US PENSION MARKET

A statistical and qualitative review of Q4 2021 and investment outlook

2021 was a rollercoaster of pandemic-related news but, despite the impact of the Delta variant, economic activity was resurgent, returning to pre-pandemic levels. Looking forward, the pace of growth should moderate in 2022, and the passing of the third part of President Biden’s Build Back Better package is no longer a certainty.

With demand growing more rapidly than supply chains could reopen, inflation has accelerated markedly, and remained stubbornly elevated into year end. The Federal Open Markets Committee (FOMC) reacted with a more hawkish tone. Tapering of the bond purchase program was accelerated to $30bn per month, and the ‘Dot Plot’, which shows FOMC members forecasts for interest rates, now suggests four interest rate hikes in 2022.

Market reaction to these events has been modest. Some investors are perhaps concerned that any additional stimulus would have added to inflationary pressures, while the increase in US debt stemming from the pandemic has already been significant. US government debt has increased by close to $2 trillion over the last two years. The discovery of Omicron, the latest COVID-19 variant, is also a reminder that the pandemic is far from over, and with inflation likely to moderate in 2022, more dovish members of the FOMC may gain ascendance once again.

• **2021 in review**: We review the ten key issues that defined a year in which many pension plans saw a significant improvement in funded status
• **Pension news**: A new bipartisan bill seeks to enhance previous legislation with the aim of creating a more secure retirement system, expanding access, and decreasing administration and regulatory costs
• **Solutions**: We examine the top five questions we believe corporate pension plan sponsors should be asking in 2022
• **Credit**: History suggests that mid-cycle is the sweet spot for lower rated credits – we discuss three reasons that lower-rated credits may outperform higher-rated credit in a moderating growth environment
• **Key risks**: These include stickier than expected inflation, forcing a more disruptive response from the Fed, and pressure on corporates to increase leverage in the low yield environment, leading to credit downgrades and greater financial risk
• **Educational section**: We highlight our latest Global Macro Research paper – Policy in a post pandemic world, where we ask Dr Raghuram Rajan, former Chief Economist and Director of Research at the International Monetary Fund and former Governor of the Reserve Bank of India, to share his thoughts on some of the issues facing the world as it slowly emerges from the pandemic

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**Blessed are the young for they shall inherit the national debt**

HERBERT HOOVER
1. THE ECONOMY RECOVERED

Despite secondary lockdowns in some states as they attempted to stem the spread of the Delta variant, the economy recovered strongly. The unemployment rate declined from 6.7% at the end of 2020 to 4.2% by November, with jobless claims dropping to levels not seen since 1969. Although the new Omicron variant adds to uncertainty, economic momentum should continue into 2022 with labor markets continuing to tighten.

2. INFLATION SOARED AND REMAINED ELEVATED

The rapid recovery in demand, outpacing the rate at which supply chains could rebuild capacity, squeezed prices upwards in certain sectors, compounded by elevated shipping costs and soaring commodity prices. We believe that inflation should slowly moderate in 2022 as supply chains fully reopen and base effects pass out of the data.

3. THE FED TOOK A STEP TOWARDS LIFTOFF

Following the November 2021 FOMC meeting, Fed Chair Jerome Powell indicated that the Fed would start to taper their bond purchase program from December 2021. Purchases of US Treasuries were reduced by $10bn per month, with the purchase of agency paper reduced by $5bn per month. This was then accelerated to $30bn. Speculation is now growing that rate rises will rapidly follow the end of tapering with the first potentially in March 2022.

4. FED CHAIR POWELL WAS RE-NOMINATED

After speculation that President Biden may choose an alternative candidate, the reappointment of Jerome Powell as Fed chair provides stability for markets. Powell’s four-year term ends in February 2022. Dr. Lael Brainard, widely perceived to be one of the more dovish members of the FOMC, will take over as vice chair. Several vacancies remain.

5. YIELDS ROSE

With the economy recovering and the Fed announcing that it would taper its bond purchase program, yields moved upwards and the curve flattened. Over the year, 10-year Treasury yields increased by 54bp to 1.44%, and 30-year Treasury yields increased by 18bp to 1.91%. Credit spreads tightened, with the spread of the long-maturity Bloomberg Corporate Index declining by 4bp to 92bp.

6. CORPORATE ISSUANCE WAS STRONGER THAN EXPECTED

Although investment grade debt issuance was below the record levels of 2020, it was above what was expected at the start of the year. Issuers continued to take advantage of beneficial market conditions to term out maturities and lock in low funding levels. In high yield markets, issuance experienced another strong year, with gross issuance 12% above 2020 levels.

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7. RISK ASSETS HAD ANOTHER VERY STRONG YEAR

With corporate earnings surging to record highs, equity markets had a strong performance; the S&P 500 Index gained 28.7% and the tech-heavy NASDAQ index gained 27.5%.

8. FUNDED STATUS IMPROVED

The combination of rising discount rates, reducing the present value of liabilities, and strong returns from growth assets led to a significant improvement in funded status among US pension plans.

9. THE AMERICAN RESCUE PLAN CONTAINED SIGNIFICANT CHANGES FOR PENSIONS

- The Act extended and enhanced the Interest Rate Stabilization mechanisms brought in over the last decade, allowing plans to discount liabilities using 25-year average interest rates, with a 5% floor, instead of more current ‘marked to market’ rates. The Act also significantly reduces near-term contribution requirements.
- Multiemployer pension plans in critical and declining status are eligible for $86B of Special Financial Assistance grants from the PBGC. Multiemployer plans are created via an agreement between multiple employers and a union, so generally have plan members across a single industry. The assets injected into these plans as part of the bailout must be held separately from other plan assets and invested into investment-grade bonds.

10. US DOLLAR LIBOR WAS EXTENDED

Following a consultation by ICE Benchmark Administration, the company announced that it would continue to publish US dollar LIBOR until June 30, 2023, after which it would cease. Other international LIBOR rates ceased to be published on December 31, 2021. In addition, the Adjustable Interest Rate (LIBOR) Act of 2021 dealt with ‘tough legacy’ contracts, allowing contracts that reference LIBOR but which don’t have adequate fallback provisions to be moved to reference the Secured Overnight Financing Rate (SOFR) once LIBOR ceases to be published without the need to change the contract.

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PENSION TRENDS

PENSION FUNDED STATUS UPDATE

Insight maintains two model pension indices, both of which assume a 60% allocation to growth assets and a 40% allocation to bonds. The Traditional Pension Index aims to reflect those plans that have not yet adopted LDI. The LDI Pension Index aims to reflect those plans that have adopted LDI in the fixed income portion of their portfolio.

Rates fell by 14bp over the quarter and spreads widened by 13bp, resulting in a 1bp fall in discount rates. Growth assets increased by 6.8%.

Both of our pension indices saw their funded status improve over Q4, with both having a significant improvement over 2021. The Traditional index, which contains core fixed income, saw its funded status increase by 3.1% to 96.9%, while the LDI index, which contains long duration fixed income, saw its funded status improve by 4.3% to 106.6%. Over 2021 as a whole, the Traditional index saw its funded status increase by 13.1% and the LDI index by 14.1%.

Figure 1: Plan funding ratios improved

![Graph showing plan funding ratios improved over Q4 and 2021.](image)

4 Source: Insight and Bloomberg. Data as of December 31, 2021. Note: Beginning in 2014, we introduced two indices to provide insight into the impact of rate and market movements on three types of pension plan investors. Traditional Pension Index: The index reflecting those pensions that have not yet adopted LDI. LDI Pension Index: The index reflecting those who have adopted LDI in the fixed income portion of their portfolio. Assumptions behind the Insight indices include 14-year typical pension liability duration, 45% equity allocation, an aggregate 5% liability impact of updated mortality assumptions effective Q4 2014 and no external cashflows. WHERE MODEL OR SIMULATED RESULTS ARE PRESENTED, THEY HAVE MANY INHERENT LIMITATIONS. CLIENTS’ ACTUAL RESULTS MAY BE MATERIALLY DIFFERENT THAN THE RESULTS PRESENTED. UNLIKE AN ACTUAL PERFORMANCE RECORD, MODEL RESULTS DO NOT REPRESENT ACTUAL TRADING AND MAY NOT REFLECT THE IMPACT THAT MATERIAL ECONOMIC AND MARKET FACTORS MIGHT HAVE HAD ON INSIGHT’S DECISION-MAKING IF ACTUAL CLIENT FUNDS WERE BEING MANAGED. ALSO, SINCE SUCH TRADES HAVE NOT BEEN EXECUTED, THE RESULTS MAY HAVE UNDER OR OVER-COMPENSATED FOR THE IMPACT, IN ANY, OF CERTAIN MARKET FACTORS, SUCH AS LACK OF LIQUIDITY. SIMULATED TRADING PROGRAMS IN GENERAL ARE ALSO SUBJECT TO THE FACT THAT THEY ARE DESIGNED WITH THE BENEFIT OF HINDSIGHT. MODEL RESULTS ARE ACHIEVED THROUGH THE RETROACTIVE APPLICATION OF A MODEL. MODEL RESULTS SHOWN DO NOT REFLECT MANAGEMENT FEES, TRANSACTION COSTS AND OTHER EXPENSES THAT WOULD REDUCE RETURNS. THIS IS A HYPOTHETICAL MODEL. THE QUOTED BENCHMARKS DO NOT REFLECT DEDUCTIONS FOR FEES, EXPENSES OR TAXES. THE BENCHMARKS ARE UNMANAGED AND DO NOT REFLECT ACTUAL TRADING. THERE COULD BE MATERIAL FACTORS RELEVANT TO ANY SUCH COMPARISON SUCH AS DIFFERENCES IN THE VOLATILITY, AND REGULATORY AND LEGAL RESTRICTIONS BETWEEN THE INDEXES SHOWN AND THE STRATEGY. INVESTORS CANNOT INVEST DIRECTLY IN ANY INDEX.
Legislation moves towards SECURE Act 2.0
The Retirement Improvement and Savings Enhancement Act (RISE Act) was introduced in the House as a bipartisan bill. This is now expected to be merged with the Securing a Strong Retirement Act of 2021 which was approved by the House Ways and Means Committee in May 2021. The aim of this legislation is to enhance the Setting Every Community Up for Retirement Enhancement (SECURE) Act of 2019, effectively creating SECURE Act 2.0. Key proposals from the bill include:

- The Secretary of Labor, Secretary of Treasury and the Director of the Pension Benefit Guarantee Corp will review pension plan reporting and disclosure requirements, assess their effectiveness, and make recommendations to create simpler standardized formats.
- The number of years of employment needed before part-time employees can participate in an employers’ retirement plan is to be reduced from three years to two, with a year of service being defined as any 12-month period in which an employee has worked at least 500 hours.
- The creation of an online searchable database, called the Retirement Savings Lost and Found, which will allow individuals to locate any plan in which they were a participant or beneficiary.

Proposals for new security lending disclosures
The US Securities and Exchange Commission (SEC) published and requested comment on proposed Rule 10c-1. This proposal would require all securities lenders to provide data and the terms under which transactions were being undertaken to a new registered national securities association (RNSA) which would then be made available to the public. This would include the party to whom the securities had been lent.

Infrastructure bill includes additional pension smoothing relief
The Infrastructure Investment and Jobs Act included a provision which increases the flexibility of plan sponsors in funding pension obligations. The legislation builds on the funding stabilization percentages that were included in the American Rescue Plan, adjusting them for plan years after December 31, 2021 and extending the stabilization period from 2029 to 2034.

20-year Treasury futures announced
The CME Group plans to offer futures in the 20-year Treasury from March 2022. This will expand the available hedging options for those plans that use derivatives.
HERE ARE OUR TOP FIVE QUESTIONS FOR US CORPORATE PENSION PLAN SPONSORS TO CONSIDER IN 2022.

1. WHAT SHOULD I DO IF MY FUNDED STATUS IS IMPROVED?

Our take: Protect gains and consider the end-state

Protect gains: Many plan sponsors have experienced a significant increase in funded status in 2021. Their liability valuations fell, with discount rates up 25-30bps, and assets rose, with equities rallying.

Their first order of business should be to protect those gains, either by reducing interest rate risk, equity risk, or both. Investors can achieve this through changes to their asset allocation and/or hedging policy. Some plan sponsors may have dynamic glidepaths that pave the way for tighter risk controls as funded status improves, and others should at least consider risk reduction to decrease the likelihood of future funding deficits.

To this end, we have seen a noticeable increase in plan sponsors requesting completion mandates, which seek to hedge all or most of the pension interest rate and yield curve risk using physical bonds and/or derivatives within a multi-manager structure.

Consider the end-state: As a plan approaches fully funded or over-funded status, it is a good time to consider end-state objectives. Is the ultimate goal to manage the risk on the sponsor’s balance sheet or to transfer the risk to participants or an insurer?

If the committee expects to continue managing the pension plan internally, it should discuss the target funded status, the complexity of the growth portfolio as it shrinks over time, and revisit risk/reward trade-offs. If the settlor indicates that pension risk transfer is the goal, committees should consider the investment time horizon, target funded status to estimate insurer pricing, and implications for illiquid holdings.

Or perhaps the committee is stuck in a holding pattern, not yet knowing if the company intends to manage or transfer the pension obligations. In each situation there may be an advantage to constructing the pension portfolio to mimic the way an insurer would invest, regardless of whether the end-state investor is an insurer or the plan sponsor.

2. CAN WE DEBRIEF ON FUNDING RELIEF?

Our take: Be careful about using it as a reason to re-risk

The passage of the Infrastructure Investment and Jobs Act (IIJA) in November 2021 continued a decade-long tradition of extending interest rate smoothing measures. These measures essentially allow liabilities to be discounted at higher discount rates (relative to current market conditions) for the purpose of calculating minimum required contributions, decreasing near-term regulatory cash requirements for plan sponsors.

Balancing the impact of investment decisions on cash requirements, income statement, and balance sheet liability is a constant challenge and it may be a relief to be able to remove one variable. Consequently, plan sponsors may re-evaluate their asset allocations. We would urge plan sponsors to carefully consider the implications of adjusting risk exposure on all relevant metrics, including balance sheet liability volatility and PBGC variable premiums, and in the context of the current market environment.

Re-risking pension investments at this time is unlikely to have an adverse impact on contribution requirements (given the extension of relief provisions) and is likely to have a beneficial impact on the income statement via a higher Expected Return on Assets (“EROA”) assumption. However, it will likely increase volatility of other marked-to-market metrics. De-risking pension investments may avoid this while also having a minimal impact on near-term contributions.

3. IS SOMETHING AMISS WITH EQUITY RISK?

Our take: Consider diversifying growth assets or implementing downside equity protection

By many metrics, equity valuations are near all-time highs, and the current outlook has caused many financial services providers to reduce future return expectations. As the economy transitions from the “early cycle” rebound to the “mid cycle” (traditionally characterized by a moderation in growth expectations) equity markets have historically become more volatile.

In an environment of increased equity volatility, plan sponsors should revisit their risk tolerance and potential implications for funded status volatility and plan liquidity. Mature pension plans
in payout-mode may have a lower tolerance for drawdown risk, especially if a portion of the portfolio is tied up in private or other illiquid assets.

There are several ways to reduce equity risk exposure. A plan could reduce the size of the equity allocation and increase the allocation to either fixed income or diversifiers like private assets, real assets, structured credit, high yield, emerging market debt, and other opportunities. Alternatively, the plan sponsor could increase its allocation to US Treasury instruments for flight-to-quality projection against large equity losses. For those investors comfortable with derivative positions, an additional strategy could be to purchase downside equity protection via option strategies.

4. WHAT’S THE DEAL WITH THESE LOW YIELDS?

Our take: Beware of high-quality credit and seek flexibility in lower-rated bonds

The persistently low yield environment over the past few years has caused fixed income to be a difficult asset class to defend within a total return portfolio. Corporate pension sponsors have particularly struggled since accounting liabilities are best hedged with high quality publicly-issued US corporate bonds, which tend to have lower expected yields than other areas of the fixed income market.

Plan sponsors searching for a higher yield can find it by expanding their liability-hedging toolkit beyond investment grade corporate bonds and into other instruments such as structured credit, private credit, high yield debt (especially “fallen angels”), and emerging market debt. While these particular fixed income sectors may not match regulatory liability benchmarks, we do know that US pension liabilities are difficult to hedge due to credit migration risk, which causes defaults and downgrades to affect assets and liabilities in different ways. The consequence of credit migration risk is that liability-hedging portfolios are likely to lag liability growth.

Plan sponsors that loosen restrictions on fixed income and target lower quality corporate bonds may be rewarded with higher yields, lower overall spread risk, and therefore lower funded status volatility. This may result in duration mismatches, but we believe investors can be address them with STRIPS or overlays, and the bifurcated approach may lead to better outcomes for plan sponsors.

5. SHOULD I WORRY ABOUT INFLATION?

Our take: US LDI investors may actually benefit from inflation

Inflation has become a growing concern during the pandemic, fueled by unprecedented monetary and fiscal policy stimulus, a rapid economic recovery, and supply chain issues. While we do agree that it can have significant implications for companies when it comes to operating costs, labor expense, sourcing inventory, and maintaining operating margins, we do not think it is a huge concern for US corporate pension sponsors.

Inflation is no news, or perhaps even good news, for liability-driven investors in the US

Most US corporate pension liabilities have little inflation sensitivity since cost-of-living adjustment (‘COLA’) provisions for retirees are rare and most cash balance interest crediting rates tend to be linked to Treasury yields. The impact of salary-based benefit accruals can be material for a plan that is still open to new entrants, but most open plans are likely to have an equity allocation to provide growth that will implicitly also provide some inflation hedging. Also note that for those types of plans, interest rate risk will likely dwarf inflation risk.

While inflation may not increase the dollar value of liabilities, it may increase the dollar value of assets, which should make it easier to meet those liabilities in the future (all else equal).

Rising interest rates is less of an issue to pension plans than in the past

One challenge to this view is the possibility of elevated inflation forcing the Federal Reserve (Fed) to raise interest rates, eroding the value of fixed income assets and ending the regime of low yields that investors have lived through the past decade. However, while the Fed has taken a more hawkish stance in recent weeks, we believe this is a manageable risk for investors.

While elevated growth and inflation mean rates may move further than currently predicted by the forward market, we do not believe inflation will de-anchor yields from levels they have traded in over the past five years. Therefore, in our view, US pension investors do not need to worry about the asset-liability impact of inflation but can take some tactical views from an asset-only perspective (for more discussion on inflation please see Credit has little to fear from inflation).
Treasury yields in the short and intermediate area of the curve rose over the quarter as markets anticipated the start of the tightening cycle, but long-dated yields declined. This resulted in a significant outperformance for long Treasuries over the quarter.

Corporate credit spreads widened, with a similar move across all rating segments. Longer-maturity issues outperformed, tracking Treasury markets.

US equity markets ended the year very strongly, rising by 11% for the quarter and up by over 28% for the year, driven by strong earnings growth.

The US dollar, as measured by the dollar index, appreciated over the quarter.

### Table 1: Q4 2021 Fixed Income/Equity Index Returns (%) and Volatility Index Levels

<table>
<thead>
<tr>
<th>Index</th>
<th>Q4 2021 total return</th>
<th>2021 total return</th>
<th>Q4 2021 excess return</th>
<th>2021 excess return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays Treasury</td>
<td>0.18</td>
<td>-2.32</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Barclays Intermediate Treasury</td>
<td>-0.57</td>
<td>-1.72</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Barclays Long Treasury</td>
<td>3.08</td>
<td>-4.65</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Barclays Corporate</td>
<td>0.23</td>
<td>-1.04</td>
<td>0.05</td>
<td>1.28</td>
</tr>
<tr>
<td>Barclays Intermediate Corporate</td>
<td>-0.56</td>
<td>-1.00</td>
<td>0.02</td>
<td>0.72</td>
</tr>
<tr>
<td>Barclays Long Corporate</td>
<td>1.47</td>
<td>-1.13</td>
<td>-1.61</td>
<td>3.52</td>
</tr>
<tr>
<td>BoFA Merrill Lynch High Yield (H0A0)</td>
<td>0.66</td>
<td>5.36</td>
<td>0.48</td>
<td>7.69</td>
</tr>
<tr>
<td>S&amp;P 500 Index</td>
<td>11.03</td>
<td>28.71</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MSCI Emerging Markets Equity Index</td>
<td>-1.31</td>
<td>-2.54</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dollar Index</td>
<td>1.53</td>
<td>6.37</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VIX</td>
<td>17</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MOVE</td>
<td>77</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Table 2: Consensus GDP and CPI expectations

<table>
<thead>
<tr>
<th>Real GDP</th>
<th>Consensus*</th>
<th>Change over Q4</th>
<th>CPI</th>
<th>Consensus*</th>
<th>Change over Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2020</td>
<td>2021 2022</td>
<td>2021 2022</td>
<td>2020</td>
<td>2021 2022</td>
</tr>
<tr>
<td>United States</td>
<td>-3.5</td>
<td>5.6 3.9</td>
<td>-0.3 -0.3</td>
<td>United States</td>
<td>1.3 4.7 4.4</td>
</tr>
<tr>
<td>Euro area</td>
<td>-6.8</td>
<td>5.1 4.2</td>
<td>0.1 -0.1</td>
<td>Euro area</td>
<td>0.3 2.5 2.5</td>
</tr>
<tr>
<td>Japan</td>
<td>-4.8</td>
<td>1.8 2.9</td>
<td>-0.6 0.4</td>
<td>Japan</td>
<td>0.0 -0.2 0.7</td>
</tr>
<tr>
<td>China</td>
<td>2.3</td>
<td>8.0 5.2</td>
<td>-0.3 -0.3</td>
<td>China</td>
<td>2.5 1.0 2.2</td>
</tr>
<tr>
<td>Developed markets</td>
<td>-4.8</td>
<td>5.1 3.9</td>
<td>-0.1 -0.1</td>
<td>Developed markets</td>
<td>1.0 3.5 3.5</td>
</tr>
<tr>
<td>Emerging markets</td>
<td>-0.6</td>
<td>6.4 5.0</td>
<td>-0.1 -0.2</td>
<td>Emerging markets</td>
<td>3.2 3.5 4.1</td>
</tr>
<tr>
<td>Global</td>
<td>-3.7</td>
<td>5.8 4.4</td>
<td>-0.1 -0.1</td>
<td>Global</td>
<td>2.2 3.9 3.9</td>
</tr>
</tbody>
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DERIVATIVES

CME Treasury swaps to reference SOFR
The Chicago Mercantile Exchange (CME) amended Rule 58101.B of CBOT Chapter 58 to change the floating rate option for Treasury Invoice Swap spreads from US dollar LIBOR to SOFR, effective January 23, 2022 for trade date January 24, 2022.

TREASURY MARKETS

The curve flattened
With the prospect of multiple interest rate hikes in 2022, the shorter end of the Treasury yield curve rose sharply, with three-year yields ending the quarter 46bp higher. However, at the longer end of the curve yields declined, with 30-year yields ending the quarter 14bp lower than they started.

A surge in tax receipts has reduced issuance needs
At its November 2021 presentation, the US Treasury Borrowing Advisory Committee estimated that tax receipts over the financial year totaled $4.046 trillion (+18%). Total outlays were $6.818 trillion (+4%) over the same period.

The Treasury’s Office of Fiscal Projections forecast a net privately held marketable borrowing need to $1.015 trillion for Q1 FY2022, and $476 billion for Q2, assuming a cash balance of $650bn.

The forecasts also assume that an increase or suspension of the debt limit is enacted.

The debt ceiling has been quietly raised
In an agreement reportedly driven by Senate Majority Leader Chuck Schumer and Minority Leader Mitch McConnell, the Senate voted to pass a bill which created a fast-track process allowing a $2.5 trillion increase of the federal debt limit. 14 Senate Republicans voted for the bill, allowing the US to cover its obligations until 2023—after the midterm elections.

Figure 2: Treasury yield curve change

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>5</td>
<td>1.0</td>
</tr>
<tr>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>15</td>
<td>2.0</td>
</tr>
<tr>
<td>20</td>
<td>2.5</td>
</tr>
<tr>
<td>25</td>
<td>3.0</td>
</tr>
<tr>
<td>30</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Dec 31, 2020 | Sep 30, 2021 | Dec 31, 2021

Table 3: US Treasury net marketable borrowing

<table>
<thead>
<tr>
<th>Market ($bn)</th>
<th>2019 FY</th>
<th>2020 FY</th>
<th>2021 FY</th>
<th>Yr/Yr change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bills issuance</td>
<td>137</td>
<td>2,652</td>
<td>-1,315</td>
<td>-3,967</td>
</tr>
<tr>
<td>Floating rate issuance</td>
<td>55</td>
<td>54</td>
<td>101</td>
<td>47</td>
</tr>
<tr>
<td>2-5yr Treasury issuance</td>
<td>403</td>
<td>477</td>
<td>849</td>
<td>372</td>
</tr>
<tr>
<td>5-10yr Treasury issuance</td>
<td>206</td>
<td>425</td>
<td>1,066</td>
<td>642</td>
</tr>
<tr>
<td>Over 10yr Treasury issuance</td>
<td>191</td>
<td>354</td>
<td>674</td>
<td>320</td>
</tr>
<tr>
<td>5-10yr TIPS</td>
<td>33</td>
<td>37</td>
<td>27</td>
<td>-10</td>
</tr>
<tr>
<td>Over 10yr TIPS</td>
<td>20</td>
<td>16</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Buybacks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1,045</td>
<td>4,014</td>
<td>1,420</td>
<td>-2,594</td>
</tr>
</tbody>
</table>

8 Source: BAML as of December 31, 2020.
Assessing the outlook for credit as we move to mid-cycle
As we transition from the early-cycle phase of the recovery to the mid-cycle, growth will likely remain solid, but probably less spectacular. Moderating growth works well for credit investors because it implies continued revenue and earnings growth, allowing for companies to de-lever organically, which leads to improving credit metrics. This may make for an increasingly positive relative value environment for higher yielding credit.

Figure 3: Moderating growth is the sweet spot for lower-rated credit

Three reasons lower-rated credit may outperform high-grade credit in a moderating growth environment
In our view, BBB and BB credits offer significantly more compelling value than high grade credit (single A or above) in a moderating growth environment:

1. Interest rate risk is less of an issue for BBBs and BBs
High grade credit returns are often dominated by interest rate risk, and the mid-cycle is when monetary accommodation is typically scaled back or reversed. The Fed is now tapering its asset purchases and potentially set to commence a lift off in interest rates after tapering is complete. It is also important to recognize that corporations have taken advantage of low rates to issuer longer-dated debt. Although this protects the corporate from rising interest rates, it increases the interest rate sensitivity of the investment grade corporate index relative to its history.

2. Lower rated companies are incentivized to de-leverage than higher rated peers
As growth moderates, and organic growth becomes less easy to deliver to shareholders, equity investors often pressure corporates to in organically improve equity returns through share buybacks or M&A. However, these activities increase corporate leverage. Therefore, the companies most prone to this behavior tend to be single-A rated companies or above, as they have the greatest room to increase leverage. Even if it inflicts a credit ratings downgrade, the spread penalty for downgrades from single A to BBB is relatively low.

3. The high yield compression trade may have more room to run
High yield credit spreads have generally lagged the recovery in investment grade markets since the start of the pandemic, leaving a sizable premium between the two. As such, we believe potential rising demand for high yield means there could be more room for high yield spreads to compress.

Credit market performance
Credit spreads widened in Q4, with aggregate US corporate spreads ending the quarter 8bp wider than where they began. The intermediate and long sections of the credit curve performed broadly in line.

Table 4: Average spread (bp) of corporate bonds

<table>
<thead>
<tr>
<th>Barclays Index</th>
<th>12/31/20</th>
<th>09/30/21</th>
<th>12/31/21</th>
<th>Change QTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate</td>
<td>96</td>
<td>84</td>
<td>92</td>
<td>8</td>
</tr>
<tr>
<td>Intermediate</td>
<td>68</td>
<td>60</td>
<td>68</td>
<td>8</td>
</tr>
<tr>
<td>Long</td>
<td>140</td>
<td>122</td>
<td>130</td>
<td>8</td>
</tr>
<tr>
<td>− Long AAA</td>
<td>73</td>
<td>66</td>
<td>74</td>
<td>8</td>
</tr>
<tr>
<td>− Long AA</td>
<td>97</td>
<td>84</td>
<td>91</td>
<td>7</td>
</tr>
<tr>
<td>− Long BBB</td>
<td>172</td>
<td>146</td>
<td>154</td>
<td>8</td>
</tr>
</tbody>
</table>

Issuance breakdown
After a record year for issuance in 2020, gross US investment grade issuance moderated in 2021, but remained at historically elevated levels as corporates locked in low funding rates. Issuance in US high yield had another strong year, running ahead of the same period in 2020.

Table 5: New US bond issuance in $billions

<table>
<thead>
<tr>
<th>Market</th>
<th>2019 total</th>
<th>2020 total</th>
<th>2021 total</th>
<th>Yr/Yr change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Investment Grade</td>
<td>1,297</td>
<td>2,102</td>
<td>1,673</td>
<td>-20.4%</td>
</tr>
<tr>
<td>US High Yield</td>
<td>263</td>
<td>418</td>
<td>469</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

Table 6: High yield issuance breakdown in $billions

<table>
<thead>
<tr>
<th>Market</th>
<th>2020</th>
<th>Q4</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>New issuance</td>
<td>418</td>
<td>72</td>
<td>457</td>
</tr>
<tr>
<td>Downgraded to high yield</td>
<td>201</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Called or failing below 12mths</td>
<td>256</td>
<td>53</td>
<td>324</td>
</tr>
<tr>
<td>Upgraded to investment grade</td>
<td>25</td>
<td>21</td>
<td>55</td>
</tr>
<tr>
<td>Defaults</td>
<td>57</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

A REMARKABLE RECOVERY HAS KEPT SPREADS IN A TIGHT RANGE

2021 has been characterized by a remarkable economic recovery, with the pandemic creating a highly unusual economic backdrop both in terms of the rapidity of the initial decline in GDP and the subsequent bounce back. When examining the health of the recovery, prime age employment is a key indicator – these workers, aged between 25 and 54, are the core of labor markets. During the global financial crisis, prime age employment relative to population took years to recovery to pre-recessions levels, leading to a long, drawn-out recovery. In the current recovery, prime age employment should recover to pre-recession levels in early 2022 (see Figure 4). This highly unusual recovery has been highly supportive for credit markets.

Figure 4: Prime age employment to population ratio from start of recession


Figure 5: Credit market spreads

Although the economy should continue to grow strongly in 2022, the pace of growth will likely be dependent on the extent of any additional stimulus measures. Opposition by Democrat Senator Joe Machin has created considerable uncertainty as to whether the third part of the Build Back Better stimulus package will be passed, with some investment banks downgrading growth forecasts as a result. For credit markets, conditions are likely to remain supportive but less so than in 2020, this leaves us more cautious from a total return perspective as spreads may widen – although some pockets of value still remain in emerging markets and parts of high yield. We remain constructive on long-duration credit as a tool to hedge pension liabilities, as any widening in spreads is counterbalanced by a decline in liabilities.

**MARKET OUTLOOKS**

**Investment grade credit:** With valuations now appearing expensive on a historical basis, investment grade markets are reliant on a supportive growth and monetary policy outlook to sustain the current level of spreads. Although the economic backdrop should continue to be positive in 2022, the more moderate pace of growth and the potential for tighter monetary policy leave us increasingly cautious on an absolute return basis. If growth disappoints and volatility increases, spreads are likely to widen. Although valuations remain at least fully valued within investment grade markets overall, there remain pockets of value in shorter-dated parts of the high yield and emerging markets. The outlook is now heavily dependent on the strategy being pursued. For investors seeking absolute returns, caution is needed amidst a backdrop of rising rates and widening spreads. Careful security and sector selection, targeting those companies best positioned to benefit from the ongoing recovery, can be one way to mitigate against this. For those using longer-maturity credit as a hedging instrument, rising rates and widening credit spreads can potentially be an opportunity to increase hedge ratios.

**High yield credit:** The highly supportive interest rate environment that we have seen over recent years is likely to start to unwind in 2022, but spreads are sufficiently wide to accommodate a gradual upward move in yields. We believe that demand from investment grade investors should continue to be robust as they search for additional income to mitigate potential capital loses, and with high yield one of the few remaining asset classes that can generate returns that can match inflation. Specifically, short dated high yield has historically protected capital and provided income during a rising rate cycle. Underlying company earnings are at peak levels and companies are generating record free cash flow. This leaves us favoring defensive BB-rated credits, but with selective investments in B-rated companies or their subordinated debt, which may be CCC-rated. Default rates continue to trend lower in the US and Europe, dropping below 1%. The positive economic outlook should keep defaults contained while also creating an environment conducive to credit-upgrade.

Although the recovery has not been without cost. Since the start of 2020, total US debt has increased by close to $6 trillion, with around 20% of all US government debt created in just two years.

![Figure 6: Change in total US debt since start of 2020](image)

**Emerging markets:** Concerns around China's growth outlook, combined with a more hawkish Fed, has resulted in a widening of spreads in emerging market credit (largely denominated in US dollars). Contrary to previous US tightening cycles, emerging markets are in a relatively strong position, with many central banks already tightening policy and current account balances significantly improved. Idiosyncratic risk remains, with Turkey a notable area of fragility. With tighter US monetary policy and weak Chinese growth arguably now priced into emerging market assets, any positive surprises could lead to outperformance, while yields are already attractive relative to similarly rated developed market credits. In local rates, we have a neutral outlook but targeting pockets of value where positive real yields are available. We remain cautiously positive on emerging market currencies, favoring those where positive carry and appealing valuations combine.

**Structured credit:** The emergence of the Omicron variant has caused some softness in consumer related assets, but with the economic impact expected to be limited, we believe this will be short-lived. The asset-class is floating rate, short dated, and highly rated and we believe these defensive characteristics make it a natural area for investment from those concerned about the potential for higher rates. US consumers have de-leveraged during the pandemic, leading to low levels of delinquencies and accelerated payment rates for sectors such as autos. A strong labor market, with jobless claims at multi-decade lows, should sustain this trend. In our view structured credit is an attractive asset class for long-term investors, with complexity resulting in a structural spread premium to corporate debt, despite arguably stronger credit fundamentals. The credit enhancements within higher rated tranches are substantial, mitigating against the impact of underlying loan defaults.

**Municipal bonds:** Fundamental credit conditions are solid for most municipal bond sectors aided by significant federal support ($5.2 trillion total since the pandemic began) and favorable tax revenue trends driven by the reopening of most segments of the US economy. According to the Tax Policy Center at the Urban Institute, state tax revenues for the 12-month period ended June 30, 2021 were 26.5% higher year-over-year. While we believe there are many opportunities to generate alpha in revenue bond sectors that experienced the greatest price pressure in the early stages of the pandemic (airports, toll roads, education, and healthcare), care must be taken to not over-reach for yield. Overall, we are maintaining a bias toward higher quality assets within the AA-rated and A-rated spectrum reflective of the low-risk compensation via tight credit spreads, at least by historical standards, and will look to utilize more liquid holdings as a funding source to capture attractive buying opportunities.

**KEY MARKET RISKS**

**Inflation proves stickier than anticipated, forcing a more disruptive response from the Fed**

Although we believe that inflation will prove to be transitory, there is a risk that it proves more sustained. For example, the New York Fed's Underlying Inflation Gauge (UIG), which is designed to capture sustained inflationary pressures, ignoring transitory factors, has risen to the highest level since the series began in 1995. Historically, this has been a good indication that inflationary pressures will broaden. If this proves to be the case, it could trigger a more rapid tightening of monetary policy than we expect, with potentially disruptive consequences for financial markets.

**Pressure to increase leverage leads to credit downgrades**

With yields at historically low levels there could be growing pressure on some corporates to increase leverage. Corporate leverage has already increased over recent years as a result of M&A activity and share buybacks, but a desire to maintain investment grade status has constrained this to a degree. In an environment where abundant demand makes corporate treasurers and investors believe that credit ratings are no longer so important, it could lead to a further rise in leverage and corresponding downward shift in credit ratings.

**Valuations have already priced too much good news**

After an extensive rally as markets priced in the more optimistic outlook, investment grade credit spreads have returned to pre-crisis levels similar to those seen before the crisis began. There is a risk that the rally has left credit markets pricing in too much good news and that future demand is softer than currently expected, leading to a widening of credit spreads.
We ask Dr Raghuram Rajan, former Chief Economist and Director of Research at the International Monetary Fund and former Governor of the Reserve Bank of India, to share his thoughts on some of the issues facing the world as it slowly emerges from the pandemic.

• As China has exited lockdowns, the authorities have chosen to strengthen reforms, which has in turn led to problems in certain sectors
• Developing countries have broadly taken a step backwards as a result of the pandemic, with the inability to work from home increasing inequality
• Developed markets have fared far better, protected by their service economies
• The pandemic has led to a significant increase in debts, which will make it harder for the developed world to promote fiscal discipline in the developing world in future
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