FUNDMARKET INSIGHT REPORT

Refinitiv Lipper Research Series

Fixed Income Market – Quarter-End Analysis

DECEMBER 31, 2021

Inflation Protected, Tax-Exempt, and High Yield Bond Funds End Year on High Note

Executive Summary

Fixed income funds realized a return of positive 0.06% on average during the fourth quarter of 2021, marking the ninth positive quarterly performance over the last 12 quarters. Tax-exempt bond funds (+0.69%) outperformed taxable bond funds (-0.17%) in quarterly performance for the second time this year, but for only the fourth time in the last three years.

The fourth quarter of 2021 began with drama in Washington as Congress worked to circumvent a government shutdown and possible U.S. default. To avoid a shutdown and to increase the national debt ceiling, both Republicans and Democrats asked for more transparency in the Build Back Better bill. This led to the removal of some of the proposed tax increases which helped to ease market concerns. Positive market momentum started to pick up by the end of October as COVID-19 cases were declining and solid company earnings data were being reported.

In early November, the Federal Reserve felt comfortable enough to announce that it will begin to taper the pace of its asset purchases later in the month. The original intention was to reduce the monthly net purchases by $15 billion per month ($10 billion in Treasuries and $5 billion in agency mortgage-backed securities). Adhering to this pace would end the quantitative easing program by June 2022, at which point (or shortly thereafter) it is assumed the Fed would then announce interest rate increases. Both fixed income and equity markets remained resilient at this point as the tapering pace met the market's expectations.

A week later, the U.S. economy received a massive wake-up call when October headline U.S. inflation was reported over 6.0%—marking the first time the Consumer Price Index (CPI) reached this level since 1990. Then by the end of November, the World Health Organization (WHO) officially declared the highly contagious omicron COVID-19 variant a "concern". Uncertainty around this new variant and possible shutdowns loomed large in investors' minds. As if things weren't rocky enough, in his testimony to Congress on November 30, Fed Chair Jerome Powell surprisingly admitted that inflation has been persistently high and will likely cause the Fed to accelerate the recently announced tapering pace.

At the December Federal Open Market Committee (FOMC) meeting, the committee declared it would double the pace of balance sheet tapering to $30 billion per month in 2022 ($20 billion in Treasuries and $10 billion in agency mortgage-backed securities). With this accelerated rate, the Fed's quantitative easing program will conclude three months earlier meaning an interest rate hike will more than likely happen sooner as well. Many market participants began to price in the first interest rate increase in March 2022 with the expectation of three total rate hikes throughout 2022. The November CPI, which was reported on December 15, showed headline CPI increased by 6.8%—the largest 12-month increase since June 1982. Core-CPI (excluding food and energy) also increased significantly (+4.9%)—the figure's largest annual increase since June 1991. To add to the overall upward pressure on prices, the labor market remains hot as well. Total nonfarm payroll employment rose by 199,000 in December and the unemployment rate fell to 3.9%—a pandemic-era low.

With inflation growing as the market's top concern and multiple interest rate hikes on the horizon, let's recap how Lipper fixed income classifications performed over the past three months.

Fourth Quarter Highlights:

- Fixed income funds posted a return of positive 0.06% on average during the fourth quarter of 2021.
- Tax-exempt bond funds (+0.69%) outperformed taxable bond funds (-0.17%) in quarterly performance for only the fourth time in the last three years.
- Twenty-eight of the 51 Lipper fixed income classifications ended the quarter with plus-side performance.
- The top three Lipper classifications over the quarter were Inflation Protected Bond Funds (+1.73%), General U.S. Treasury Funds (+1.14%), and High Yield Municipal Debt Funds (+1.14%).
- The bottom three performing classifications were Emerging Markets Local Currency Debt Funds (-1.85%), Emerging Markets Hard Currency Debt Funds (-1.70%), and International Income Funds (-1.10%).

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Executive Summary (cont.)

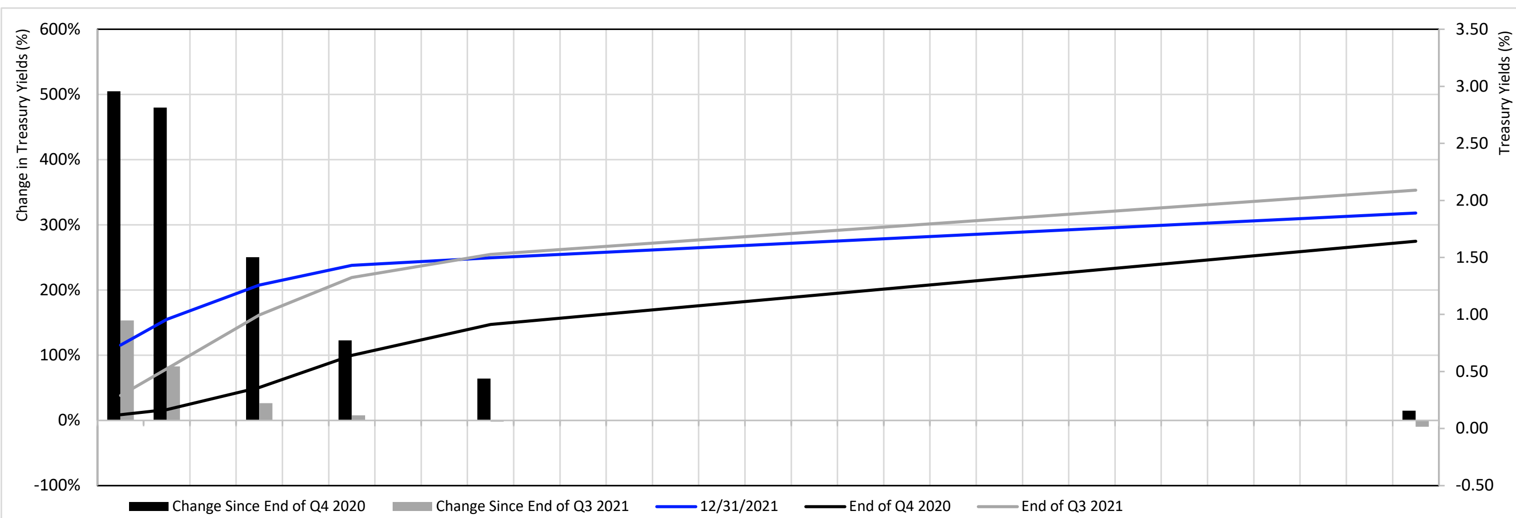
In total, 28 of the 51 Lipper fixed income classifications ended the quarter with plus-side performance, which is up from 17 last quarter. For tax-exempt bond funds, 19 of the 20 classifications appreciated throughout the quarter—only nine of the 31 taxable bond fund classifications finished Q4 2021 in the black.

General municipal debt funds (+0.95%), single state municipal debt funds (+0.75%), and national municipal debt funds (+0.28%) were the top-performing macro-groups throughout the quarter. World taxable fixed income funds (-1.13%), alternative bond funds (-0.42%), and short-term/intermediate corporate fixed income funds (-0.26%) closed the quarter as the worst-performing macro-groups.

Our top five Lipper classifications over the quarter were Inflation Protected Bond Funds (+1.73%), General U.S. Treasury Funds (+1.14%), High Yield Municipal Debt Funds (+1.14%), New York Municipal Debt Funds (+1.04%), and California Municipal Debt Funds (+0.94%). This was the second straight quarter where Lipper Inflation Protected Bond Funds took home the top spot.

On the flip side, the worst-performing classifications on average were Emerging Markets Local Currency Debt Funds (-1.85%), Emerging Markets Hard Currency Debt Funds (-1.70%), International Income Funds (-1.10%), Short-Intermediate U.S. Government Funds (-0.80%), and GNMA Funds (-0.74%).

FIGURE 1 TREASURY YIELD CURVE: MOVEMENT SINCE Q4 2020



Source: Refinitiv Lipper, An LSEG Business

Government/Treasury Funds Summary

The Treasury yield curve has flattened significantly since the end of Q3 2021. The two- and three-year Treasury yields increased 153.29% and 82.63%, respectively, while the 10- and 30-year yields fell 1.90% and 9.66%. The 10-two Treasury yield spread decreased 38.13% over the quarter.

The government/Treasury funds macro-group posted a positive 0.27% return on average over the quarter, marking the seventeenth time in the last 20 quarters realizing plus-side performance and the third quarter straight.

With the market already pricing in multiple fed funds rate increases in 2022, shorter-duration and mortgage funds suffered the most in this macro-group. The U.S. 30-year fixed-rate mortgage average increased 16.5% over the year and will more than likely continue to increase as the Fed discontinues its quantitative easing program next year. As borrowing costs rise, the net asset value (NAV) of these funds often decline. Short-Intermediate U.S. Government Funds (-0.80%), GNMA Funds (-0.74%), U.S. Mortgage Funds (-0.66%), and Short U.S. Government Funds (-0.63%) were the lowest-performing Lipper classifications under the government/Treasury funds macro-group.

The main driver of this macro-group for the second straight quarter was Lipper Inflation Protected Bond Funds (+1.73%). This classification has only reported two negative performing quarters in the past three years and is the top-performing Lipper fixed income classification overall for the second consecutive quarter. Only Lipper High Yield Municipal Debt Funds (+5.53%) reported a higher year-to-date return than Lipper Inflation Protected Bond Funds (+5.40%). The Lipper Inflation Protected Bond Funds classification attracted $18.4 billion during Q4, which is the second-largest quarterly intake on record (Q1 2021 saw +$19.2 billion in inflows).

The only other two classifications to appreciate over the quarter in this macro-group were Lipper General U.S. Treasury Funds (+1.14%) and Lipper General U.S. Government Funds (+0.01%). Both these classifications tend to have no weighted average maturity restriction and often invest in longer-duration issues.

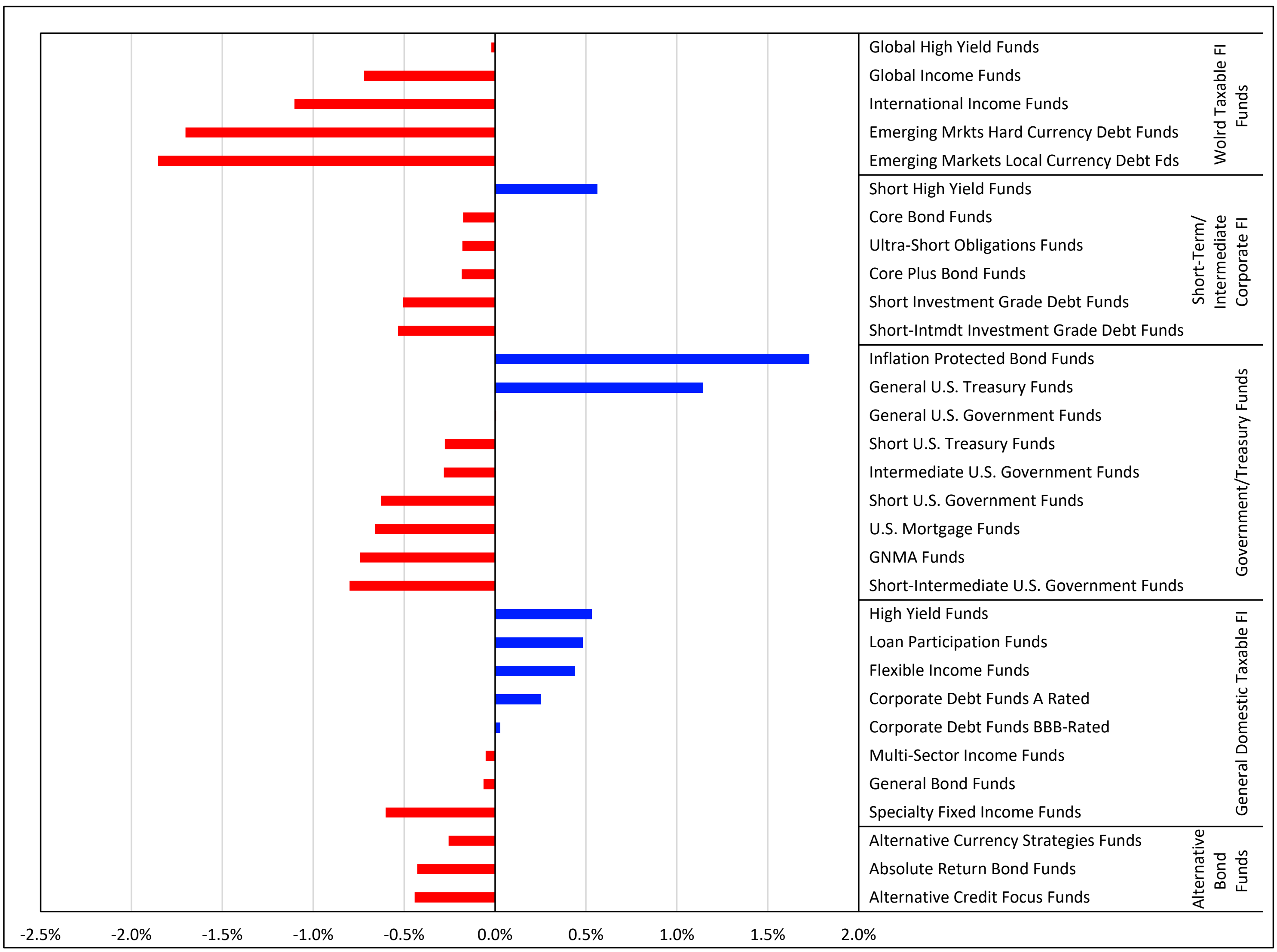
Short-Term Intermediate Corporate Bond Funds Summary

Short-term intermediate corporate bond funds finished the fourth quarter with negative quarterly performance (-0.26%), which ends a two-quarters streak of plus-side performance. Five of the six Lipper classifications realized negative performance to end the calendar year.

The only Lipper classification to post a positive fourth quarter was Short High Yield Funds (+0.56%)—their seventh straight quarter avoiding the red which ties the longest active streak of positive performing quarters among all fixed income classifications. Funds within this classification aim at relatively high income from domestic securities that tend to maintain lower debt ratings and weighted average maturities of less than three years. Lipper Short High Yield Funds have logged a year-to-date performance of positive 4.32%—registering them as the third largest year-to-date performance for all taxable fixed income classifications. Despite its solid performance streak, this classification will report its first quarterly outflow in Q4 (-$365 million) since Q1 2020.

The lowest returning Lipper classifications under short-term intermediate corporate bond funds were Short-Intermediate Investment Grade Debt Funds (-0.53%), Short Investment Grade Debt Funds (-0.51%), and Core Plus Bond Funds (-0.18%). All three of the bottom performers realized positive performance in at least the past two quarters, and Lipper Short Investment Grade Debt Funds snapped a six-quarter plus-side stretch.

FIGURE 2 Q4 2021 TAXABLE FIXED INCOME PERFORMANCE (%)



Source: Refinitiv Lipper, An LSEG Business

Municipal Debt Funds Summary

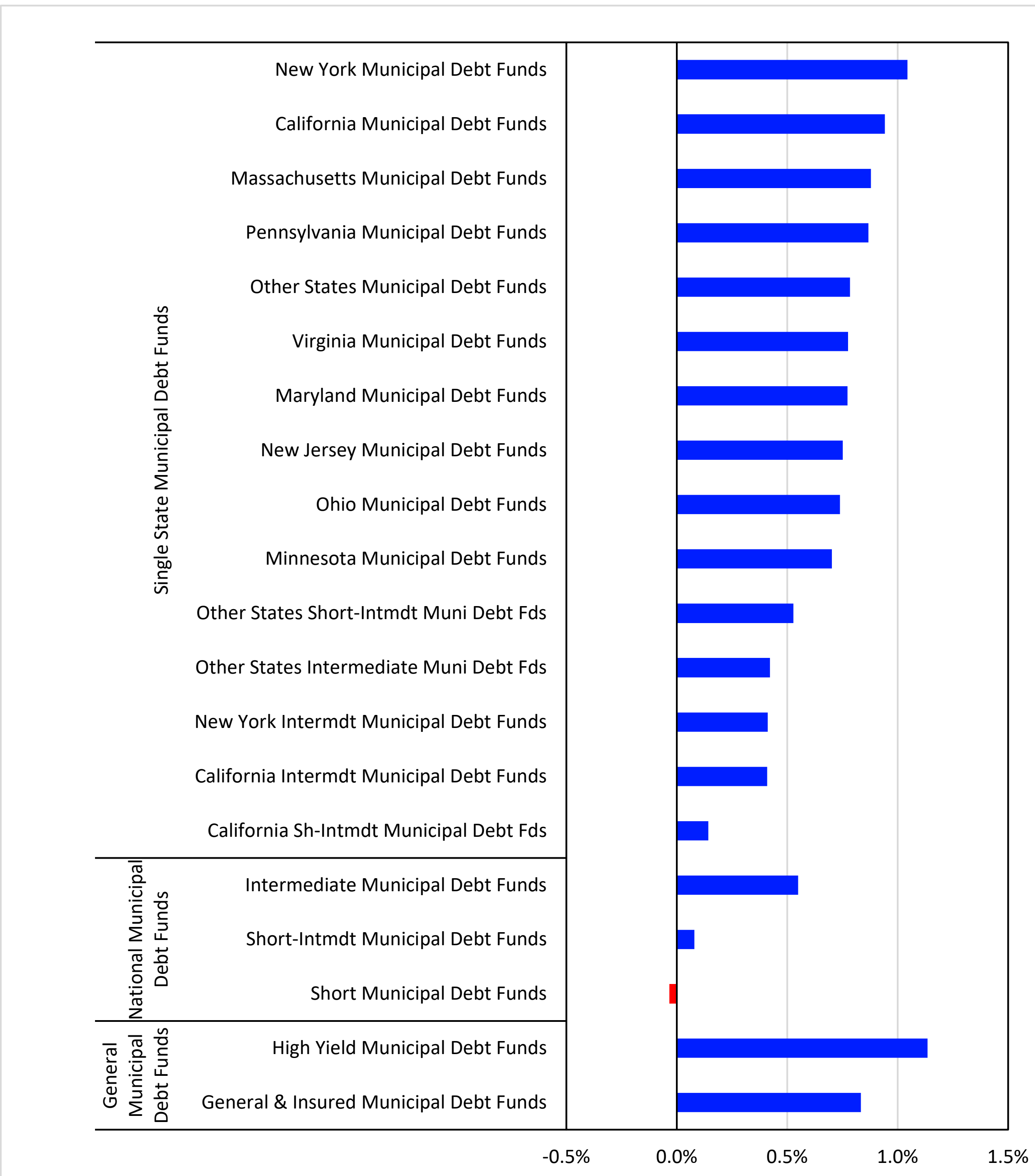
Municipal debt funds recorded an average gain of 0.69% for the fourth quarter of 2021—making up for the losses in Q3 2021. General municipal debt funds recorded the largest macro-group quarterly performance of positive 0.95%—marking their tenth positive quarter over the past three years. Single state municipal debt funds (+0.75%) and national municipal debt funds (+0.28%) also fared well throughout the last quarter of the year—both classifications have recorded two plus-side performing quarters over the last three.

Of the 20 municipal debt funds Lipper classifications, only one reported negative quarterly performance. Short Municipal Debt Funds (-0.03%) witnessed their second consecutive quarter in the red. During Q3 2021, all 20 Lipper tax-exempt classifications suffered negative quarterly performance. Despite only outperforming taxable fixed income funds in just four quarters over the past 12, municipal debt funds set a record for calendar year inflows as they collected $97.0 billion throughout 2021.

The top three non-single state Lipper tax-exempt classifications were High Yield Municipal Debt Funds (+1.14%), General & Insured Municipal Debt Funds (+0.83%), and Intermediate Municipal Debt Funds (+0.55%).

The three highest-performing municipal single-state Lipper classifications in Q4 were New York Municipal Debt Funds (+1.04%), California Municipal Debt Funds (+0.94%), and Massachusetts Municipal Debt Funds (+0.88%).

FIGURE 3 Q4 2021 TAX-EXEMPT FIXED INCOME PERFORMANCE (%)



General Domestic Taxable Bond Funds Summary

As a macro-group, general domestic taxable fixed income bond funds finished the quarter returning a positive 0.22%. The macro-group has realized nine positive performing quarters over the last 12 and has now produced three in a row. Much like last quarter, five of the eight Lipper classifications making up this macro-group finished the quarter with positive performance.

Lipper Specialty Fixed Income Funds (-0.60%), which are funds that typically have distinctly different performance and strategies, including the use of short positions and leverage, finished at the bottom of this macro-group for the second straight quarter. General Bond Funds (-0.06%) and Multi-Sector Income Funds (-0.05%) also logged negative performance. Lipper General Bond Funds have suffered negative quarterly performance in three of the past four quarters, where Multi-Sector Income Funds logged their first sub-zero performance since Q1 2021. Lipper Multi-Sector Income Funds lead all general domestic taxable bond funds in year-to-date inflows (+$48.7 billion) and have logged its seventh consecutive quarterly inflow.

The top three performing classifications under general domestic taxable bond funds in Q4 2021 were Lipper High Yield Funds (+0.53%), Lipper Loan Participation Funds (+0.48%), and Lipper Flexible Income Funds (+0.44%). All three of these Lipper classifications have observed seven straight positive quarters. With upward pressure on interest rates and historically low default rates, both floating rate securities and high yield corporate debt have fared very well over the past two years. Lipper Loan Participation Funds have attracted +$45.4 billion over the course of 2021 and have observed net inflows in each quarter this calendar year. The last time this classification witnessed inflows in all four quarters was in 2013, during the Taper Tantrum when they collected a record-breaking $62.9 in new money.

World Fixed Income Funds Summary

World fixed income funds struggled yet again in Q4 2021. Their negative 1.13% performance was the lowest among all macro-groups. This macro-group has only reported one plus-side returning quarter this year. All five of the Lipper classifications that make up the macro-group finished the quarter in the red.

The bottom three performers in this macro-group ranked last among all fixed income Lipper classifications in fourth-quarter performance—Emerging Markets Local Currency Debt Funds (-1.85%), Emerging Markets Hard Currency Debt Funds (-1.70%), and International Income Funds (-1.10%). Each of these three classifications have suffered negative quarterly performance in three of the last four quarters. Despite the poor quarterly performance, the classifications in this macro-group, in total, pulled in $2.7 billion during Q4. If the U.S. economy enters more uncertain times and monetary policy tightens sooner than expected, we may see these inflows grow in Q1 2022.

For immediate assistance, feel free to contact Lipper Client Services toll-free at **877.955.4773** or via email at **LipperUSClientServices@refinitiv.com**. For more information about Lipper, please visit our website at refinitiv.com/en or lipperalphainsight.com

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