

EDITORIAL

EUROZONE: RISING INTEREST RATES AND PUBLIC DEBT SUSTAINABILITY

Due to the recent significant increase in interest rates, Eurozone countries now have a borrowing cost on newly issued debt that, for an equivalent maturity, is higher than that of the existing debt. From a debt sustainability perspective, this necessitates a smaller primary deficit or a larger surplus, depending on whether the average interest cost is, respectively, lower or higher than the long-term nominal GDP growth rate. However, this effect will only be fully operational when the entire debt has been refinanced at the higher interest rate. Given the long average maturity of existing debt, the annual adjustment effort is small for the time being but it will grow over time. However, debt sustainability is about more than keeping the debt ratio stable under certain circumstances. It is also about the resilience to interest rate and growth shocks. The higher the debt ratio, the more important it is to do more than simply trying to stabilize it.

An IMF working paper of 2020 asked whether the negative differential between the implicit interest rate on government debt (r) and nominal GDP growth (g), that had become prevalent in many countries since the global financial crisis of 2008, allowed for a better sleep¹. Considering the recent huge increase in interest rates in many countries, it is tempting to ask whether the quality of our sleep has worsened.

Chart 1 shows for several Eurozone countries the implicit interest rate on the outstanding government debt (horizontal axis) and the current interest rate on newly issued debt with the same maturity as the existing debt (vertical axis)². All points are above the diagonal, which shows that the marginal borrowing cost -the interest rate on newly issued debt- is above the average borrowing cost -the rate on the existing debt³. It implies that the marginal $r-g$ is higher than the average $r-g$ ⁴. Does this create an issue in terms of debt sustainability, thereby influencing how well we sleep at night?

Before focusing on the key factors, let's recall that the dynamics of the public debt/GDP ratio depend on $r-g$ and the primary balance, which corresponds to the budget balance excluding interest charges. The debt ratio (D/GDP) will be stable over a given period if the primary balance is equal to $(r-g)*(D/GDP)$. When $g > r$, the government can

afford to run a primary deficit and still have a stable debt ratio. When $g < r$, a primary surplus is required. An increase in the average interest rate (Δr) reduces the 'affordable' primary deficit by $(\Delta r)*(D/GDP)$ or increases the required primary surplus to a similar extent.

The initial debt/GDP ratio thus plays an important role in the assessment of the impact of rising borrowing costs on the debt dynamics. The higher the debt ratio, the more corrective action will be necessary to keep it stable when confronted with higher interest rates. However, the longer the average maturity, the more the fiscal adjustment can be spread out over time. For a country with an initial, stable debt/GDP ratio of 120% and an average maturity of 10 years, a 1 percentage point increase in the average borrowing cost would require a fiscal adjustment effort of 1.2% of GDP over a period of 10 years, which corresponds to a small annual effort.

1. Based on a comprehensive database on average borrowing costs for 55 countries over up to 200 years, the authors' conclusion is 'not really' because differentials between r and g are no higher prior to sovereign defaults than in normal times. Moreover, "marginal (rather than average) government borrowing costs often rise abruptly and sharply, but just prior to default." Source: Paolo Mauro and Jing Zhou, $r-g < 0$: can we sleep more soundly, IMF Working Paper, March 2020.
 2. Practically speaking, the point on the yield curve was chosen for the maturity that is closest to the average remaining maturity of the outstanding debt.
 3. The analysis does not consider the impact of public debt on the ECB's balance sheet on the effective cost of public debt. Past asset purchases by the central bank (QE) are mirrored on the liability side of its balance sheet by reserves held by the banking system, which acts as an intermediary between the end investors and the central bank. Under the assumption that coupons are fully paid back to national governments in the form of dividends, the effective cost of funding is the interest rate paid on excess reserves of the banks with the central bank.
 4. The marginal $r-g$ uses the interest rate on newly issued debt, supposing that the maturity is equivalent to that of the existing debt. The average $r-g$ uses the implicit interest rate on the existing debt. In both cases, g is the same because we exclusively focus on the impact of higher interest rates on debt sustainability.

EUROZONE: IMPLICIT INTEREST RATE

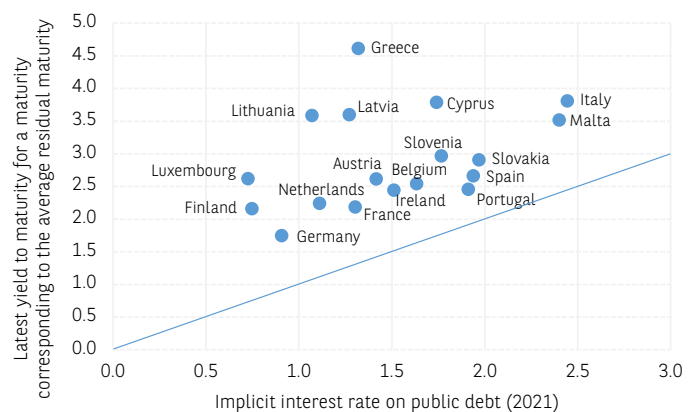


CHART 1 SOURCE: EUROPEAN COMMISSION, BLOOMBERG, REFINITIV, BNP PARIBAS



The higher the public debt ratio, the more important it is to do more than simply trying to stabilize it.



Given the increases in interest rates that we have observed thus far and the average maturity of the existing debt (chart 2), it seems that the annual adjustment effort for the various countries should be very small.

However, this conclusion comes with several caveats. It is not clear at what level interest rates will stop moving higher nor how they will evolve thereafter. Rising interest rates should weigh on growth -that is the objective of monetary tightening to lower inflation-, thereby influencing the short-term debt dynamics. This may in turn influence borrowing costs through rising risk premiums.

These examples remind us that debt sustainability is about more than keeping the debt ratio stable under certain circumstances. It is also about the resilience to interest rate and growth shocks. As shown in research by the IMF on a large sample of advanced and emerging economies, the level of public debt plays a key role. High-debt countries have a higher average $r-g$, with a higher probability of downside risks (rising $r-g$) and they also experience larger increases in borrowing costs through risk premium effects in response to unexpected declines in output and an increase of global volatility⁵.

To conclude, if the recent huge increase in interest rates in many countries has not affected the quality of our sleep, it forces us, at a minimum, to be more focused in the morning. The higher the debt ratio, the more important it is to do more than simply trying to stabilize it.

William De Vijlder

EUROZONE: AVERAGE MATURITY OF THE EXISTING DEBT

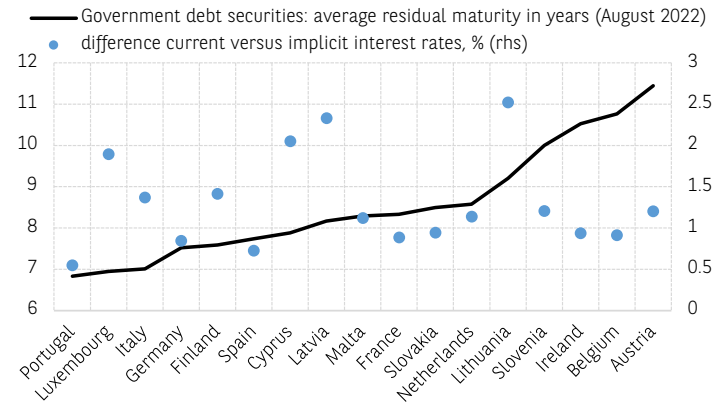


CHART 2 SOURCE: ECB, EUROPEAN COMMISSION, BLOOMBERG, REFINITIV, BNP PARIBAS

5. Source: Weicheng Lian, Andrea F. Presbitero, and Ursula Wiriadinata, Public Debt and $r - g$ at Risk, IMF Working Paper, July 2020.

