

## US Rates Watch

## Rates relative value update with PCA

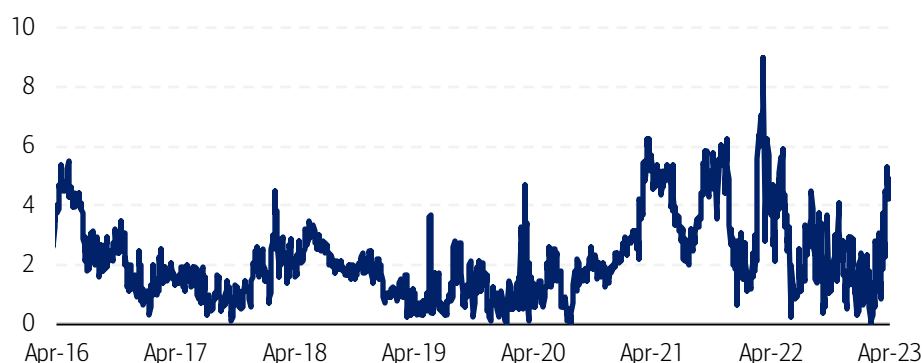
## PCA scan for liquidity and relative value

We scan for rich/cheap using principal component analysis (PCA) on rates, volatility, swap spreads, and inflation breakeven curves. We also look at global 10y rates and global 10y breakevens given their high correlation across currencies.

## RMSE illiquidity metric spiked again

**Exhibit 1: 3-factor RMSE across US rates (bp) near the top of the recent range**

US rates residuals from PCA framework increased notably last month



Source: BofA Global Research

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The root-mean-squared-error (RMSE) from PCA-implied levels is a measure of market liquidity. RMSE increases when curve movements become more idiosyncratic relative to the curve shapes implied by PCA. To the extent the actual market does not match the PCA curve, it creates an average error across the curve's maturities and our measure has been elevated since the Fed hiking cycle began and volatility began to rise. Higher RMSE = larger deviation from the PCA framework = lower liquidity. Exhibit 1 shows that this illiquidity metric has risen sharply for the US rates curve in the recent market stress episode. 2 PCA factors typically explain over 90% of the daily variation in volatility curves across tails or expiries, inflation breakeven curves, and swap spread curves. For the US rates curve, 2 factors cover more than 95% of the variation and 3 factors explain more than 99%. This implies it is rare to have significant deviations between the actual rate curve and PCA-implied curves. We would expect this illiquidity metric to normalize as vol declines and markets continue to recover from the shocks of March. In particular, if the Fed goes on hold after the May meeting, which is our expectation, we expect this measure to improve much more.

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## Rich/cheap on the curves

Overall, we highlight 4 themes:

1/ 10yT yield is richening relative to EU 10y, likely driven by the risk-off sentiment from the US market stress in March

2/ Inflation breakevens in Japan show notable cheapening compared to global markets. Oil continues to be the main driver of the first factor move in global inflation breaks.

3/ Dislocations in US rates picked up recently with 5y trading rich vs 2y and 10y, reflects dramatic repricing of deeper Fed cuts after the FDIC episode.

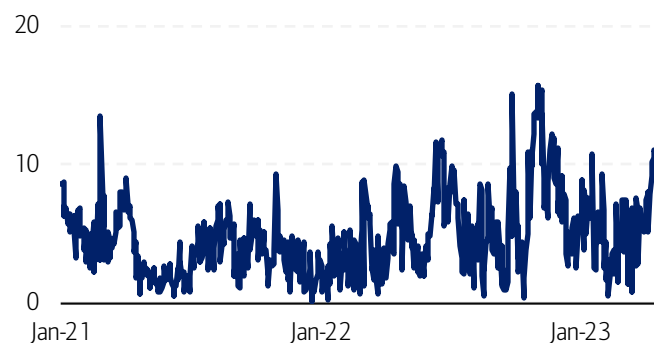
4/ US 2y OIS spreads became extremely cheap following the SVB collapse, likely driven by fire sales of Treasuries at the front-end. The dislocation quickly normalized and is now near fair value

### Global 10y rates: US richening vs EU

Comparing 10y rates across global markets, we ran a 3-factor PCA back to 2021 with 10y rates in US, Germany, UK, Canada, and Australia. Total dislocations across global 10y rates picked up in April and now at c.11bp (Exhibit 2), the peak level since 2023. Across global 10y rates, we find US looks relatively rich vs EU (Exhibit 3). This likely reflects the risk-off sentiment due to the US market stress that occurred in March. With employment data and inflation data remaining strong, this suggests some scope for 10yT to cheapen vs other countries as the flight-to-safety bid subsides.

#### Exhibit 2: 3-factor RMSE across global 10y rates (bp)

Dislocation in 10y across the globe picked up

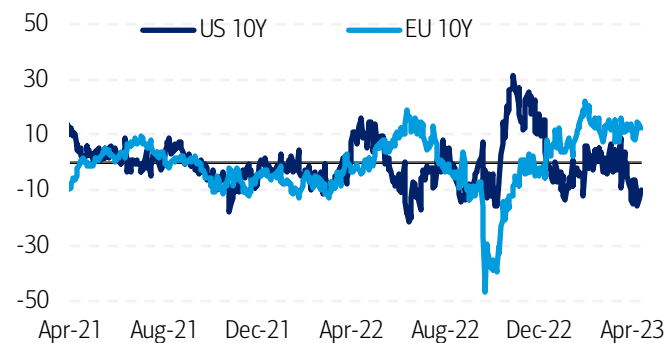


Source: BofA Global Research

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#### Exhibit 3: Residuals of US & EU 10Y yields (bp)

US 10y continues to richen relative to EU



Source: BofA Global Research

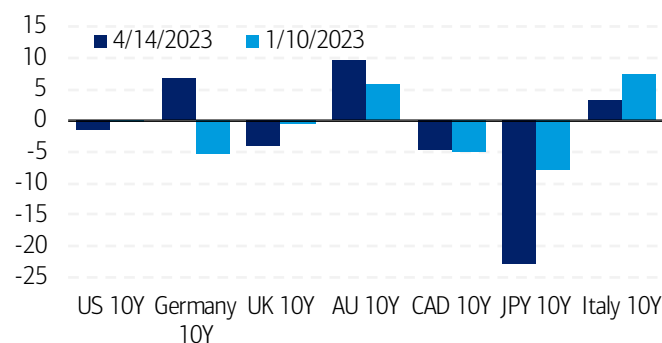
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### Global 10y breakevens: notable cheapness in JP

Some global inflation breakeven rates have normalized this year, particularly in UK, CAD, and Italy, while breakevens in AUD and Germany richened. Inflation breakevens in Japan saw the most notable RV deviation across the globe, with JP 10yBEs currently trading more than 22bp below fair value from the PCA framework. [In a previous note](#) we show the first factor (PC1) of global inflation expectations moves largely in tandem with the spot price of oil. We continue to see oil moves explaining c.83% of the first factor move in 10y breakevens globally.

**Exhibit 4: Breakeven rich/cheap today vs October**

Positive values indicate break is wide vs PCA framework

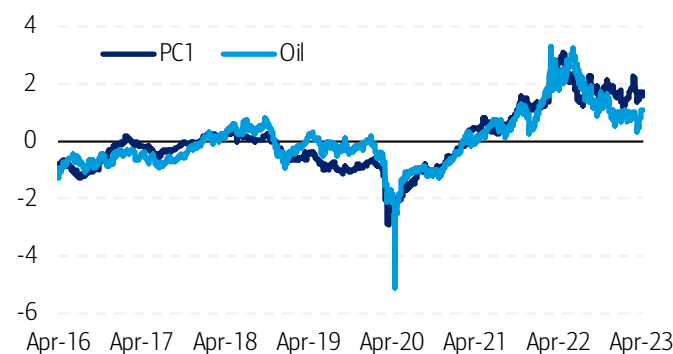


Source: BofA Global Research

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**Exhibit 5: First breakeven very closely matches 1st crude oil futures**

Oil is a primary driver of global inflation expectations



Source: BofA Global Research, Bloomberg

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**US rates: 5y rich relative to 2y & 10y**

US rates residuals picked up recently with 5y currently trading rich relative to 2y & 10y, which reflects the way that the market has repriced the Fed in recent weeks, adding an extreme amount of cuts. We see a similar move in a standard 50-50 weighted 2-5-10 butterfly. This implies scope for 5y to cheapen on the fly or vs PCA if the flight-to-safety bid unwinds and the Fed gets priced by markets to remain on hold for a longer amount of time.

**Exhibit 6: Regression residuals on 5y against 2y and 10y (bp)**

5y has richened vs 2y &amp; 10y sectors



Source: BofA Global Research

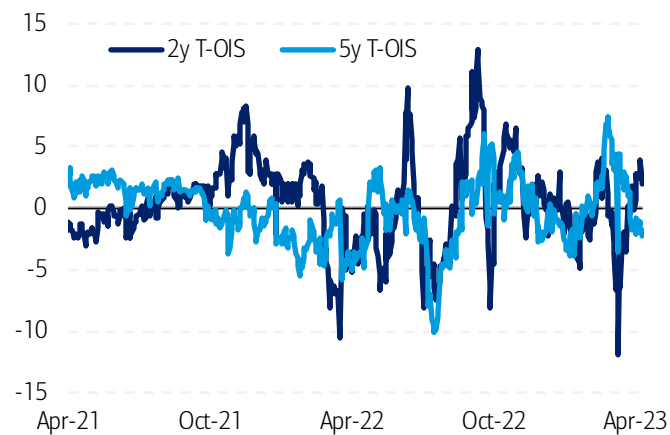
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**US OIS spreads: 2y normalized since bank crisis**

We had 2y OIS spreads as moderately rich in late February, but the richness quickly disappeared as spreads collapsed during the market turmoil in mid-March. The significant cheapness we saw in 2y USTs reflected in deeply negative 2y spreads could have been driven by liquidation of Treasuries in response to the banking events. During stress periods like we saw in March 2020 investors tend to sell their UST securities which translates into underperformance of Treasuries vs OIS, especially 2y. The front-end spread residuals have recovered quickly since then, and 2y OIS spread is now close to the fair value implied by the PCA framework. This is another sign of post-March normalization in our view.

**Exhibit 7: Residuals of US 2y & 5y OIS spreads (bp)**

2yT spread was rich vs fair value in late Feb but took a dive when the bank crisis hit. Level has come back from the shock and is close to fair value now



Source: BofA Global Research

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