This article was published in VoxEU on 4 September, 2025
https://cepr.org/voxeu/columns/europes-trade-surplus-international-relative-prices-and-productivity-growth-gap

Europe's Trade Surplus, International Relative Prices, and the Productivity Growth Gap

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Abstract: The Euro Area faces persistently weak productivity growth alongside a sustained trade surplus and a trendless real exchange rate. This column shows that persistent productivity growth differentials relative to the rest of the world, are a key driver of Europe's external surplus. Structural trade shifts, such as declining home bias and falling import prices, have offset the appreciation pressures from the productivity-growth gap. Weak domestic investment is partly driven by global forces, highlighting the limits of purely demand-based explanations and associated policy prescriptions.

Introduction

Since the early 2000s, the Euro Area (EA) has faced a persistent growth challenge. Output and productivity growth in the region have remained below those of global competitors such as the United States and China. Over the same period, the EA has maintained a sustained trade surplus, averaging 2.6% of GDP. This was accompanied by rising trade openness and a trendless RER.

Some interpret the positive EA trade balance (TB) as evidence of deficient domestic demand, particularly weak investment (e.g., Bernanke (2015), Kollmann et al. (2016, 2017), Demertzis (2024), Sandbu (2024), IMF (2025) and OECD (2025)). Others highlight structural factors such as demographics (Kollmann et al., 2015) as well as strong trade and financial linkages with the rest of the world (Chen et al. 2013). Recently, Draghi (2024) argues that weak Single Market integration and shallow capital markets suppress investment, tilting growth toward external demand and sustaining surpluses.

Most of the existing long-standing literature on euro imbalances has focused on internal adjustment *within* the EA (see for example Zeugner and Hobza (2013), Fadinger et al. (2023), and the survey among economists conducted by Reis et al. (2016)). Several studies have stressed the role of resource misallocation (Gopinath et al. (2017)) and financial market imperfections (Kollmann et al. (2016), Jaccard

and Smets (2020), Ozhan (2020)) in explaining weak demand in the EA particularly after the financial and sovereign debt crises.

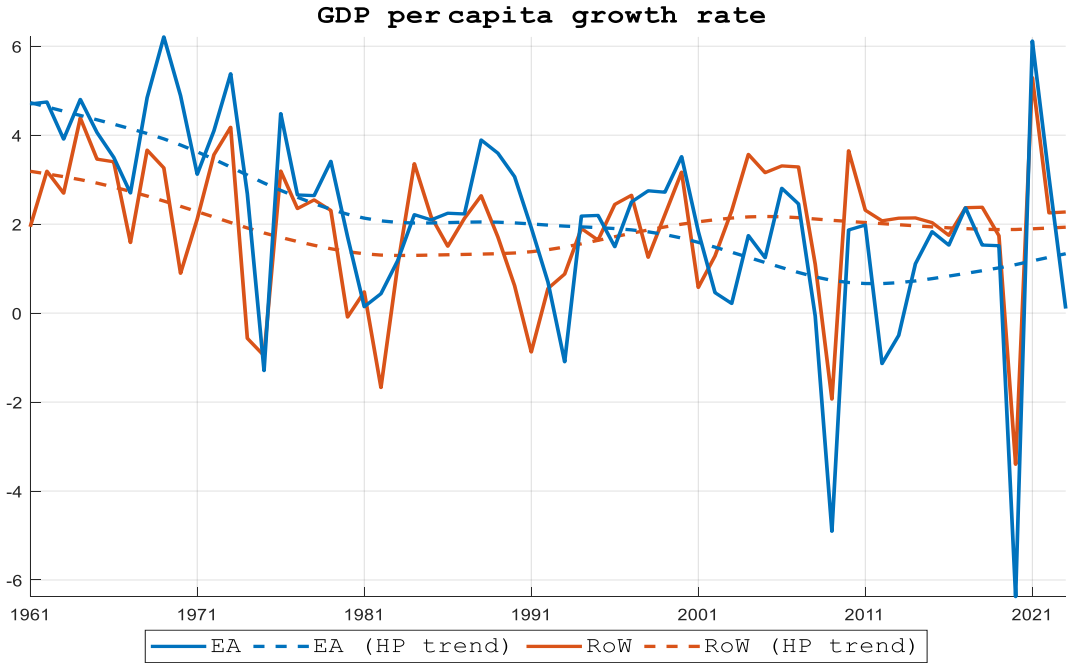
In a new study (Ifrim et al., 2025), we revisit these dynamics using an estimated DSGE model that allows for persistent (trend) shocks to productivity and trade structure. By departing from the common assumption of transitory disturbances, this framework quantifies the long-run forces of external adjustment. Our key finding is that the EA's persistent productivity growth gap vis-à-vis the rest of the world (RoW) has been a central driver of the trade surplus. Trade structure shocks—particularly declining EA home bias and falling import prices—also play a critical role by offsetting appreciation pressures on the RER.

Our findings highlight that Europe's persistent trade surplus and weak investment are rooted not only in domestic demand conditions but also in long-standing productivity gaps and structural shifts in global trade. Our analysis thus supports recent calls for renewed reform efforts to strengthen productivity and enhance the region's resilience to global shocks.

Global growth gaps and European adjustment

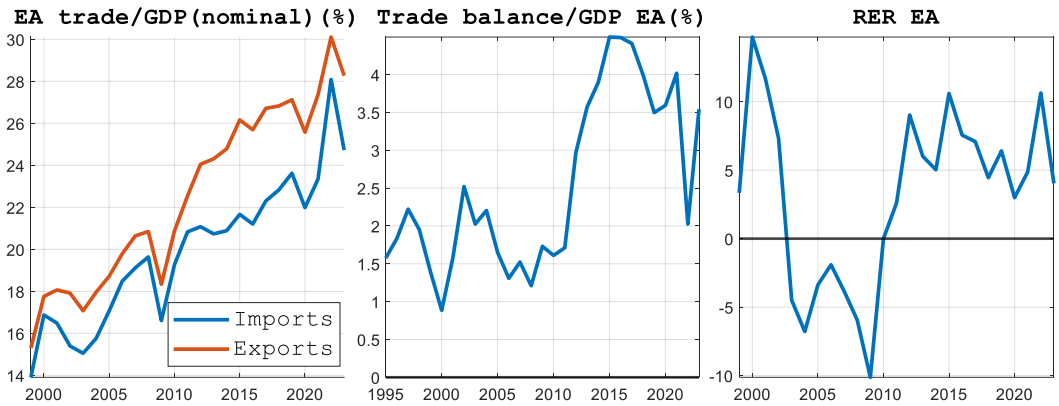
Between 1999 and 2023, real GDP in the EA grew by only 1.26% per year on average, compared to 3.28% in the RoW. The gap in labor productivity growth—measured as GDP per person in the labor force—is similarly stark: 0.70% per year in the EA versus 1.95% in RoW (Figure 1). These differentials are not a short-run phenomenon: The growth gap is highly persistent and is projected to continue.

Figure 1. GDP growth rates



Notes: Based on World Bank Development Indicators (WDI, 2025). The dashed lines represent trend growth rates, computed as Hodrick-Prescott (HP) trends of the respective YoY growth rates.

Figure 2. EA-RoW trade and RER data



Notes: A fall in the EA RER represents an appreciation of the Euro. The RER is measured as relative GDP deflators and expressed as a percentage deviation from its 2010 level.

Despite this divergence, the EA TB has remained consistently in surplus (Figure 2, panel b), and the EA-RoW real exchange rate has shown no clear trend over the same period (panel c). Meanwhile, EA trade openness—measured as the sum of extra-EA exports and imports over GDP—has doubled from 15% to 30% since 1999 (panel a). The RoW's relative trade openness has remained stable.

These patterns raise two important questions: (1) How much of the EA's trade surplus is due to weak productivity growth? And (2) why has the RER remained stable despite persistent productivity differentials?

A model with trend shocks

To address these questions, we estimate a large-scale two-region model using EA and RoW data from 1999 to 2023. The model incorporates both stationary and non-stationary shocks, including persistent shifts in productivity growth, trade preferences (captured through home bias parameters), and sector-specific export productivity. It also features standard frictions in price and wage adjustment, investment, and consumption habits, which allow for realistic short- and medium-term dynamics.

A central innovation of our framework is the explicit modelling of trend shocks. This allows us to isolate the effects of trend shocks—such as persistent productivity differentials—from transitory disturbances. The model is estimated using Bayesian methods and matches a wide set of observed time series on output, trade, prices, and the real exchange rate.[1]

We then use the estimated model to generate historical shock decompositions for key macroeconomic variables. In our estimated model, the persistent weakness in EA real GDP is largely explained by a sequence of negative shocks to EA productivity growth, compounded by strong RoW growth. The

[1] Unlike in some earlier studies, we focus on explaining the level of the TB relative to GDP, rather than deviations from its historical average. This allows us to capture how persistent forces—such as differences in productivity growth—affect the trade balance over time.

divergence in trend growth paths explains much of the sustained output and income gap between the regions.

The productivity gap as a driver of trade balance and RER

Figure 3 breaks down the EA TB and RER into contributions of key structural shocks. For the questions at hand, we highlight trend technology shocks in the EA (blue) and the RoW (green), together with trade shocks (red). Any remaining disturbances are pooled as "Others" (grey). The full paper also analyses additional shocks not shown here (notably EA domestic demand shocks). The decomposition yields several important insights:

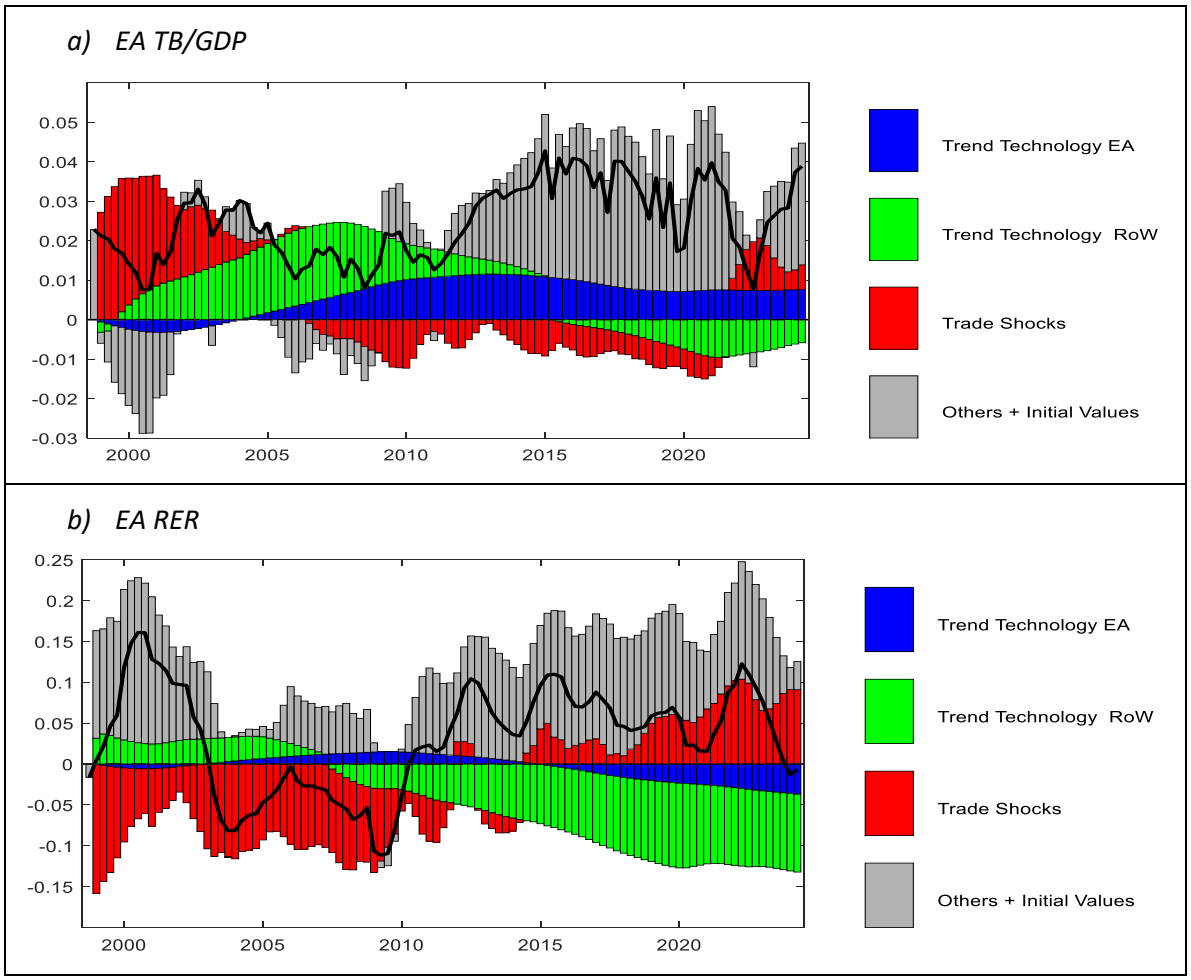
1. Our historical decomposition suggests that persistent productivity growth shocks account for between one quarter and one half of the observed EA trade surplus. A positive trend productivity shock in RoW raises future income and wealth, prompting households and firms to increase consumption and investment in RoW. This generates a temporary boost in RoW demand for EA exports and depresses RoW savings.[2] The TB effects of adverse EA growth shock largely mirror the RoW shock as both widen the growth gap: weaker EA productivity lowers expected returns and investment, leading to capital outflows and compressed imports. As a result, the EA TB improves in the short to medium run (Figure 3a). Figure 4a illustrates this transmission mechanism through responses following a RoW growth shock.

2. However, this is not the full story since these shocks also affect the RER (Figure 3b). Standard theory predicts that faster *trend* productivity growth abroad should lead to a trend appreciation of the EA RER.[3] Yet, the data reveal a fairly "flat" (medium-term) RER. This apparent puzzle can be explained by structural shifts in trade: A trend decline in EA import prices, especially for non-commodity goods reflects faster productivity growth in RoW tradable sectors, notably in China and other emerging markets. This has reduced the relative price of foreign goods for European households and firms, increasing the EA import share and mitigating appreciation pressures on the real exchange rate. At the same time, the EA saw a secular reduction in home bias, with increased preference for foreign goods and EA producers losing market share domestically. These developments are likely interconnected: higher productivity in RoW tradable sectors has been accompanied by improvements in product quality and variety, further deepening import penetration.

[2] The declining contribution of RoW growth shocks to the EA TB toward the end of the sample reflects weaker RoW TFP growth, fading effects of large early shocks (Figures 3a–b), and the filter partly anticipating COVID (real-time decompositions in the full paper confirm our main results).

[3] Textbooks typically focus on temporary shocks. In our case, a trend productivity shock makes (imperfectly substitutable) foreign goods permanently cheaper, leading to an EA RER appreciation *trend*, consistent with standard models (e.g. Backus et al. 1994).

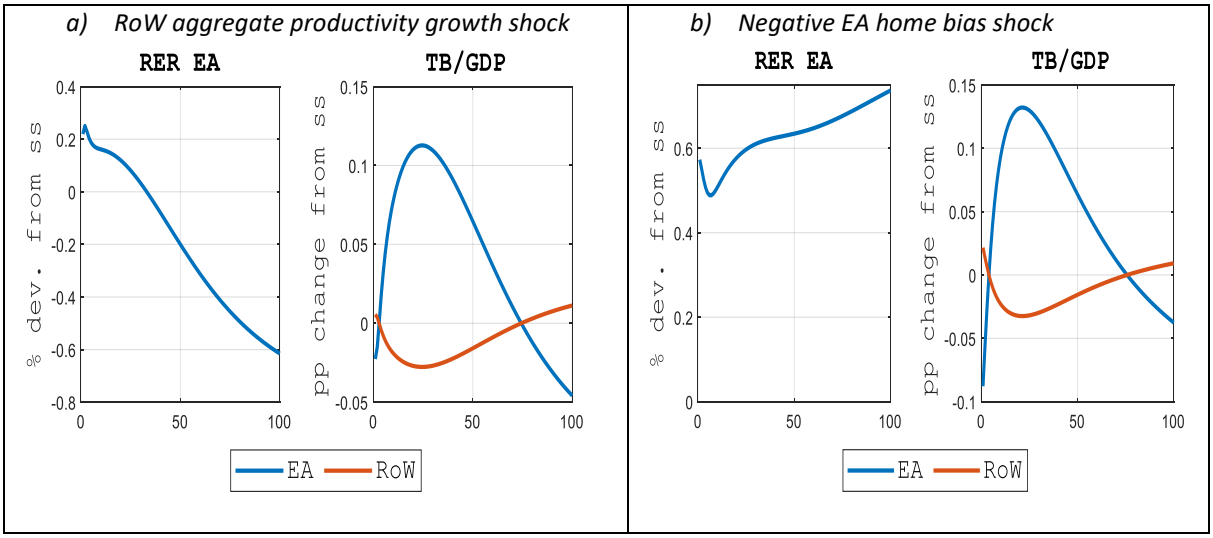
Figure 3. Historical Decompositions of EA TB/GDP and RER (downward movement = EA appreciation)



Notes: The coloured bars show contributions of key shocks to the trade-balance-to-GDP ratio and the RER; solid lines show the data. Bars above the solid horizontal line represent positive shock contributions, while bars below show negative shock contributions. A fall in the EA RER represents an appreciation of the Euro.

3. Finally, the model offers insights into the external determinants of the domestic investment shortfall. Positive productivity shocks in the RoW not only boost foreign absorption but also raise global interest rates and relative returns abroad. In a context of financial openness, these developments reduce investment incentives within the EA and crowd out domestic absorption. As such, the persistent weakness in EA investment is not solely a reflection of internal demand shortfalls, but also of external structural forces operating through global capital markets.

Figure 4. Impulse Response Functions



Notes: A fall in the EA RER represents an appreciation of the Euro.

Policy implications

These findings carry implications for European policymakers. First, the persistent productivity growth gap between the EA and the RoW is not only a concern for long-term convergence; addressing this productivity shortfall would likely help reduce the surplus, by strengthening domestic demand and attracting capital inflows. Improving financial conditions for start-ups, reducing regulatory burdens, and investing in skills should be top priorities for advancing this objective (Adilbish et al. (2025)).

Second, while short-run fiscal and monetary measures remain important tools for managing cyclical fluctuations, complementary reforms should aim at raising potential output. Our analysis shows that external imbalances reflect both cyclical and structural forces. A purely demand-based interpretation risks overlooking this.

Third, these findings are timely, considering the ongoing policy debate around competitiveness. Draghi (2024) identifies low investment and weak productivity as major impediments to growth and calls for a renewed strategy to strengthen the supply side of the economy. Our results provide empirical support for this diagnosis. The estimated model suggests that persistent structural forces—rather than cyclical weakness alone—determine macroeconomic outcomes.

Finally, our results show that external forces—such as faster growth in foreign productivity and shifts in global trade structures—exert a significant influence over European economic outcomes. This underscores the need for a coherent European strategy tackling both internal structural challenges and external developments.

Authors' note: The views expressed in this paper are those of the authors and should not be attributed to the European Commission.

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