EUROZONE SOVEREIGN SPREADS: HAUNTED BY THE STYLISED FACTS

Investor behaviour is strongly influenced by stylised facts, i.e. the historical relationship between economic variables and financial markets. When Bund yields increase, the spread of certain sovereign issuers tends to widen. This positive correlation will be perpetuated when enough investors believe that the historical relationship continues to hold. This was again illustrated in recent weeks by the significant widening of certain sovereign spreads in reaction to the rise in Bund yields. It creates a challenge for governments, due to higher borrowing costs, but also for the ECB, because of its influence on monetary transmission. This explains the ECB's insistence on the flexibility offered by the PEPP reinvestments.

Stylised facts are recurring patterns between economic variables and between economic variables and financial markets. These patterns are conditioned by the economic environment or expectations about this environment. The Phillips curve is an example: a significant cumulative decline in the unemployment rate is generally associated with a pick-up in wage growth due to increasing labour market bottlenecks. Other examples are the widening of corporate bond spreads when central banks are expected to tighten policy and, in the euro area, the widening of the sovereign spread of certain countries when Bund yields increase.

This last point is illustrated in chart 1, which shows the relationship between the weekly change in Italian government bond yields and the weekly change in Bund yields when the latter is positive. Beyond a certain increase in German yields, the regression coefficient is larger than 1, which implies a spread widening[1]. This also applies to other countries, as shown in table 1[2]. Since the latest ECB Governing Council meeting, German yields have jumped and the weekly change in yields was at the top end of the distribution (chart 2), causing a significant widening of sovereign spreads in southern Europe (chart 3).

From a purely economic perspective, such a significant spread widening seems counterintuitive. It is difficult to argue that the prospect of an earlier policy tightening than hitherto expected would significantly worsen the sovereign risk profile of these countries. The market reaction rather reflects a change in sentiment with respect to sovereign risk. This is reminiscent of another stylised fact, namely that higher government bond yields cause a widening in corporate bond spreads that is larger than the increase in the expected default risk.[3] This raises the question why sentiment with respect to sovereign risk worsens when Bund yields rise.

One explanation is that, when the yield on Bunds has increased, fixed income investors who target a certain yield to maturity need to have less exposure to sovereign issuers that offer a higher yield than Germany. In that case, the portfolio rebalancing does not reflect a downward revision of the outlook for these issuers. It simply shows that the same yield target can be reached by taking less risk. Another explanation is the self-fulfilling nature of the stylised fact about changes in Bund yields and sovereign spreads. In a competitive investment management environment, a portfolio manager may decide to reduce his exposure to sovereigns with a lower credit rating if he believes that his peers will do the same. Portfolio managers are haunted by the stylised facts and act accordingly. By not doing so, they would run the risk of underperforming their peers. The positive correlation between Bund yields and sovereign spreads is thus perpetuated when enough people believe it will be so. This creates a challenge for governments – borrowing costs increase – but also for the ECB. Higher Bund yields imply a tightening of financial conditions but an increase in spreads

RELATIONSHIP BETWEEN WEEKLY CHANGE IN 10-YEAR BTP YIELD AND 10-YEAR BUND YIELD

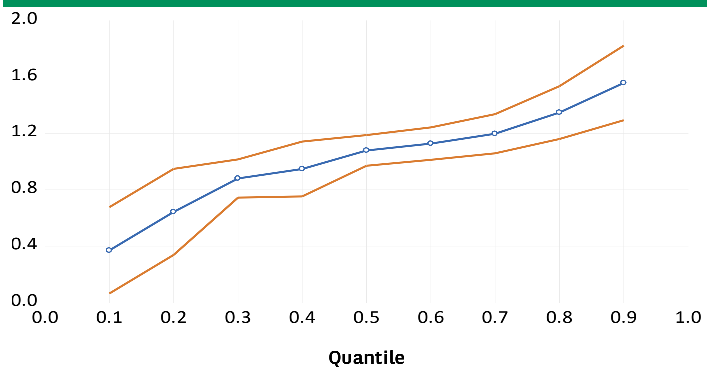

CHART 1 SOURCE: REFINITIV, BNP PARIBAS

1. The quantile regression has been estimated using daily data since 2 January 2014 until 9 February 2022. All coefficients are statistically significant.
2. The coefficient for Greece is smaller and less significant, both statistically and economically, considering that the country has been absent from international bond markets during part of the period under review.
3. This implies that spreads widen too much considering the estimated increase in default risk. This additional spread is called the excess bond premium and is a measure of investor risk appetite in the corporate bond market. See e.g. Recession Risk and the Excess Bond Premium, Giovanni Favara, Simon Gilchrist, Kurt F. Lewis, and Egon Zakrajšek, FEDS Notes, 8 April 2016.

> The positive correlation between Bund yields and sovereign spreads is perpetuated when enough people believe it will be so. This creates a challenge for governments but also for the ECB.

means that this tightening is even worse in certain countries. The ECB is aware of the issue. In a recent interview on Twitter, Isabel Schnabel, member of the executive board of the ECB, mentioned *"Sovereign spreads are a feature as long as they are reflecting economic fundamentals. They are a bug when they become subject to destabilising self-fulfilling expectations, impairing monetary policy transmission."*[4] In such case, the tool is available: *"In the event of renewed market fragmentation related to the pandemic, PEPP reinvestments can be adjusted flexibly across time, asset classes and jurisdictions at any time."*

To conclude, the recent sovereign spread widening should not come as a surprise given the historical relationship between Bund yields and spreads and the significant increase in Bund yields. Markets have now repriced the path for rate hikes by the ECB so, barring new surprises, the volatility in euro area bond markets should decline. This also depends on the developments in US Treasuries, which influence yields across the globe including in the euro area. Sovereign issuers can find comfort in the fact that the US yield curve is already pricing in several rate increases.

William De Vijlder

WEEKLY CHANGE OF 10-YEAR BUND YIELD WHEN CHANGE IS POSITIVE
RED LINE SHOWS WEEK ENDING ON 9 FEBRUARY 2022

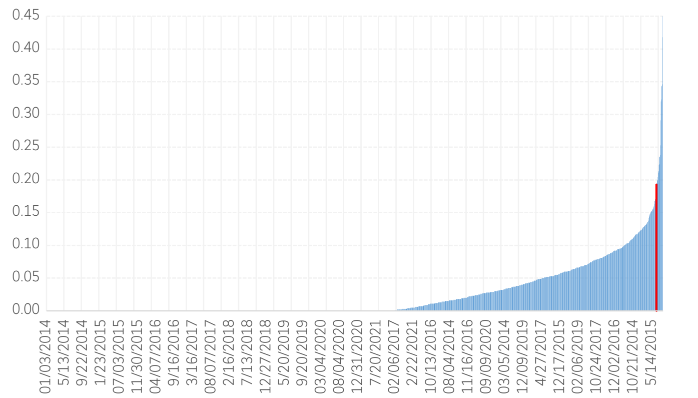

CHART 2 SOURCE: REFINITIV, BNP PARIBAS CALCULATIONS

EUROZONE : 10-YEAR SOVEREIGN SPREADS VERSUS BUND (BASIS POINTS)

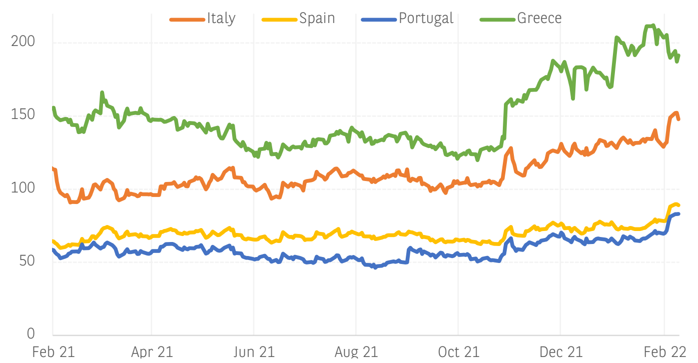

CHART 3 SOURCE: REFINITIV, BNP PARIBAS

QUANTILE REGRESSION COEFFICIENTS WHEN WEEKLY CHANGE IN 10 YEAR BUND YIELD IS POSITIVE (RESULTS FOR THE 9TH QUANTILE)

10-YEAR BOND	COEFFICIENT	T-STATISTIC
Italy	1.56	11.54
Spain	1.30	29.19
Greece	1.06	2.54
Portugal	1.43	22.40

TABLE 1 SOURCE: BNP PARIBAS CALCULATIONS

4. Reply to the question: *"Are euro area sovereign yield spreads a bug or a feature?"* Source: ECB, Interview on Twitter with Isabel Schnabel, Member of the Executive Board of the ECB, conducted and published on 9 February 2022.