

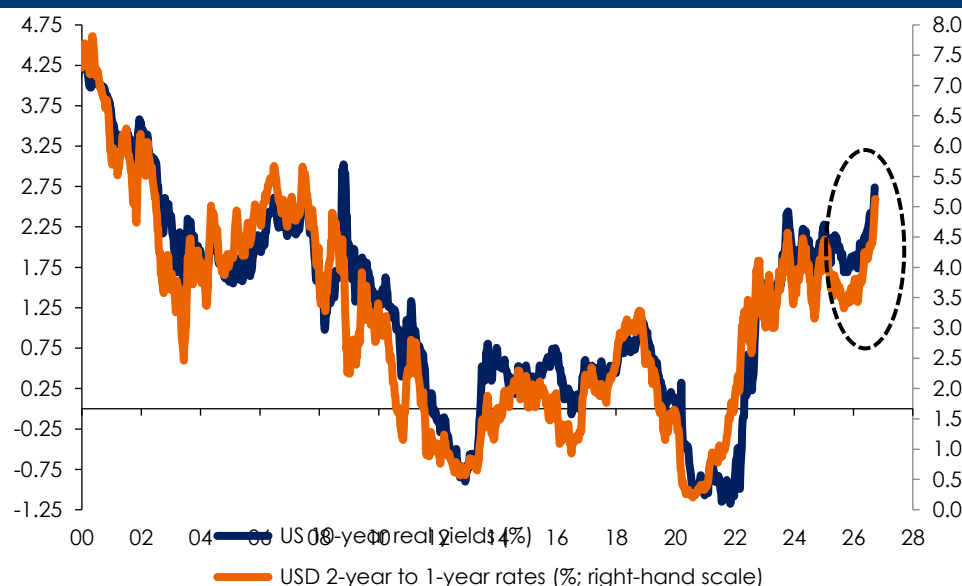
Interest Rate Strategy

Treasury sell-off: beyond the fundamentals

Yields on 10-year US Treasuries have shown a more bullish trend than suggested by their historical relationship with the economic cycle and market risk proxies. This phenomenon suggests the presence of additional factors that have contributed to making Treasuries unusually *cheap* relative to fundamentals. The following analysis seeks to quantify this anomaly and identify its possible drivers.

Yields on US Treasuries have risen sharply over the past month. For example, the 10-year yield now stands at 5.25 per cent, around 50 basis points higher than at the end of August. The movement in the 10-year US Treasury has been driven by a rise in real yields, whilst 10-year break-even inflation rates have remained virtually unchanged.

Chart 1 – 10-year real yields jump consistent with Fed rates re-pricing



Note: , Bloomberg, Intesa Sanpaolo

In turn, rising real yields can be explained by the repricing of market expectations of Fed rate hikes. As shown in Chart 1, historically, there is a direct and significant correlation between these two variables. The USD 2y1y spread has risen by around 160bp compared with a year ago, signalling growing expectations of a Fed rate-hike cycle – a trend consistent with the rise of around 110bps in 10-year real yields over the same period.

At first glance, the rise in US bond yields would therefore appear to present no particular anomalies. In line with historical patterns, the rise in long-term Treasury yields reflects growing expectations of an increase in the Fed's official interest rates, which are in turn fuelled by the strength of the US economy and pressures on energy prices. In reality, however, it is worth considering other factors that may help explain the shift in US yields. In this regard, the results of the regression model illustrated in Charts 2 and 3 offer an alternative perspective that may be useful in complementing the analysis.

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Chart 2 – Fair-value regression model for 10-year UST yields

Dependent variable: US Treasury 10-year yields y/y changes
 Regression period: Jan-1994/June 2022
 Data frequency: monthly
 N. observations: 342
 R-squared: 40%

	Coefficient	St. Error	T-Stat	P-Value
Intercept	-4,07	0,29	-14,17	0,00
USD 2y5y swaption vol y/y changes*	0,01	0,00	7,19	0,00
ISM Manufacturing New Orders Index	0,07	0,01	13,81	0,00

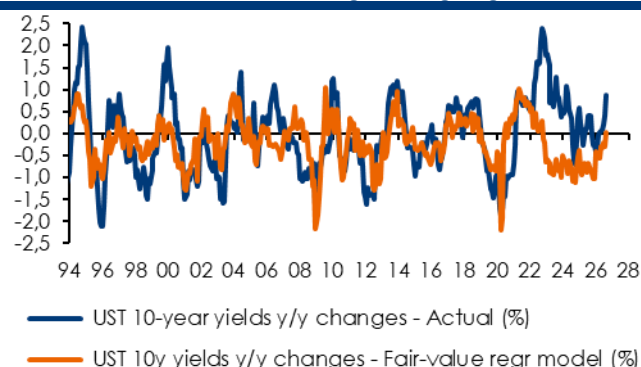
*Data prior to Oct-2008 interpolated via MOVE index

Source: Bloomberg, Intesa Sanpaolo

In the model, the year-on-year trend in 10-year Treasury yields is explained using just two explanatory variables: an economic cycle variable (approximated by the ISM manufacturing new orders index) and a proxy for how investors' perception of interest rate risk changes over time (in the model we use the USD 2y5y basis point implied volatility, i.e. the 'belly' of the volatility surface).

The model's fit looks fairly satisfactory. However, in the latter part of the sample – over the last four years or so – a significant and persistent deviation emerges between observed and estimated yields. This divergence suggests that, in recent years, additional factors – not captured by traditional variables – have come into play, *driving up* yields on Treasuries. Below, we consider three factors that might help explain the discrepancy between actual and theoretical values:

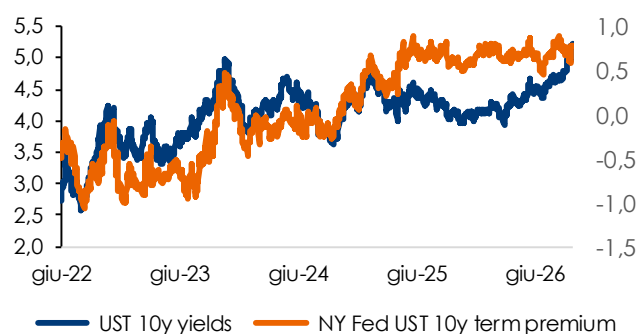
- i. *Wars and energy price tensions.* A first hypothesis concerns the market impact of exogenous shocks, such as the Russian invasion of Ukraine (which began in 2022) and energy price shocks. However, we note that, in the past, there have been successive energy price shocks of a similar, if not greater, magnitude to the current one (for example, in 2008 and 2011) without this leading to a failure of the model on the scale observed recently. Furthermore, over the last four years, the 10-year break-even inflation rate has remained stable, confirming that this component has had no significant impact on the upward trend in yields. In conclusion, whilst those factors may have had some impact on markets, we argue that they do not help much in explaining the model's anomaly.
- ii. *Rise in the term premium.* Since mid-2022, the term premium on US Treasuries, as defined by the NY Fed's ACM measure, has risen significantly, moving from negative levels to its current level of +80bps. That could be explained by several factors: US inflation rose to a 40-year high in June 2022, coupled with greater uncertainty regarding the future path of Fed rates; the shift from QE to QT, which reduced the central bank's support for the bond market; and rising fiscal deficits, which led to a greater supply of bonds that private investors had to absorb. The combination of these factors is thought to have led investors to demand greater compensation for holding US duration risk, and Chart 4 suggests that the rise in the term premium may, at least in part, explain the sell-off in long-dated Treasuries.
- iii. *Rising productivity in the US economy.* From 2022 onwards, investors have gradually abandoned the view that the real neutral rate is close to zero (Chart 5 shows the trend in 10-year real yields). This may reflect the view that, thanks to technological advances (e.g. AI), the potential growth rate of the US economy is higher than in the years

Chart 3 – What has been causing the ongoing dislocation?

Source: Bloomberg, Intesa Sanpaolo

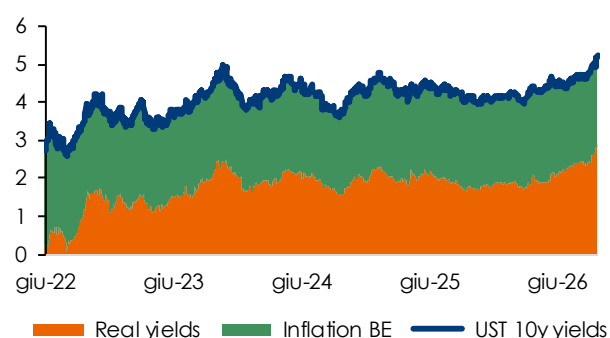
following the global financial crisis. In this sense, even a relatively modest revision – for example, from potential growth of 1.5 per cent to figures closer to 2.0–2.5 per cent – could justify a higher level of equilibrium real yields. This hypothesis, too, could therefore help explain the model's anomaly.

Chart 4 – The rise in term premia may help explain the sell-off in Treasuries in recent years



Source: Bloomberg, Intesa Sanpaolo

Chart 5 – The rise in Treasury yields is entirely explained by the real component



Source: Bloomberg, Intesa Sanpaolo

In conclusion, over the last four years or so, y/y changes in 10-year Treasury yields have consistently exceeded those implied by the historical relationship with macro fundamentals and market risk proxies, signalling a prolonged episode of 'excess *cheapening*' in 10-year US Treasuries. The current estimate shows that, in the twelve months to September 2026 alone, the yield on the 10-year bond rose by approximately 80 basis points above the model's theoretical level. The duration and pervasiveness of the phenomenon suggest the influence of factors including the rise in the *term premium* and, possibly, the increase in the real equilibrium rate associated with higher investment and higher potential growth.

Appendix

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