TD Asset Management

U.S. Liquidity Management

Commentary

Q4 2022

For the month ended December 31, 2022

Fixed Income Outlook

TD Asset Management emphasizes capital preservation in our active fixed income portfolios while seeking to maintain a yield advantage relative to the benchmark. We expect U.S. growth (real GDP) to be near 0.0% in 2023 with slight but below-trend growth in 2024. A possible recession in 2023 is due to elevated inflation, higher interest rates, reduced private-sector consumption, tighter financial conditions, and geopolitical events. Elevated inflation and a strong U.S. labor market are driving expectations for higher short-term rates, via interest rate hikes, over the next six months. The bond market will be subject to heightened volatility due to tighter financial conditions, geopolitical events, and pandemic-related uncertainties. We expect yields to move higher from current levels, mostly in the front end, as the Federal Open Market Committee (FOMC) migrates to a more restrictive policy framework by increasing the target rate on Federal Reserve (Fed) funds and reducing its balance sheet. We remain constructive, and very selective toward credit, and are comfortable with our strategic credit overweight. Corporate bonds continue to offer some value over government bonds; thus, we maintain our preference for high-quality investment grade corporates. We continue to be positioned with an emphasis on liquidity and quality.

Focal Points

- Economic data show a slowing U.S. economy. Near 0.0% growth is expected in 2023 with an increasing likelihood of a recession as the FOMC tightens financial conditions, consumer demand wanes and business investment declines as corporate profits fall.
- The FOMC's median federal funds forecast for 2023 is 5.125% which is above market expectations. The FOMC is strongly committed to returning inflation to its two-percent target and it expects the unemployment rate to increase during the next couple of years.
- U.S. Treasury yields were mixed during the quarter as short- and long-term yields increased while yields in the belly of the curve mostly decreased as the market adjusted to a lower path of rate increases and a higher probability of a U.S. recession even as employment remained strong and inflation data elevated.
- Corporate bond spreads narrowed during the quarter as a lack of primary market supply overlayed with investor demand, partly due to attractive yields, provided a solid tailwind for spreads. A Eurozone recession and stagnant/negative growth in the United States is expected in 2023.

Source: TD Asset Management, TD Economics & Bloomberg Financial L.P.; December 31, 2022

Investment Professionals:

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Managing Director

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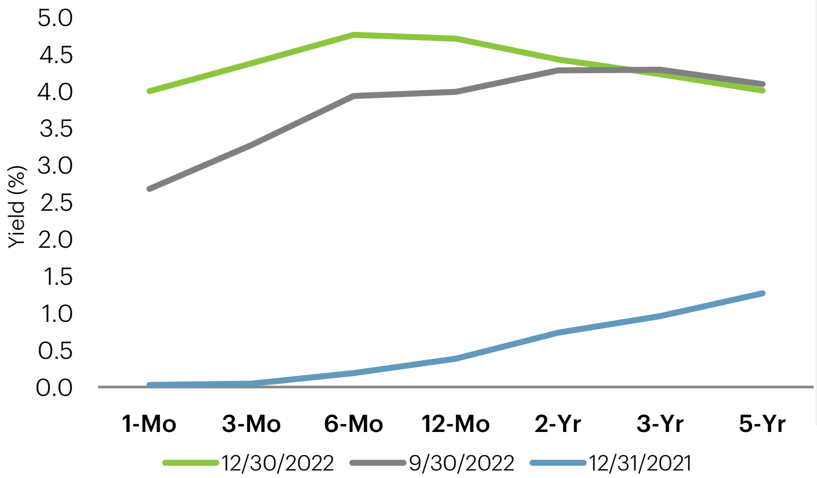
Vice President & Director

Front-end Treasury Yields



Source: Bloomberg Financial L.P.; December 31, 2022

During the quarter, the front-end Treasury curve twisted as ultra-short rates increased while longer-tenor yields decreased during a time when FOMC members reiterated their pledge toward fighting inflation (raising interest rates). Investors continue to recalibrate the timing, magnitude, and number of additional FOMC rate hikes due to persistent inflation and a strong labor market.

The Treasury curve inside of five years inverted more during the quarter. Ultra-short Treasury yields increased the most due to historically aggressive federal funds rate hikes.

Macro Update

- Real GDP increased 3.2% in Q3 2022 (Q2 2022 contracted 0.6%). Household consumption remained positive (increasing Q/Q) while residential investment and inventories were the main negative contributors to growth. Net exports was a positive contributor to growth, as was domestic demand. Inflation remains at a historically high level.
- Timely economic data continue to indicate a broad-based slowdown. We expect U.S. growth in 2023 near 0.0% with an increasing likelihood of a U.S. recession as the FOMC tightens financial conditions, consumer demand wanes and business investment declines as corporate profits fall; however, the jobs market remains strong.

Source: TD Economics & Bloomberg Financial L.P.; December 31, 2022

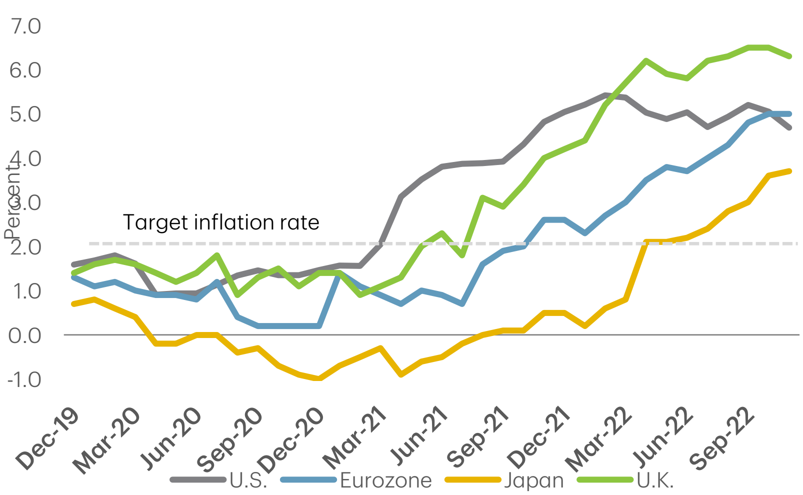
Our Long-Term Views:

U.S. and global economic growth remain uncertain and recessionary risks are rising in certain regions. A broad economic slowdown driven by a combination of higher interest rates and elevated inflation readings across segments of the economy could lead to muted returns.

The Federal policy framework will be restrictive in order to ease inflation. Tighter financial conditions, as nominal and real interest rates move higher, are expected.

Heightened inflation in developed markets is more persistent due to continued supply chain disruptions, higher energy and food prices, and geopolitical events. We remain more concerned over its duration than major central banks.

Inflation



Source: Bloomberg Financial L.P.; December 31, 2022

Inflation has peaked in the U.S. but remains historically high in segments of the economy, mostly due to rising food prices, tight labor markets, and rising residential costs. We expect inflation to decline over the next 12-18 months; however, achieving the FOMC's two-percent target may take longer than the market, and FOMC, anticipate.

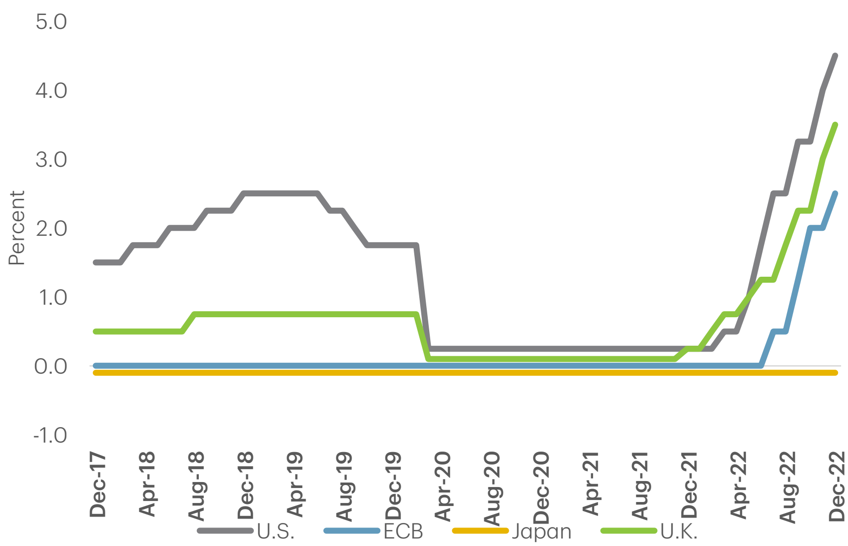
Elevated inflation is prevalent in numerous developed economies due to many of the same issues in the U.S.. Inflation has become more pronounced since Russia's incursion into Ukraine.

U.S. Central Bank Update

- The FOMC increased the federal funds rate by 1.25% during the quarter. We expect an additional 0.25% rate hikes at the FOMC's first two meetings of 2023 (Feb. 1 & Mar. 22) which would increase the target range to 4.75%-5.00%. The current target range is 4.25%-4.50%.
- The FOMC's median fed funds forecast for 2023 is 5.125%, which indicates a higher effective rate for a longer period. Both run contrary to market expectations. The FOMC also expects very slow economic growth and above-target inflation during 2023 and 2024.
- The Fed's balance sheet runoff cap is $95 billion per month. Chair Powell clearly stated that the Federal Reserve has no intention of selling MBS anytime soon.

Source: Bloomberg Financial L.P.; December 31, 2022

Central Bank Policy Rates



Source: Bloomberg Financial L.P.; December 31, 2022

The Fed, the Bank of England (BoE), the European Central Bank (ECB), and many other major central banks (CBs), are raising their respective policy rates (becoming more restrictive) as inflation remains well above target. CBs are trying to keep inflation expectations well anchored.

The Bank of Japan (BoJ) is the only major developed market CB not to have increased its policy rate during the post-COVID economic recovery.

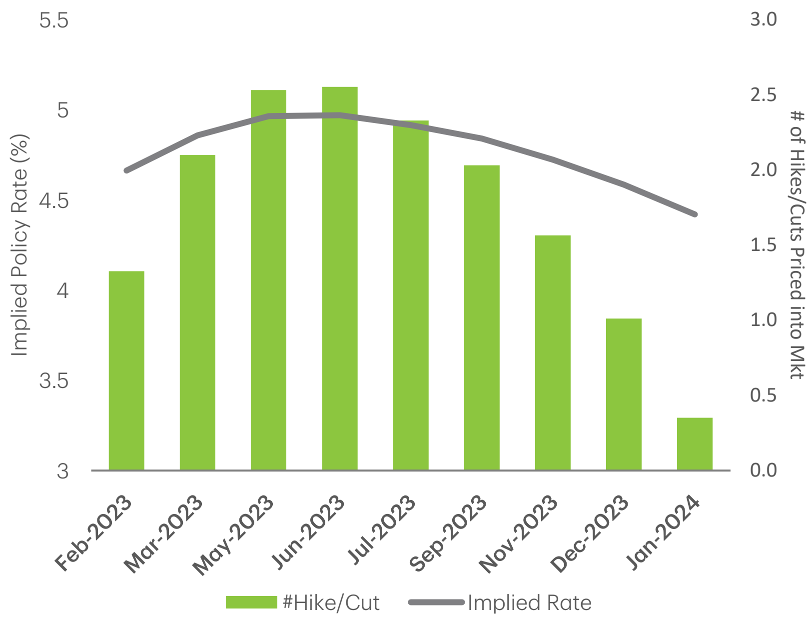
Cash/Short-term Market Update

- Short-term Treasury yields are increasing along with the federal funds rate and indicate future rate hikes are forthcoming.
- Short-term credit spreads narrowed 15 bps during the quarter. A lack of primary market supply during the past couple months, overlayed with investor demand, provided a solid tailwind for spreads.
- Prime money fund assets increased $130.8 billion during the 3-month period ending December 2022. Total assets are $660 billion versus $443 billion one-year ago. Asset growth should continue as the FOMC raises its federal funds rate.

- **Current Positioning:**
  - Short and Short/Intermediate Government/ Credit models remain overweight corporate bonds and have shorter duration relative to their benchmarks.

Source: Bloomberg Financial L.P.; December 31, 2022

Number of Hikes/Cuts Priced into Market



Source: Bloomberg Financial L.P.; December 31, 2022

During the quarter, the FOMC increased the fed funds rate at both meetings - November (0.75%) & December (0.50%). The FOMC has increased rates at seven consecutive meetings. The market expects a terminal rate of 5.00% during the next 3-5 months; although a rapidly deteriorating economy or geopolitical events may impact the trajectory of rate increases.

1-3 Year Corporate Option-Adjusted Spread (OAS)

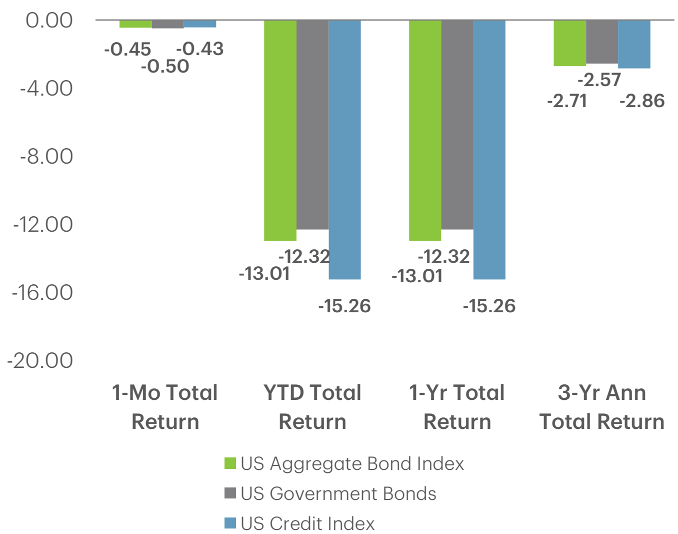
Source: Bloomberg Financial L.P.; December 31, 2022

During the quarter, the OAS on the 1-3-year corporate index tightened 15 bps, to 73 bps. Year to date, the index OAS is wider by 31 bps as high inflation, slower GDP growth, a more hawkish FOMC and geopolitical events negatively impacted valuations.

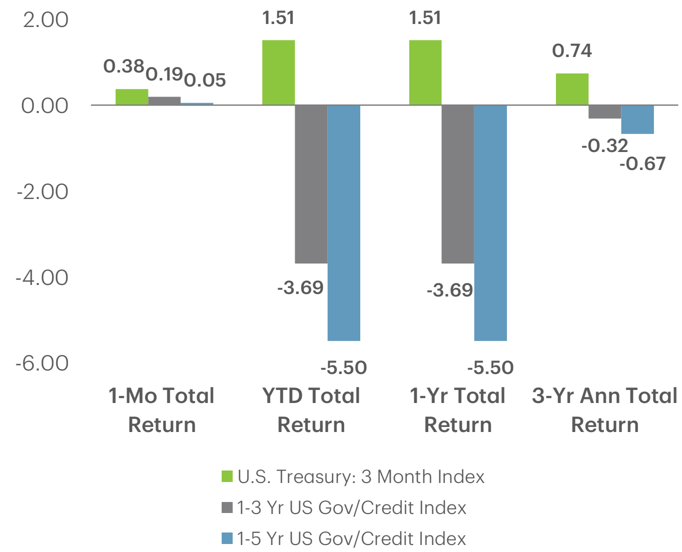
Corporate fundamentals remain solid as we enter an economic slowdown. Financial conditions are moving more into restrictive territory, which will negatively impact the corporate sector valuations.

Charts & Tables

Fixed Income Bond Indices



Total Return (%)



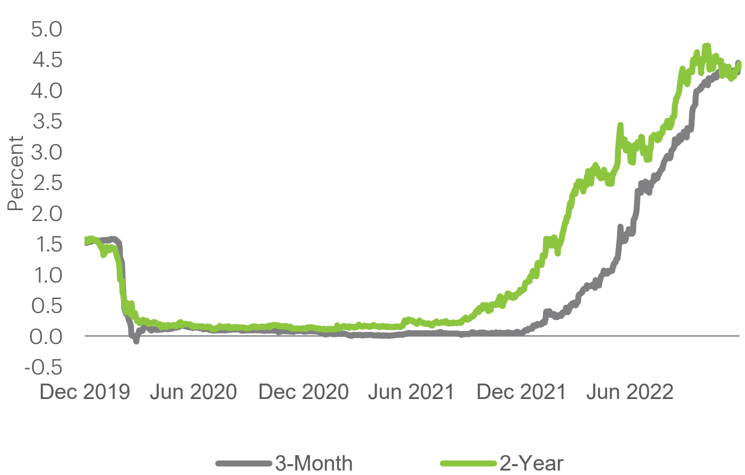
Economic Figures & Short-term Rates

Description	Current	3-mo Ago	1-yr Ago	Next Release
Fed Funds (%)	4.50	3.25	0.25	2/1/2023
CPI (YoY %)	7.10	8.30	6.80	1/12/2023
PCE (YoY %)	5.50	6.30	5.90	1/27/2023
Unemployment Rate (%)	3.70	3.70	4.20	1/6/2023
GDP (YoY %)	1.90	1.80	5.00	1/26/2023
Retail Sales (YoY %)	6.50	9.70	19.10	1/18/2023
Leading Indicators (YoY %)	-4.50	-0.90	7.90	1/23/2023
Housing Starts (000s)	1,427	1,508	1,706	1/19/2023

Description	Current	3-mo Ago	1-yr Ago
Fed Funds (%)	4.50	3.25	0.25
3-Mo U.S. Treasury Bill	4.37	3.27	0.04
6-Mo U.S. Treasury Bill	4.76	3.93	0.19
USD O/N Govt. Repo	4.34	3.00	0.03
U.S. 30-Day Comm Paper*	4.39	3.09	0.07
U.S. 90-Day Comm Paper*	4.54	3.70	0.15

*A1/P1/F1 rated U.S. Commercial Paper

Treasury Market



Change in Yield Curve (basis points)				
Maturity	Yield Curve (%)	1-Mo Ago	3-Mo Ago	1-Yr Ago
1-Mo	4.00	5	132	397
3-Mo	4.37	2	110	433
6-Mo	4.76	8	83	458
12-Mo	4.71	0	72	433
2-Yr	4.43	12	15	370
3-Yr	4.23	18	-6	327
5-Yr	4.01	27	-9	274
7-Yr	3.97	29	-2	253
10-Yr	3.88	27	4	237
20-Yr	4.15	22	6	221
30-Yr	3.97	23	19	206

Source for all charts and tables: Bloomberg Financial L.P.; December 31, 2022

Liquidity

TD Asset Management.:
TD Asset Management operates as Epoch Investment Partners, Inc in the United States and as TD Asset Management in Canada.. This information was prepared by TD Asset Management and the material has been reviewed and is now approved and presented for use in the United States by TD Private Client Wealth, LLC and TD Bank N.A.

Investment Risks

Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk, prepayment risk, and inflation risk. Corporate debt securities are subject to the risk of the issuer's inability to meet principal and interest payments on the obligation and may also be subject to price volatility due to factors such as interest rate sensitivity, market perception of the creditworthiness of the issuer and general market liquidity. High yield, lower-rated securities are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. Interest on municipal bonds is generally exempt from federal tax. However, some bonds may be subject to the alternative minimum tax and/or state or local taxes.