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## Research Note

### Fiscal Space and Sovereign Bond Market Developments in Selected European Economies

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# Fiscal Space and Sovereign Bond Market Developments in Selected European Economies

Alexandros Kontonikas\*, John Tsoukalas<sup>†‡</sup>

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## Abstract

This research note examines fiscal space and sovereign bond market developments in Greece and selected European economies. While Greece has made significant progress in fiscal consolidation, maintaining primary surpluses and reducing its debt-to-GDP ratio, the broader European landscape is shifting: increased defense spending needs, tariffs and heightened geopolitical uncertainty. The need for stronger defense capabilities across Europe introduces a major fiscal challenge for all EU member states, including Greece, which, compared to its EU peers, has historically allocated a higher share of GDP to defense. While Greece benefits from a favorable investor composition and debt servicing conditions, future debt issuance at market rates and rising European borrowing costs may add pressure to its fiscal position. Given these developments, adhering to fiscal prudence, exploring EU-wide financing mechanisms, maintaining debt reduction efforts and accelerating growth enhancing reforms will be critical.

**Keywords:** EMU-10; Greece; Sovereign Bond Markets; Fiscal Fundamentals

**JEL Classification:**

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# 1 Introduction

Following the end of the Cold War, the US and Europe enjoyed a peace dividend, which allowed them to reallocate a significant portion of public spending to social security and welfare. Today, Europe’s defense spending amounts to 1.8% of GDP, down from 4% in 1960. However, recent geopolitical developments are likely to generate significantly higher European defense spending commitments.<sup>1</sup>

The immediate requirement for Europe to defend itself without the aid of the U.S. is estimated by [Burilkov and Wolff \(2025\)](#) to be 3.5% of the EU’s GDP. In the longer term, the [Economist \(2025\)](#) argues that defense expenditures will need to rise to 4-5% of EU’s GDP. This leaves Europe with a gap in defense spending between 1.7% and as high as 3.2% of the EU’s GDP.

European sovereigns face risks to their debt outlook, stemming from higher defense requirements, the anticipated rise in tariffs, and a persistent low-growth environment. Long-term borrowing costs for large European economies have been trending upward in recent months, partly driven by expectations of higher government debt supply, suggesting these risks are priced in ([FT \(2025a\)](#)). German bond yields, which provide the reference for the entire European Monetary Union (EMU), experienced a steep rise (almost 0.4 percentage points between March 5-6, 2025) following the announcement of plans for the largest economic stimulus in decades. [Figure 1](#) illustrates the impact of the announcement on the Eurozone’s yield curve. The curve has shifted upwards across bond maturities, driven by jumps in yields of issues from major European economies. This rise reflects a sell-off of government bonds, as markets were stunned by the magnitude of the announced German fiscal stimulus.<sup>2</sup>

Greece is relatively well-placed to address this fiscal challenge. Unlike most other European countries, Greece already consistently meets the NATO guideline of at least 2% defense spending as a share of GDP. According to Eurostat, by 2022, general government expenditure in the EU on defense amounted to 1.3% of GDP, barely fluctuating over the last decade, while in Greece, it was 2.6%.<sup>3</sup> Moreover, over the last eight years, Greece has made considerable progress in fiscal consolidation, developing a track record of posting primary budget surpluses, regaining credibility after a decade-long crisis, and building fiscal stability. Following the recovery from the COVID-19 pandemic, the Greek economy has also enjoyed steady growth that exceeds the EU average by a wide margin.

Arguably, a shift toward a significantly larger defense target will have profound fiscal consequences for the entire EU and will interact with fiscal space availability in numerous ways. Various mechanisms can be used to finance the additional expenditures, ranging from running larger deficits and accumulating additional debt at the country level to joint debt issuance at the European level, a jointly sponsored rearmament bank, higher taxes, and government spending redistribution toward defense.<sup>4</sup>

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<sup>1</sup>The new target for defense spending is yet to be agreed upon, but recent statements from U.S. national security advisors and President Trump have called for a value as high as 5% of GDP, arguing that due to heightened security threats, European nations must contribute more to NATO’s collective defense.

<sup>2</sup>Taking into account Germany’s strong fiscal position, and a positive reaction of stock prices (Euro Stoxx 50), the bond market reaction may also be consistent with a higher growth expectation anticipating that the fiscal stimulus will lift Germany off stagnation.

<sup>3</sup>In contrast, major economies such as Germany and France spent around 3% of GDP in the 1970s and 1980s, while defense spending was around 5% in the UK and 6% of GDP in the US ([Dorn \(2024\)](#)).

<sup>4</sup>Public debate on this issue has surged recently. The European Commission is exploring European financing schemes for common defense projects and is expected to detail funding options in March 2025 ([FT \(2025a\)](#)). [Malaponti \(2025\)](#) discuss the case for centralized financing and procurement at the EU level. [Carter et al. \(2025\)](#) highlight the advantages of a rearmament bank modeled on the European Bank for Reconstruction and Development, while [Jaeger \(2024\)](#) and [Dorn et al. \(2024\)](#) favor higher taxes and spending redistribution, respectively. The [Economist \(2025\)](#) points out that global rankings of the highest-tax countries are dominated by European nations; hence, further tax increases seem an unviable and unpopular option. Furthermore, EA countries allocate about 20% of their GDP to social spending (welfare, pensions, and social protection), but cuts to such spending would also be highly unpopular.



Additional debt at the country level would pose challenges due to the lack of fiscal space in most EU member states, including major economies such as France and Italy. Greece still has the highest debt-to-GDP ratio in the EU (estimated at 153.1% in 2024). And despite its impressive fiscal performance and long maturity of its debt portfolio, Greece cannot afford to issue additional debt. A key related factor is the market's ability to absorb large amounts of newly issued debt at relatively low yields and the stance of the European Central Bank (ECB). The latter is crucial since monetary-fiscal coordination, similar to that exhibited during the COVID-19 pandemic-which manifested in a 3.8 trillion euros round of quantitative easing (QE)-is likely to be required again. However, the post-pandemic European macroeconomic environment is more uncertain, having gone through a major inflation episode, which may constrain the ECB's flexibility to switch from the current regime of quantitative tightening (QT) to a **"defense emergency QE."** Despite these risks and uncertainties, compared to alternative options, debt issuance by individual member states may end up being the least challenging and **politically feasible** option.

On March 4, 2025, responding to rapid developments brought about by a shift in the U.S. strategic direction under President Trump-implicating a pullback of the U.S. as a security guarantor-the President of the European Commission revealed a plan to enhance the defense and security of the EU: *ReArm Europe*. The plan entails an 800 billion euros package allocated over a four-year horizon. This comprises 650 billion euros of "enhanced fiscal space" that can be utilized through individual borrowing by member states and 150 billion euros of joint borrowing at the EU level. It also foresees flexibility in repurposing the EU budget, allowing member states to use the EU's cohesion policy programs to enhance defense capabilities. Lastly, it promises the mobilization of pan-EU savings and the financing capabilities of the European Investment Bank. The Commission President's press statement announced the activation of the national escape clause of the Stability and Growth Pact, a move that mirrors the emergency suspension of the excessive deficit procedure during the COVID-19 pandemic. The plan remains in its preliminary stages, and it is unclear whether fiscally constrained member states will be willing to increase borrowing, even if the activation of the escape clause pushes planned fiscal consolidation further into the future.

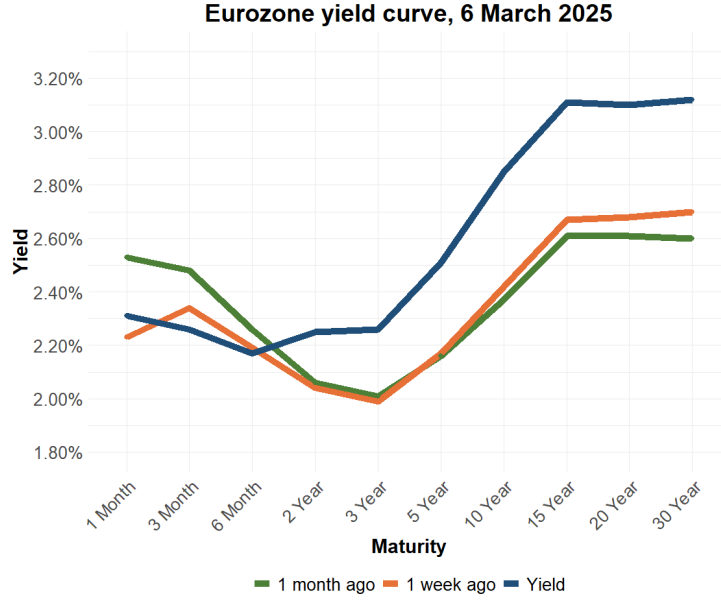
Motivated by a rapidly evolving geopolitical and economic landscape, this research note aims to analyze the evolution of fiscal space in Greece and nine other EMU members since 2016. It discusses developments in the European sovereign bond market and examines changes in the composition of investors, i.e., the different agents that hold sovereign debt. The composition of investors is often overlooked in policy discussions on fiscal sustainability and the pricing of government bonds, but it is crucial.<sup>5</sup> Related research studies typically examine the impact of the share of government debt held by foreign investors on long-term government bond yields. They generally identify a negative effect in both advanced economies and emerging markets. Furthermore, previous studies reveal significant shifts in the composition of the investor base around periods of financial turmoil.<sup>6</sup> Taking stock of these important points, we argue that it is essential to consider the investor composition of government bonds and to carefully monitor its development over time, as well as its potential future trajectory.

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<sup>5</sup>References to the importance of the investor base have increased recently, driven by the need to finance large deficits in the era of QT. For example, a recent FT article ([FT \(2025b\)](#)) highlights that "shifts in foreign ownership of Treasuries are closely watched given the US government's need to finance a vast budget deficit at a time when its central bank is reducing its own holdings of government debt."

<sup>6</sup>See, for example, [Arslanalp and Tsuda \(2014\)](#) for evidence on advanced economies and [Ebeke and Lu \(2015\)](#) for emerging markets. These studies commonly use multi-country datasets and panel estimation techniques. [Arslanalp and Tsuda \(2014\)](#) point out that the retreat of foreign investors from EMU periphery bond markets was offset by the increasing participation of domestic investors, especially domestic banks. Several reasons have been proposed to explain this development, including rising home bias ([Acharya et al. \(2012\)](#)), carry trade ([Acharya and Steffen \(2015\)](#)), preferential treatment of domestic investors ([Cruces and Trebesch \(2013\)](#)), and moral suasion ([Battistini et al. \(2014\)](#)).

Figure 1: Recent developments in Eurozone yield curve



**Notes.** Source: The Financial Times.

## 2 Data

We analyze quarterly data from ten Euro Area countries: Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain. Our dataset for the investor base is an updated version of the sovereign bond holdings estimates by [Arslanalp and Tsuda \(2014\)](#). The data is available from the IMF and covers the period 2004Q1-2024Q2. It categorizes investors into six classes: foreign bank, foreign non-bank, foreign official, domestic bank, domestic non-bank, and domestic central bank (i.e., the ECB).<sup>7</sup> The analysis of fiscal fundamentals focuses on the period of the Greek economy's recovery from the sovereign debt crisis (2016Q1 onwards). We obtain data from the ECB on 10-year government bond yield, the government debt-to-GDP ratio, government interest expenditure-to-GDP, and the primary budget surplus (or deficit)-to-GDP. We also calculate the overall fiscal balance as the primary balance minus interest expenses, and the interest-growth differential ( $r-g$ ) as the real bond yield minus the real GDP growth rate.<sup>8</sup> Finally, given the idiosyncratic features of Greece's government debt investor base, we also obtain the average effective interest rate on the government debt portfolio. The effective interest rate data series was provided to us by the Greek Public Debt Management Agency (PDMA).

<sup>7</sup>Non-banks include households, non-financial corporations, and non-bank financial institutions.

<sup>8</sup>The real bond yield is calculated as the 10-year nominal yield minus the annual rate of change in the quarterly Harmonized Index of Consumer Prices (HICP), sourced from the ECB. The real GDP growth rate is obtained from Eurostat.

### 3 Stylized facts

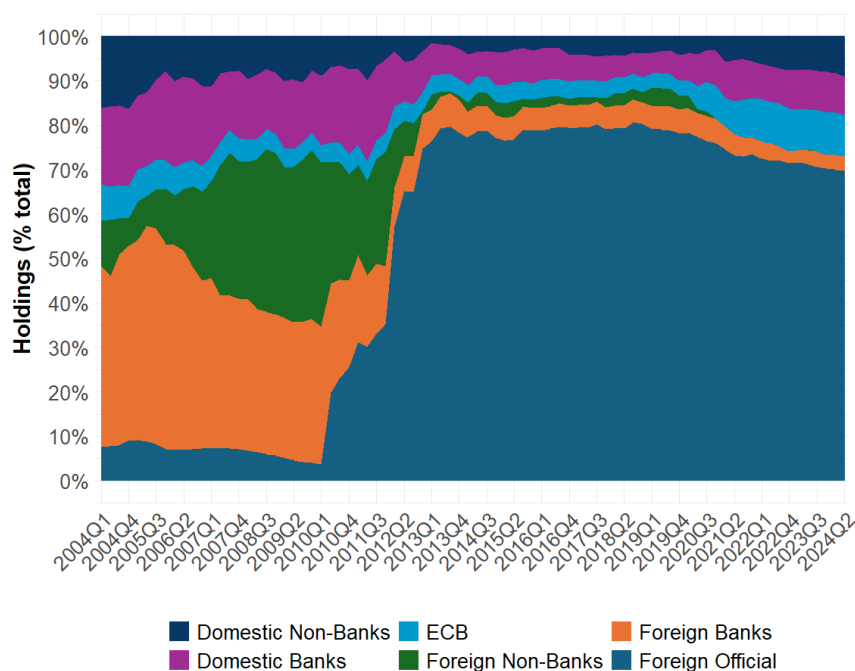
#### 3.1 Investor composition of sovereign debt

Figure 2 shows the evolution of the Greek government bond investor composition over time, while Figures 3 and 4 compare these developments with those in selected EMU member states. We highlight several important facts. The composition of Greek government debt holdings among different types of domestic and foreign agents has changed significantly over the last twenty years.

Prior to the Global Financial Crisis (GFC) in 2007-2008, foreign banks played a key role as the dominant holders of Greek debt, with their share reaching a maximum of 47% in 2005. As Figure 3 highlights, for many years, the relative holdings of foreign banks were the highest among the 10 EMU member states included in the comparison. At the same time, foreign non-banks also held significant amounts of Greek debt. The combined share of foreign banks and non-banks averaged 56% between 2004Q1 and 2007Q2, far exceeding the corresponding domestic holdings share (domestic banks and non-banks) of 30%.

Beginning with the GFC, foreign banks and non-banks alike reduced their positions in Greek debt at an accelerating pace during the sovereign debt crisis, with their shares reaching (or nearing) the minimum values observed across the 10 EMU member states (see Figure 3).

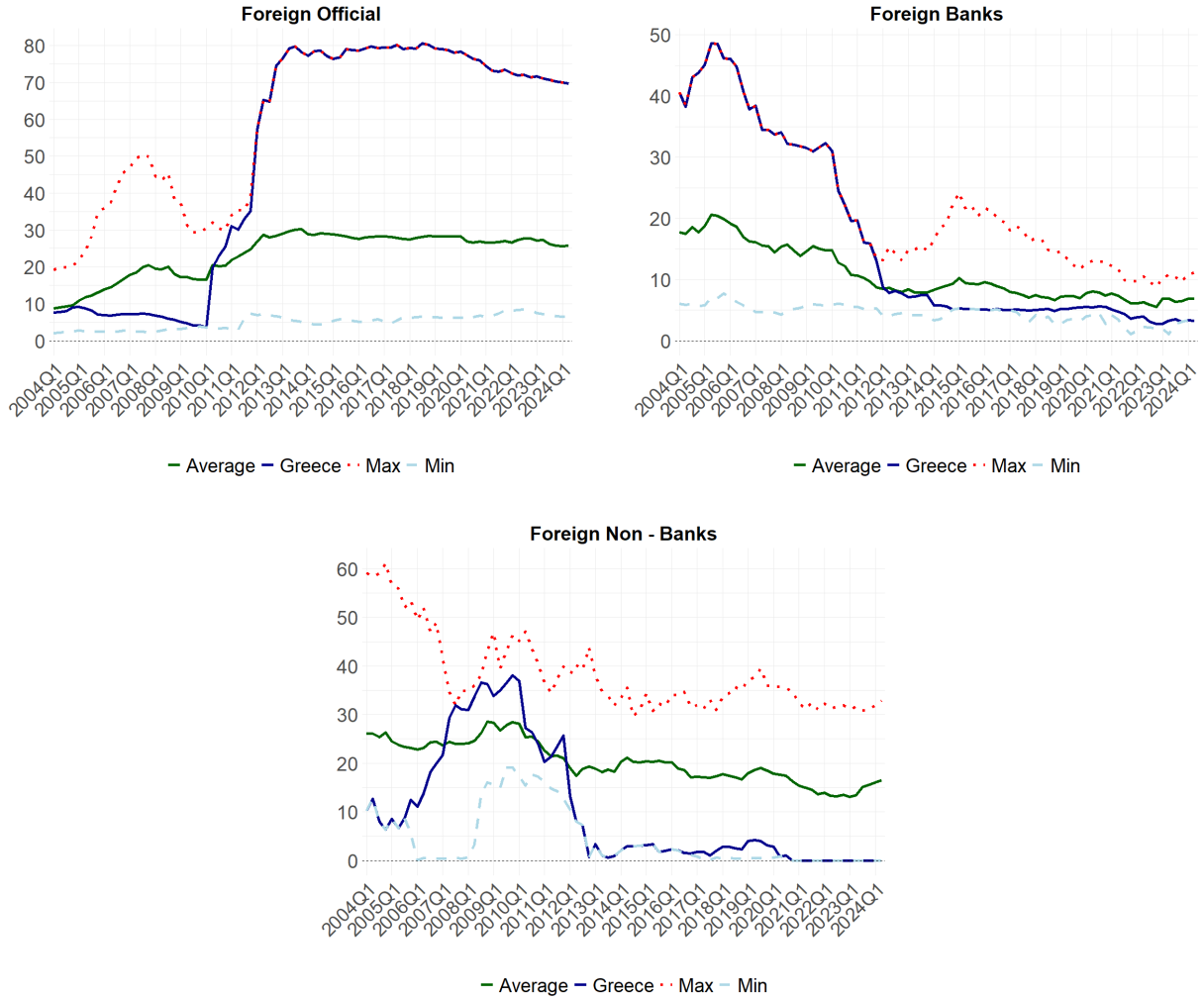
Figure 2: Investor composition of Greek Government bonds



**Notes:** The figure plots the holdings (as % of total) of Greek government bonds across six types of holders: Foreign Official, Foreign Banks, Foreign Non-Banks, European Central Bank (ECB), Domestic Banks and Domestic Non-Banks. The sample period is 2004Q1-2024Q2. Source: IMF.

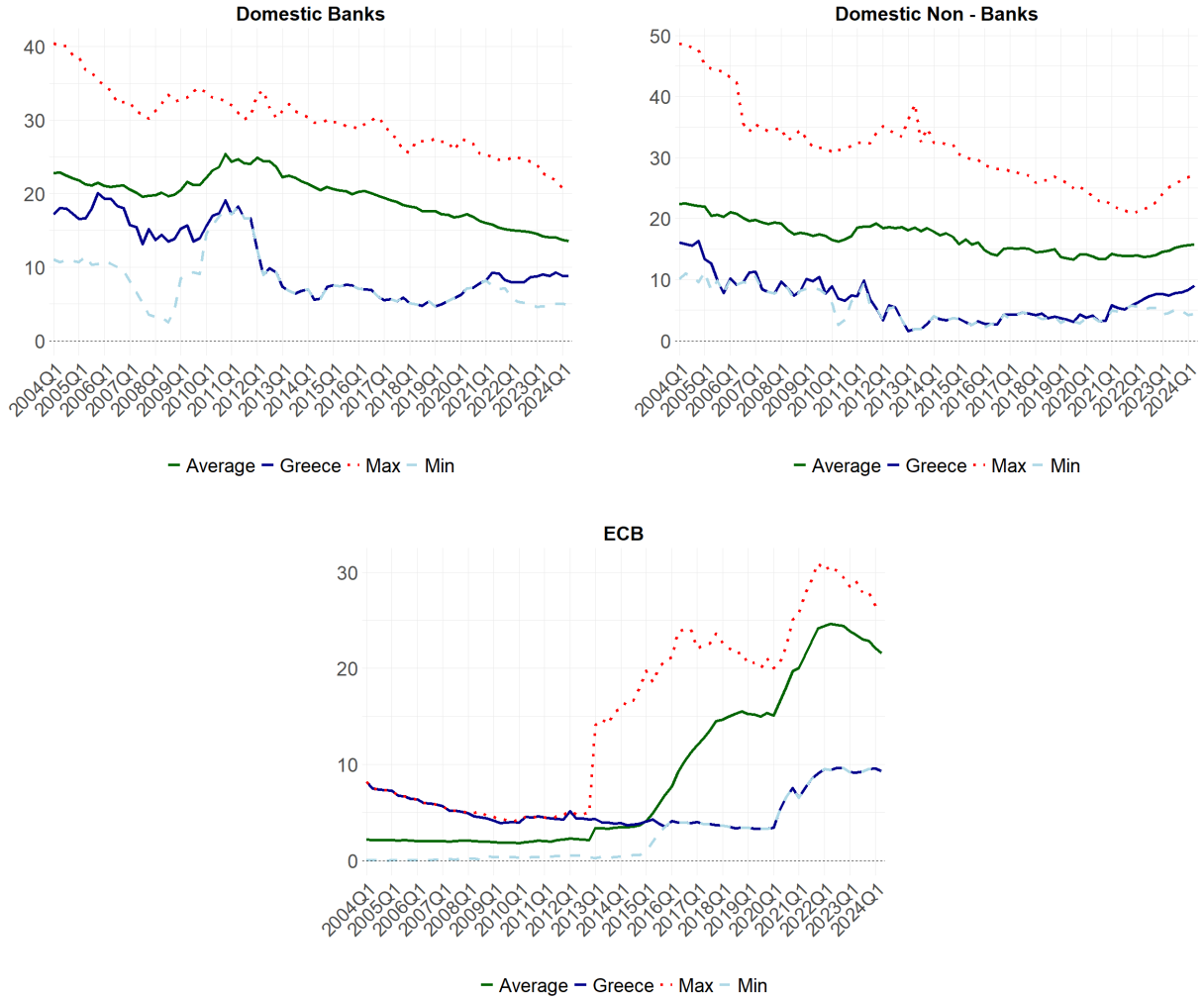
The gap left by the withdrawal of foreign banks and non-banks during the crisis was not filled by their domestic counterparts (see Figure 4). Instead, the foreign official sector became the dominant holder of Greek debt, reflecting the successive debt restructuring agreements. From 2012 onwards, Greece exhibited

Figure 3: Investor composition of Greek Government bonds vs EMU-10: Foreign Investors



**Notes:** The figure plots the holdings (as % of total) of Greek government bonds across three types of foreign holders: Foreign Official, Foreign Banks, Foreign Non-Banks. For each holder, we display the maximum, average, and minimum value from the following countries: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain. The sample period is 2004Q1-2024Q2. Source: IMF.

Figure 4: Investor composition of Greek Government bonds vs EMU-10: Domestic Investors and ECB



**Notes:** The figure plots the holdings (as % of total) of Greek government bonds across three types of domestic holders: Domestic Banks, Domestic Non Banks European Central Bank. For each holder, we display the maximum, average, and minimum value from the following countries: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain. The sample period is 2004Q1-2024Q2. Source: IMF.

the highest share of foreign official holdings of government debt in the sample we examine (and indeed in the entire Euro Area), reaching a maximum of 80% in 2018.

During the recovery from the sovereign debt crisis, further shifts occurred in the investor composition. The share of the foreign official sector gradually declined, partly due to early debt repayments by the PDMA, while holdings of domestic agents rose modestly. The ECB's share of Greek debt increased recently, albeit from a low level, due to the Pandemic Emergency Purchase Programme (PEPP), which was launched in March 2020. Greek government bonds were included in the ECB's Pandemic-QE programme—with a beneficial impact on their yields—despite not having an investment-grade rating at the time. Moreover, since June 2020, Greek banks have been able to use Greek government bonds as collateral for Long-Term Refinancing Operations (LTROs) due to the ECB's pandemic-related collateral quality easing measures.

Since 2019, supported by an improved macro-fiscal environment, Greek domestic banks and non-banks responded to these favorable market incentives. Between 2019Q1 and 2024Q2 domestic banks increased their share of debt holdings by 4.1% while domestic non-banks increased their share by 5.3% over the same period. Nevertheless, their share remains below the corresponding average observed in the sample of EMU countries we examine (see Figure 4).

### 3.2 Fiscal space

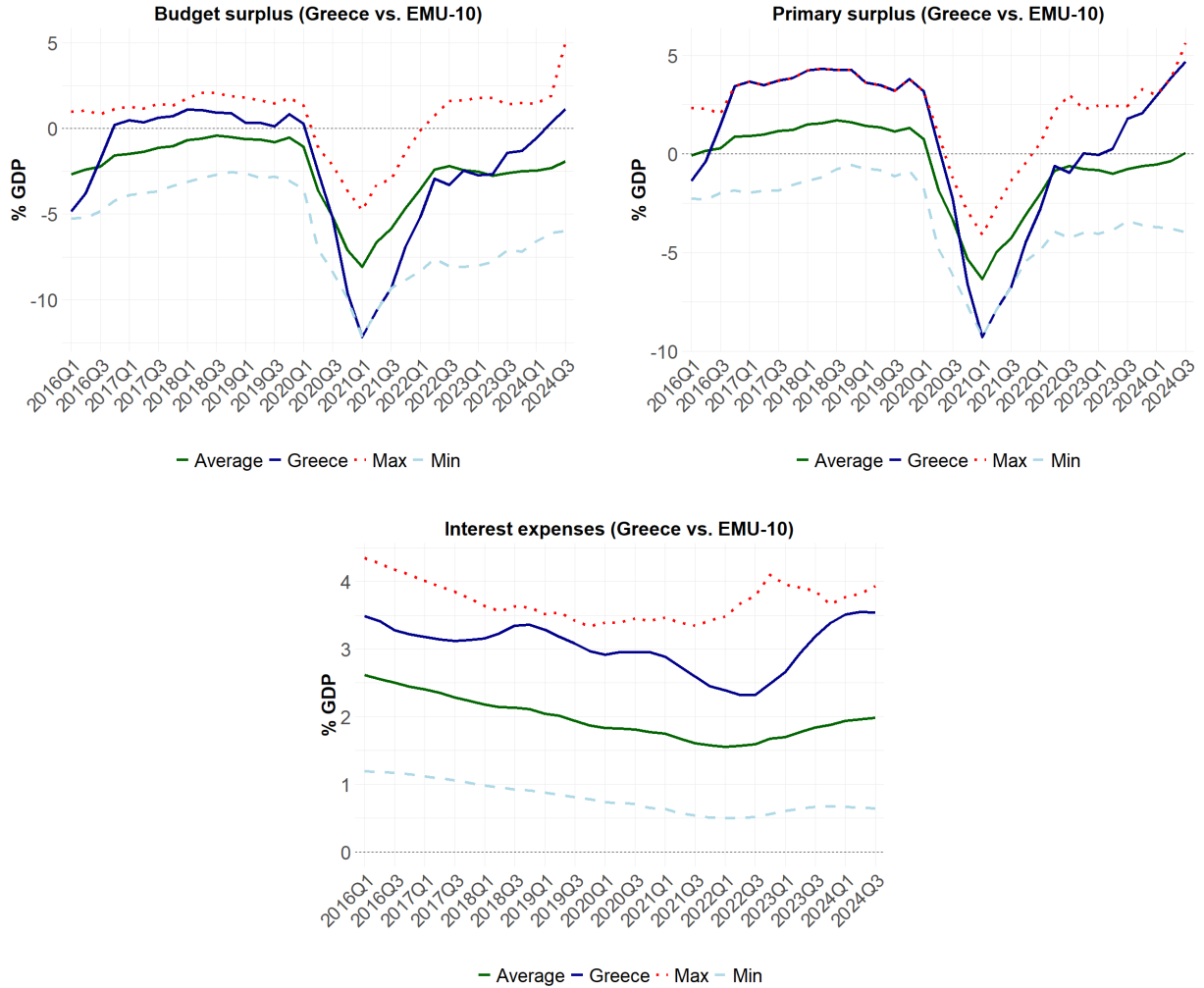
Figures 5 and 6 show developments in the Greek fiscal fundamentals, compared to other countries of the EMU, between 2016 and 2024. Overall, during this nine-year period, Greece has made considerable progress in fiscal consolidation. Between 2016Q4 and 2020Q1, Greece consistently recorded the highest primary surpluses as a share of GDP among the group of countries we examine. The strong primary surpluses translated in an above-EMU-average performance in the overall fiscal balance and sharply declining market yields for government debt as markets became convinced of the long term sustainability of Greek debt. Nevertheless during this period, the fiscal effort did not translate into a material reduction in the debt-to-GDP ratio amid an environment of low economic growth.

Government support packages during the COVID-19 pandemic were crucial in preventing a surge in financial distress for households and firms (IMF (2021)), but they came at a considerable fiscal cost. There was a significant increase in the debt-to-GDP ratio during the pandemic, rising by 28 percentage points between 2019Q3 and 2021Q1, reflecting the extent of fiscal stimulus and the deep, short recession, with real GDP contracting by 9.2 percentage points in 2020.

Greece was not alone in adopting fiscal stimulus as a response to the COVID-19 pandemic, as large budget deficits and higher debt-to-GDP ratios were observed across all EMU countries. Following the pandemic, the effort toward fiscal consolidation intensified, with Greek primary budget performance exceeding the EMU average since mid-2022. The Greek primary surplus turned positive in mid-2023 and steadily increased to 4.7% of GDP by 2024Q3, placing Greece among the best performers in the EMU. This recent fiscal performance, supported by a resurgence of strong economic growth and an impressive effort at reducing tax evasion and improving tax collection, resulted in a decline in the debt-to-GDP ratio by a remarkable 54.8 percentage points from its peak value in 2021.

Greek debt remains the highest in the EMU, and its magnitude is reflected in the above-average interest expenses of the Greek government. Having declined from 3.5% of GDP in 2016Q1 to 2.3% in 2022Q2, interest expenses returned to 3.5% by 2024Q3. This pattern was also observed in other EMU countries, reflecting the shift in the ECB's monetary policy stance from strong stimulus to contraction. The tightening cycle commenced in July 2022, and by September 2023, the official policy rate had been raised cumulatively by

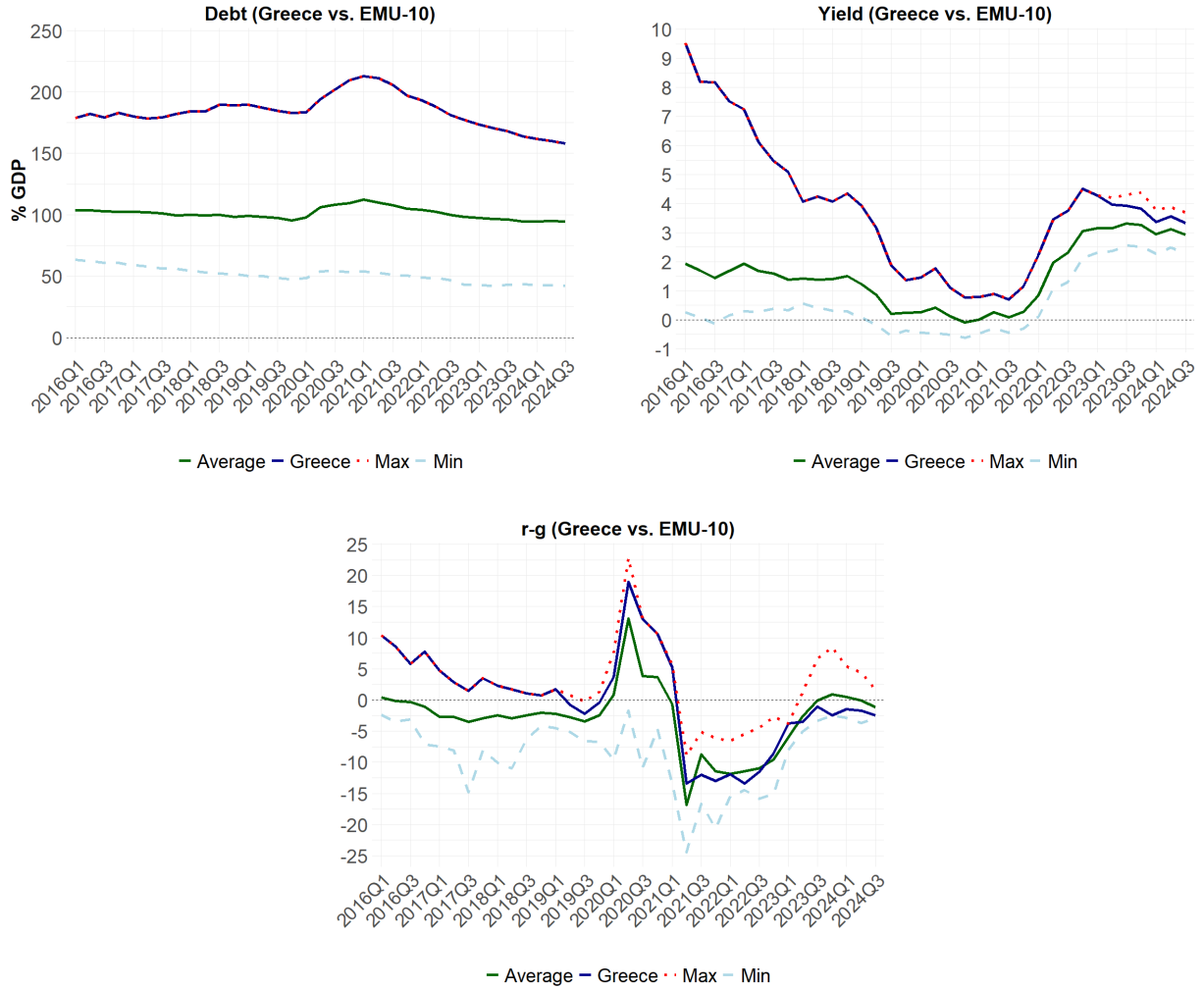
Figure 5: Fiscal Fundamentals I, Greece vs EMU-10



**Notes:** Greek fiscal fundamentals vis-a-vis ten EMU member states. For each indicator, we display the maximum, average and minimum value from the following countries: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. The sample period is 2016Q1-2024Q3. Source: ECB.



Figure 6: Fiscal Fundamentals II, Greece vs EMU-10



**Notes:** Greek fiscal fundamentals vis-a-vis ten EMU member states. For each indicator, we display the maximum, average, and minimum value from the following countries: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain. ( $r-g$ ) is the real bond yield minus the real GDP growth rate. The real bond yield is the difference between the 10-year nominal yield minus the annual rate of change in the quarterly Harmonised Index of Consumer Prices (HICP). The sample period is 2016Q1-2024Q3. Source: ECB and Eurostat

4.5%. This led to significantly higher government bond yields, with Greek market rates rising from a low of 0.6% in 2020Q4—while the Pandemic-QE was in operation—to 4.3% at the start of 2023. Notably, while Greece recorded the highest market yield for most of the sample period, the gap from the EMU average has declined over time. In fact, since 2023Q2, Italian yields have surpassed Greek yields, highlighting the deterioration of Italy’s fiscal fundamentals.

The Greek interest-growth differential has exhibited different behavior over the sample period. This indicator is crucial for assessing the dynamics of the debt-to-GDP ratio. All else equal, a positive (negative) differential implies a rise (fall) in the debt-to-GDP ratio. Alternatively, a positive differential requires a large primary surplus for the debt-to-GDP ratio to decline. This indicator was the highest among the EMU sample until 2019Q1, driven by a high market yield, relatively low inflation, and low growth. However, it shifted into a favorable (negative) range in mid-2021 and has remained there since, averaging approximately -2% over the last two years, below the mean value in the EMU sample over the same period.

Figures 7, 8, and 9 examine alternative configurations of fiscal space using scatter plots to reveal the links among fiscal fundamentals in the EMU sample countries. The analysis is conducted separately for three sub-periods: prior to the COVID-19 pandemic (2016Q1-2019Q2), the COVID-19 pandemic (2019Q3-2022Q1), and the post-pandemic inflationary shock (2022Q2-2024Q3).

Figure 7 suggests a positive link between the debt-to-GDP ratio and the market yield on government bonds, consistent with previous literature, highlighting the importance of low interest rates for debt sustainability.<sup>9</sup> The low-risk corner of the fiscal space, characterized by low debt and low bond yields, includes Germany, the Netherlands, Ireland, and Finland. This group of countries appear consistently in the same (low risk) fiscal space across all three sub-periods, although Finland’s performance appears to have deteriorated over time, shifting northeast in the fiscal space. Fiscal deterioration is also observable in the case of Italy, which has moved strongly toward the high-risk corner.

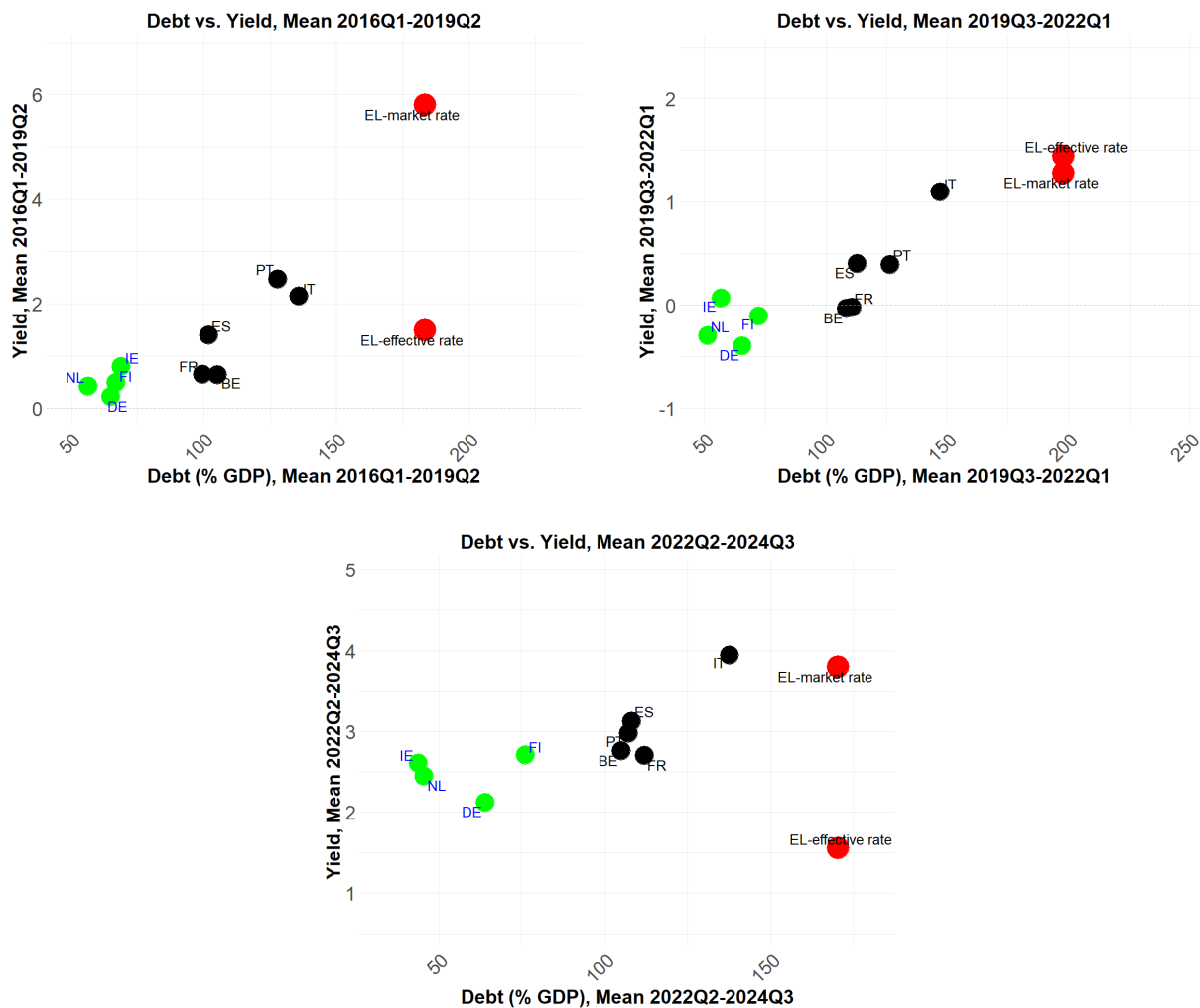
In two out of the three sub-periods, Greece’s position in the high-risk area (top right corner) of the fiscal space changes dramatically when we consider the data configurations of debt-to-GDP with the effective interest rate as opposed to the market yield. During the 2016Q1-2019Q2 and 2022Q2-2024Q3 periods, Greece moved south in the fiscal space indicating an improved fiscal configuration of debt-to-GDP and interest rates, a consequence of lower effective rates compared to market-determined rates during those periods.<sup>10</sup> The debt management strategy of the PDMA has been instrumental in lowering the effective interest rate. This strategy consists of exchanging floating rates for fixed rates, using interest rate swaps, and early repayments of debt held by official creditors. In particular, during the inflationary period, which brought about high interest rates, Greece maintained an effective rate lower than that of any other member state shown (see Figure 7). In contrast, the ECB’s interventions during the COVID-19 pandemic generated such a decline in the Greek market yield that the gap with the effective interest rate was eliminated.

Similar insights are obtained from Figure 8, which considers the fiscal space defined by interest expenses as a share of GDP and the market yield on government bonds. The relationship between these two fiscal fundamentals appears to be positive, reflecting the fiscal cost of higher interest rates. The countries in the high- and low-risk areas of the fiscal space remain largely unchanged. Furthermore, the improvement

<sup>9</sup>The stylized facts presented here align with theoretical and empirical studies that analyze the links between the market for sovereign bonds and macro-fiscal fundamentals. Theoretical models of the EA sovereign debt crisis highlight the role of macro-imbalances in determining bond yield spreads during pre-crisis and crisis periods (Arghyrou and Tsoukalas (2011)). Previous empirical studies identify significant time variation in the relationship between bond yield spreads and fundamentals, specifically a shift from a pre-crisis to a crisis-related bond pricing regime, where deterioration in fundamentals is more strongly priced (Arghyrou and Kontonikas (2012)). Other studies highlight the important role of ECB interventions (Afonso et al. (2018)).

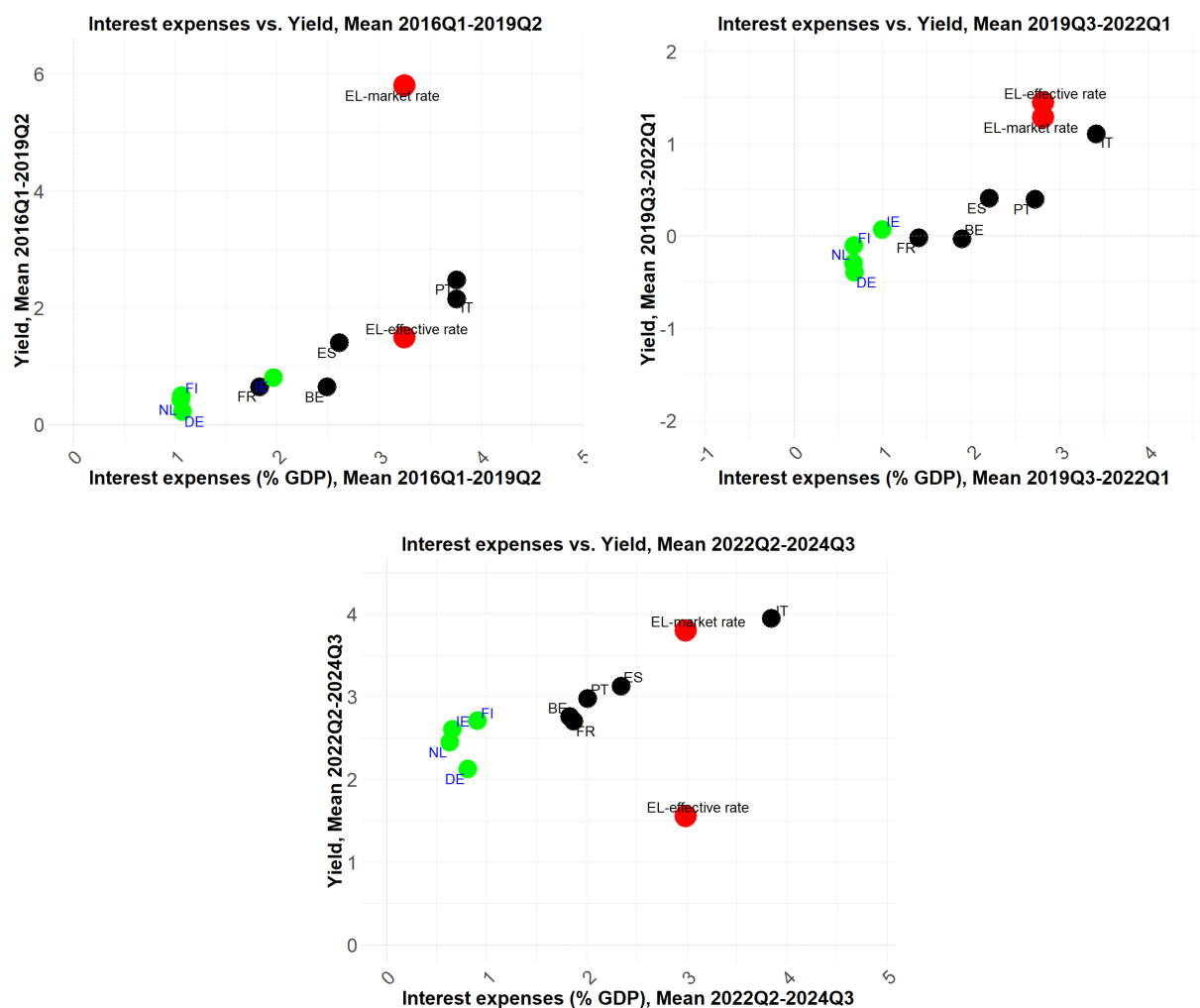
<sup>10</sup>The effective interest rate is defined as the actual annual interest payments on a cash basis and includes deferred interest on EFSF loans.

Figure 7: Fiscal Fundamentals in EMU-10 over time: Debt (% of GDP) vs 10-year Yield



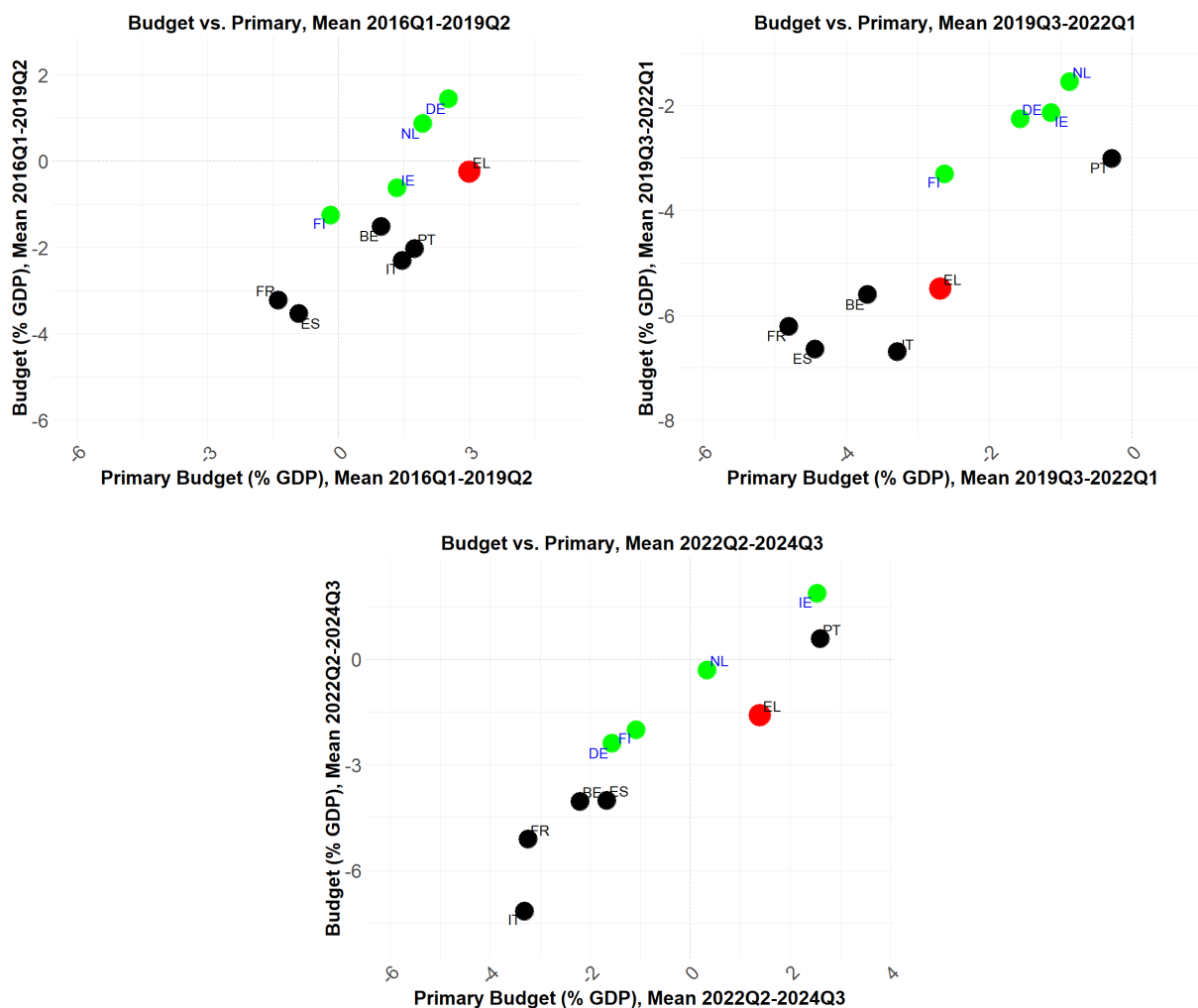
**Notes.** Source: ECB. The Greek effective interest rate (cash basis including the deferred interest on EFSF loans) applies to the entire Greek debt portfolio and is provided by the PDMA. It includes deferred interest payments. Yield: Long-term interest rate used for convergence purposes (10 years maturity). The countries included are: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. The scatter plots show the mean of each pair of variables for each country, with the mean calculated over three subsamples: 2016Q1-2019Q2, 2019Q3-2022Q1, and 2022Q2-2024Q3.

Figure 8: Fiscal Fundamentals in EMU-10 over time: Interest Expense vs 10-year Yield



**Notes.** Source: ECB. The Greek effective interest rate (cash basis including the deferred interest on EFSF loans) applies to the entire Greek debt portfolio and is provided by the PDMA. Yield: Long-term interest rate used for convergence purposes (10 years maturity). The countries included are: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. The scatter plots show the mean of each pair of variables for each country, with the mean calculated over three subsamples: 2016Q1-2019Q2, 2019Q3-2022Q1, and 2022Q2-2024Q3.

Figure 9: Fiscal Fundamentals in EMU-10 over time: Overall Balance vs Primary Balance



**Notes.** Source: ECB. Primary surplus(+) or deficit(-); Budget surplus(+) or deficit (-) calculated as the primary position minus interest expenses; The countries included are: Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal and Spain. The scatter plots show the mean of each pair of variables for each country, with the mean calculated over three subsamples: 2016Q1-2019Q2, 2019Q3-2022Q1, and 2022Q2-2024Q3.

of Greece’s fiscal position in the first and third sub-periods, when the effective rate is considered, remains evident, while the deterioration of Italy’s position becomes more pronounced.

Finally, Figure 9 examines the fiscal space spanned by the overall balance and the primary balance as a share of GDP. Improvements in the primary balance are associated with a better overall fiscal position, highlighting the significance of achieving primary surpluses. Prior to the COVID-19 pandemic, Greece joined Germany and the Netherlands in the top-right low-risk corner of the fiscal space. Greece’s position deteriorated during the COVID-19 pandemic, as reflected in its southwest movement within the fiscal space. However, during 2022Q2-2024Q3, Greece’s position was restored to the group of best-performing countries.

## 4 Conclusions and policy implications

The evidence presented in this research note highlights significant developments in the investor composition of Greek debt that interact with the availability of fiscal space in numerous ways. Greece’s fiscal performance has been impressive, but recent developments in Europe call for continued vigilance. On the positive side, Greece has developed a track record of posting primary budget surpluses and has achieved, since 2021, a significant reduction in the debt-to-GDP ratio by 54.8 percentage points. Moreover, a favorable negative interest-growth differential implies further reductions in the debt-to-GDP ratio going forward. This development will unlock lower market yields for future bond issuance.

Importantly 70% of Greek government debt was held by the foreign official sector (end of 2024), linked to the restructuring agreements of the crisis era. This portion of the debt is locked at quite low (substantially below market) interest rates, generating a low effective debt-service rate. Moreover, the Greek debt portfolio is characterized by a very long average maturity, estimated to be 18.8 years as of the end of 2024. Even when including deferred interest payments on EFSF loans, the average effective rate in 2024 (on a cash basis) was just 1.73%. Compared to an average market rate for 10-year bonds of 3.4% in the same year, this suggests Greece enjoys a “**stability premium**” of 1.67% and highlights the enormous savings in debt servicing costs. The highly favorable composition of Greece’s investor base, akin to the presence of “buy and hold” investors with a long-term outlook, along with the supportive policy measures of the ECB, helps shield the Greek bond market from short-term market volatility.

Looking ahead, prudence and vigilance are required, as several potential risks exist, both idiosyncratic and common. Starting with the former, Greece benefits from a particularly advantageous investor composition, which helps reinforce lower and relatively more stable interest rates. This regime is also beneficial for corporations and commercial banks, as lower yields on government bonds reduce corporate borrowing costs and improve credit conditions across the entire economy.

However, the current favorable conditions may not last indefinitely. Over time, a higher proportion of debt will be issued at market terms, shifting the composition of the investor base. This transition must be carefully managed, as a larger share of marketable debt implies greater exposure to market volatility. The resulting mix of domestic and foreign investors will be consequential. Identifying the optimal investor composition is a challenging task. Past experience suggests that an increased presence of foreign investors (banks and non-banks) tends to reduce bond yields. However, heavy reliance on foreign capital is inherently risky, given the flight-to-safety dynamics exhibited by foreign investors during crises. Nevertheless, such a scenario remains distant, as by the end of 2024, the combined share of foreign banks and non-banks was only 3.2%. At the same time, the asset-side exposure of domestic banks to domestic government debt can have long-lasting negative consequences, as the Greek debt crisis demonstrated. A potential future role for the

foreign official sector could involve higher foreign central bank holdings of Greek bonds as a means to maintain euro-denominated reserves in their portfolios. For this development to materialize, Greece must accelerate its upgrades in sovereign credit rating scales. Commitment to fiscal stability and prudence supported by growth-enhancing structural reforms will be crucial for future upgrades.

The historically high debt-to-GDP ratio of Greece is another potential risk factor, as it implies that Greece has a longer path to travel toward the EU's 60% debt limit compared to other countries. So far, its debt-reduction performance has been impressive, recording the largest post-pandemic reduction in the Euro Area, but such efforts must be maintained. This is crucial in a rapidly shifting world order with significant economic, geopolitical, security, and climate risks for Europe.

In the current context of elevated geopolitical uncertainty, the foreseeable increase in bond supply by EU governments to finance not only defense and infrastructure spending but also the energy transition will likely result in higher borrowing costs, at least in the short run. Our findings show that between 2016 and 2024, four EU countries have consistently been located in the low-risk corner of the fiscal fundamentals space: Finland, Ireland, the Netherlands, and Germany. However, Finland is projected by the European Commission to breach the 3% deficit reference limit due to increased military expenditure, suggesting that fiscal stability cannot be taken for granted.

The outline of the *ReArm Europe* plan by Commission President Von der Leyen is a welcome development, particularly if additional defense spending can be financed through EU funds. There can be no winners and losers in this fiscal exercise. For the Commission's plan to gain traction, the majority of EU member states will need to increase their defense spending. At the same time, EU member states that have historically allocated a high share of GDP to defense (such as Greece, Poland, Estonia, Lithuania, and Finland) at the expense of reduced public spending elsewhere must be treated fairly.

It is in Greece's interest—already one of the top defense spenders in the EU—to argue that planned defense spending by countries that traditionally allocate a higher share of GDP to defense than the EU average should be treated in the same way as additional defense expenditure by historically underspending countries. In the medium term, as no country alone can credibly increase defense spending without calling its fiscal stability into question, Europe as a whole will likely need to take a bold step toward agreeing on the issuance of joint debt, going beyond the 150 billion euros envelope announced in the *ReArm Europe* plan. The role of the ECB in supporting European bond markets will also be crucial if turbulence and fragmentation risks escalate again. However, potential complications may arise in the presence of new inflation shocks, which could hinder the ECB's ability to provide monetary stimulus. Under any scenario, Greece must remain vigilant and proactive: it should continue on the path of fiscal stability and sustain its debt reduction efforts. The *ReArm Europe* plan should not be seen as a break from fiscal prudence but rather as an opportunity to substitute national public funds with common EU funding to finance planned defense spending and develop its defense industry.



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