective.

The need for fiscal reforms across Europe is even more pressing as spending pressures are expected to increase significantly and reforms can take time to yield results. Some spending pressures, like defense and climate, are more immediate, while others, like pension and health, are expected to rise over time (Adilbish et al, 2024). In this context, to balance the growth and debt sustainability imperatives, governments could target debt stabilization over a slightly longer horizon (such as 10 years) but with a higher probability (such as 75 percent) to reassure markets that debts will indeed be tamed.[7] A longer horizon is also broadly consistent with the projection horizons of the reformed EU fiscal framework (possible extension to 7 years with investment and reform commitments) and the IMF's SRDSF (10 years), and will allow for more growth-enhancing benefits of public investments and other structural reforms to be captured in actual and projected debt/GDP trajectories.

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[7] For an elaboration of this approach, which builds on the SRDSF-based fancharts in section III, see Hodge (2024).

Annex I. Debt Stabilizing Primary Balances

Annex Table 1. Debt Stabilizing Primary Balances
(Percent of GDP)

		Primary Balance (PB)			Gap against 2029 PB (+ means needed)	Gap against 2024 PB (+ means needed)	Debt		Primary Balance		Gap against 2024 PB (+ means needed)
		Est. 2024	Stabilizing debt at 2029 level	Forecast 2029			2023	Forecast 2029	Stabilizing debt at 2024 level	Forecast 2025	
		[a]	[b]	[c]	[d] = [b - c]	[e] = [b - a]			[f]	[g]	[k] = [f - a]
Advanced Europe	**Avg.***	**-1.0**	**0.1**	**0.0**	**0.0**	**1.1**	**88.5**	**89.1**	**-0.2**	**-0.5**	**0.8**
	Median	-0.9	-0.6	0.1	-0.7	0.3	63.9	56.8	-0.7	-0.4	0.2
Euro Area	**Avg.***	**-1.0**	**0.0**	**0.0**	**0.0**	**1.0**	**91.8**	**91.2**	**-0.3**	**-0.6**	**0.6**
	Median	-1.5	-0.6	-0.3	-0.3	0.9	66.4	60.5	-0.8	-1.0	0.7
Other Adv. Economies	**Avg.***	**-1.1**	**0.4**	**0.1**	**0.3**	**1.5**	**77.9**	**82.4**	**0.3**	**-0.4**	**1.4**
	Median	0.6	-0.3	0.8	-1.1	-0.9	50.1	38.9	-0.4	0.5	-1.0
Emerging Europe	**Avg.***	**-2.4**	**0.3**	**-0.5**	**0.8**	**2.7**	**40.3**	**46.8**	**0.2**	**-1.1**	**2.6**
	Median	-1.4	-0.3	-0.3	0.0	1.1	48.9	46.1	-0.6	-1.1	0.8
Euro area	Germany	-0.6	-0.6	0.6	-1.1	0.0	64.3	57.7	-1.0	-0.2	-0.4
	France	-2.8	-0.7	-1.0	0.3	2.1	110.6	115.2	-1.0	-2.6	1.9
	Italy	-0.5	3.1	1.5	1.7	3.6	137.3	144.9	2.5	1.0	2.9
	Spain	-0.5	-0.5	0.0	-0.5	0.0	107.5	104.2	-0.6	-0.2	-0.1
	Netherlands	-1.2	-0.7	-2.1	1.4	0.5	47.2	52.6	-0.8	-1.3	0.4
	Austria	-1.3	-0.1	-0.2	0.1	1.3	75.5	76.0	-0.3	-0.8	1.0
	Belgium	-2.4	-0.9	-3.0	2.0	1.5	104.5	115.6	-0.7	-2.5	1.7
	Luxembourg	-1.8	-0.3	-0.9	0.6	1.5	25.7	31.3	-0.2	-1.1	1.6
	Portugal	2.6	-0.9	2.5	-3.4	-3.5	99.0	76.9	-1.1	2.6	-3.7
	Greece	2.1	-0.9	2.1	-3.0	-3.0	168.8	138.8	-1.9	2.1	-4.1
	Ireland	2.1	-0.3	1.0	-1.2	-2.4	43.3	32.1	-0.5	1.9	-2.6
	Latvia	-2.1	-1.2	-0.4	-0.8	0.9	43.5	40.2	-1.3	-1.5	0.7
	Lithuania	-1.7	-0.5	0.3	-0.8	1.2	35.6	32.7	-0.8	-0.7	0.9
	Estonia	-2.9	-0.4	-2.0	1.5	2.4	20.7	32.4	-0.2	-2.6	2.7
	Malta	-3.0	-1.0	-0.9	-0.2	1.9	51.8	55.9	-0.9	-2.4	2.1
	Cyprus	4.0	-0.6	2.4	-3.0	-4.6	77.4	50.0	-1.2	3.9	-5.2
	Slovak Republic	-4.6	-1.0	-4.0	2.9	3.5	57.9	72.4	-1.4	-4.6	3.2
	Slovenia	-1.7	-1.6	-0.5	-1.0	0.1	68.5	63.4	-1.8	-1.3	-0.1
	Finland	-2.3	0.0	-0.6	0.7	2.3	76.7	87.2	0.3	-2.1	2.5
	Croatia	0.0	-0.5	0.6	-1.0	-0.5	63.5	54.0	-0.6	0.2	-0.6
Other AEs	Denmark	2.2	1.2	0.7	0.5	-1.0	30.4	29.6	1.2	1.7	-1.0
	Iceland	2.1	-0.9	1.4	-2.3	-3.0	64.8	46.5	-0.9	1.5	-3.0
	Sweden	0.0	0.1	0.8	-0.8	0.0	35.9	31.4	-0.2	0.4	-0.3
	Switzerland	0.9	-0.7	0.5	-1.2	-1.5	38.3	31.1	-0.6	0.6	-1.5
	United Kingdom	-1.6	0.7	0.0	0.8	2.3	101.1	110.1	0.7	-0.8	2.3
	Israel	-5.1	-0.9	-1.2	0.2	4.2	61.9	68.5	-1.2	-2.3	4.0
	San Marino	0.3	-0.7	1.4	-2.1	-1.0	73.4	61.0	-0.6	0.5	-0.9
	Andorra	3.9	3.3	4.4	-1.1	-0.6	37.7	30.1	3.1	4.0	-0.8
EMs	Bulgaria	-2.2	-0.3	-1.6	1.3	1.9	22.0	30.8	-0.4	-2.2	1.8
	Romania	-4.0	-1.4	-3.5	2.1	2.6	50.7	65.5	-1.3	-4.2	2.7
	Czech Republic	-0.6	-0.2	-0.2	0.1	0.4	44.2	43.9	-0.1	-0.1	0.5
	Hungary	-0.8	-0.9	0.6	-1.5	-0.1	73.4	68.2	-1.0	-0.2	-0.2
	Poland	-3.4	-0.8	-1.9	1.1	2.6	50.8	63.9	-0.4	-2.6	3.1
	Albania	0.4	-1.1	0.0	-1.1	-1.5	60.0	55.3	-0.6	0.0	-0.9
	Bosnia and Herzegovina	-1.2	0.9	0.7	0.2	2.1	28.1	32.4	0.4	-1.1	1.6
	Montenegro	-1.4	0.1	-1.6	1.7	1.5	61.5	66.1	-0.8	-1.5	0.6
	North Macedonia	-1.6	-0.7	-0.1	-0.7	0.9	54.5	52.7	-0.9	-1.1	0.7
	Serbia	0.0	-0.1	-0.3	0.2	-0.1	48.9	46.1	-0.9	-0.3	-0.9
	Kosovo	-0.6	0.2	-0.5	0.7	0.8	17.4	21.5	0.0	-0.7	0.7
	Moldova	-3.1	-1.7	-0.8	-0.8	1.5	34.7	29.8	-3.2	-2.1	-0.1
	Türkiye	-2.2	1.6	0.7	0.9	3.7	28.9	33.6	1.2	0.1	3.4

* PPP GDP weighted average.
Sources: IMF WEO Apr. 2024; and IMF staff estimates.

Annex II. The Reformed EU Economic Governance Framework

Approved in February 2024, the reformed economic governance framework for EU members aims at promoting sustainable public finances, while encouraging growth-supporting reforms and investments. Countries facing significant long-term fiscal risks are required to submit adjustment plans that—with a high likelihood—restore fiscal sustainability. In doing so, member states are asked to agree with the European Commission and the European Council a four- or seven-year adjustment plan, relying on net primary expenditure as the single operational indicator. The implementation of this plan will be monitored through annual progress reports.

The framework distinguishes two phases: an adjustment period and a ten-year debt trajectory phase, over which long-term fiscal sustainability is assessed. The baseline adjustment period is four years but can be extended to seven years. During the debt trajectory phase, the primary fiscal balance is assumed to be constant, except for ageing-related costs.

Restoring and entrenching fiscal sustainability is specified along two dimensions: a debt criterion and a deficit benchmark. The debt criterion is assessed on the basis of a debt-sustainability analysis (DSA), covering the ten-year debt trajectory phase. The deficit benchmark requires that by the end of the adjustment period, the general government deficit is below 3 percent of GDP, and is projected to remain below this level for the entire ten-year debt trajectory phase. In addition, the framework includes two minimum adjustment safeguards: a debt sustainability safeguard and a deficit resilience safeguard.

EU members that violate the fiscal requirements under the framework—either by having a general government deficit that exceeds 3 percent of GDP, or by failing to implement the agreed net expenditure path—can be placed in an Excessive Deficit Procedure (EDP). While in an EDP, the country is required to make a minimum annual improvement of the structural fiscal balance of 0.5 percent of GDP to bring it back to compliance with the framework.

Source: Adapted from IMF (2024c)

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