Insights
2021 Midyear Market Outlook

Managing Reopening Expectations

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Despite the significant pain the COVID-19 pandemic inflicted on our health and economy, markets have rallied aggressively. Throughout lockdowns and virus surges, investors were convinced that better days were on the horizon. Finally, those better days are here — with increased COVID-19 vaccination rates, massive fiscal stimulus programs and accommodative monetary policies bolstering the economy and earnings so far this year. Yet strangely, even as stocks extend their lofty 2020 gains, investors are growing anxious about the many challenges that still lie ahead. Markets have reached an inflection point as investors brace themselves for what could be a bumpier second half of 2021.

Progress Fighting the Pandemic Boosts GDP

Nearly half of the US population has now received at least one vaccine dose. The Biden administration's latest goal in the fight against the pandemic is to get 70% of the US adult population at least one vaccine dose and to fully vaccinate 160 million adults by July 4th. The Centers for Disease Control and Prevention also announced that fully vaccinated people could resume pre-pandemic activities without wearing a mask or physically distancing, except where required by local laws or regulations. More states are rolling back COVID-19 restrictions and lifting mask mandates, allowing the economy to further reopen.

At the same time, fiscal stimulus from December's $900 billion Consolidated Appropriations Act and March's $1.9 trillion American Rescue Plan Act continues to flow through the economy. And the Federal Reserve remains committed to keeping interest rates low and asset purchases steady until "substantial further progress" is made on its maximum employment and price stability goals.[1]

Not surprisingly, first quarter GDP rose 6.4%[2] and earnings-per-share growth for S&P 500 companies soared by more than 49% year-over-year.[3] Second quarter figures are likely to be even stronger. The Federal Reserve Bank of Atlanta's GDPNow model estimates second quarter GDP of 10.1% and FactSet reports that analysts are expecting S&P 500 companies to grow their earnings by a staggering 59.5% in the second quarter.

Many investors have profited from this attractive backdrop for stocks, as the S&P 500 Index has closed at a record high 26 times so far in the first half of 2021.

Economic and Earnings Growth Could Peak in Q2

Both the economy and earnings will continue to signal a strong recovery from the pandemic throughout the second half of the year. However, the rate of growth for economic data and earnings will likely begin to decelerate by the third quarter. Investors are growing increasingly concerned that a peak in fundamentals may coincide with a peak in stock market prices.

In addition, an unusually long post-Global Financial Crisis economic expansion briefly disrupted by the COVID-19 pandemic, combined with the distortive effects of enormous fiscal stimulus and easy monetary policy, have created confusion regarding where we are in the economic cycle. The ongoing debate has unnerved investors and complicated their asset allocation decisions.

As if concerns about peak fundamentals and confusion about the economic cycle weren't enough for investors to contend with, rising interest rates, building inflationary pressures, and potentially higher taxes are adding to their indigestion.

Rising Inflation and Interest Rates Present Challenges

Low base effects from a year ago, supply chain bottlenecks, and persistently underestimating demand during the recovery have resulted in big increases in inflation data. For example, the Bureau of Labor Statistics reported that the Consumer Price Index climbed 4.2% for the 12-months ending April 30, 2021, the largest year-over-year increase since 2008. Investors are trying to determine whether these price increases are truly temporary, as the Federal Reserve suggests, or if they are more permanent.

Getting inflation right is critical for investors. Rising inflation could lead to higher interest rates. Surging interest rates and inflation would likely put downward pressure on once highflying growth stocks and fixed income investments.

Further fueling fears of rising interest rates and inflation is the extraordinary amount of government spending enacted to combat the pandemic. In the US, nearly $6 trillion has already been approved to defeat COVID-19. The Biden administration is also working on the $2.7 trillion American Jobs Plan and the $1.8 trillion American Families Plan. To offset some of this additional government spending, the Biden team has called for higher taxes on wealthy individuals and corporations. Uncertainty regarding future tax rates may also unsettle investors later this year.

Midyear Strategies to Consider

This complicated outlook underscores the fact that the second year of the market recovery following the pandemic's peak is likely to be a lot more challenging than the first. Investors should expect greater bouts of market volatility throughout the second half of the year.

Yet, the good news is that historically, despite the challenges, stocks typically continue to grind higher in the second year following a crisis.[4] The first half of 2021 has provided a solid head start for investors. Given the still attractive backdrop for risk assets, investors should consider the following three strategies when constructing portfolios for the second half of the year:

1. Focus on cyclicals and Europe
2. Favor bonds less impacted by rising rates
3. Target transformative innovation

Theme 1

Focus on Cyclicals and Europe

Following a once-in-a-lifetime crisis, the global economy has begun a once-in-a-lifetime recovery fueled by the trifecta of accommodative monetary policies, fiscal stimulus, and most importantly, COVID-19 vaccines. As doors begin to open fully in the US, roughly $2.6 trillion of excess savings[5] that has been sitting on the sidelines could filter down into the real economy — accelerating a burgeoning economic expansion.

While beta is likely to continue to be rewarded as the baton is passed from recovery to expansion, we look for an anything but a basic beta rally. As a result, discrete tactical asset allocation adjustments may help you harness the disperse return environment (trailing six-month sector return dispersion is in the 98th percentile over the last 25 years).[6]

Led by cyclical segments, the US has powered the global recovery so far. As reopening accelerates, cyclicals are likely to sustain their recovery momentum as a result of improving fundamental growth, rebounding economic data, and still-accommodative policies facilitating liquidity and risk taking. Meanwhile, European equities may start to play “catch-up” to the US, as a result of the rebound in earnings sentiment, vaccination progress, and reductions in mobility restrictions that have already started to improve the overall fundamental and economic outlook.

Position for the Reflation Reopening Rally

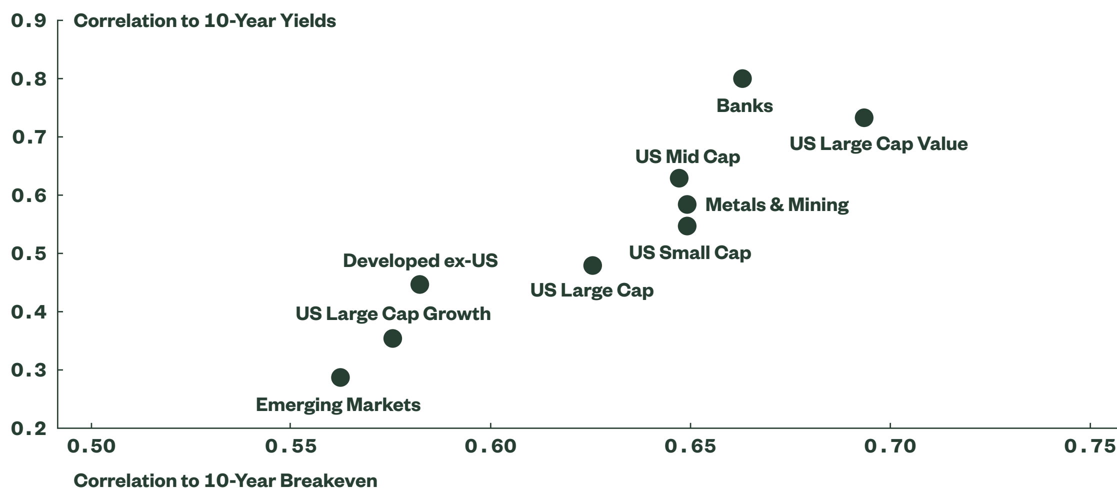
With more than 40% of all US adults fully vaccinated for COVID-19, new daily confirmed cases have fallen to their lowest level in 11 months.[7] As a result, 28 states are fully reopened and 21 states are easing COVID-related restrictions, such as restaurant capacity limits, group gathering limits, and non-essential business openings.[8] According to the Google Mobility Trends report, US mobility has increased noticeably since February, with parks, retail, and recreation improving the most.[9]

More vaccinations may lead to a faster and more sustainable reopening. And President Biden expects at least 70% of American adults to have at least one dose of the vaccine by July 4th,[10] potentially accelerating both mobility trends and the economy.

The sizable fiscal stimulus and improved mobility have provided tailwinds for consumer spending — a main driver (70% of US GDP) of the Q1 US economic rebound that has left GDP within just 1% of its pre-pandemic peak.[11] And there is still a lot of dry powder left. Following the $1,400 stimulus check distribution, the personal savings rate jumped up to 27.6% of disposable income[12] — the second-highest level on record. And more stimulus is on the way. Starting in mid-July, 39 million US households will begin receiving monthly child tax-credit payments of around $300 per child for the rest of the year.[13]

Given these tailwinds, 2021 US GDP growth revisions are higher than the changes to growth for the eurozone, Latin America, China, and Japan regions/nations since the start of the year.[14] And in a fast-growing economy with rising inflation, assets with a greater sensitivity to rates and inflation may be one of the primary beneficiaries of this macro environment. As shown in Figure 1, of all the major asset cases, value and small-cap stocks have historically shown some of the highest correlations to 10-year yields and inflation expectations.

Figure 1
Equity Rate and Inflation Sensitivity



Source: Bloomberg Finance, L.P., for the five-year period ending 04/30/2021. US Small Cap = S&P 600 SmallCap Index, US Large Cap Value = S&P 500 Value Index, US Large Cap Growth = S&P 500 Growth Index, Emerging Markets MSCI Emerging Markets Index, Developed ex-US = MSCI EAFE Index, US Mid Cap = S&P 400 MidCap Index. **Past performance is not indicative of future results.**

Beyond the constructive macro sensitivities, positive earnings sentiment for both value and small caps are supportive. Small-cap equities are expected to grow earnings per-share (EPS) by 47% over the next 12 months.[15] Meanwhile large caps are expected to grow their bottom line by just 26%.[16] Similarly, value stocks are estimated to post 30% growth versus 20% for growth stocks.[17] These 21 and 10 percentage point differences in EPS growth for small caps and value stocks relative to large caps and growth stocks are in the 94th and 89th percentiles, respectively, over the past 20 years.[18] This illustrates both the higher forecast for cyclicals and the stark dispersion in earnings expectations.

Lastly, while small caps and value stocks have rallied by 22% and 18% percent this year,[19] respectively, valuations are not stretched. In fact, both their relative valuations (value-to-growth, small-to-large) based on price-to-earnings-next-twelve-months (P/E NTM) ratios are sitting in their respective lowest decile over the past 20 years.[20] As a result, overweighing small caps and value stocks in the core may help you position for reopening opportunities that come at inexpensive valuations.

Target Cyclical Sectors for the Reopening

As noted earlier, sector dispersion is elevated. This creates a conducive environment for overweighting and underweighting sectors to pursue alpha. During the reopening, we see four sectors that could potentially benefit from our current macro backdrop: banks, miners, retailers, and homebuilders. Banks and miners are our highest conviction market exposures.

Banks and miners both plot in the upper right quadrant of the earlier inflation and rate sensitivity chart. Banks have a correlation of 66% and 80% to breakevens and rates while miners have 65% and 57%, respectively. Also, earnings for banks and miners are expected to increase by 61%

and 377% for 2021, respectively. This handily beats the S&P 500 earnings growth expectation of 33% for 2021.[21] And like small caps and value stocks, the relative valuations for banks and miners are constructive — plotting in the fourth and first percentiles over the past 15 years based on P/E NTM.[22]

Outside of macro and fundamental trends, another tailwind for banks is that with the economy improving, banks have started releasing credit-loss reserves that they built up during the pandemic — boosting industry earnings and return of capital to shareholders.[23] And if the economic reopening shifts into a higher gear, business activities will likely pick up, leading to greater loan demand that could increase earnings even more.

For miners, the further expansion of global manufacturing activity[24] will likely create stronger demand for industrial metals. As a result, the rally in metal prices is likely to continue, benefiting metal producers and miners — a segment that has seen 2021 earnings improve by 212 percentage points from the start of the year. The pressure on metals prices is also a result of supply side trends. In April, the wait time of manufacturers for production materials extended to its longest since 1987, and input prices increased for the 11th straight month to their highest since 2008 — indicating scarcity of supply-chain goods.[25] Lastly, any infrastructure spending should add more upward momentum to the industry's upbeat economic and fundamental outlook.

For retailers and homebuilders, the positive outlook centers on two main points:

- People have begun to venture out and spend their extra savings, particularly in discretionary products, leisure, and travel,[26] and this is likely to accelerate during the reopening.

- Demand for housing and home improvement increased last year[27] and the trend remains strong due to low mortgage rates,[28] strong consumer confidence, and elevated personal savings.

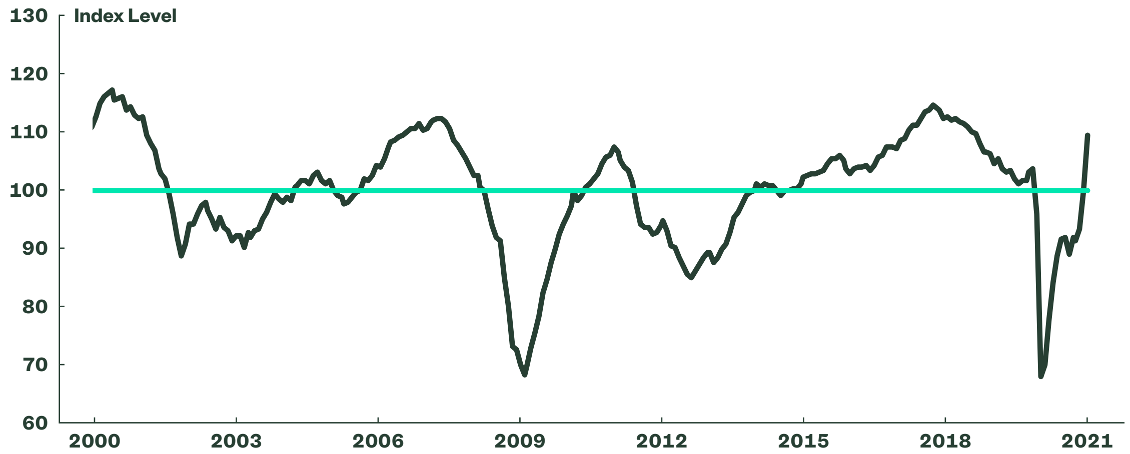
Europe: Ready to Rise from the Double-Dip Recession

Slow vaccine rollout and reinstated lockdown measures amid the resurgence of the pandemic earlier this year took a toll on euro-area recovery, pushing the region into a double-dip recession in the first quarter. However, as the EU countries overcome logistical hurdles and boost vaccine supplies, the surge in new cases has begun receding and mobility restrictions have been eased. As of early May, 36% of the region's adult population has received at least one shot.[29] And it's projected that the EU will have enough vaccine doses to inoculate 70% of its adult population by mid-July.[30]

Beyond the health and humanitarian tailwinds, the first round of disbursement of funds from the €672.5 billion Recovery and Resilience Facility is likely to come through in the second half of this year,[31] providing substantial fiscal stimulus to propel public and private investment — further strengthening the region's recovery. Strong external demand from its major trading partners — the US and China — also bodes well for a rebound of GDP growth and corporate earnings.

Given the initial delay in recovery, there is more room for improvement in the coming months and potentially more upside surprises. In fact, an EU economic sentiment survey recently found that economic activity has started to shift into a higher gear. Confidence across business sectors, including industry, services, retail trade, and construction, has improved significantly above its long-term average and pre-pandemic levels.[32] Consumer confidence has also picked up markedly, rising above its long-term average.[33] Given these tailwinds, the European Commission upgraded its 2021 and 2022 GDP growth forecasts by 0.5% to 4.2% and 4.4%, respectively in May.[34]

Figure 2
European Economic Sentiment



Source: European Commission, as of 04/30/2021. **Past performance is not indicative of future results.**

Further to the positive economic trends in the region, on the back of strong earnings sentiment in Q1, analysts have also raised 2021 EPS growth estimates of European equities to 42%, eight percentage points above 2021 US EPS growth estimates.[35] And this growth is not accompanied by the elevated valuations of broad US large caps. The region's valuations relative to the US are at their bottom percentile over the past 15 years based forward price-to-earnings and price-to-book ratios.[36]

Lastly, European equities' more cyclical composition (overweights to Industrials, Materials, and Financials relative to US equities) means they may also benefit from the broader global cyclical recovery.

Implementation Ideas

With the US economy entering a burgeoning expansion and Europe starting to rebound more strongly, you may want to alter positioning to be more cyclical and to focus on Europe.

Consider cyclical core US exposures:	**SPYV** **SPDR® Portfolio S&P 500® Value ETF**
	SPSM **SPDR® S&P 600™ Small Cap ETF**
Consider overlaying cyclical sectors like banks and miners:	**KBE** **SPDR® S&P Bank ETF**
	XME **SPDR® S&P Metals and Mining ETF**
Consider seeking a "catch-up" opportunity in Europe:	**SPEU** **SPDR® Portfolio Europe ETF**

Theme 2

Favor Bonds Less Impacted by Rising Rates

Fueled by expectations for higher growth and inflation, consensus economic estimates are for the US 10-year yield to surpass 1.8% by the end of the year and reach 2% by Q2 2022.[37] And if growth does accelerate amid the reopening, policymakers will likely begin tapering bond purchases, possibly sending yields higher.[38]

Yet, while rates may be rising, they remain low for core bonds from a historical perspective, meaning that generating income is a challenge. And if rates do rise to meet the consensus forecasts, the duration induced price declines could present total return headwinds as well.

In this environment, targeting more growth-oriented bond sectors that are less impacted by rising rates may help you navigate a bond market distorted by the pandemic as well as impacted by the reopening's reflation regime shift.

Lower Exposure to Asymmetrical Treasuries

Since the 1980s, traditional core aggregate bond returns have declined over subsequent decades. In the 1980s, the Bloomberg Barclays US Aggregate Bond Index (Agg) returned a cumulative 223%. The Agg's return then fell to 110% in the 1990s, 85% in the 2000s, and 44% in the 2010s. Seventeen months into the 2020s, the Agg is up just 4.25%.[39]

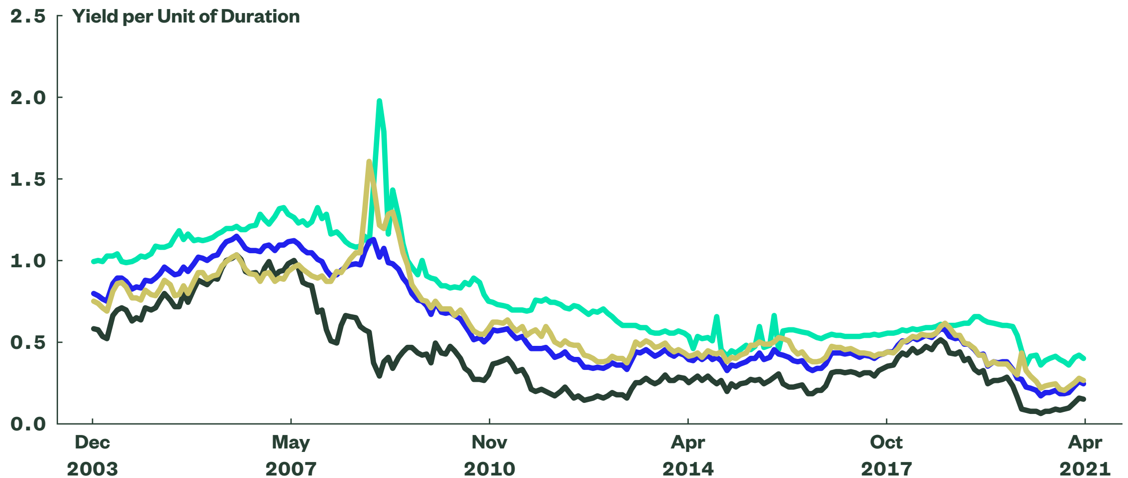
The Agg's current 1.58% yield — in the bottom third percentile historically — suggests more downside than upside, given that growth and inflation dynamics are putting upward pressure on rates. Even if rates rise only to 2% a year from now, the return on the Agg, forecasted based on a risk model, would be -1.51% due to its extended duration profile.[40] If rates retest pre-COVID levels (2.34%), the loss could extend to -3.34%.[41]

The Agg's 6.5-year duration stems from its 40% allocation to US Treasuries, a sector that will likely be a drag on current returns for core bonds due to its highly asymmetrical yield and duration profile. Yet, core bonds cannot be abandoned completely since owning a credit only portfolio curtails some of the potential diversification of bonds. Therefore, investors may want to consider removing Treasuries and owning mortgage-backed securities (MBS) as a defensive core option to decrease rate risk while preserving a low correlation to equities.

Year to date, MBS are outperforming the Agg and Treasuries, by 2.97% and 2.06%, respectively.[42] This outperformance during a rising rate period is not confined to 2021. Over the past 30 years, when the US 10-year yield has increased month over month, the average monthly return on MBS has been -0.40% versus -0.60% for US Treasuries[43] — underscoring the sector's lower sensitivity to rate movements. In fact, the return on MBS is also greater than investment-grade (IG) credit (-0.54%) — the other major bond segment in the Agg.[44]

From a portfolio construction perspective, MBS yield more than US Treasuries (1.79% versus 0.99%),[45] have a lower standard deviation of returns (2.09% versus 4.05%),[46] and more importantly, a lower duration (4.2 versus 6.9 years).[47] As shown in Figure 3, this current optimal profile of a stronger yield per unit of duration has been persistent. And with a negative correlation to stocks (-23%),[48] MBS still preserve some of core bonds' diversification benefits.

Figure 3
Yield per Unit of Duration: Mortgage-Backed Securities versus Treasuries versus the Agg versus Investment-Grade Corporates



Treasuries
Mortgage-Backed Securities
Agg
Investment-Grade Corporates

Source: Bloomberg Finance, L.P., as of 05/13/2021. Agg = Bloomberg Barclays US Aggregate Bond Index, MBS = Bloomberg Barclays US MBS Index, IG Corporates = Bloomberg Barclays US Corporate Bond Index, and Treasuries = Bloomberg Barclays US Treasury Index. **Past performance is not a guarantee of future results.**

Target High Income/Less Rate-Sensitive Credit

While MBS may increase yield in the core, the level of income produced is still low overall. And while looking outside the Agg for income generation naturally leads to credit exposures, the credit markets are, to a degree, priced to perfection and represent an asymmetrical return profile as well.

Yields for IG credit, broad high yield, or different rating bands are all historically in the bottom decile. And in some cases, the yields are the lowest on record. These spreads, yields, and the average bond price in the broader categories paint a picture of tight credit markets:

- IG credit: Yield (2.23%, 3rd percentile), Spread (87 basis points, 6th percentile), Average bond price (109, 86th percentile).[49]

- Broad high yield: Yield (4.15%, 1st percentile), Spread (301 basis points, 6th percentile), Average bond price (104, 94th percentile).[50]

While tight, the environment for credit remains constructive given accommodative monetary policies, improving corporate profits, and rebounding economic data. Yet, as within the core, managing duration risk alongside credit sensitivities is important. And IG credit has posted a -4.14% return in 2021,[51] even as credit spreads have declined, with yield curve changes accounting for more than 100% of that decline (-5.5%).[52]

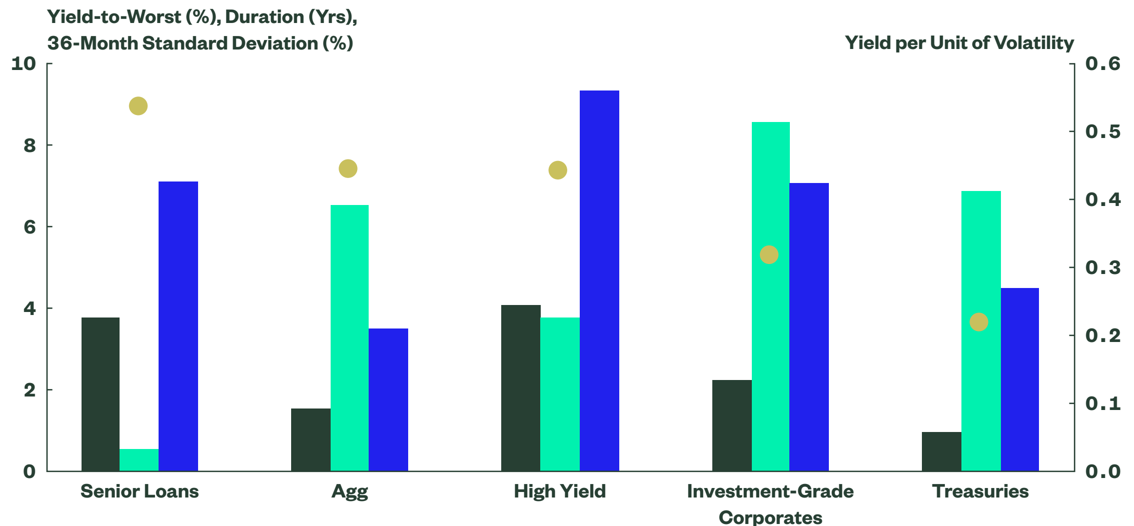
High yield credit is also not immune to duration headwinds, as yield curve changes have subtracted 145 percentage points from the overall 1.92% return in 2021.[53] One high income sector — senior loans — has been able to sidestep duration-induced price declines as a result of its floating rate structure, while still participating in the credit rally. So far this year, senior loans are up 2.4%.[54]

Because the base rate of the floating rate component is usually one to three-month LIBOR, the duration for senior loans is usually between 30 to 90 days. Thus, concerns about inflation and the potential for interest rates to rise further (as the consensus has forecasted) may mean the loan category — as a result of its lower duration — may hold its value more than other credit instruments. And, if the Federal Reserve raises rates to temper any inflationary headwinds — and short-term interest rates (LIBOR) increase — then the loan coupon also increases.

Due to these structural traits, senior loans have outperformed the broader Agg for 12 out of the last 13 consecutive months during this reflation rally.[55] High yield bonds have had a similar performance trend versus the Agg. However, while the average price of high yield bonds has climbed, the average price on senior loans remains well below par ($97.79)[56] — indicating further potential upside price appreciation from a continuation in this credit rally for loans relative to high yield.

This shorter duration does not detract from the relative income potential. Senior loans have a similar yield to fixed rate high yield debt (3.73% vs 4.15%).[57] And if the credit rally stalls, loans are more senior in their capital structure, historically witnessing lower relative levels of volatility (5.6% vs 7.4%).[58] Loans' high income, low duration, low relative volatility profile compared to other segments is shown in Figure 4.

Figure 4
Bond Sector Yields and Risk Profiles



Source: Bloomberg Finance, L.P., FactSet, as of 04/30/2021. Treasuries = Bloomberg Barclays US Treasury Index, IG Corporates = Bloomberg Barclays US Corporate Index , HY Corporates = Bloomberg Barclays US Corporate High Yield Index, Senior Loans = S&P/LSTA U.S. Leveraged Loan 100 Index, Agg = Bloomberg Barclays US Aggregate Bond Index. **Performance returns for periods of less than one year are not annualized. Past performance is not a guarantee of future results. Index** returns are unmanaged and do not reflect the deduction of any fees or expenses. **Index** returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

Look Beyond the Traditional for Income

To target income opportunities, close to 4% in the satellite sleeves, preferred securities, and high yield municipal bonds are two more non-traditional sectors for you to explore.

High yield municipal bonds (HYM) have already been less impacted by the rise in rates so far this year — outperforming traditional IG corporates by 7.63% and high yield corporates by 1.58%.[59] A government generally issues high yield bonds to pay for projects with undefined or uncertain revenue. These revenue bonds tend to offer higher yields as compensation for the risk and uncertainty associated with the project's revenue stream. And because municipal bonds' income is generally exempt from federal income taxes, the after-tax yield is also advantageous.

The current yield-to-worst on HYM is 2.82%[60] while high yield corporates yield 4.15% pre-tax, but 2.62% post-tax.[61] And income from HYM is generated with lower volatility than both high yield corporates and large-cap dividend equities (8.38% versus 9.02% versus 17.90%).[62] High yield municipals are also less correlated to equities than corporate investment-grade and high yield bonds (16% versus 34% and 77%, respectively),[63] leading to a potential source of higher income

generation without any additional equity risk. With less correlation to traditional core Agg bonds than US IG corporates (53% versus 82%),[64] high yield municipals also offer an attractive risk/reward payoff in the current reflationary environment.

Political tailwinds also support high yield municipal bonds. The $362 billion dedicated to shoring up state and local balance sheets from the $1.9 trillion American Rescue Plan Act of 2021 may alleviate any concerns of increased default risk among high yield municipal bond issuers since the bill permits governments to use federal dollars to replace revenue lost due to the pandemic.[65] Not to mention, the risk of default may continue to decrease as the broader economy reopens and economic growth improves.

If you are seeking higher income, you may also want to consider preferred securities. The current yield-to-maturity on preferreds — primarily investment-grade rated issuers is 4.66%, which is 308 and 243 percentage points higher than the broader Agg and IG Credit, respectively.[66] Moreover, with duration sitting at 5.45 years, preferreds offer a strong yield per unit of duration (0.84 versus 0.23 and 0.26, respectively).[67]

Income may be generated without taking on excess volatility or sizable equity risk as well, thereby preserving some of the diversification benefits. As a hybrid, preferreds have balanced equity and bond correlations (56% and 43%, respectively), with significantly lower correlation to equities than high yield (77%).[68] Preferreds' lower volatility than both high yield and equities (6.9% versus 7.7% and 14.9%)[69] can lead to more attractive yield per unit of volatility measures as well.

Beyond these structural benefits, there are some potential tailwinds as a result of the underlying composition of the exposure. Roughly 70% of the preferreds market is made up of issuers from the Financials sector.[70] The Financials sector, as discussed in one of our other themes, is a favored market. The industry is expected to post earnings growth of 43% in 2021, almost double the estimate of 25% at the start of the year.[71]

Implementation Ideas

With the potential for long-term rates to move higher, you may need to manage duration risks and avoid loading up on plain vanilla credit given the tight markets.

Consider mortgages to better balance yield and duration in the core:	**SPMB** **SPDR® Portfolio Mortgage Backed Bond ETF**
Consider actively managed senior loans as a high income/low duration credit strategy:	**SRLN** **SPDR® Blackstone Senior Loan ETF**
Consider the high income potential from non-traditional bond sectors that offer attractive yield per unit of volatility metrics without elevated equity risk:	**HYMB** **SPDR® Nuveen Bloomberg Barclays High Yield Municipal Bond ETF**
	PSK **SPDR® ICE Preferred Securities ETF**

Theme 3

Target Transformative Innovation

The long-term effects on our society from the COVID-19 pandemic remain unclear. Yet, the reopening of our global economy will highlight how the pandemic has changed technological use cases as well as corporate behavior, personal consumption, and the impact of government programs.

Fueled by innovation that has not been confined to a specific sector (i.e., Information Technology), style (i.e., growth), market cap (i.e., FAANG stocks), or listing exchange (i.e., NASDAQ), these unprecedented changes may create long-term growth opportunities — particularly as they become more engrained in our day-to-day lives.

In this era of transformation, targeting all the innovations disrupting our society, a catalyst fueling this transformation, as well as the specific cutting-edge industries that are receiving funding, may help you be on the right side of change.

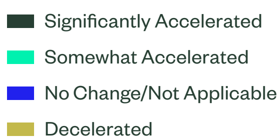
Innovation Across Industries

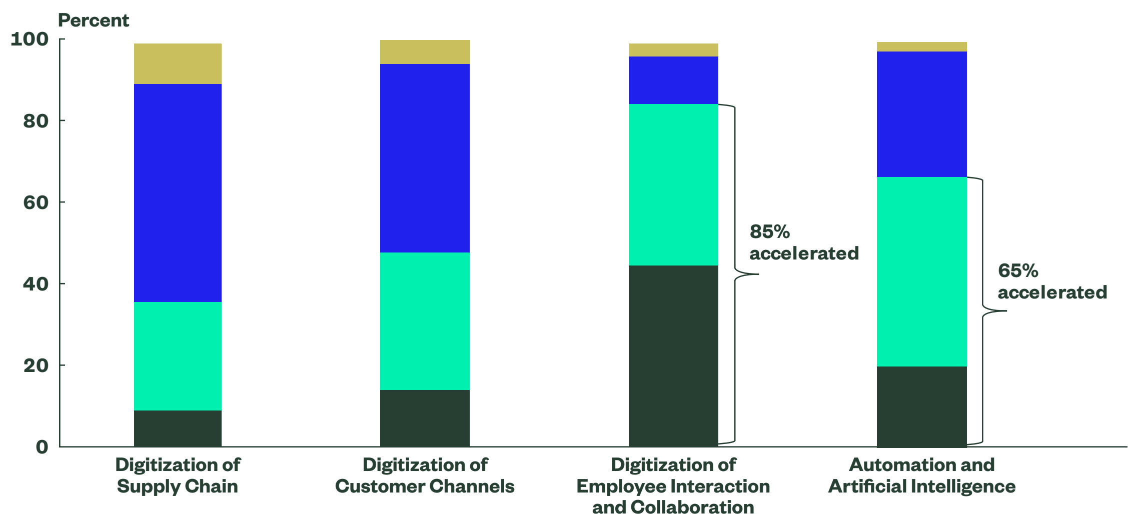
Importantly, the increases in hyper-connectivity, artificial intelligence (AI), exponential processing, and robotics and automation during the pandemic reach beyond the typical use cases from the Information Technology sector. For instance, IBM saw a surge in the second quarter of 2020 for its AI-driven Watson Assistant, a platform for deploying chatbots and other customer services from a variety of providers across different industries. And American Eagle Outfitters deployed robots to help sort clothes in its warehouses to meet a surge of online orders.

In fact, 67% of firms have already accelerated investments in automation and AI.[72] And 85% of companies have accelerated the digitization of employee interaction and collaboration, as shown in Figure 5.[73] The use of e-commerce apps, intelligent productivity functions, and robotics have brought customer channel and supply chains into the digital realm as well.

Figure 5

Executive Responses to How the COVID-19 Outbreak Has Changed Adoption





Source: McKinsey Global Business Executive Survey, July 2020. % of respondents (n=800).

Artificial Intelligence's Impact on the Workforce and Economy

In a more digitally connected world, jobs will be lost to automation, but they will also be created to meet the demands for data analysis, quality checks, and program management.

Based on these potential trends, it is estimated that globally 25% more workers than previously forecasted will need to switch occupations by 2030.[74] This shift is expected to impact 105 million jobs, versus 79 million in the pre-COVID-19 scenario analysis, according to McKinsey's "Future of Work After COVID-19" study. In the US alone, this equates to an additional 4.7 million jobs that may be affected as a result of the acceleration of technological innovations and behavioral changes.[75] Overall, 30% of the world's jobs today are at risk of being supplanted by automation by the mid-2030s,[76] underscoring opportunities for firms harnessing the productive efficiencies of new technologies.

Automation is not the only change to workflows and processes. Nearly 30% of work in the US is now estimated to be performed remotely, increasing the demand for connectivity, productivity, and security software platforms to facilitate these functions.[77] Company statements support this trend. Based on transcripts of company filings and analyst meetings compiled by Barclays, terms related to the theme of "Next-Generation Workforce" rose by 4,857% in 2020, increasing from 44 firms in 2019 to 2,181 by the end of 2020.[78]

A McKinsey report also found that at least 50% of companies already have adopted AI in at least one business function today, and this figure is expected to increase as firms seek to optimize business processes and decision making.[79] Given the significant adoption of AI, PriceWaterhouseCoopers (PwC) estimates it could increase global GDP by $15 trillion by 2030.[80]

However, it's not just AI that may provide economic benefits. According to another McKinsey study, biological innovations also could have a direct $2 to $4 trillion economic impact per year by 2035. More than half of which is expected to come from industries outside of traditional health care that are likely to benefit from scientific breakthroughs.[81] Gene therapy for diseases, hybrid systems that connect nervous systems to living organisms (i.e., robotic arms), and synthetic biology aimed at creating more sustainable biosystems are all examples of these type of innovations that could improve our health, safety, and longevity.

The potential for novel treatments also supports why biotech product sales are projected to grow at a compound annual growth rate of 10% through 2026, as opposed to 6% for conventional treatments.[82] As a result, biotech products will likely represent more than half of the top 100 products sold by then.[83] Not surprisingly, in the same transcript analysis as mentioned earlier, terms related to "Modern Vaccines" increased by 1,271% over their prior five-year average rate.[84]

Changes in Consumer Behavior

Consumer behavior has drastically changed during the pandemic as well. Most significantly, e-commerce has grown three times faster than it had before the pandemic[85] and nearly 60% of consumers now use two or more digital payment methods (up from 25% in 2019).[86]
In fact, according to a report from Square, the share of cashless businesses nearly doubled around the world. In the US, that share increased to 15% from 8%.[87] Prospects for mobile point-of-sale payments remain bright, considering that global mobile payment transaction total values are expected to increase to $4.6 trillion by 2024 — a 31% compound annual growth rate from today.[88]

Connected consumer discretionary items are also becoming more commonplace. According to Global Market Insights, the virtual fitness market is set to exceed $30 billion by 2026,[89] with on-demand virtual fitness streaming expected to grow around 28% per year over the next five years.

Additionally, there has been an increase in the use of online platforms for other consumer-based services. According to a McKinsey Consumer Pulse survey, three quarters of people using digital channels for the first time during the pandemic say they will continue using them when things return to "normal."[90] Statement-based analysis reflects this trend as well, with comments related to "Telehealth" increasing by 311% from 2019 to 2020 based on earnings transcript analysis performed by Barclays.[91]

Software as a Catalyst to Innovation

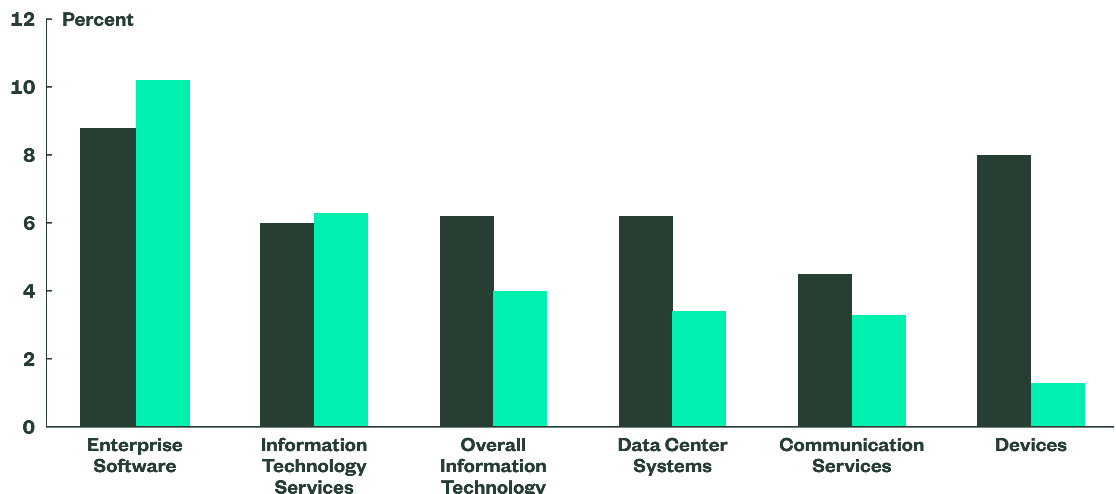
Hyper-connectivity is creating change and long-term growth opportunities, considering that the number of in-home connected devices is expected to increase from 10 to 20 by 2025.[92] Overall, the number of connected devices in use is expected to grow to over 31 billion by 2025, up from 10 billion at the start of 2020. That's a 21% compound annual growth rate.[93] The innovations here could range from supply chain management, to logistics and fulfillment centers, last mile delivery, and the use of drones. Overall, the Internet of Things (IoT) market is expected to grow to $1.5 trillion in value by 2027, a 24.9% growth rate.[94]

Given that software technology will be instrumental in facilitating many of the innovations discussed, it is not a surprise to see that spending on enterprise software and information technology (IT) services has some of the highest expected growth rates.

Enterprise software has the highest rate in 2021 and 2022, and alongside IT Services, both are outpacing the broader IT industry in 2022, as shown in Figure 6. Additionally, IDC estimates that over the next five years, all growth in traditional tech spending will be driven by just four platforms — cloud, mobile, social, and big data/analytics — as the digital transformation accelerates.[95] Meanwhile, next-gen security platforms related to new technologies (AI, IoT, blockchain) are also likely to continue to drive growth.

Figure 6
Worldwide Information Technology Spending Forecast

2021 Growth
2022 Growth



Source: Gartner, 01/25/2021. The above targets are estimates based on certain assumptions and analysis made by a third party. There is no guarantee that the estimates will be achieved.

Overall, software firms are uniquely positioned to benefit from changes in corporate and consumer behavior. To a degree, this aligns with past expansions. In prior expansionary periods coming out of a recovery, technology firms have, on average, had above market performance — stemming from tailwinds from an increase in capital expenditures as overall corporate profits in the economy expand.[96] In this expansion, we'd expect those capital expenditure dollars to be spent on upgrading software services and right-sizing company platforms to adhere to this new transformative era.

Regulation and Government Spending Accelerate Disruptive Innovation

With the 2021 Report Card for America's Infrastructure finding that 11 of the 17 categories, such as transit, wastewater, roads, and aviation, are below standard and have a strong risk of failure,[97] infrastructure represents one area that could be targeted by policies. Per the report card, the total investment gap of US infrastructure has gone up to $2.6 trillion over 10 years.[98] It is likely that old, aging infrastructure will be replaced with more sustainable and connected technologies.

We have already witnessed greater use of smart technology to solve infrastructure problems. For example, in the Chinese city of Hangzhou, an AI-based smart "City Brain" has helped reduce traffic jams by 15%.[99] And Amsterdam has been experimenting with offering home energy storage units and solar panels to households that are connected to the city's smart grid.[100] Europe is on the leading edge of this global trend, with the EU encouraging members to develop smart cities and the European Commission providing financial support.[101]

While the US has lagged, the potential for significant progress remains with the proposed American Jobs Plan that earmarks funding for modernizing transportation systems, building infrastructure for electric vehicles, and improving drinking water systems.

The $2.2 trillion plan supports:[102]

- Transportation infrastructure: $621 billion
- Research and development investments: $180 billion
- Drinking water infrastructure: $111 billion
- Digital infrastructure in high-speed broadband: $100 billion
- Electric-grid and clean energy: $100 billion
- Clean energy manufacturing: $46 billion

This planned spending could amplify the existing trend of smart cities. In fact, PwC expects a steady increase of smart city development around the world over the next few years — with the total value of the global smart city market projected to exceed $2.5 trillion by 2025.[103]

Implementation Ideas

Idiosyncratic or firm-specific risk can be elevated when targeting the innovators transforming society. As a result, a diversified non-market-cap-weighted approach, without taking on significant single-stock risk, may be appropriate to pursue these growth opportunities.

To target broad-based innovation transforming our society, consider:	**KOMP** **SPDR® S&P Kensho New Economies Composite ETF**
To focus on a primary catalyst fueling innovation, consider:	**XSW** **SPDR® S&P Software & Services ETF**
To position for infrastructure innovation, consider:	**SIMS** **SPDR® S&P Intelligent Structures ETF**

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Glossary

Bond A debt investment in which an investor loans money to an entity — typically a corporate or governmental entity — that borrows the funds for a defined period of time at a variable or fixed interest rate. Bonds are used by companies, municipalities, states, and sovereign governments to raise money and finance a variety of projects and activities. Owners of bonds are debtholders, or creditors, of the issuer.

Blockchain A term related to Bitcoin referring to the public ledger of all Bitcoin transactions that have ever been executed. Blockchains are constantly growing, as completed 'blocks,' or transactions, are added in a linear, chronological order. Every computer connected to the Bitcoin network gets a copy of the blockchain which, in theory, makes the whole system more secure as more computers, or "nodes," become part of the blockchain.

Bloomberg Barclays US Aggregate Bond Index A benchmark that provides a measure of the performance of the US dollar-denominated investment-grade bond market. The "Agg" includes investment-grade government bonds, investment-grade corporate bonds, mortgage pass-through securities, commercial mortgage-backed securities and asset-backed securities that are publicly for sale in the US.

Bloomberg Barclays US Corporate Bond Index A fixed-income benchmark that 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.

Bloomberg Barclays US Corporate High Yield Index A fixed-income benchmark of US dollar-denominated, high yield and fixed-rate corporate bonds. 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.

Bloomberg Barclays US MBS Index A benchmark designed to measure the performance of the US agency mortgage pass-through segment of the US investment-grade bond market. The term "US agency mortgage pass-through security" refers to a category of pass-through securities backed by pools of mortgages and issued by US government-sponsored agencies.

Bloomberg Barclays US Treasury Bond Index A benchmark of US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury. Treasury bills are excluded by the maturity constraint, but are part of a separate Short Treasury Index.

Consumer Price Index, or CPI A widely used measure of inflation at the consumer level that helps evaluate changes in cost of living. The CPI is composed of a basket of consumer goods and services across the economy and is calculated by the US Department of Labor by assessing price changes in the basket of goods and services and averaging them. Core CPI is the same series, but excluding food and energy prices, which are considered to be volatile enough to distort the meaning and usefulness of so-called headline CPI. The absence of food and energy, means the core series reflects long-term inflation trends more accurately.

Earnings Per Share (EPS) A profitability measure that is calculated by dividing a company's net income by the number of shares outstanding.

Financial Crisis, or Global Financial Crisis (GFC) The economic upheaval of 2007–2009 that is generally considered the largest downturn since the Great Depression of the 1930s. The GFC was triggered largely by the sub-prime mortgage crisis that led to the collapse of systemically vital US investment banks such as Bear Stearns and Lehman Brothers. An aggravating factor was the speculative spike in energy that lifted oil prices to almost $150 a barrel in the summer of 2008, and which surely contributed to the economic slowdown.

Glossary

GDP or Gross Domestic Product
The monetary value of all the finished goods and services produced within a country's borders in a specific time period.

Inflation An overall increase in the price of an economy's goods and services during a given period, translating to a loss in purchasing power per unit of currency. Inflation generally occurs when growth of the money supply outpaces growth of the economy. Central banks attempt to limit inflation, and avoid deflation, in order to keep the economy running smoothly.

Interest Rate The amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets.

Investment-Grade Credit A fixed-income security, such as a corporate or municipal bond, that has a relatively low risk of default. Bond-rating firms, such as Standard & Poor's, use different lettered descriptions to identify a bond's credit quality. In S&P's system, investment-grade credits include those with "AAA" or "AA" ratings (high credit quality), as well as "A" and "BBB" (medium credit quality). Anything below this "BBB" rating is considered non-investment grade.

Monetary Policy The actions of a central bank, currency board or other regulatory committee that determine the size and rate of growth of the money supply, which, in turn, affects interest rates. Monetary policy is maintained through actions such as modifying the interest rate, buying or selling government bonds, and changing the amount of money banks are required to keep in the vault (bank reserves).

Mortgage-Backed Securities Pooled securities that are backed by mortgage loans. Agency mortgage-backed securities refer to securities backed by pools of mortgages issued by US government-sponsored enterprises such as Government National Mortgage Association (GNMA), Federal National Mortgage Association (FNMA), and Federal Home Loan Mortgage Corporation (FHLMC).

MSCI Emerging Markets Index The MSCI Emerging Markets Index captures large and mid-cap representation across 23 emerging markets countries. With 834 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI EAFE Index An equities benchmark that captures large- and mid-cap representation across 22 developed market countries around the world, excluding the US and Canada.

Nasdaq Inc. The exchange company behind the Nasdaq stock market as well as eight exchanges located in Europe.

Price-to-Book Ratio, or P/B Ratio
A valuation metric that compares a company's current share price against its book value, or the value of all its assets minus intangible assets and liabilities. The P/B is a ratio of investor sentiment on the value of a stock to its actual value according to the Generally Accepted Accounting Principles (GAAP). A high P/B means either that investors have overvalued the company, or that its accountants have undervalued it.

Price-to-Earnings Multiple, or P/E Ratio
A valuation metric that uses the ratio of the company's current stock price versus its earnings per share.

S&P/LSTA U.S. Leveraged Loan 100 Index
A benchmark that is designed to reflect the largest loan facilities in the leveraged loan market. It mirrors the market-weighted performance of the largest institutional leveraged loans based upon market weightings, spreads, and interest payments. The index consists of 100 loan facilities drawn from a larger benchmark, the S&P/LSTA (Loan Syndications and Trading Association) Leveraged Loan Index (LLI).

Glossary

S&P MidCap 400 Index A benchmark that seeks to target the mid-cap portion of the US equities market. The index covers more than 7 percent of the US equities market. Included in the index are companies with market cap in the range of $1 billion to $4.5 billion. This range is reviewed from time to time to ensure consistency with market conditions.

S&P 500® Growth Index A market-capitalization-weighted index developed by Standard and Poor's consisting of those stocks within the S&P 500 Index that exhibit strong growth characteristics.

S&P 500® Index A popular benchmark for US large-cap equities that includes 500 companies from leading industries and captures approximately 80% coverage of available market capitalization.

S&P 500® Value Index A market-capitalization-weighted index developed by Standard and Poor's consisting of those stocks within the S&P 500 Index that exhibit strong "value" characteristics.

S&P SmallCap 600 Index Market capitalization-weighted measure of the performance of small cap equities within the United States, with constituents required to demonstrate profitability prior to gaining initial inclusion.

Senior Loans Floating-rate debt issued by corporations and backed by collateral, such as real estate or other assets.

Standard Deviation A statistical measure of volatility that quantifies the historical dispersion of a security, fund, or index around an average. Investors use standard deviation to measure expected risk or volatility, and a higher standard deviation means the security has tended to show higher volatility or price swings in the past. As an example, for a normally distributed return series, about two-thirds of the time returns will be within 1 standard deviation of the average return.

Treasuries The debt obligations of a national government. Also known as "government securities," Treasuries are backed by the credit and taxing power of a country, and are thus regarded as having relatively little or no risk of default.

Volatility The tendency of a market index or security to jump around in price. Volatility is typically expressed as the annualized standard deviation of returns. In modern portfolio theory, securities with higher volatility are generally seen as riskier due to higher potential losses.

Yield Curve A graph or line that plots the interest rates or yields of bonds with similar credit quality but different durations, typically from shortest to longest duration. When the yield curve is said to be "flat," it means the difference in yields between bonds with shorter and longer durations is relatively narrow. When the yield curve is said to be "steep," it means the difference in yields between bonds with shorter and longer durations is relatively wide.

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Diversification does not ensure a profit or guarantee against loss.

Investing involves risk including the risk of loss of principal.

Prior to 02/26/2021, the SPDR Blackstone Senior Loan ETF was known as the SPDR Blackstone / GSO Senior Loan ETF.

Prior to 05/01/2021, the SPDR ICE Preferred Securities ETF was called SPDR Wells Fargo Preferred Stock ETF.

Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates raise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

Investing in **high yield fixed income securities**, otherwise known as "junk bonds", is considered speculative and involves greater risk of loss of principal and interest than investing in investment grade fixed income securities. These Lower-quality debt securities involve greater risk of default or price changes due to potential changes in the credit quality of the issuer.

Investments in **mortgage securities** are subject to prepayment risk, which can limit the potential for gain during a declining interest rate environment and increase the potential for loss in a rising interest rate environment. The mortgage industry can also be significantly affected by regulatory changes, interest rate movements, home mortgage demand, refinancing activity, and residential delinquency trends.

Investments in **senior loans** are subject to credit risk and general investment risk. Credit risk refers to the possibility that the borrower of a Senior Loan will be unable and/or unwilling to make timely interest payments and/or repay the principal on its obligation. Default in the payment of interest or principal on a Senior Loan will result in a reduction in the value of the Senior Loan and consequently a reduction in the value of the Portfolio's investments and a potential decrease in the net asset value ("NAV") of the Portfolio.

An actively managed fund may underperform its benchmarks. An investment in the fund is not appropriate for all investors and is not intended to be a complete investment program. Investing in the fund involves risks, including the risk that investors may receive little or no return on the investment or that investors may lose part or even all of the investment.

Passively managed funds hold a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index.

Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

Foreign (non-US) securities may be subject to greater political, economic, environmental, credit and information risks. Foreign securities may be subject to higher volatility than US securities, due to varying degrees of regulation and limited liquidity. These risks are magnified in **emerging markets**.

Non-diversified funds that focus on a relatively small number of securities tend to be more volatile than diversified funds and the market as a whole.

Concentrated investments in a particular sector or industry (technology sector and industrials sector) tend to be more volatile than the overall market and increases risk that events negatively affecting such sectors or industries could reduce returns, potentially causing the value of the Fund's shares to decrease.

When the **fund focuses its investments** in a particular industry or sector, financial, economic, business, and other developments affecting issuers in that industry, market, or economic sector will have a greater effect on the Fund than if it had not done so.

Multi-cap Investments include exposure to all market caps, including small and medium capitalization ("cap") stocks that generally have a higher risk of business failure, lesser liquidity and greater volatility in market price. As a consequence, small and medium cap stocks have a greater possibility of price decline or loss as compared to large cap stocks. This may cause the Fund not to meet its investment objective.

Technology companies, including cybersecurity companies, can be significantly affected by obsolescence of existing technology, limited product lines, competition for financial resources, qualified personnel, new market entrants or impairment of patent and intellectual property rights that can adversely affect profit margins.

Funds investing in a **single sector** may be subject to more volatility than funds investing in a diverse group of sectors. Because of their narrow focus, **sector funds** tend to be more volatile than broadly diversified funds and generally result in greater price fluctuations than the overall market.

Index-based funds hold a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index.

A **"value" style** of investing emphasizes undervalued companies with characteristics for improved valuations. This style of investing is subject to the risk that the valuations never improve or that the returns on "value" equity securities are less than returns on other styles of investing or the overall stock market.

Although subject to the risks of common stocks, low volatility stocks are seen as having a lower risk profile than the overall markets. However, a fund that invests in **low volatility stocks** may not produce investment exposure that has lower variability to changes in such stocks' price levels.

A **"quality" style of investing** emphasizes companies with high returns, stable earnings, and low financial leverage. This style of investing is subject to the risk that the past performance of these companies does not continue or that the returns on "quality" equity securities are less than returns on other styles of investing or the overall stock market.

Because of their narrow focus, financial sector funds tend to be more volatile. **Preferred securities** are subordinated to bonds and other debt instruments, and will be subject to greater credit risk. The municipal market can be affected by adverse tax, legislative or political changes and the financial condition of the issuers of municipal securities. The fund may contain interest rate risk (as interest rates rise bond prices usually fall); the risk of issuer default; inflation risk; and issuer call risk.

The Fund may invest in US dollar-denominated securities of foreign issuers traded in the United States.

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