European safe assets
Macroeconomic context, instruments, and prospects

Pierpaolo Benigno and Edoardo Reviglio

Abstract

This paper explores the feasibility of creating new "European Safe Assets" to address the European Union's macroeconomic challenges. In a world of global transitions, Europe must develop shared fiscal capacities to fund ecological, digital, and social transformations. The chapter examines the necessary conditions for issuing European safe bonds, comparing the European experience to the US. It also analyses global sovereign bond market dynamics, the role of European institutions such as the EIB and ESM, and the impact of fiscal and monetary policies.

Introduction

Europe faces significant investment demands in the coming years, requiring enhanced shared spending capacities within the Union. These challenges are common to all EU countries and require joint solutions. Reflecting on this, Mario Draghi recently asked, "Can Europe continue this transition from cyclical to structural fiscal policy – and thereby open up a different, perhaps more historically founded, road towards fiscal union? " (Draghi, 2023).

In contrast, the US, which issues about half of global public safe assets, established a common fiscal capacity long ago. Following the War of Independence, the US entered its "Hamiltonian moment," when the federal government assumed state debts to create fiscal integration, address inter-state imbalances, and fund collective investments. Similarly, Europe now faces supranational goals that cannot be managed by individual states alone. However, the current EU institutional framework is ill-equipped to handle such transitions.

With the predominance of national budgets, it is unlikely that the EU can replicate the US model. Still, centralizing investment spending on shared objectives could enhance the efficiency of fiscal resources (Buti, Messori, 2024). Identifying European public goods requiring centralized financing and production is crucial. [1] This implies a gradual but partial transfer of national sovereignty, potentially leading to federalism.

[1] "European Public Goods (EPGs) include all those goods which, due to their high production costs but the inability to fully internalise the net benefits either by the market or by individual national states, are produced in insufficient quantities by the private sector and national public sectors and therefore require European public intervention. Consequently, EPGs require centralisation in both financing

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But how can we identify such public goods? Which should remain under national sovereignty, and which should be considered federal and managed by Europe? Each country has specificities, making it challenging to establish a universal rule. Institutional context, the role of intermediate bodies, and the varying productive capacities of member states influence the willingness and benefits of transferring sovereignty. Despite these challenges, past transfers of activities to the EU level have generally been Pareto-efficient, benefiting all member states involved.

How can Europe increase its shared spending capacity? This could involve transferring more resources to the centre, issuing additional European debt, partially transferring national debts in an EU Fund, or a combination of these approaches.

In 2011, amid the sovereign debt crisis, the German Council of Economic Experts proposed a European Redemption Pact (GCEE, 2011). The proposal aimed to stabilise the public debt of Eurozone countries through a redemption fund. The mechanism would have involved transferring the portion of national debt exceeding 60% of GDP into the fund, with a mandatory repayment plan lasting 20-25 years. Each country would have remained responsible for its own debt, while the fund would act as a secondary guarantor.

Over time, the fund would have accumulated a portfolio of around 2,300 billion euros, with Italy responsible for 41% of the total, followed by Germany with 25% and France with 21% (Deoluca et al., 2012; Parello, Visco, 2012; Paris et al., 2014; Corsetti et al., 2025). This mechanism would have offered European safe assets to stabilise financial markets until the full recovery of national markets. At that stage, the pact did not yet envisage creating a common fiscal capacity for financing European public goods but focused instead on financial stability.

The proposal, presented to the German Parliament, raised concerns about national sovereignty and the possible transfer of strategic assets such as gold reserves or state holdings.

Nevertheless, it opened a debate among economists who explored ways to make it feasible. Some proposed jointly managing part of the national debts through a redemption fund that would retire national bonds by issuing European securities (Balassone et al., 2016; Cioffi, Rizza, Romanelli, Tommasino, 2019). In 2016, the debate on risk reduction versus risk sharing was studied by the Bank of Italy, which concluded that "in monetary unions, a centralised fiscal policy is essential. Monetary policy cannot respond to the specific economic conditions of individual countries, and the absence of exchange rate flexibility limits the ability to absorb economic shocks." In 1969, Peter Kenen had already argued that "a common fiscal policy would reduce local adjustments in wages and prices needed to manage idiosyncratic shocks." A federal budget would be particularly beneficial in the euro area,

and production, and they imply, therefore, a partial but progressive transfer of national sovereignty, ultimately leading to some form of federalism." (Buti, Messori, 2024).

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where "labour mobility between countries is lower than in the United States or other advanced federations" (Balassone, Visco, 2018).

In later discussions, the need for a common fiscal capacity emerged, not only for macroeconomic and financial stabilisation but also to support employment and human capital. However, there was still no reference to a shared budget for European public goods. In 2019, during an OMFIF conference, the Governor of the Bank of Italy, Ignazio Visco, revisited the issue by emphasising the need for "a European safe asset and a common fiscal capacity" (Visco, 2019).

In his final remarks in May 2021, after the Next Generation EU programme came into effect, the Governor reiterated the importance of creating a common fiscal capacity supported by stable debt issuance, guaranteed by autonomous revenue sources. This, he argued, "would provide a financial instrument with high creditworthiness, facilitate portfolio diversification for European intermediaries, integrate capital markets, and enhance the effectiveness of monetary policy. Additionally, managing part of the existing national debt through a redemption fund could quickly improve the liquidity and depth of the European public debt market" (Visco, 2021; Romanelli et al., 2022).

The idea was later discussed further on October 21, 2021, during the annual World Savings Day conference. Visco highlighted the potential dimensions of a European redemption fund, which "could initially include the debt accumulated by member states over the previous two years to address the effects of the pandemic" (Visco, 2021). This idea was subsequently taken up by Giavazzi and others in a proposal published in December 2021 and endorsed in a joint article by the then Italian Prime Minister Mario Draghi and French President Emmanuel Macron (Giavazzi et al., 2021; Draghi, Macron, 2021).

The concept resurfaced in a preface written by Ignazio Visco for Marco Buti's book *Jean Monnet aveva ragione? Costruire l'Europa in tempi di crisi* and in interventions at the Accademia dei Lincei. Visco stressed that "it was no longer possible to avoid the need for a common fiscal capacity in the European Union. Such an instrument would allow for an immediate response to emergencies without relying on ad hoc programmes with uncertain results, as seen during the sovereign debt crisis and the pandemic. Beyond improving market stability and macroeconomic management, this would also enable the issuance of common European debt to fund shared public goods. Drawing on economic theory and the experience of successful monetary unions, particularly the United States, Visco argued that the euro area would greatly benefit from creating a supranational fiscal capacity" (Visco, 2023; Buti, 2023).

Issuing more common debt appears promising in the current macroeconomic context. EU borrowing rates are generally lower than most member states, reflecting strong investor confidence in the EU's debt management, albeit not yet comparable to Germany or France. Expanding EU-level responsibilities, however, would require greater mutual trust among member states and stricter fiscal rules.

Increased EU debt would likely limit national debt management, requiring high-debt countries to improve their finances. It would also necessitate balancing EU and national

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taxation to avoid excessive fiscal pressure. Structurally transferring certain spending to the EU level could create a genuine European fiscal capacity to fund public goods.

Is issuing more common debt the right path to increasing shared fiscal capacity? This chapter analyses the macroeconomic and fiscal conditions conducive to issuing reliable European safe bonds. It explores the characteristics necessary for these bonds to maintain long-term credibility and assesses the global sovereign bond market's dynamics.

It addresses also public debt management in a low-interest-rate environment, driven by a structural global demand for safe assets that exceeds supply. In this context, fiscal and monetary policies must collaborate to maintain interest rates close to the natural rate, enabling the economy to reach its full potential.

The European Commission has already launched significant programs such as NGEU and SURE, but further joint debt issuances may be required to bridge the funding gap.

Lastly, the chapter examines the role of European institutions like the EIB, EBRD, CEB, and ESM, which issue highly rated bonds (effectively "European safe assets") to finance infrastructure and financial stability.

European Bonds: Different Types for Different Needs?

With the NGEU and SURE programs, the EU has launched two significant initiatives for issuing European bonds. Furthermore, the bonds issued by major European institutions for growth and stability, such as the EIB, EBRD, CEB, and ESM, are substantial and could be further expanded or their model replicated with specific missions.

Could we imagine issuing additional common bonds in amounts sufficient to finance the necessary investments? What are the current conditions of global sovereign bond markets, and what are the medium- and long-term prospects? Can European bonds maintain their status as safe assets and help meet the structurally growing demand for secure assets, especially as global GDP grows faster than their supply? With relatively low interest rates, conditions seem favorable. What must the EU do to reassure markets that the new Stability and Growth Pact (SGP) will be respected and that the Union will remain cohesive in the coming decades? In a post-Brexit, fragmented Europe with fears of growing nationalism, how can we ensure markets that European bonds are and will remain secure?

European bonds fall into two categories.

The first type includes bonds issued to finance the NGEU and SURE programs, guaranteed directly by the EU budget and national public budgets (with SURE backed by a 25% guarantee from each member state, and NGEU under a joint pro-rata guarantee). These bonds provide both loans and grants, which do not increase the public debt of member states as they are considered European debt. However, while grants are non-repayable, loans must be repaid at interest rates generally lower than those of many national bonds. Even though these loans do not add to public debt, markets will factor in the interest payments on European bonds into

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their credit assessments of each country, considering them implicit debt, even if off-balance sheet.

The second category of European bonds includes those issued by the EIB, EBRD, CEB, and ESM. These institutions are capitalized pro-rata by participating member states and fund themselves by issuing high-grade bonds on capital markets. For example, the EIB provides loans for infrastructure, while the ESM offers loans to ensure financial stability in the Eurozone and provides financial guarantees to the Single Resolution Fund (SRF), which is used to address crises in struggling Eurozone banks. National contributions to the capitalization of these funds do not increase national public debts but are recorded as financial assets in national balance sheets since they represent equity investments.

This second type of fund has the advantage of not directly impacting the EU budget, making them politically easier to implement. However, this is true only under extraordinary circumstances and not always to the extent required. The EIB, for instance, raises funds by issuing AAA-rated short-term bonds to co-finance long-term loans at very favorable rates for public-private activities. With EFSI and later InvestEU, the EIB has been able to take on higher-risk loans through a system of guarantees provided by the EU. However, as noted recently by Mario Draghi, the EIB should have, or should still, focus on higher-risk investments and larger-scale projects, leveraging its financial capacity more intensively (Draghi, 2024; Demertzis, Pinkus, Ruer, 2024; EIB, 2023). While capital increases are possible—there have been two in the EIB's history (67 billion euros in 2009 and 10 billion in 2012 due to the 2008 crisis and subsequent low growth)—such decisions require unanimous approval from the Board of Governors, composed of the finance ministers of all member states. This is legally possible under the EIB Statute and the EU Treaties but remains politically complex. A similar process was followed by the EBRD, which raised 4 billion euros in capital in 2023 to support Ukraine's economy following the Russian invasion.

These European capitalized institutions are ideal for financing many large investments required for energy, digital, technological transitions, and some social infrastructure. Thanks to their high leverage (6.2 for the EIB and 2.3 for the ESM.[2]), they have AAA ratings and effectively function as European safe assets. This group also includes the EBRD, CEB, and large national promotional banks (KFW, CDC, BPI, CDP, PKO) (Table 2). Combined, these pan-European institutions can issue bonds totaling over 2.1 trillion euros—double the amount of EU bonds to be issued by 2026—while national promotional banks can issue over 1.5 trillion euros.

In principle, these tools could be further capitalized or replicated to address other major EU missions. Proposals already exist: a European Sovereign Fund for industrial policies in key sectors such as batteries, hydrogen, semiconductors, and rare materials (von der Leyen, 2022); a European Hydrogen Bank (von der Leyen, 2024); repurposing the ESM to finance defense and security projects (Letta, 2024); and establishing a European Social Investment Fund

[2] Financial leverage is the ratio between total debt and net equity in 2023.

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(Prodi, Reviglio, 2019; Hemerijck, Mazzucato, Reviglio, 2020). [3] Recently, the Financial Times wrote that the EU is considering a European defence fund worth €500 billion. It is not yet clear what structure will be used, whether through the issuance of common debt or the creation of a capitalised fund with participating countries, including the United Kingdom. It is evident that, given the current geopolitical conditions, an investment in defence at this stage would garner broader political consensus (FT, 2024).[4]

Significant investments could also be realized through public-private partnerships financed by dedicated European funds for projects with returns. However, investments in maintaining existing infrastructure—deemed "perpetual" in nature—must be supported by public funding. These include transport networks, natural assets like forests and coasts, and historical and artistic heritage. Research and development investments, which yield returns only in the medium to long term, also fall into this category. Examples include the U.S. Science and Chips Act and the Inflation Reduction Act, which are deficit-funded.

While income-generating investments can be funded through loans provided by capitalized European funds, non-revenue-generating projects could be financed partially through European bonds or a larger shared EU budget. Public assets, encompassing infrastructure, natural resources, and defense capabilities, require substantial public investments for maintenance and modernization. Most of these investments are essential for transport, the environment, social cohesion, and security but can only be financed with significant public contributions.

What is the macroeconomic context in which new "European Safe Assets" might be issued?

Sustainability of Public Debt and Fiscal Policies in a Low-Interest Rate Context

Over the past thirty years, advanced economies have faced a persistent and complex issue stemming from insufficient private sector demand for goods relative to the economy's potential capacity. This surplus in the supply of goods has been mirrored by an excess demand

[3] To understand the cost for a member state of participating in the capital of one of these European Funds or Banks, consider that Italy, one of the major countries, has contributed €7.3 billion in paid-in capital to the EIB (funded through deficit) and has a callable capital commitment, in the highly unlikely event that the EIB fails, of €31.4 billion. If the capital were called, it would increase public debt. The same mechanism applies to the EBRD, with a paid-in capital of €157 million and callable capital of €443.5 million, and to the ESM, with a paid-in capital of €14.3 billion and callable capital of approximately €111 billion. With a relatively modest commitment from member states, which impacts the deficit but not the debt (barring sudden catastrophes), it is possible to issue European Safe Assets in significant quantities. As recommended in a recent G-20 Report: "Give greater credit to callable capital. Callable capital is a powerful tool that expresses shareholders' commitment to supporting Multilateral Development Banks (MDBs). MDBs should incorporate its financial benefits into capital adequacy assessments, as is already the case for some MDBs and rating agency methodologies […] Unique to Multilateral Development Banks (MDBs), callable capital varies greatly from one institution to another. Assessing callable capital is complex, partly because it has never been used by major MDBs; it only comes into play in insolvency scenarios for MDBs, for which there is no precedent […] Most Multilateral Development Banks (MDBs) have large amounts of callable capital in their capital structure. This is a form of guarantee capital committed by shareholders as part of their international treaty agreement, but it is only paid in if an MDB faces a crisis so severe that it cannot meet its financial obligations to creditors. As of 2020, the MDBs included in this review had just over $1.3 trillion in subscribed capital. Of this, approximately $1.2 trillion (91%) was in the form of callable capital." (Panel, C.A.F., 2022). *Boosting MDBs' Investing Capacity: An Independent Review of Multilateral Development Banks' Capital Adequacy Frameworks*.

[4] Tamma, P., Foy, H., Varvitsioti E., Rathbone, J.P., Europe races to set up a 500 bn defense fund, December 5, 2024.

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for safe financial assets. The consequence has been the relentless decline of the so-called natural interest rate – the real interest rate that, in theory, ensures equilibrium between actual and potential output, keeping the economy on a sustainable growth path without generating inflationary pressures. This phenomenon, known as "secular stagnation," has manifested as a progressive reduction in real interest rates, leading to significant consequences for fiscal and monetary policy (Summers, 2013, 2016) (Figure 1).

The ongoing decline in the natural real rate has marked the crossing of two critical thresholds: the first when it fell below the rate of economic growth, and the second when, following the 2008–2009 financial crisis, it turned negative, forcing central banks to confront the zero lower bound on nominal interest rates or the so-called "Effective Lower Bound" (ELB). This situation highlighted the limits of conventional monetary policies and underscored the importance of fiscal policy as a tool for macroeconomic stabilisation. This shift also paved the way for unconventional monetary policies. The substantial monetary and fiscal stimulus measures implemented during the pandemic, both in Europe and the United States, exemplify this trend, leading to a temporary overheating of the economy and considerable inflationary pressures. In response to these pressures, restrictive monetary policies have driven real interest rates back up. This episode could signal a regime change, although it is still possible that interest rates may return to low levels once inflation aligns with central banks' targets. Recent analyses estimate the natural real rate at positive levels but below 1% for both the euro area and the United States. [5]

Economic contexts characterised by high or low real interest rates have different implications for the economic policy mix, particularly concerning the rate of economic growth.

Assuming a monetary policy that perfectly balances inflationary and deflationary risks, aligning the real interest rate with the natural rate, fiscal policy would face differing conditions depending on whether the real rate exceeds or falls below the economy's growth rate. In the first scenario, there could be sustainability concerns, as the debt burden grows faster than economic growth, leading to an increasing debt-to-GDP ratio. Stabilising this ratio would require fiscal policies favouring primary surpluses, thus being more "restrictive." In the second case, with low real interest rates, fiscal policy could assume greater responsibility for macroeconomic stabilisation, especially when monetary policy is constrained by the effective lower bound (Blanchard, 2023, Cao, Peralta-Alva, Gaspar, 2024, Arestis, Sawyer, 2003, Krugman, 2005, Feldstein Eggertsson, 2011).

As the natural rate declines further, particularly when it drops below the economy's growth rate, the fiscal cost of debt decreases. This phenomenon creates an environment where public debt becomes a less burdensome tool for financing public spending, including investments and economic stimulus programmes (Blanchard, 2019, 2023).

This suggests a strategic use of deficits and public debt to support the economy.

This reflection on the role of fiscal policy is particularly relevant in a context where secular stagnation might not only persist but even intensify, necessitating a coordinated and

[5] See, ://sites.google.com/site/thiagortferreira/neutral-rates for an updating of the analysis Ferreira and Shousha (2023).

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innovative policy response that takes into account the new economic realities. The discussion extends to analysing possible strategies to address such stagnation, exploring measures ranging from increasing public investments to adopting policies aimed at reducing precautionary savings, all in a continuous effort to balance sustainable and inclusive growth.

However, caution is needed to avoid excessive optimism. Although there is currently no serious risk to debt sustainability in advanced economies, this does not rule out the possibility that such risks may emerge in the future. In particular, if private demand were to strengthen significantly, driving up the natural rate, debt servicing could become more burdensome, requiring fiscal consolidation to maintain sustainability.

In conclusion, a balanced approach to managing public debt is necessary, one that considers the need to support economic output in the short term while keeping a watchful eye on long-term debt sustainability. This requires careful and ongoing evaluation of economic conditions and the risks associated with taking on debt, with the goal of leveraging the current low debt costs to support growth and employment without compromising the fiscal health of economies in the future.

Evolution of Savings

The real interest rate acts as a balancing factor between investments and savings. In turn, population ageing and income inequalities can be significant factors influencing savings and, consequently, interest rates.

Population ageing can lead to an increase in savings for various reasons. People tend to save more during their working lives in preparation for retirement. With rising life expectancy and an increasing number of elderly individuals, the proportion of people saving for retirement has grown, contributing to greater savings accumulation. This, in turn, can exert downward pressure on real interest rates, as the supply of savings exceeds the demand for investments.

However, it should be noted that regarding future projections, economists are divided on the direction of the effects of population ageing on saving behaviour and its implications for interest rates. Some studies support the hypothesis of a decline in interest rates in the future due to demographic changes (Gagnon, Johannsen, Lopez-Salido, 2021; Papetti, 2021). Others argue that population ageing will eventually reduce savings rates and increase interest rates. This hypothesis, known as the "asset market meltdown," which was popular in the 1990s (Poterba, 2001; Abel, 2001), has recently been revisited under the name of the "great demographic reversal" by Charles Goodhart and Manon Pradhan (Goodhart, Pradhan, 2020).

An increase in economic inequalities also contributes to the rise in global savings, influencing interest rates. Wealthier households tend to save a higher percentage of their income compared to low-income households, which are more likely to spend the majority of their earnings on consumption. Therefore, rising inequality, with a larger share of wealth concentrated in the hands of the richest segment of the population, leads to an increase in overall savings. This phenomenon contributes to weak aggregate demand and, thus, puts downward pressure on real interest rates.

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To address these challenges, public policies should also focus on targeted interventions to reduce inequalities and manage the economic implications of population ageing.

Demand and Supply of "Safe Assets"

The economy relies on stores of value or, in other words, safe financial assets, known as "safe assets." Households save for retirement, to prepare for unexpected and unforeseen needs, or to transfer wealth to their descendants. Companies need to maintain liquidity to manage current cash flows. Financial institutions require collateral for credit lines. Central banks and sovereign wealth funds hold safe financial assets, often in foreign currencies. These stores of value take various forms: cash, bank deposits, government bonds of advanced economies, but also corporate bonds, equities, repurchase agreements, derivatives, or tangible assets such as real estate, land, gold, and others.

Not all stores of value are created equal. They vary in terms of liquidity and risk. Among the range of available assets, some are perceived as safer than others. However, safety is an elusive concept, as nothing is ever completely safe. Investors will always evaluate the safety of an asset through the prism of their perceptions, needs, and concerns, in relation to other assets and the perceptions of other investors (Agarwal, 2022; Caballero, Farhi, Gourinchas, 2017; Gorton, 2017).

In economic literature, there is no universal definition of a safe asset. Generally, a safe asset refers to a financial instrument possessing certain characteristics:

- Low risk of default: A safe asset is considered extremely secure, with minimal or no risk that the issuer will fail to meet its obligations (e.g., payment of interest or principal).
- High liquidity: It must be easily tradable in financial markets without suffering a significant loss in value. This implies that there is a constant and reliable demand for these instruments.
- Stable value: It retains its value even during periods of economic or financial turbulence. Investors tend to prefer these financial assets during crises to preserve capital.

A classic example of a safe asset is the government bond of countries with very high financial credibility, such as US Treasury Bonds or German Bunds. These instruments are considered nearly risk-free because the issuing governments are deemed highly reliable and capable of honouring their debts.

Safe assets are fundamental to the stability of global financial markets, as they serve as a "safe haven" for investors, particularly during periods of economic or political uncertainty. Their importance is evident, for instance, in the management of central bank reserves and the investment strategies of pension funds and large institutional investors.

In modern economies, the financial sector and governments are the primary issuers of safe financial assets: central banks issue cash and reserves; states issue bonds and public securities;

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banks and shadow banks issue short-term deposits or more complex instruments. A country's ability to produce "safe assets" is determined by constraints in the financial sector, the level of financial development, the fiscal capacity of the sovereign issuer, and the central bank's track record in maintaining exchange rate and price stability. For these reasons, the quantity of "safe assets," both private and public, has historically been concentrated in a small number of advanced economies, mainly the United States, but also Europe, Japan, Canada, and a few other economies considered safe.

Over recent decades, with minor cyclical interruptions, the supply of "safe assets" has not kept pace with global demand, and the 2008–2009 financial crisis highlighted how many assets previously considered safe were not entirely so. One reason, in general, for the insufficient supply of safe financial assets is that the collective growth rate of advanced economies producing them has been lower than the global growth rate—driven by the high growth rates of high-saving emerging economies like China.

The growing excess demand, and consequent supply shortage, leads to a constant increase in the price of "safe assets," necessary to restore market equilibrium. At the same time, global interest rates on risk-free financial assets must decline, as has occurred since the mid-1980s, following the Volcker policy, with interest rates gradually falling until today. Alternatively, the supply of "safe assets" should increase, paving the way for an expansion of public debt. However, this has advantages, as well as risks and limitations.

This is a feasible solution as long as the cost of servicing public debt remains negligible, i.e., as long as interest rates stay well below the economy's growth rate. However, it is also potentially fragile, as it is subject to refinancing risk.

The ability of a government to issue safe public debt fundamentally depends on its fiscal capacity, i.e., the commitment to repay the debt through taxation, even in the future and under adverse macroeconomic conditions. The fiscal burden is lower if the real interest rate remains below the economy's growth rate. Sovereign debt thus represents an important source of "safe assets," conditioned by the state's fiscal capacity limits and, under normal conditions, complementing the creation of safe financial assets by the private sector.

In a globally connected economy, an expansion in the supply of "safe assets" derived from public debt issuance by central economies spreads throughout the global economy. This raises concerns that the quantity of "safe assets" issued by dominant economies, necessary to meet growing global demand, could become excessive, ultimately undermining the fiscal capacity of these economies.

Financial engineering can increase the supply of "safe assets" by bundling risks and creating safer debt from existing public assets. This method uses tranching, mixing risky assets to create derivative assets with varying risk levels. The safest, or senior, tranches are the last to incur losses, benefiting from lower yields due to their reduced risk exposure.

Examples include "European Safe Bonds," which retain liabilities at the level of each individual national issuer but offer a safe senior tranche supported by the EU. Similarly, it

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has been proposed that the IMF manage the joint tranching of emerging market debt, issuing "safe asset" tranches in strong currencies (IMF, 2012).

How Many "Safe Assets" Are There Globally? And Who Holds Them?

Recently, the International Monetary Fund created a database on public debts and their primary holders for OECD countries. In 2023, the public debts of the three largest economic areas in the world (Eurozone, USA, UK, and Japan) amounted to over $56 trillion (Table 1). These represent almost the entirety of the world's public "safe assets." Thirty-eight percent of Eurozone debt is held abroad, compared to 28% of US debt, 29% of UK debt, and 14% of Japanese debt. Foreign holders include private foreign entities, foreign central banks, loans from other countries, foreign banks, and non-banking foreign institutions. The remaining portion is held domestically within each country or geographical area and consists of central banks, domestic banks, and domestic non-banks. The European Central Bank holds 25% of the Eurozone's public debt, the Federal Reserve holds 15% of US public debt, the Bank of England holds 27%, and the Bank of Japan holds 46%. The share held by domestic banks in the Eurozone, at 26%, is higher than in other major economic areas (9% in the US, 12% in the UK, and 7% in Japan) due to the bank-centric nature of its financial system and the effects of Basel III prudential and accounting rules on banks.

Table 2 illustrates European public securities and their ratings. Out of approximately €13 trillion in sovereign debts across the Euro area, only €3.163 trillion is rated AAA by Standard & Poor's. Adding securities rated AA brings the total to €7.770 trillion. However, if we include debts from other Euro area countries with ratings below A, such as Italy—all of which are still rated above BBB—the total exceeds €11 trillion. The handling of the Greek crisis, the ECB's quantitative easing during the spread crisis, the high liquidity of Italian debt, the tight constraints of the Stability and Growth Pact, and the varying risk levels (still low) that enhance their attractiveness have rendered them, for the markets, "almost-equivalent" to safe assets. In contrast, all centralised issuances by European institutions (EIB, ESM, EBRD, ECB, NGEU, SURE) and major development banks (KFW, CDP, CDC, BP, PKO) have at least a AA rating and issue securities totalling around €3.5 trillion. For comparison, at the end of 2023, the total US federal debt held by the public was approximately $27 trillion, representing around 79% of the gross national debt, which had reached nearly $34 trillion at that time.

What about private-sector safe assets? In percentage terms, the breakdown of private safe assets is as follows: gold (11%), corporate debt (investment grade, 11%), covered bonds (4%), asset-backed securities (ABS), mortgage-backed securities (MBS), and other securitised and collateralised instruments (17%). [6] Thus, roughly 43% of the global pool of "safe assets" is private, while the remaining 57% is public.

The availability of public "safe assets" for the private sector was historically low in the 1970s but grew during the following decade. It then gradually declined from the mid-1990s to 2007 due to the improvement in the US fiscal balance and the increase in international reserves held by emerging economies. Since 2008, the net supply of "safe assets" has increased sharply

[6] The value of private "safe assets" has been estimated based on analyses of data from SIFMA, BIS, Fitch, and S&P Global.

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due to US fiscal deficits, reaching levels in 2019 comparable to those of the 1960s (Figure 2). Considering the historical importance of German, French, and British government bonds as stores of value in the international context, Figure 2(B) includes a similar indicator of the net supply of "safe assets," incorporating these alongside US Treasury securities (Ferreira, Shousha, 2021). The demand for government bonds from all advanced economies is growing significantly.

Centralised Fiscal Policy: A Free Opportunity for Europe?

Following the 2007–2008 financial crisis and the pandemic, public debt in advanced economies has reached unprecedented levels. In the United States, public debt stands at 130% of GDP, in Japan at 254%, in the United Kingdom at 96.1%, and for the Eurozone countries combined at 85%. These high levels of debt have reignited an intense debate among political institutions and academics about their sustainability. This issue is particularly relevant in Europe and, for the purpose of this discussion, clarifies the advantages of creating a fiscal capacity at the European level, which is currently absent in the existing architecture.

The general principle when discussing debt is that it must be repaid—a condition that defines a solvent debtor. However, this concept is very different in practice when applied to governments rather than individuals or financial and non-financial businesses.

Consider an individual seeking a loan or mortgage from a bank. Their ability to repay the debt will be assessed: current and future income, as well as owned assets, will be evaluated; collateral might also be required. Eventually, the individual will receive the loan and repay it over the agreed period; otherwise, the collateral will be seized, or the bank will incur losses. In any case, it is unlikely that the debt will be renewed, and even if it were, there would be a limit due to the person's age. Businesses go through a similar evaluation process.

Governments, on the other hand, have certain advantages in terms of their ability to renew debt and generate income to repay it. In terms of debt renewal, governments have a longer lifespan than individuals or businesses. The idea that there is no predetermined end to their activity strengthens their ability to renew debt, which is nevertheless tied to their revenue-generating capacity. In this sense, governments are very different from any other entity seeking a loan. They do not have to work or generate income to pay their debts, as they can tax their citizens. The tax base is highly diversified and may include citizens' incomes, wealth, consumption, imports, and exports. They can also expropriate and sell land. However, this ability to generate income has limits, as shown by arguments around the Laffer curve on income taxation. Generally, countries differ in their fiscal capacity, which is a key determinant of their ability to repay debt and influences their ability to renew it.

Given this premise, it is not surprising that public debt is often measured in terms of GDP, which represents an estimate of the primary tax base from which revenues are derived. However, whether a debt level of 100% or 200% of GDP is sustainable is less clear.

A simple way to analyse public debt sustainability is to consider its evolution over time. Starting from a current debt-to-GDP ratio, with constant real interest and real GDP growth

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rates, and a constant deficit, one can estimate how the debt-to-GDP ratio might evolve in the future. For example, with a real interest rate of 1% and a real growth rate of 2.5%, starting from a debt level of 100% today, it is projected to fall to 86% in 10 years, 74% in 20 years, and 64% in 30 years, assuming no deficit. One can also calculate what deficit or surplus the government should maintain to keep the debt at 100%: a deficit of 1.5% per year.

The example becomes persuasive when applied to the NGEU plan, which aims to inject up to €806 billion—5% of the EU's GDP—into the EU economy in the form of spending and loans. The European Commission, on behalf of the EU, borrows the initial amounts through financing operations on international capital markets during the period 2021–2026. The financing raised by the EU will be repaid by Member States directly (for loans) or through the EU budget (for non-repayable support) by December 2058 at the latest. Bonds will be issued and repaid regularly over a maturity period ranging from 3 to about 30 years.

Assuming, for simplicity, that all the debt is incurred in 2021 and repaid in 2058, it can be calculated that a debt equivalent to 5% of GDP today would end up being 3.35% of GDP in 2058. If one considers a more optimistic real interest rate of -1% and a growth rate of 2%, it would be only 2.23% of GDP in 2058. Although the current plan foresees repaying it through taxes, a strong sovereign debtor could also renew it for a longer period, relying on its ability to increase taxes in the future. Over this longer horizon, provided the real interest rate remains lower than the growth rate, the amount of debt relative to GDP would shrink further, requiring fewer fiscal resources as a share of GDP to repay it. Alternatively, if the EU wanted to maintain a 5% debt level indefinitely, it could commit to additional spending programmes equivalent to 0.07% of GDP annually. These figures might seem more impressive from a broader perspective. A debt of 50% of GDP today would only be 33% of GDP by 2058.

The key assumption for this "magical" fiscal capacity is that financing costs are lower than the economy's growth rate. This has been the case in the United States over the past thirty years, as Blanchard (2019) observes (Figure 2). In the opposite case, debt would increase, and governments would need ever more resources to pay it.

What is the evidence on these variables? Mehrotra and Sergeyev (2021) analysed a dataset covering 17 countries from 1870 to 2016. They found that, for all countries, the median nominal long-term rate is 4.6%, with a median inflation rate of 2.1%. Focusing on the period 1946–2016, the difference between the real interest rate and the growth rate is negative, at -0.8% for all countries, with an average of -1.0% in the United States.

In Figure 3, we chart the 10-year yield on German government bonds compared to nominal GDP in the Eurozone. Considering the 1996–2001 period, the average difference between the interest rate and growth is positive at 1.14%. Focusing on the period 1996–2005, before the financial crisis, the average is also positive at 0.84%. However, it becomes negative at -0.62% in the 2006–2020 period, prior to the pandemic shock, with a value of -2.57% for the period 2014–2020.

With the appropriate caveats, this evidence suggests that the norm is for financing costs to be lower than the real growth rate. Does this mean a "free lunch"? That the NGEU plan's debt

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falls from 5% of GDP today to a possible 3.35% by 2058 does not mean it has been repaid. It merely means it requires fewer fiscal resources, relative to GDP, to be paid. Moreover, if there are no doubts about fiscal support, the repayment of the debt could be further postponed into the future. The ability to renew debt and generate revenue are thus intertwined to guarantee a favourable outcome.

An additional consideration is that the real interest rate and real growth rate are not exogenous variables and can be influenced by public financing and expenditures.

Starting with the real interest rate, some academic literature suggests that high levels of debt and public spending can raise real rates and, at some point, crowd out private investments, with possible long-term repercussions on productivity. Furthermore, the solvency of a sovereign debtor is a key determinant of the actual real rate at which it borrows. On the other hand, safe debt is used as collateral in financial transactions and can benefit from liquidity premiums, which lower financing costs for the issuer. Central banks can also enhance the safety of debt issued by their respective governments through the interplay between fiscal and monetary policies, especially by using unconventional monetary policies. Since central bank liabilities are repaid with certainty, this characteristic could implicitly extend to government debt, making it even safer. Ultimately, governments with strong fiscal capacity and implicit central bank support can enjoy low financing costs and thus low effective real rates.

Turning to the real growth rate of the economy, this too can be influenced by fiscal policy and public financing. Keynesian theories suggest that fiscal policy has multiplier effects on GDP. Neoclassical theories, by contrast, emphasise crowding-out effects on private investment and multipliers below unity. Recent New-Keynesian models propose that multipliers can exceed unity when economies are at the effective lower bound. On a more practical level, the NGEU plan aims to promote productivity in member countries and thereby increase real growth in a way that would otherwise be unattainable for the private sector under current circumstances. In general, public spending driven by investments is expected to produce fewer crowding-out effects on private investment and to boost real growth.

The possibility that the real interest rate remains lower than the growth rate, combined with the endogeneity of these rates to public financing, suggests that there could be room for a centralised fiscal policy in Europe to foster growth in member states, provided the following conditions are met:

- There is strong fiscal support for the debt, even in the distant future.
- European debt is a safe asset, implicitly guaranteed by the ECB.
- Debt financing prioritises public spending oriented toward growth.

In theory, the above conditions, except the second, could be met individually by each country in Europe. However, the reality is that the playing field is already compromised by sovereign debt market spreads (as shown by the ratings in Table 2) and some countries' inability to use public spending productively.

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It is therefore important to start afresh by establishing a European institution with such fiscal capacity. What scale would this require? Comparative analysis of other advanced countries suggests that high levels of public debt relative to GDP are not a concern for sustainability. From the perspective of a new issuer starting with debt equivalent to 5% of GDP, this provides an argument for a potentially large fiscal capacity to be utilised in the coming decades—up to 100% of GDP, perhaps? It must be borne in mind that new debt still implies eventual coverage through taxation, which necessitates an evaluation of federal fiscal capacity to complement that of individual states.

Some have argued for debt mutualisation, i.e., the transfer of individual member states' debt, or part of it, to the central level. However, this centralisation could undermine the potential fiscal capacity discussed above, leaving little room for investment-driven spending and thus improving growth. In fact, coordinated European investment plans that leverage centralised capacity to enhance growth in each member state could also increase their current fiscal capacity and reduce individual countries' debt-to-GDP ratios in the future. The coordination of a Central Fiscal Capacity (CFC) with national budget deficits, however, is highly complex and involves multiple variables, from the transfer of sovereignty to the creation of credible institutions and considerations of overall tax pressure. Once these issues are resolved, and the necessary trust is built—as discussed by Marco Buti and Marcello Messori in this volume, not only qualitatively but also through the creation of analytical frameworks—it still cannot be guaranteed that the resulting growth will equally allow all states to increase their fiscal capacity and reduce debt as a consequence.

Rethinking Fiscal Policy in an Era of Growing Debt and Interventionism

The accumulation of large national public debts during the pandemic and financial crisis has taken on an almost irreversible nature, much like in post-war periods (Hall and Sargent, 2022). Various factors contribute to this irreversibility, including weak economic growth and the tendency of many governments to increase spending to address future challenges in welfare economies.

In a broader context, this shift in economic policy reflects the resurgence of more interventionist governmental strategies, which inevitably require a new perspective on fiscal policy, and in the cases of America and Europe, also monetary policy, as seen during the 2020 crisis. The Biden administration's new fiscal direction, for example, aims to increase taxes on high incomes, large corporations, and banks in favour of middle-income earners, and to invest more in infrastructure, welfare, science, and innovation, relying on the positive effects of fiscal multipliers on growth.

The main areas of intervention are defence, digital transition, demographics, and climate change. The end of the Cold War brought a peace dividend, with a redistribution of defence spending to other areas. However, the current rise in global tensions and Russia's invasion of Ukraine have prompted several governments to expand their military capabilities, necessitating increases in armament expenditures.

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Spending on healthcare and pensions will continue to rise. The old-age dependency ratio in the European Union (EU) currently stands at 33.4% (data from 2023). This means there are just over three working-age people (15–64 years old) for every person aged 65 or over. This ratio is expected to increase significantly in the coming decades, with projections indicating a possible rise to 56.7% by 2050, which will mean fewer than two working-age people for every elderly person.

The cost of achieving carbon neutrality depends not only on technological innovation but also on international cooperation. While it is understandable for nations to compete to develop or attract green technologies for reasons of national security, proceeding alone could increase the costs of transitioning to sustainable economies.

In addition to the urgent demands of the green transition and rising geopolitical tensions, governments have been strengthened by their responses to the pandemic and the recent energy crisis in Europe. They organised mass vaccination programmes and provided financial support packages to households and businesses. This revival of active public engagement in meeting social needs implies a growing necessity for increased public spending to address these challenges.

Greater reliance on fiscal policy could make monetary policy more politicised. During crises, central banks have experienced a certain degree of fiscal dominance, acquiring sovereign bonds not only to maintain financial stability and control inflation but also to support governments. The balance sheets of the Fed and the ECB have grown significantly, demonstrating great resilience and effectiveness. Within the limits of inflation control, their capacity to act as major buffers during periods of heightened need forms part of the policy mix between fiscal and monetary policy, which has returned to the centre of debates among economists and policymakers (Bartsch, Bénassy-Quéré, Corsetti, Debrun, 2020).

As we will see, beyond managing extraordinary situations such as COVID, the policy mix that sees monetary and fiscal policy working in tandem could be critical in keeping public debts sustainable—with the risk of continued fiscal dominance—while at the same time keeping interest rates close to the natural rate so that the economy can perform to its potential.

The need to revisit the concept of policy mix

In the current context, marked by high levels of public and private debt, our economies are exposed to risks of macroeconomic and financial instability, as demonstrated by the COVID-19 pandemic. Minor disruptions can trigger negative cycles that, in the absence of appropriate macroeconomic interventions, undermine the economies of both developed and developing countries. This creates a climate of persistent uncertainty and anxiety, driving households towards excessive precautionary saving, discouraging corporate investments, restraining economic growth, and further lowering interest rates to zero or even negative values.

In such a scenario, neither monetary nor fiscal policy alone can shield the economy from the risk of severe output contractions, job losses, and financial turbulence. It is essential for monetary and fiscal policies to collaborate closely, breaking down the barriers between the

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two instruments. The debate over this tandem approach, long absent from public discourse and economic textbooks, has returned to prominence, highlighting how outdated conceptions about the roles of monetary and fiscal authorities have become. On this, see Bartsch, Bénassy-Quéré, Corsetti, Debrun (2020), Buti and Messori (2021, 2022).

This means that effective economic stimulus requires close cooperation between fiscal and monetary authorities to create mutual room for manoeuvre. In the presence of high debt, monetary stimulus can create fiscal space by fostering favourable financing conditions for governments. However, for this space to be fully utilisable, the central bank might be forced to provide a credible backstop, implicit or explicit, for public debt, shielding markets from the risk of sudden crises tied to sovereign risk perceptions. This would lead to a situation of fiscal dominance, with the risk that fiscal policy could abuse its dominant position by expanding unproductive spending.

The authors of the 23rd Geneva Report on the World Economy (Bartsch, Bénassy-Quéré, Corsetti, Debrun, 2020) warn us of the importance of revisiting the concept of policy mix in managing fiscal and monetary policies in the post-COVID scenario. Effective mutual support also requires a solid institutional framework that maintains policy credibility over time. A public debt backstop does not work if inflation expectations are not well anchored; similarly, "fiscal support" for unconventional monetary policies to cover central bank balance sheet losses fails if public debt sustainability is at risk. In the short term, the necessary stimulus could push both authorities to the limits of their capacity to manage money and fiscal deficits—a limit that remains manageable only if supported by both policies. The two authorities must avoid falling into a regime where temporary solutions become permanent. Beyond healthy cooperation between monetary and fiscal policies, coordination among policymakers in the world's major economies is essential.

A policy mix cannot be effective if it lacks credibility; it must be embedded in a robust institutional framework. Furthermore, a good policy mix must be forward-looking, keeping instruments as centred as possible—not only as a precaution but also to avoid compromising the effectiveness of the policies themselves. In summary, even though a policy mix does not necessarily need to use all instruments countercyclically at all times, coherence with countercyclical monetary and fiscal policies must occur much more frequently.

How can the policy mix model be rethought in a context where, contrary to classical recommendations, the instruments are already under significant strain? With rates close to the lower bound, monetary policy loses the manoeuvring margins needed to be effective: unconventional tools break the link between the lower bound constraint and the liquidity trap. Moreover, unconventional monetary policy blurs the distinction between monetary and fiscal policy, and low financing costs complicate the assessment of debt sustainability.

In this context, an effective policy mix depends on the ability of fiscal and monetary authorities to integrate their actions. Monetary policy creates fiscal space by keeping financing costs low, influencing risk-free rates, and providing credible monetary support for public debt, protecting the debt market from potential self-fulfilling crises. At the same time, the Treasury creates monetary space by supporting monetary authority operations, ensuring

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their financial stability even in the event of significant losses. This interdependence is crucial for effectively tackling extreme crises, as demonstrated by the current post-COVID-19 scenario. However, it is vital to avoid dependency on these fiscal interventions. The success of these policies also hinges on a commitment to maintaining credible long-term objectives, such as public debt sustainability and price stability—the former being the responsibility of fiscal policy, and the latter of the central bank.

The transition from a regime of close coordination between monetary and fiscal authorities can be complex and protracted. Looking at the experience of central banks with yield curve control in the United States, the United Kingdom, Japan, and Australia, it becomes evident that, while adopted for valid reasons during emergencies, yield curve control can generate conflicts of interest between the Treasury, which benefits from access to advantageous financing costs, and the central bank, concerned about potential inflationary consequences once the emergency subsides. (Bartsch, Bénassy-Quéré, Corsetti, Debrun, 2020). History shows that such conflicts can manifest subtly, and the moment markets begin to doubt policymakers' ability to return to prudent management can have adverse effects. It is important to note that this issue was already well understood by classical theorists, who, from various perspectives and with different motivations, agreed that an effective policy mix only works if independent instruments are managed by independent policymakers.

What are the main causes of our economies' vulnerability to extreme risk: the negative trend in the natural equilibrium interest rate? This represents a clear indicator of destabilising global inefficiency, characterised by an excess of savings relative to available investments. Consequently, with a reasonable inflation target, central banks frequently risk hitting the lower bound. Accepting a low natural real rate means giving up on addressing inefficiencies and frictions that have limited growth and stability for more than a decade. Until this negative trend is reversed, it will be difficult to build effective and resilient policy strategies that steer away from the recurring emergency crises we are experiencing.

The 23rd Geneva Report on the World Economy proposes that raising the natural real rate should be considered a global public good, akin to efforts to contain the rise in global temperatures. Policymakers must recognise that increasing the natural rate is a common interest requiring bold actions. Leaders of major nations must acknowledge that, in this context, self-interested, aggressive, and harmful actions against others are destined to be self-destructive—not only in the long term but also in the present. Concretely, trade wars must be relegated to the “graveyard of bad ideas,” as they fuel uncertainties that have negatively impacted the natural real rate. Just as lower temperatures are necessary to stabilise the climate, a higher natural rate is essential for the subsequent “Great Normalisation” of the policy mix and for appropriate resilience to extreme events.

Financing European Public Goods

To finance and deliver European Public Goods, it is necessary to establish a permanent "central fiscal capacity," as the EU's joint projects discussed earlier have a medium- to long-term dimension. Creating a permanent central fiscal capacity raises complex legal and institutional issues that go beyond the scope of this chapter. According to Tosato (2021), the

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legal basis for issuing Next Generation EU (NGEU) bonds was established without the need to amend the European Treaties. This operation was based on a series of articles in the Treaty on the Functioning of the European Union (TFEU), mainly: Article 311 TFEU, which authorises the Union to collect "other revenue," allowing the EU to borrow on the capital markets. Although this article has traditionally referred to the Union's own resources (such as customs duties or national contributions), its scope has been broadened to include NGEU funds; Article 122 TFEU, which legitimises financial assistance in exceptional circumstances, was used to justify the issuance of EU bonds, given the exceptional situation of the COVID-19 pandemic. This initiative could be repeated in the future in the presence of similar extraordinary circumstances, such as economic, financial, or environmental crises. Although the NGEU was conceived as a temporary response to COVID-19, the legal framework created could be used again to finance projects in exceptional situations, such as the Green Deal or other future emergencies, without the need to amend existing Treaties.

So, how can these goods be financed? As we shall see, one possibility is that these goods are financed through European debt. Another is to expand the European central fiscal capacity by increasing the share that each state transfers to the common European budget, effectively granting the EU "federal" fiscal capacity. Attempts to move in this second direction have so far all failed.

However, one of the most promising directions, as suggested by Marco Buti, Alessandro Caloccia, and Marcello Messori (Buti, Caloccia, Messori, 2023; Buti and Messori, 2024), is to equip Brussels with genuine own resources to support "pure" European Public Goods. This paradigm shift would focus on providing political support at the EU level for vital public goods and on reformulating the decision-making process.

Examining the European Union's budget and what this might mean for the future reveals that the budget does not simply reflect the preferences of national political parties; it also plays a significant role in defining the EU's future directions and financial decisions (Bordignon, Valpreda, 2024). Contrary to what one might think, the European Parliament is not a mere spectator but plays a key role in approving expenditures and guiding Union policies, particularly influencing how funds are distributed.

The launch of the Next Generation EU programme, created in response to the pandemic crisis, marks a significant turning point for the EU budget, expanding it through unprecedented common debt issuance. This increase in funds, even though partially based on repayable loans, represents a shift, with particular emphasis on sustainable, digital, and industrial development goals. However, the current size of the budget, limited to about 2% of the European GDP, would be inadequate for the tasks ahead without a strong increase. Much will depend on the new leadership of the Commission. Authoritative, strong, and enlightened leadership in the face of the geopolitical complexities we live in could do much to make increasingly bold progress.

The decision-making process regarding the EU's multiannual financial framework, which sets spending lines for extended periods, must be studied. This procedure, requiring the unanimity of European Council members and parliamentary approval, reflects the intricate power

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dynamics characterising relations between Member States and EU institutions. Despite limitations in determining the budget's size, the European Parliament has strengthened its role in defining the annual allocation of resources.

If we analyse the sources of EU budget funding with the aim of finding alternative paths for greater autonomous financing, we discover, for example, the relative decline in agricultural expenditures in favour of other sectors such as social cohesion and ecological and digital transitions (Draghi, 2024).

The need for political balances to support a budget expansion capable of realising the Union's ambitions, in addition to the importance of effective resource management to address issues such as the ecological transition and tensions in the agricultural sector, will be one of the key themes shaping a significant part of the next European legislature.

European Bonds

European bonds are referred to as “Supranational” by markets and consist of a range of different European bonds. They can be divided into bonds for financial stability (ESM), growth (EIB, EBRD, CEB, NGEU), and social security (SURE).

Scope Ratings (2023), one of the leading international rating agencies, writes: “The EU benefits from the higher credit ratings of major European economies, with an average weighted rating of AA-, from a strong legal framework to receive timely financial support, extraordinary support mechanisms effectively providing joint and several guarantees, and a legally enshrined debt servicing priority combined with significant fiscal flexibility.”

The total issuance of EU bonds currently amounts to about one trillion euros, still below the main national public debts in the eurozone (Italy, France, Germany, and Spain). They significantly enhance the segment of euro area government bonds rated Aaa, but while they meet most criteria to be considered a safe asset, market participants still view them as more akin to those of other supranational issuers rather than top-quality bonds from sovereign issuers in the euro area. A safe asset should possess high credit quality, retain its value under market stress, and have a liquid market. Despite the high ratings assigned to EU bonds (substantially higher than the weighted average ratings of EU member states based on the nominal amount of outstanding debt), they are traded at a discount compared to euro area government bonds with similar or even slightly lower ratings (such as Germany and France).

As of May 2024, EU bonds are rated AAA/Aaa by Fitch, Moody’s, Scope, and DBRS, and AA+ by Standard & Poor’s, with a stable outlook.

When the Next Generation EU (NGEU) bond programme was announced, the consensus was that, given the scarcity of triple-A assets worldwide, this would lead to the evolution of a new asset class that would become truly relevant for global investors. According to market operators, any asset class exceeding half a trillion in size begins to become a real part of asset allocation strategies.

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The EU has not yet reached the trillion mark but is moving in that direction, with total bonds outstanding expected to exceed 500 billion euros by the end of 2024 and 1 trillion euros by the end of 2026. There is uncertainty about what will happen after 2026, when NGEU financing ends, but the EU is expected to remain a permanently relevant borrower in capital markets.

Growth bonds include:

- EIB Bonds (€570 billion), issued in the short term to finance medium- and long-term infrastructure and climate transition projects. These are backed by the bank's solid capital base, with all 26 member states contributing their share.
- CEB Bonds (€40 billion), which finance investments in social infrastructure.
- EBRD Bonds (€120 billion), mainly operating in Central and Eastern Europe, Central Asia, and Southern and Eastern Mediterranean regions, but recently expanding to developing countries like Mongolia and some Mediterranean countries.
- NGEU Bonds (€807 billion), designed to finance the Recovery Plan in energy, telecommunications, and social sectors. Interest on these bonds is paid from the EU budget, which has increased from 1.5% to around 2.0% of the EU GDP to cover the costs.
- SURE Social Bonds (€100 billion), dedicated to national unemployment support programmes. These are loans taken out by individual countries, which pay the bond interest directly while depositing a guarantee with the EU equal to 25% of the requested amounts.
- Additionally, the EU is working on a "Marshall Plan" worth several hundred billion euros for Ukraine's reconstruction, to be financed using a framework similar to the Recovery Plan.

Stability bonds include those issued under the European Stability Mechanism (ESM). Operational since 2012, its purpose is to provide financial assistance to eurozone countries experiencing temporary financial difficulties in public bond markets or to support struggling banks. To date, it has issued €300 billion in loans to Ireland, Portugal, Greece, Spain, and Cyprus, with a potential capacity of around €500 billion. These bonds are backed by the ESM's robust capital base, of which Italy is the third-largest shareholder.

In 2019, the Commission decided to reform the ESM through an amendment to the previous Treaty. Conditionality has been revised, and a new mission added for the ESM to act as the ultimate backstop for bank failures within the Banking Union. This Treaty revision has yet to be ratified, with Italy being the last member state yet to approve it.

Approximately 30% of European public debt is "frozen" in the ECB's balance sheet. Although these are not European bonds, they implicitly represent "European debt" as they are held by Eurosystem central banks, themselves capitalised by eurozone states. Various proposals have been made to transfer this debt outside the ECB, including creating a European Debt Agency or transferring it to the ESM, transforming it into common European bonds in either case.

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The NGEU programme is radically changing the way the EU interacts with financial markets through its new public debt programme. The European Commission has adopted a diversified borrowing strategy, similar to other major issuers, to raise funds securely, reliably, and cost-effectively. Consequently, EU debt is attractive to financial markets and maintains a high credit rating.

To fully realise the benefits of EU borrowing, the programme should be made permanent, with its volume increased to provide a long-term benchmark yield curve and a safe asset.

In the face of the pandemic's severe shock, eurozone leaders overcame their hesitations and agreed, for the first time, on large-scale joint bond issuance. The EU had issued bonds for decades but was always a minor player among supranational issuers. This changed with the NGEU and SURE programmes, and once fully implemented, EU debt will have surpassed the EIB, historically Europe's largest supranational issuer.

Some unique characteristics distinguish the EU from other supranational issuers. EU bonds are guaranteed by the European Commission. However, the Commission itself, as noted, does not have significant independent revenue streams. It relies instead on pledges of financial support from its member states, most of which are rated lower than the EU itself. Since there are no cross-default clauses (except for the NGEU, which includes pro-rata guarantees) between member states' contributions to the Commission's budget and individual sovereign bonds, the likelihood that member states' budgetary commitments will be paid on time and in full may be lower than the likelihood of sovereign bonds being honoured.

Other supranational entities' bonds are guaranteed by their loan portfolios. The EU, on the other hand, uses a substantial portion of its issuance to provide grants to member states. At the same time, it is the only supranational body without either paid-in capital or unconditional guarantees. To date, it also lacks an implicit guarantee from the ECB, which does not hold EU bonds on its balance sheet, unlike the Federal Reserve, which holds US federal securities. This is a significant condition, as previously discussed, for initiating a centralised fiscal policy funded by "safe assets."

The member states' budget contributions over the coming decades depend on political factors concerning the Union. The EU's triple-A rating implies that the dissolution of the bloc, and thus the risk to member states' budget transfers, is as unlikely as a triple-A sovereign default, which historically has been zero even over long periods. In a post-Brexit world, this assumption may be risky. Indeed, a 2019 survey revealed that about half of EU citizens considered a decline of the EU within 10 or 20 years to be realistic. This is almost certainly overly pessimistic, but it is not impossible.

In summary, in putting together the NGEU programme at record speed, European governments designed a structure that provided them with extremely significant sums of money without offering the irrevocable financial guarantees expected by capital markets. Investors have gradually realised that the EU's triple-A ratings do not reflect its underlying credit characteristics. Consequently, they trade its bonds accordingly.

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All of this underscores the urgency of reinforcing unbreakable ties between member states, increasing the federal budget, and advancing toward the creation of a centralised fiscal capacity, common defence, and shared foreign policy. Finally, making the NGEU programme permanent would send a strong signal to markets that the EU is built to last.

Despite the challenges, the variety of European bonds has been well-received by financial and capital markets. The NGEU programme is significantly changing how the European Union interacts with financial markets through its new public debt strategy. The European Commission has adopted a diversified borrowing approach, similar to that of other large issuers, to raise funds securely, reliably, and cost-effectively. As a result, EU debt is attractive to financial markets and maintains high credit ratings.

The EU has established a full yield curve for benchmark securities by issuing a diverse range of debt instruments with maturities varying from three months to thirty years. The Commission has also created a network of eligible primary dealer banks, relying on auctions and syndicated transactions. A well-functioning dealer network is crucial for helping the EU sell debt smoothly, maintain liquidity, and adjust borrowing plans to market conditions. So far, the EU's initial issuances have demonstrated strong investor interest.

EU borrowing represents an opportunity to lay the foundation for a European public good, which could help resolve long-standing issues in the EU's macro and financial architecture. For this to succeed, EU debt must perform at least as well as other major eurozone issuers in both primary issuance and secondary markets. The European Commission must monitor its dealer network to ensure it is well-positioned to support market operations.

The EU is already the world's largest issuer of green bonds (Scope Ratings, 2024).

Overall, EU-level debt should benefit EU capital markets and improve the eurozone’s financial architecture. However, to fully realise the benefits of EU borrowing, the programme should be made permanent, and its volume increased to provide a benchmark yield curve and a long-term safe asset.

Conclusions

Europe needs to establish its own capacity to finance the major joint investments required to tackle the significant ongoing transition.

We have seen that the global demand for safe assets is structurally and constantly growing, meaning the issuance of additional European common debt would be well-received by markets and savers.

Two forms of European safe assets have been identified: those modelled after the NGEU (based on the common European budget) and those similar to the EIB, EBRD, CEB, and ESM (capital-based). One does not exclude the other.

The creation of additional funds modelled on the EIB, dedicated to specific joint missions—such as industrial policy, innovation and research, defence and security, and addressing the

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challenges posed by artificial intelligence and digitalisation in the labour market—that issue AAA-rated bonds guaranteed by the capital contributed by all member states, would have the advantage of not directly impacting the EU budget (but only one-off contributions to national budgets). This would make them politically easier to achieve.

NGEU bonds, on the other hand, require greater fiscal involvement from member states, as resources allocated to the European budget are removed from national budgets for decades. This requires cuts to unproductive spending and strict adherence to European fiscal rules. More virtuous countries might doubt the ability of less virtuous countries (or those with higher public debt) to cut unproductive spending or comply with the constraints of the Stability and Growth Pact. That said, it should be noted that the repayment of EU loans under the NGEU programme will begin in 2028, amounting to €30 billion annually. Without a decision on new own resources, effective EU spending power would be mechanically reduced by interest payments and capital repayments (Draghi, 2024). This would have a very negative effect on both national and European budgets. One option could be to reissue the bonds upon maturity and, if the NGEU proves successful, to make it permanent.

In the current context of low interest rates and growing global demand for "safe assets," issuing common European bonds offers a unique opportunity to strengthen Europe’s role in global financial markets. The creation of a European "safe asset" framework, through a mix of NGEU, SURE, EIB, EBRD, CEB, and ESM bonds, would not only help meet the demand of global investors but also stabilise the Eurozone economy. It would have a positive impact on completing and functioning the Capital Market Union (Draghi, 2024), enhancing the ability to finance higher-risk, long-term projects that the European bank-centric system seems unable to support to the necessary extent. Finally, it would contribute to economic and political cohesion within the Union. Two conditions are necessary for European bonds to be fully embraced by markets and achieve lower financing costs than national bonds: first, the EU must demonstrate strength and cohesion, ensuring its integrity and longevity cannot be questioned; and second, programmes like the NGEU must succeed, enabling their replication and potentially becoming permanent.

The idea of a permanent centralised fiscal capacity is crucial to financing these European public goods but requires a profound reform of European institutions and a strengthening of the Union's own resources.

The European Union faces a crossroads: on the one hand, it can continue with the current fragmented and ineffective approach, risking leaving Europe behind in global challenges; on the other, it can adopt a more ambitious and integrated strategy, strengthening its ability to act globally through the issuance of common debt, a more centralised fiscal policy, and a shared vision for the Union’s economic and political future.

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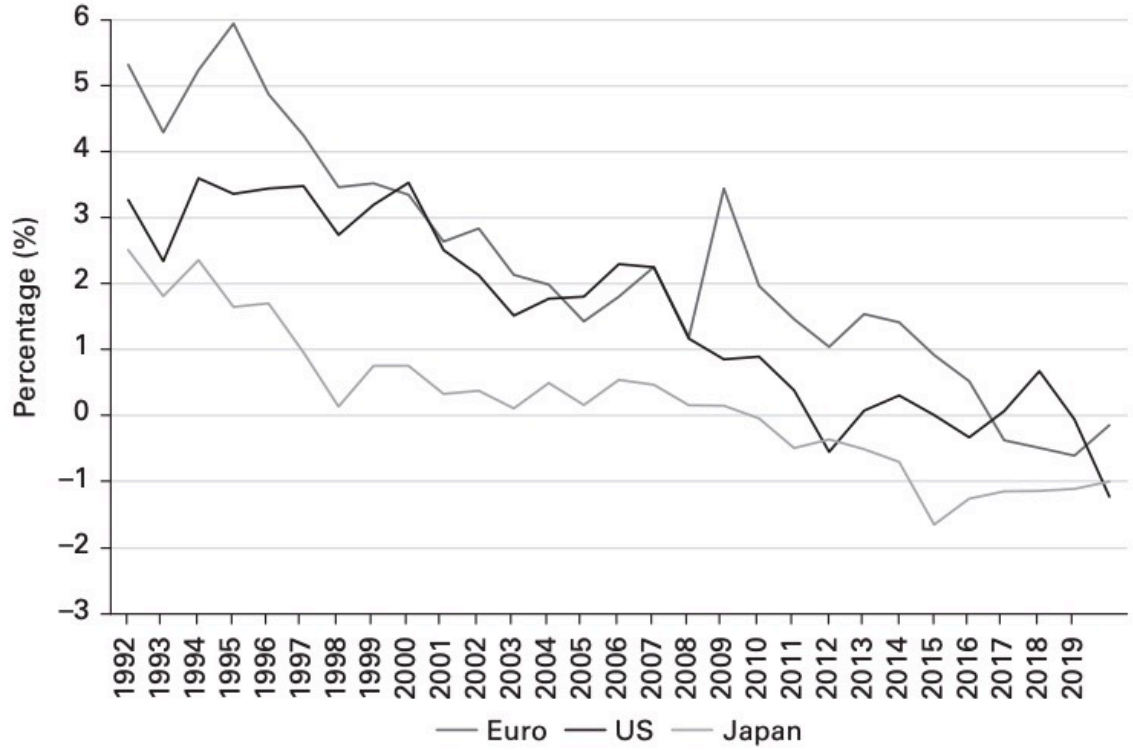
Table and Figures

Fig. 1. - 10-Year Real Interest Rates in the USA, Eurozone, and Japan, 1992–2020



Fonte: Blanchard, 2023.

The 10-year nominal rate on US government bonds minus the 10-year inflation expectations is sourced from the Survey of Professional Forecasters. The European rates are taken from Schnabel (2021). The Japanese 10-year nominal rate minus the 10-year inflation expectations was calculated by Adachi and Hiraki (2021).

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Table 1. Public Debts of Major OECD Economies and Holders by Category (2023, values in trillions of US dollars)

Country	Total Public Debt	Public Debt/GDP	Foreign	Foreign Official *	Domestic Central Banks	Foreign Banks	Foreign Non Banks	Domestic Banks	Domestic Non Banks
Australia	0,8	49%	34%	24%	20%	1%	9%	9%	37%
Austria	0,4	77%	60%	17%	24%	9%	35%	9%	8%
Belgium	0,6	105%	52%	13%	19%	7%	32%	11%	18%
Canada	2,0	96%	24%	12%	11%	2%	10%	16%	47%
Denmark	0,1	29%	30%	17%	0%	3%	7%	8%	69%
Finland	0,2	75%	49%	24%	24%	8%	20%	19%	5%
France	3,3	112%	50%	18%	21%	3%	28%	15%	14%
Germany	2,8	63%	45%	28%	27%	1%	16%	20%	11%
Greece	0,3	161%	76%	73%	10%	3%	0%	9%	5%
Italy	3,0	137%	28%	7%	25%	5%	7%	25%	25%
South Korea	0,7	47%	21%	13%	1%	1%	13%	21%	57%
Netherlands	0,5	46%	40%	26%	28%	2%	7%	12%	21%
New Zealand	0,1	47%	42%	8%	25%	2%	21%	17%	15%
Portugal	0,3	99%	42%	28%	26%	2%	22%	12%	21%
Spain	1,7	107%	40%	11%	26%	8%	21%	19%	15%
Switzerland	0,2	25%	14%	10%	1%	4%	0%	11%	74%
Sweden	0,2	31%	19%	10%	14%	4%	2%	15%	33%
Eurozone									
United States	**12,9**	**89%**	**38%**	**15%**	**25%**	**3%**	**20%**	**26%**	50%
United Kingdom	**31,0**	**121%**	**28%**	**13%**	**15%**	**2%**	**9%**	**9%**	50%
Japan	**8,7**	**263%**	**14%**	**16%**	**46%**	**1%**	**7%**	**2%**	22%
				6%					
* Central Banks of other countries and loeans									

Source: Our elaborations based on IMF data, Sovereign Debt Investor Base for Advanced Economies. The main data sources include: International Banking Statistics from the Bank for International Settlements; ECB; Eurostat; International Financial Statistics from the International Monetary Fund (IFS); Coordinated Portfolio Investment Survey from the International Monetary Fund (CPIS); Currency Composition of Official Foreign Exchange Reserves from the International Monetary Fund (COFER); Quarterly External Debt Statistics from the IMF-World Bank.

Note: Public debt refers to the gross debt of the general government on a consolidated basis, excluding intergovernmental holdings. Domestic banks refer to resident deposit-taking institutions (IFS definition). Foreign banks are BIS-reporting banks located outside the country. Foreign authorities include holdings by foreign central banks as foreign exchange reserves, foreign central bank SMP holdings, and official foreign loans. Foreign non-banks and domestic non-banks are imputed from external and total debt. Eurozone data are sourced from Eurostat (2023).

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Table 2. European Public Debts
(2024, values in trillions of euros)

Country and Instrument	Public Bond		Rating	
			S&P	Moody's
EURO AREA	**12.926**			
Belgium	638		AA	Aa3
Germany	2.636		AAA	Aaa
Ireland	216		AA	Aaa
Greece	356		BBB-	Ba1
Spain	1.613		A	Baa1
France	3.159		AA-	Aa2
Croatia	50		BBB+	Baa2
Italy	2.894		BBB	Baa3
Cyprus	23		Baa2	BBB
Estonia	6		AA-	A1
Finland	160		AA+	A3
Latvia	18		A+	A3
Lithuania	29		AAA	Aaa
Luxembourg	22		AAA	Aaa
Malta	10		A-	A2
Netherlands	476		AAA	Aaa
Austria	383		A-	A2
Portugal	271		A-	A3
Slovenia	45		AA-	A3
Slovakia	76		A+	A2
NON-EURO EU				
Bulgaria	22		BBB	Baa1
Czechia	132		BBB-	Baa2
Denmark	949		BBB	Baa2
Hungary	143		BBB+	Baa2
Poland	1.772		AAA	Aaa
Romania	157		BBB-	Baa3
Sweden	167		A-	A2
Norway	195		BBB-	Baa3
UE (EFSI e MFA)	**52**		**AA**	**Aaa**
NGEU	800*		**AA**	**Aaa**
SURE	100		**AA**	**Aaa**
EIB	480		**AAA**	**Aaa**
ESM	500**		**AA**	**Aa1**
Council of Europe Development Bank	50		**AAA**	**AA1**
BERS	120		**AAA**	**AAA**
NPBI				
KFW	500		AAA	AAA
CDC	280		AAA	A2A
PBI France	45		Aa2	AA-
CDP	350***		BBB	Baa3
BKG	356		A-	ASA

Source: Eurostat; S&P and Moody's; * €200 billion already issued and another €600 billion to be issued by 2026. ** Potential (bonds already issued amount to €87 billion). *** Includes both postal savings bonds and savings passbooks.

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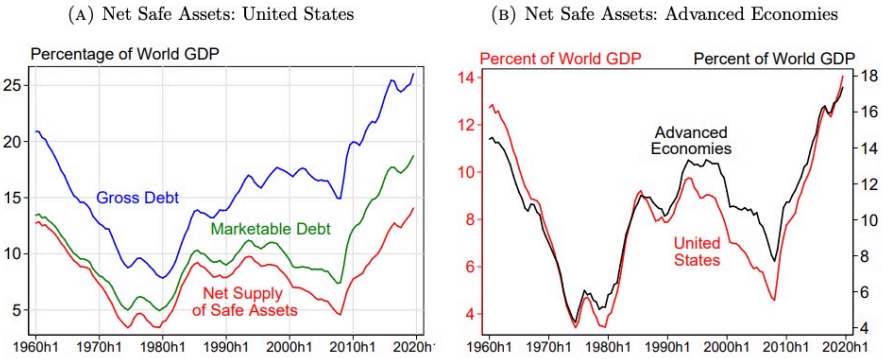
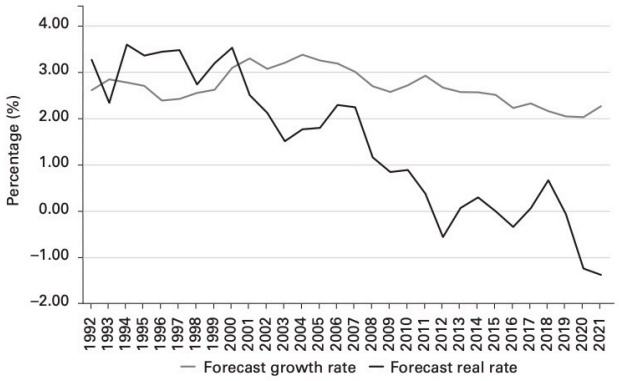
Fig. 2. - Demand for US and Advanced Economies' Government Bonds 1960–2020 (as a percentage of global GDP)



Note: All figures are expressed as a percentage of global GDP. Gross debt refers to the gross government debt of the United States. Tradable debt includes government bonds that are transferable and can be bought and sold on the secondary market. Net "safe assets" refer to tradable debts held by the private sector, excluding foreign government holdings from the total tradable debt. The measure of net "safe asset" supply for advanced economies includes bonds issued by the governments of the United States, Germany, France, and the United Kingdom.

Source: Ferreira and Shousha (2021).

Fig. 3 - Growth and Real Interest Rate (1992–2021)



Source: Blanchard, 2019.
10-year US real interest rate and forecast of 10-year real output growth rate since 1992.
10-year nominal yield from the Survey of Professional Forecasters (SPF) minus SPF 10-year inflation forecasts and SPF 10-year real growth rate forecasts.

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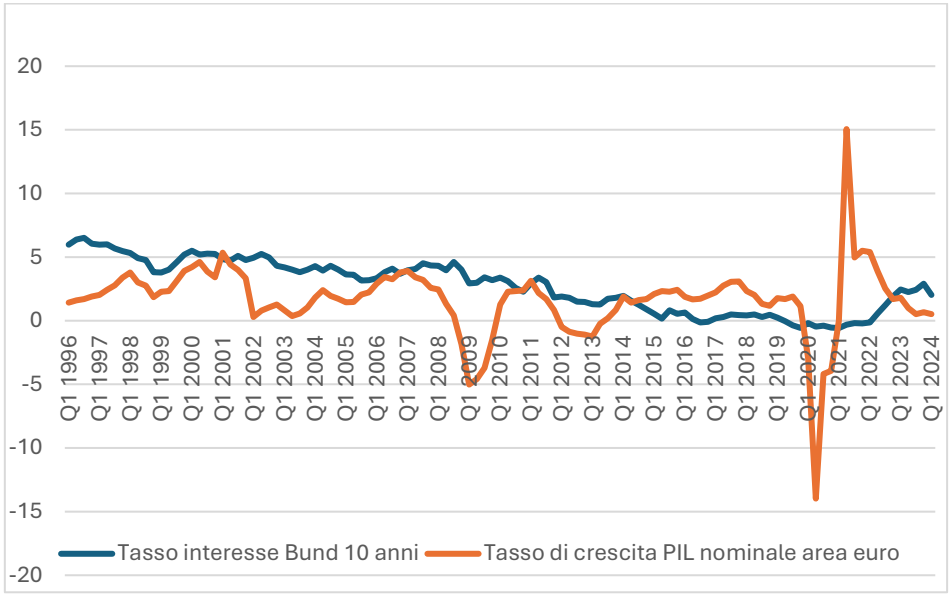
Fig. 4 - 10-Year Yield on German Government Bonds Compared to Euro Area Nominal GDP Growth (1996–2005)



Fonte: Refinitiv Eikon 1996-2024

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