

Economic and Sector Summary & Outlook
Third Quarter 2023

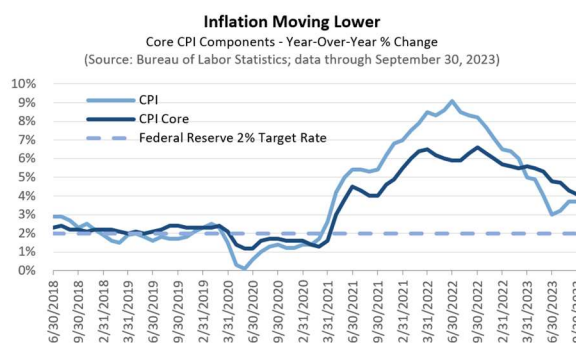
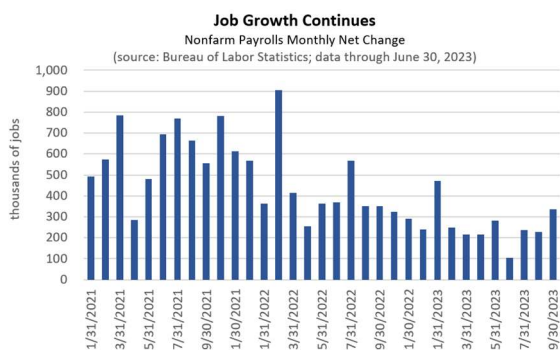
US Economy

Summary

Despite rapid rate increases from the Federal Reserve, numerous headwinds, and forecasts for an imminent recession, the US economy continues to expand at a solid pace. During the third quarter of 2023, inflation pressures abated but the strength in September’s employment report raised the risk that economic growth may be reaccelerating, and that current monetary policy may still not be sufficiently restrictive. The Atlanta Federal Reserve’s GDPNow forecasts third quarter GDP to increase by a robust 5.1%, compared to 2.0% and 2.1% for the first and second quarters, respectively. Third quarter economic growth is expected to benefit from improvements in consumer spending, non-residential fixed investment, inventories, and the trade balance.

One of the biggest surprises during the quarter was September’s employment report which showed a 336,000 increase in payrolls, almost doubling the consensus estimate for a gain of 170,000. Prior to the release, employment was gradually softening, but September’s increase and strong revisions to the prior months’ data pushed the three-month average increase from 155,000 to 266,000. We are hesitant to put too much weight on a single month from a very volatile data series, but labor market strength was also evident in the unexpected increase in job openings and continued low levels of initial jobless claims.

Inflation news was encouraging over the quarter as the Federal Reserve’s preferred measure of underlying inflation, the core PCE, rose by only 0.1% in August, the slowest monthly pace since late 2020. In the third quarter, energy prices pushed headline CPI inflation higher from 3.0% to 3.7%, but well off the peak of 9.1%. The core CPI measure, which excludes volatile food and energy prices, continued its gradual decline, falling from 4.8% to 4.1%. Goods prices continue to deflate, led by used car prices but service prices remain firm, supported by the strong labor markets. Despite stronger payroll growth, wage inflation moderated with average hourly earnings declining on an annual basis from 4.4% to 4.2%, off the post-pandemic peak of 8.1%.



The Federal Reserve ended the quarter on a hawkish note, emphasizing that interest rates would need to stay “higher for longer.” The committee left rates unchanged at its September meeting but maintained one more rate hike in the mean estimate for 2023 and reduced the estimate for rate cuts in 2024 from 100 basis points to 50 basis points. In its summary of economic projections, the Federal Reserve increased the outlook for economic growth but left inflation projections unchanged, reflecting its view of resilient economic growth and “sticky” inflation. Chairman Powell indicated, “We’re prepared to raise rates further if appropriate, and we intend to hold policy at a restrictive level until we’re confident that inflation is moving down sustainably toward our objectives.”

Outlook

A near-term recession for the US economy looks less likely given the resilience of consumer spending and the strength of the labor market. The headwinds to the outlook, however, continue to build including higher borrowing costs, the resumption of student loan repayments, depleted household savings, “higher for longer” Federal Reserve policy, the UAW strike, a possible government shutdown in November, and geopolitical risks in China, Ukraine, and the Middle East. US GDP accelerated in the third quarter, but we expect activity to slow over the next two quarters and face a possible mild downturn in the second or third quarter of 2024.

Inflation is trending lower but still has a long way to go to reach the Federal Reserve's 2% target. We expect core CPI to fall from 4.1% in September 2023 to 3.70% by year-end. The disinflation in goods prices appears complete and the decline in shelter prices is underway; but service inflation will take time and depend on the rebalancing of supply and demand in the strong US labor market.

Given our outlook for declining inflation and moderating economic growth in 2024, we believe the Federal Reserve is done raising rates for the current cycle. In addition, tighter market financial conditions, driven primarily by higher interest rates, make further rate hikes less likely. The market focus will shift from rate hikes to the timing and magnitude of rate cuts in 2024. With the Federal Reserve's inflation fighting credibility at stake and our outlook for only a mild economic downturn, we believe rate cuts might be delayed until the end of 2024.

Sector Analysis

US Interest Rates

The third quarter of 2023 was nothing short of eventful in the US Treasuries market, particularly in the long end of the yield curve. The 30-year US Treasury bond yield began the quarter at approximately 3.86% and moved significantly higher, finishing the quarter at 4.70%, adding approximately about 84 basis points in yield. Equally staggering was the bear-steepening move experienced in the yield curve. The spread between 2-year and 30-year US Treasury Notes steepened by approximately 69 basis points in the third quarter, yet the curve remains somewhat inverted.

While infrequent, these large and uneven rate shifts along the yield curve can often carry a lasting impact on macroeconomic fundamentals. The bear-steepening move in the third quarter was no different. As the move reached extremes near the end of the quarter, it prompted a few Federal Reserve officials to hint in public commentary that recent bond market moves may be tightening financial conditions enough to eliminate the need for an additional 25-basis point rate hike at the November or December FOMC meetings. At this point in time, money market futures are now pricing at less than a 15% probability of another hike in 2023.

Typically, large bear-steepening rates moves are often accompanied by large scale increases in inflation expectations. Given the price of WTI crude oil was up almost 22% for the quarter — and its historically high correlation to headline CPI inflation — one would expect this was simply another case of the bond market re-pricing to higher inflation expectations. However, looking at inflation swap markets and 2-year TIPS breakeven spreads over the same period (which were down over the quarter), reveals that market-based inflation expectations had instead declined.

In fact, the true culprit behind the bear-steepening move started with the expansive fiscal spending that came to a head in early the third quarter with concerns over the debt ceiling resolution. While the US Treasury managed to avoid a catastrophic default in the eleventh hour, the government's expanding budget deficit still puts it in the position of having to increase the size of its quarterly bond sales for the first time in many years. The US Treasury announced it would sell \$103 billion of longer-term securities at the August quarterly refunding, an amount larger than most dealers had expected. Looking forward, the US Treasury also communicated plans to upsize debt sales across the curve. Taken together, these largely unexpected and unpriced announcements helped to drive the bear-steepening shift in markets.

While US Treasuries sold off aggressively, it is arguable the yield adjustment has been overdone. At the time of writing, 30-year bond yields have now reached a yield high of 5.05%, which is both a technical and psychological area that we believe should offer very firm buying support, but the situation remains fluid.

Rates Spotlight

Term Premia

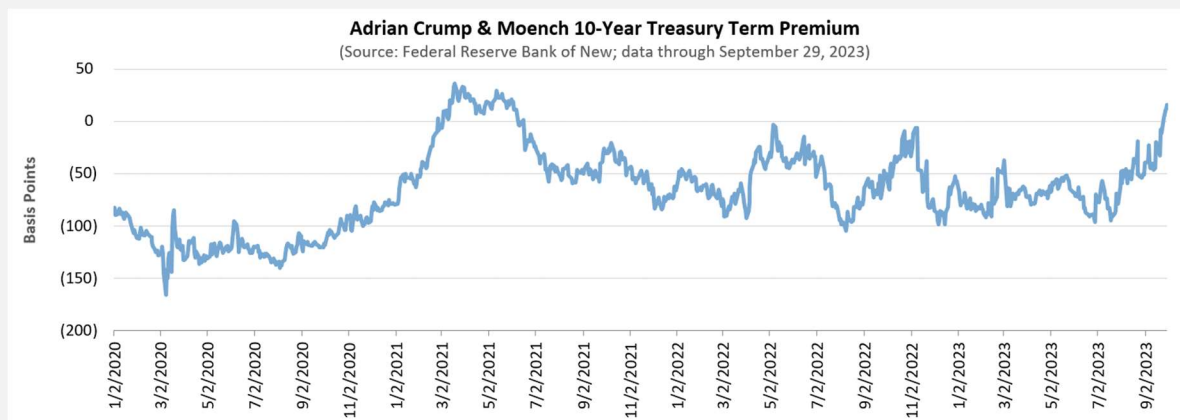
The US Treasury market, particularly in the long-end of the yield curve, suffered weak performance in the third quarter of 2023, as 30-year Treasury bond yields rose markedly, with the yield to maturity on the long bond increasing by 84 basis points to 4.70%. Also notable is the fact that 2-year Treasury yields rose by only 15 basis points in the same period, meaning the 2s-30s segment of the yield curve steepened by 69 basis points.

While this ‘bear steepening’ price action has been thoroughly covered by most financial media outlets (as journalists attempt to vilify US policymakers for their profligate spending that has helped drive the need for Treasury to issue significantly more supply than initially estimated), there is another phenomenon at work that has arguably been less editorialized, but quite useful at statistically explaining the recent surge in Treasury bond yields. This concept is known as the “term premium”.

What is the ‘term premium’? Simply put, term premium is the amount of compensation an investor receives for purchasing a relatively longer maturity bond. As a simple example, if one were to consider the action of purchasing a 2-year US Treasury Note and rolling it each time it matured, compared to purchasing a US Treasury 10-year Note and holding it to maturity, there is typically a degree of added compensation embedded in the longer-maturity bond for incurring the additional interest rate risk. Further, this premium can either be positive or negative, depending on investor demand for relatively longer-dated securities.

Therefore, term premia are not something that can be directly observed. Instead, they can only be estimated through various econometric techniques or statistical models. There are several different term-premium models that are widely used by practitioners, and certain models use highly sophisticated measurement techniques, while others are more straightforward. One of the more commonly quoted methods is the Adrian Crump & Moench (ACM) 10-year Treasury Term Premium model, which was designed by the Federal Reserve Bank of New York and is freely available on Bloomberg. The ACM approach employs a five-factor, arbitrage-free term structure methodology that attempts to model the yield on a given Treasury security as the “expected short-term rate” plus the “term-premium”.

Looking beyond the methodologies of the various term premia models, which exceed the scope of this paper, it’s clear that term premia, however measured, rose substantially in the third quarter of 2023. Having been at negative levels for more than two years running, the ACM model estimated that 10-year term-premia increased by 93 basis points in the third quarter to a level of 16 basis points.



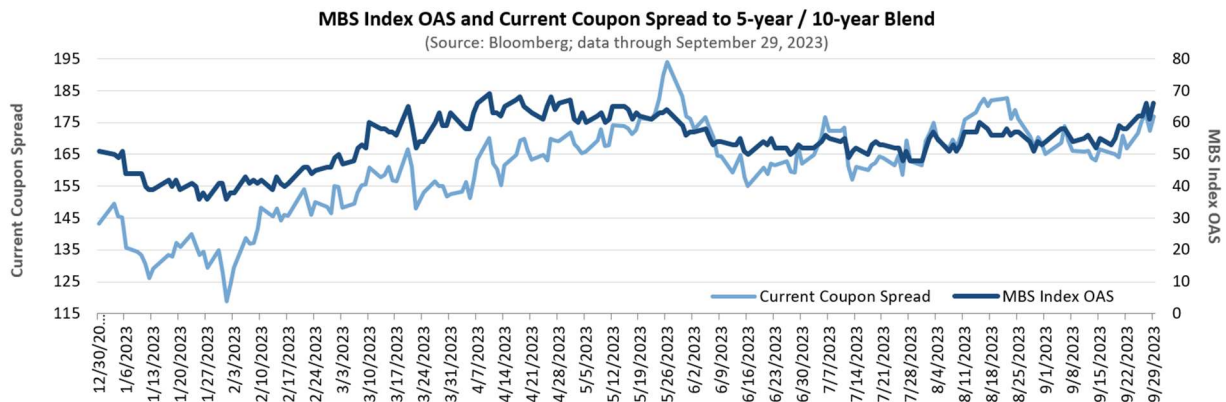
Moreover, now that 10-year term premia have finally “crossed the zero line” and sport a positive value, the takeaway is that investors are finally beginning to receive compensation for incurring additional interest rate risk in longer-dated securities such as 10-year and 30-year Treasury bonds. All else equal, this move is heavily underscored by the prevalent steepening seen across the Treasury yield curve. In standalone, this does not imply that Treasury securities are completely mispriced. However, it does signal that returns are starting to more accurately reflect the risks (particularly inflation and monetary-policy risks) embedded in long duration bonds. Looking forward, one could argue that if inflation (as well as inflation volatility) continue to decline, the positive convexity nature of longer-term bonds could begin to offer attractive risk/reward profiles for consideration.

Securitized Products

One of the main themes of the third quarter was a move to higher interest rates driven by higher term premiums across the yield curve. Increased term premiums are to a certain degree reflective of increased uncertainty in both monetary policy and inflation in the coming quarters. This increased uncertainty has resulted in elevated implied volatilities in the swaps markets, which has created a headwind for the MBS market.

During the third quarter, the Bloomberg US Mortgage-Backed Securities (MBS) Index returned -4.05%. Over the course of the third quarter, the MBS Index OAS widened 14 basis points to 66 basis points and the current coupon MBS spread to the 5-year and 10-year blended US Treasury yield widened 15 basis points to 177 basis points. For reference, the tights for the year on these two spreads were 36 basis points and 119 basis points, both occurring the first week in February which is notably prior to the banking crisis in March. For the 30-year coupon stack, the worst performance on an excess return basis was turned in by 3%, 3.5% and 4% coupons, while the best performance was turned in by 5.5% and 6% coupons. Ginnie Mae securities performed very much in line with their conventional counterparts while 15-year mortgages underperformed 30-year mortgages.

Over the course of the quarter, we have moved from an underweight allocation to MBS relative to benchmarks to a neutral weighting. Opportunistically, we added MBS on days where spread widening occurred, focusing on production coupons while deemphasizing lower coupons. Although interest rate uncertainty persists as a byproduct of sticky inflation and unexpectedly resilient economic growth, we believe that spreads have widened enough in the sector to make MBS attractive versus other spread product and US Treasuries. We will continue to focus purchases on production coupons, currently 6%, 6.5% and 7% coupons. We have also found value in higher coupon Ginnie Mae securities versus conventional coupons as Ginnie Mae prepayment restrictions provide enhanced convexity characteristics.



Despite the general rise in interest rates during the third quarter, the Bloomberg Asset-Backed Securities (ABS) Index managed to generate 25 basis points of total return and 29 basis points of excess return as its OAS tightened 1 basis point to 67 basis points. During the quarter, the OAS on the ABS Index reached a tight of 59 basis points in August. The modest widening into quarter end was the result of elevated new issue supply, not any unexpected fundamental deterioration of asset performance. Broadly speaking, demand for ABS in the third quarter was strong as low unemployment supported consumer performance and a healthy economy supported business backed deals, while the inverted yield curve drove investors into shorter maturities in a classic yield grab. Market participants also looked to reach for yield by moving down capital structures within deals and looking to tradeoff liquidity for yield. The ABS sector remains our largest overweight. We continue to find high quality assets spread against the front end of an inverted yield curve attractive. Our focus has been and continues to be on high quality asset backed deals off larger more liquid shelves. The CLO market improved during the quarter as spreads across the credit stack contracted. We continue to hold short average life AAA classes that provide very attractive yields.

We currently do not hold any CMBS securities in the portfolios. The fundamentals in the CRE sector continue to deteriorate as both interest rates and capitalization rates rise. Within CRE, the office sector has garnered the most negative news as return to work trends continue to disappoint. The multifamily market is coming under more scrutiny as new construction pipelines are built. The retail sector, although depressed, appears to be stabilizing

and finally, the hospitality segment has recovered strongly from the pandemic lows but will be closely tied to overall economic activity. Our expectation is that the CMBS market will face significant fundamental headwinds in the coming quarters. The maturity wall in 2024 and 2025 and refinancing volumes will add to these fundamental pressures. We find the sector unattractive and do not anticipate adding exposure to the portfolios.

Investment Grade Credit

During the third quarter of 2023, the OAS on the Bloomberg US Corporate Bond Index tightened 2 basis points to finish at 121 basis points. Despite a marginal tightening of spreads, total returns of the IG asset class were negative as overall yields widened 58 basis points from 4.81% to 5.39% due to a repricing of rates. After long shrugging off the Federal Reserve's pledge of a higher-for-longer regime, the markets seemed to finally embrace the notion that near-term rate cuts were unlikely.

Higher yields encouraged increased buying of duration from yield focused investors that asserted tightening pressure on credit spreads for most the quarter. However, the speed and magnitude of recent interest rate moves forced many investors to the sidelines, leading to a mild widening of spreads towards the end of September.

Investment grade primary issuance in the third quarter totaled \$286 billion, down 4% versus the average pace of \$297 billion per annum over the last four years. Even though gross issuance was largely in-line versus the four-year average, the proportion of long-end supply was just 10% versus a 16% average YTD. While limited new issuance in long duration bonds has increasingly been the norm since the Federal Reserve started hiking, the trend seemed to accelerate during the quarter as companies attempt to retain optionality to refinance at lower costs should interest rates eventually decline.

The average maturity of new issues in the third quarter was approximately 8.3 years, lower than 9.9 years and 11 years in the third quarters of 2022 and 2021, respectively. This was the lowest quarterly average tenor since the third quarter of 2008. Increased investor demand for long duration bonds coupled with the reluctance of companies to issue long bonds and lock in high interest rates have led to a significant supply / demand imbalance where the ten-year to thirty-year corporate credit curve has meaningfully flattened.

Despite ongoing concerns of an economic slowdown, corporate credit fundamentals have proven to be remarkably resilient. Valuations from a spread perspective are stretched, but technical tailwinds (e.g., high yields, limited net new issuance, positive fund flows, etc.) have provided strong support for corporate investment grade assets.

The best performing industries and sub-segments from an excess return basis were refiners, pipelines, tobacco, and integrated energy while the worst performers were autos, banks, and diversified media.

Markets are increasingly pricing in a soft-landing where inflation moderates and economic conditions are gently guided down to sustainable levels. While there is increasing data to support this recession-free scenario, uncertainty remains. As employment stays robust, corporate fundamentals remain resilient, and inflation stays above 2%, the Federal Reserve is likely to keep rates at restrictive levels for a longer period. Ultimately, this heightens the risk of a policy driven mistake and an economic hard landing. Despite attractive overall yields, we remain cautious on credit spreads and maintain an underweight position as we wait for more attractive entry points.

High Yield

US interest rates marched persistently higher during the third quarter, putting a damper on high yield market returns. After gaining 5.4% in the first half of 2023, the US high yield market (as measured by the Bloomberg U.S. Corporate High Yield Bond Index) posted a return 0.5% in the third quarter. Several market themes continued during the summer. In particular, CCCs continued to outperform the market, gaining 2.5% in the period (versus BBs at -0.4% and Bs at 0.8%) that follows a 9.4% return through June. High yield spreads traded in a relatively tight range during the third quarter and ended September just 4 basis points wider at 394 basis points. With higher US Treasury yields, the yield-to-worst pushed back toward 9%, ending the quarter 38 basis points higher at 8.88%. At the sector level, returns were generally compressed around the high yield market, with energy (1.7% total return) and cable (2.4%) outperforming and restaurants (-1.2%) and airlines (-1.1%) lagging.

With the US economy remaining resilient, high yield credit fundamentals are only showing a few cracks. Revenue and EBITDA posted modest year-over-year declines in the second quarter, down 2% and 4%, respectively, with most sectors experiencing margin deterioration compared to 2Q22. Leverage increased a quarter turn to 4.2x, the first increase following eight consecutive declines. Interest coverage deteriorated for the third straight quarter, falling to a still healthy 5.25x. Additionally, ratings upgrades continued to outpace downgrades in the third quarter. After rising in the first half of the year, defaults have moderated in recent months, and the default rate ended September at 2.1%, down from 2.7% at the end of June. We anticipate fundamentals to show additional moderate deterioration in coming quarters as a result of further earnings weakness, continued profit margin pressure, and more restrictive access to credit. While defaults are likely to climb above the long-term average of 3%, the timing is likely pushed out to 2024.

Although high yield primary issuance picked up in September, the third quarter proved relatively quiet, with just \$41 billion in new volume, down from \$55 billion in the preceding period. Year-to-date volumes are up over 50% compared to 2022, but much of the proceeds have been applied to refinancing, leaving net new issue supply up less than 10%. This trend, combined with nearly \$70 billion of rising stars (including \$5 billion in the third quarter), has been the driver of a very supportive technical picture thus far in 2023. We continue to expect that high all-in yields – now above 9% for the high yield market as a whole – will limit supply to issuers needing to address near-term maturities. For now, the high yield maturity wall appears manageable given the wave of refinancings completed in 2021, but as we move into 2024, this should become more front and center in investors' minds.

With recent volatility that has pushed spreads and yields back above 400 basis points and 9%, respectively, the high yield market is somewhat more attractive than it has been in several months. However, with a recession still possible in coming quarters, valuations have yet to reflect the potential earnings downside and credit deterioration that could materialize. We continue to position with an up-in-quality bias (including an allocation to BBBs) and an overweight in less-cyclical sectors. High yield investors are likely to see a more attractive entry point as it's still far from clear whether the Federal Reserve's sharp tightening can bring about the historically elusive soft landing.

Leveraged Loans

The US leveraged loan market continued its exceptional performance run in the third quarter of 2023, returning 3.4% in the period, as measured by the Credit Suisse Leveraged Loan Index. Performance in the quarter represented the third consecutive quarter in which returns exceeded 3%, and pushed the year-to-date gain to 9.9%. Through the end of September, leveraged loans had outperformed high yield bonds by over 400 basis points (on top of the more than 1,000 basis point outperformance in 2022), demonstrating the benefits of floating rate products in a rising interest rate environment. As has been the case in the high yield market, the ongoing US economic strength has left loan investors comfortable with the down-in-quality trade, and lower-rated loans continued to outperform in the third quarter (with CCCs, Bs and BBs gaining 7.0%, 3.7% and 2.2%, respectively). Across sectors, returns were fairly balanced, although technology did outperform at +4.2% for the quarter, while broadcasting and wireless telecommunications lagged (both returned +1.4%). Average loan prices climbed another 1.25 points to 94.83 (nearly 3 points year-to-date), while spreads (3-year discount margin) tightened 30 basis points in the quarter (and 100 basis points year-to-date) to 551 basis points. Although the average loan yield declined 20 basis points in the third quarter, at 10.11%, the loan market yield remains higher than that offered by the US high yield market.

Credit fundamentals in the leverage loan market, a major areas of concern for investors in 2023, appear to be holding up well. Default rates have stabilized below 3%, and upgrades outpaced downgrades in the period for the first time in several quarters. Furthermore, second quarter earnings season showed that revenue and EBITDA increased 3% and 9%, respectively, on a year-over-year basis. Leverage improved to 4.6x in the second quarter of 2023 from 4.7x in the first quarter of 2023 and 7.8x in the first quarter of 2021. With interest burdens increasing, however, coverage metrics continued to deteriorate, falling to 4.5x in the second quarter of 2023 from 4.6x in the first quarter of 2023 and 4.8x in the second quarter of 2022. Interest coverage is likely to continue dropping in coming quarters, possibly driving cash flow and liquidity issues for lower-quality loan borrowers. We continue to highlight the risk that loan default rates increase in coming quarters, particularly under a "higher for longer" Federal Reserve policy environment, given the loan market's exposure to highly-leveraged, lower-rated issuers.

Improving technicals also supported the loan market in third quarter. After 15 consecutive months of retail fund outflows, the market saw inflows in both August and September, and while primary loan issuance surged to \$123 billion in the quarter, most of the volume represented refinancing transactions. CLO issuance – a leading driver of loan demand – also rebounded to over \$35 billion in the third quarter. As investors increasingly look toward 2024 and 2025 maturity walls, we anticipate more refinancing transactions in coming quarters to address those maturities. If financial markets experience more volatility, it could present a challenge for weaker or deteriorating credits to access the debt markets, which could push defaults higher.

The loan market's strong run may continue if the Federal Reserve keeps rates higher for longer. However, we still anticipate a modest economic recession in coming quarters, and therefore believe that loan investors should remain cautious toward riskier, lower-quality borrowers. While loans still enjoy a yield and spread advantage compared to the high yield market, the loan market's higher concentration of lower-rated issuers represent a well-telegraphed risk should earnings trends deteriorate. We remain focused on adequately capitalized issuers that exhibit cash flow resiliency to withstand higher interest rates for an extended period.

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The MOVE Index is a measure of US interest rate volatility that tracks the movement in US Treasury yield volatility implied by current prices of one-month over-the-counter options on 2-year, 5-year, 10-year and 30-year Treasuries.

The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS and CMBS (agency and non-agency).

The Bloomberg US Credit Index measures the investment grade, US dollar-denominated, fixed-rate, taxable corporate and government related bond markets. It is composed of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supranationals and local authorities.

The Bloomberg US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

The Bloomberg US Mortgage Backed Securities (MBS) Index tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage.

The Bloomberg Asset-Backed Securities (ABS) index has three main subsectors: credit and charge cards, autos, and utilities. The index includes pass-through, bullet, and controlled amortization structures. The ABS Index includes only the senior class of each ABS issue and the ERISA-eligible B and C tranche.

The Bloomberg US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1 / BB+ / BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded.

The Credit Suisse Leveraged Loan Index tracks the investable market of the US dollar denominated leveraged loan market. It consists of issues rated "SB" or lower, meaning that the highest rated issues included in this index are Moody's / S&P ratings of Baa1 / BB+ or Ba1 / BBB+. All loans are funded term loans with a tenor of at least one year and are made by issuers domiciled in developed countries.