

3 Overcoming financial repression

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3.1

The return of financial repression

STEVEN WIETING - Chief Investment Strategist and Chief Economist

Financial repression – artificially low interest rates combined with higher inflation – represent a threat to your core portfolio. Focus on assets that offer positive real income streams and diversification.

- Highly indebted governments may use “financial repression” to reduce their debt burdens in the years ahead
- Financial repression involves keeping interest rates artificially low while allowing inflation to erode the real value of cash and bonds
- Such policies will make it even harder to earn vital income in core portfolios
- We urge investors with excess cash to put it to work or risk losing purchasing power
- Financial repression calls for a major shift in asset allocation towards substitute strategies involving dividends, capital markets, alternative investments, and select fixed income assets, but not complete divestment from very low-yielding bonds

Earning income is vital to core portfolios. Over time, reinvested income has been the single biggest contributor of portfolio returns, ahead of capital growth for many diversified portfolios. A regular flow of income also helps to stabilize portfolio performance, especially at times of market turbulence. And income can also supply liquidity to pursue other opportunities, be they in financial assets or private investments.

Traditionally, high-quality bonds have been the largest source of core portfolio income. For some years, though, they have struggled to fulfill their historic role. Very low or even negative interest rates have seen the yield on bonds from the most creditworthy companies and governments all but disappear – see **Escaping the negative yield trap** in **Outlook 2020**. However, the challenge for investors is now getting even tougher.

Enter financial repression

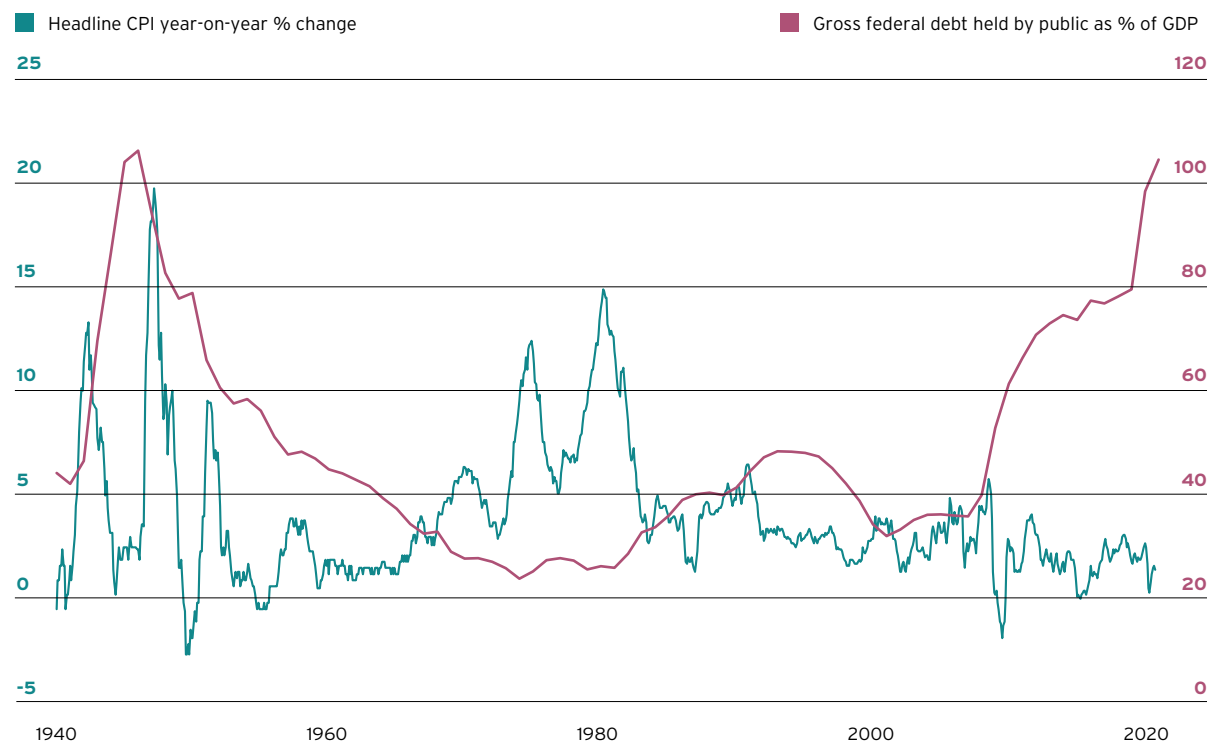
Over the coming years, we expect various leading central banks globally to pursue a policy of “financial repression.” This involves deliberately keeping interest rates artificially low for an extended period. As well as trying to encourage more economic growth, the aim is to generate more inflation. Specifically, financial repression seeks a rate of inflation that exceeds the level of interest rates. The impact of such policies erodes the value of cash and certain bonds.

Such negative real interest rates have certain obvious attractions for governments right now. Artificially low interest rates make it easier for governments to pay interest on their debts, and ideally help private borrowers too. Many find themselves with even heavier debt burdens following emergency fiscal measures during the pandemic. In many nations, the authorities hope to borrow and spend significantly to stimulate recovery, for example by investing in infrastructure – see [Unstoppable trends: Greening the world](#).

But there is another reason that central banks are likely to keep rates artificially low. While they do not readily admit to it, inflation rates that exceed interest rates erode the real value of their debts. So, not only do governments pay lower interest rates on their borrowings, but ultimately find debt repayment easier because inflation has eroded the value of those debts. In other words, financial repression is a forced transfer of wealth from bondholders and other savers to borrowers.

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FIGURE 1. US FEDERAL DEBT NEARS WARTIME PEAK



Source: Haver Analytics as of 23 Oct 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

As a policy, financial repression is far from new. It was widely used in the decades following World War II, as governments sought to reduce the unprecedented debt burdens they had accumulated to finance their war effort. In the US, for example, government debt as a share of GDP was at levels similar to today's - FIGURE 1.

In response, the US Federal Reserve explicitly capped long-term interest rates from 1942 to 1951. During this period, bouts of high inflation at levels well above those capped rates eroded the real value of the US government debt. As inflation swelled nominal GDP, the debt burden - as measured by the debt-to-GDP ratio - began to fall sharply.

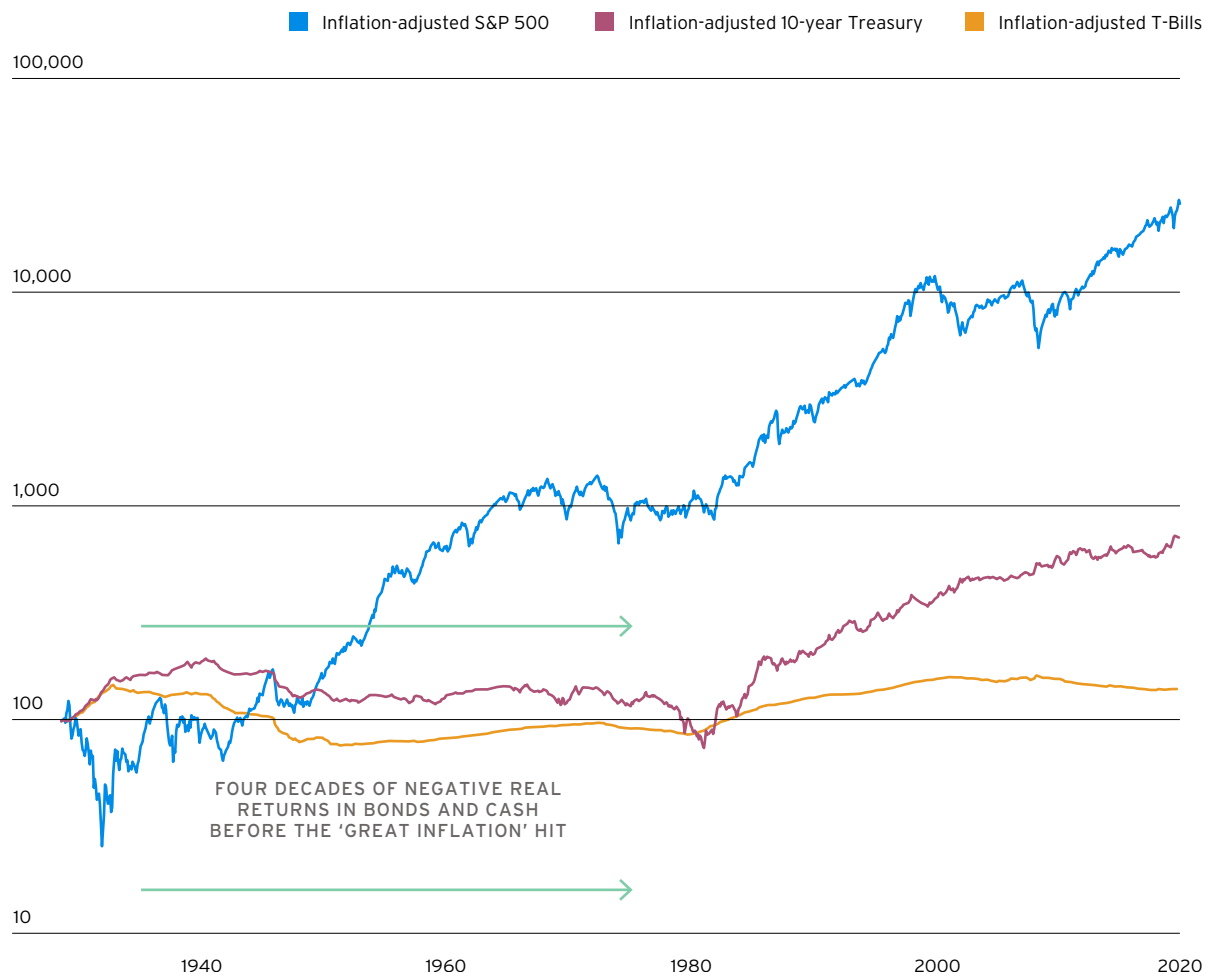
This gain for the US government and other borrowers came at the direct expense of bondholders and cash savers. An investment in US 10-year Treasury bonds or held in cash at the end of World War II in 1945 would have taken 40 years and 38 years respectively to begin netting a positive inflation-adjusted return - FIGURE 2. In other words, it was a period when it did not pay to wait on the side-lines holding cash. Missing the long rebound in equities from the Great Depression and World War II would have proved very, very costly - FIGURE 3.

We believe the present period has parallels to the years after 1945. The Fed and other central banks are likely to keep shorter-term interest rates atypically low for years. It is possible that the Fed will allow some level of market forces to drive intermediate and long-term interest rates higher to encourage a steeper yield curve. However, it will still be likelier to intervene significantly if tightening financial conditions impede economic growth.

Managing portfolios wisely during financial repression

We believe the coming age of financial repression has major implications for your core investment portfolio. US Treasuries, many other high quality fixed income assets, and cash are all at risk of suffering negative real returns. It is certainly possible that inflation, whether mild or severe, will cause some losses for the owners of long-term bonds. This is even if policymakers veer away before repeating the double-digit inflation rise of the 1970s.

FIGURE 2. EQUITIES OUTPERFORMED DURING THE LAST FINANCIAL REPRESSION



Source: Haver Analytics as of 23 Oct 2020. Note: Log scales are used in each figure. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary. All forecasts are expressions of opinion and are subject to change without notice and are not intended to be guarantees of future events.

Despite the prospect of negative real returns, we see many investors holding large amounts of cash in their core portfolios. Most often, they tell us that they intend to put it to work, but are waiting for a more attractive entry-point. Such attempts at market timing almost never work out – see [The critical importance of staying invested](#). However, sitting and waiting on the sidelines in cash is even more dangerous during a period of financial repression. Not only do you miss out on potential upside in equities and other risk assets, but your wealth actually declines in real terms as inflation eats away at your buying power.

Overcoming financial repression: A major shift in asset allocation is necessary

Even if your core portfolio is fully invested, however, financial repression still poses a major challenge. Asset allocation is much harder under these conditions. Traditionally safer bonds can no longer be relied upon to provide a real return. We believe this calls for a major shift in asset allocation.

To be clear, however, we are not calling for complete divestment from all very low-yielding investment grade bonds. As of December 2020, for example, the Global Investment Committee retains a full or neutral allocation to US intermediate Treasuries and investment grade corporates – see [Our positioning](#). Given our expectation of financial repression, this may seem strange. However, we would emphasize

FIGURE 3: US IG RETURNS DURING YEARS OF EQUITY DECLINES

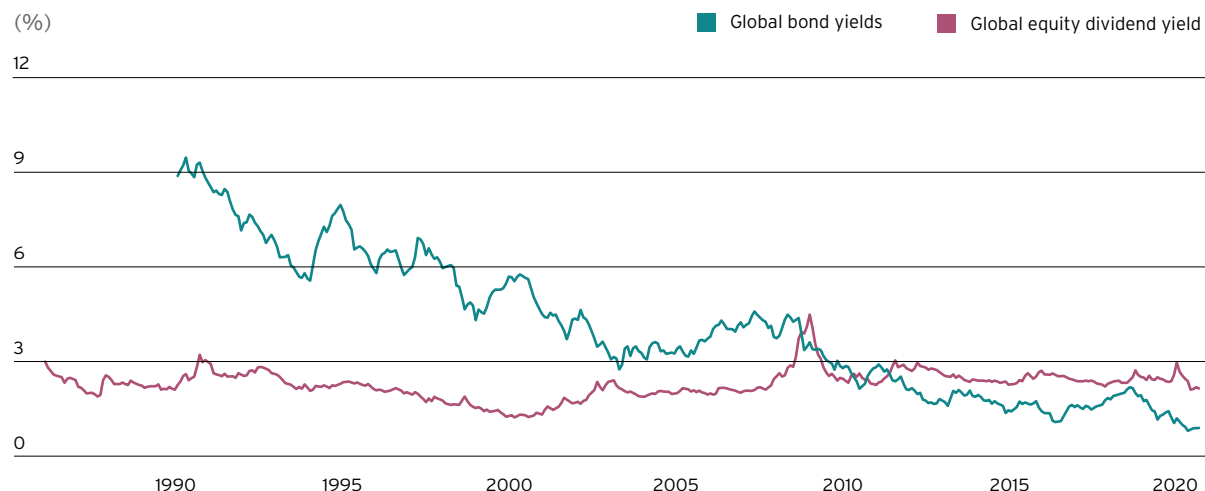
	S&P 500 TOTAL RETURN INDEX	INDEX DURATION: 7.2YRS BLOOMBERG BARCLAYS US TREASURY INDEX	INDEX DURATION: 8.3YRS BLOOMBERG BARCLAYS US CORPORATE INDEX
1974	9.2	2.2	18.9
1977	9.4	3.1	18.3
1981	5.3	2.8	16.3
1990	5.7	3.7	11.6
2000	10.7	1.7	35.3
2001	11.2	1.5	18.9
2002	6.5	2.0	14.4
2008	12.2	3.1	23.9
2018	10.9	1.3	29.6
CORRELATION TO EQUITIES IN DECLINE YEARS		-0.51	0.45

Source: FactSet as of 18 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

that such bonds may still provide diversification benefits, even at their present very low yields.

Over time, long duration government bonds have consistently served as portfolio hedges in years when equities have fallen – FIGURE 3. Notably, they did so even during the 1970s period of financial repression, when inflation frequently ran at uncomfortably high levels. US investment grade corporate bonds, meanwhile, have provided positive returns in all but the most severe of equity market declines.

Of course, nominal yields on such bonds were considerably higher in the 1970s than they are today. Lacking any yield “cushion,” we might well ask whether they would offer similar diversification potential. The more recent experience of Japanese and German fixed income suggests that they might well. Yields on these countries’ highest quality bonds hit record lows in the period following the Global Financial Crisis. However, their correlations to equities nonetheless also decreased. In other words, their diversification properties actually strengthened. As equities and other risk assets plunged amid the COVID turbulence of early 2020, the highest

FIGURE 4. GLOBAL DIVIDEND YIELDS ARE NOW ABOVE BOND YIELDS

Indices shown are FTSE All World and Bloomberg Barclays Global–Aggregate Bond. Source: Bloomberg, Citi Private Bank as of 10 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

quality bonds also held up well. We therefore reiterate that they still have a role to play in portfolios, albeit a reduced one. But we must also broaden our search for sources of income.

Broadly speaking, equities are now more of an income-generating asset class than high quality fixed income. The dividend yield on global equities is now twice the global bond aggregate yield – **FIGURE 4**. We therefore believe that dividends can substitute for some of the portfolio income that many bonds no longer provide. We set out our favored strategies in [How dividend equities work overtime in your portfolio](#).

Global dividend yields are now above bond yields

Another possibility for seeking income employs certain capital markets strategies that can extract yield from the price that investors pay to hedge. With equity-implied volatility roughly twice the historic average level and interest rates far below average, this is an attractive yield-generating strategy – see [Creating yield from volatility: When the stars align](#).

While financial repression targets fixed income directly, we still see potential for seeking positive real returns and diversification benefits within this asset class. In addition to dividend equities, there are certain shares that generate income and are likely to benefit from a period of sustained low real yields. Mortgage REITs, certain types of business development companies (BDCs) and preferred shares of healthy companies all can add real income and substitute for bonds. However, these are also more volatile at times and are an imperfect replacement. We also identify attractive assets and markets within high yield as well as in investment grade fixed income – see [Finding yield in a repressed world](#).

We do not confine our quest to overcome financial repression to the public markets. For qualified investors who are willing to sacrifice liquidity and assume more risk, certain alternative strategies may provide opportunities to receive recurring distributions, as well as help diversify portfolios – see [Taking alternative paths to portfolio income](#).

Financial repression may seem like an unfamiliar and daunting challenge for your core portfolio. As we have seen, though, there are many positive steps you can take to prepare for it. By putting your excess cash to work and shifting your asset allocation, you can seek vital income and diversification where they are most needed. Don't get repressed. We can help you strengthen portfolios to overcome financial repression.



3.2

How dividend equities work overtime in your portfolio

JOE FIORICA - Head of Global Equity Strategy

Amid financial repression, we believe that certain dividend equities can play a valuable role in generating portfolio income

- We believe dividends can substitute for a portion of the portfolio income that many bonds no longer provide
- As the global economic recovery becomes entrenched, we expect “dividend grower” equities to resume their long-term, lower-volatility outperformance
- We therefore favor combining dividend grower equities with select high dividend yield equities
- We advocate global dividend exposure, as well as a mix of cyclical and defensive sector exposure

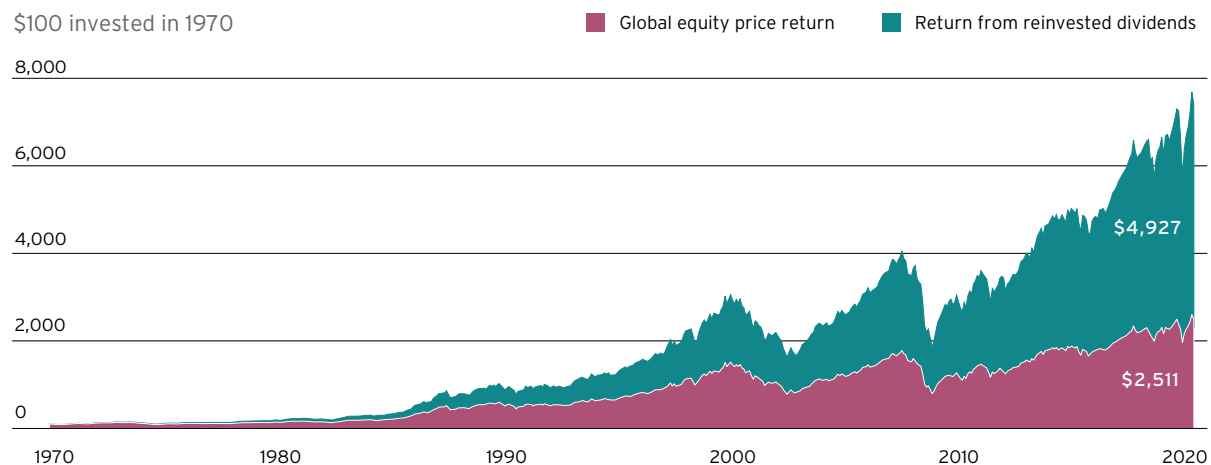
Earning a reasonable yield on high quality fixed income assets has rarely been harder. Amid today's financial repression, the average yield on global developed investment grade fixed income is just 0.88% after inflation. This situation seems unlikely to improve in the near future, while any move higher in rates would mean lower bond prices in the process. Against this backdrop, we believe that equities can play a dual and vital role in building diversified, income-oriented portfolios.

Put simply, our case is that dividends can substitute for some of the portfolio income that many bonds no longer produce. However, we do not advocate buying just any old dividend-paying equities. Instead, we recommend seeking out quality equity income. So, what does quality equity income consist of?

"Dividend growers" are companies that have consistently grown their dividend payments over time. Companies that emphasize dividend growth as a goal are courting investors who want a total return based upon cash payments and earnings growth that drives their equity price higher over time. As these companies' dividend payments represent a sustainable proportion of their profits, they are not maximizing payouts or taking on unsustainable levels of debt to enable them. Consistent dividend growth is obviously an attractive feature for income seeking investors. Companies that deliver it are likelier to have growing businesses and be financially robust.

By allocating to dividend growers - along with certain other dividend equities - we believe that you can mitigate some of the risks inherent in replacing bonds with broad equity exposures.

FIGURE 1. REINVESTED DIVIDENDS: THE MAIN DRIVER OF LONG-TERM RETURNS



The chart shows the performance of the MSCI World Total Return Index, broken down into its price return and reinvested dividends components. Source: Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. See Glossary for definitions.

Dividend equities can work overtime for you

Traditionally, diversified portfolios have relied upon equities to provide long-term growth and upon bonds for stable income and diversifying equity risk. With bond yields so low, however, equities are increasingly having to "work overtime" to perform both of these portfolio roles. We believe that they are up to this task. As FIGURE 1 shows, reinvested dividends have made a greater contribution to long-run returns than simple price appreciation since 1970. Dividends

also tend to be the most stable component of equity valuation, whereas earnings and multiples tend to fluctuate much more from year to year.

2020 created intense difficulties for some companies and sectors that had traditionally been among the most consistent of dividend payers. These include businesses in finance and energy. Many found themselves having to cut or suspend payouts for the first time in years as lockdowns caused their profits to shrivel, especially those with greater indebtedness and more cyclical businesses. Their equity prices suffered accordingly. During the severe liquidity

crunch of March and April, investors sought out equities in companies that held high levels of cash. They simultaneously shunned equities that had historically returned some of their cash to shareholders.

Some of 2020's best performing equities - and those that have driven the broader indices' recovery after their sharp sell-off - have been in sectors such as technology and internet media. These sectors' businesses have either been insulated from the pandemic's effects or have even benefited from them. As growth businesses, they often pay small or no dividends.

In 2021, however, we think returns may come from different sources and companies. History reminds us that periods of dividend equity underperformance are rare and typically short-lived. Dividend growth stocks - as measured by the S&P Dividend Aristocrats Index - have outperformed in twenty-four of the last thirty-one years. Among the seven years of underperformance, two came amid the frenzy of the late 1990s "dot com" bubble, and the third during 2020's COVID-driven tech rally. In other words, the period coming up may be favorable for these shares.

With many technology and internet equities trading at stretched valuations amid the ongoing pandemic, there is the potential for dividend strategies to outperform as we look ahead. We think the likely mass distribution of a COVID vaccine should enable reopening of much more of the global economy in 2021. Among dividend-paying equities, we believe those that have been able to maintain their dividend payouts without

having to sacrifice capital expenditures will emerge from this crisis in a stronger position than many of their competitors.

Balance dividend growth and current yield

In the years ahead, we expect dividend growth stocks to resume their long-run trend of outperformance with lower volatility. However, given our need to supplement dwindling yield opportunities on the bond side of portfolios, the approach we now recommend is to combine dividend growth with a more traditional dividend strategy that targets companies that pay higher, but still sustainable yields. Such a strategy will likely involve increasing exposure to more cyclical dividend payers that intend to maintain high payouts going forward. It would also seek to avoid historically reliable dividend payers in industries under secular pressure, such as traditional energy - see [Unstoppable trends: Greening the world](#)).

The first consideration here is high relative dividend yields. In the US, high dividend indices are yielding 4.3%. That compares to 2.6% for dividend growers and just 1.6% for equities overall. Also, high dividend yield equities trade at a 25% discount to dividend growers. Finally, they are more orientated towards sectors that we expect to benefit from an economic recovery in 2021.



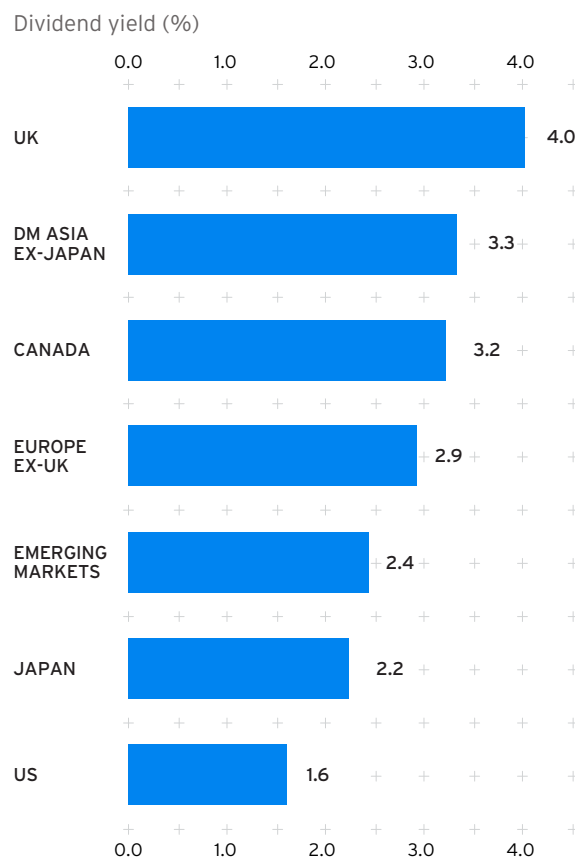
Our favored strategies for seeking dividends

Seeking sustainable dividends while trying to minimize risk requires looking beyond those regions and sectors that outperformed in 2020, such as the US and technology. Looking at dividend payouts by region underscores the importance of seeking equity income globally - **FIGURE 2**. The prospective dividend yield on European and developed Asian equities is on average twice that of their US counterparts.

We also believe that having a mix of cyclical and defensive sector exposure can help capture both yield and price upside, while mitigating downside risks. Indeed, among the highest yielding global industry groups, we see an array of COVID-winners and losers. Owning a combination of both is key for building income portfolios, as the goal of these core assets is to boost overall portfolio yield, rather than trying to time when future market shifts might occur.

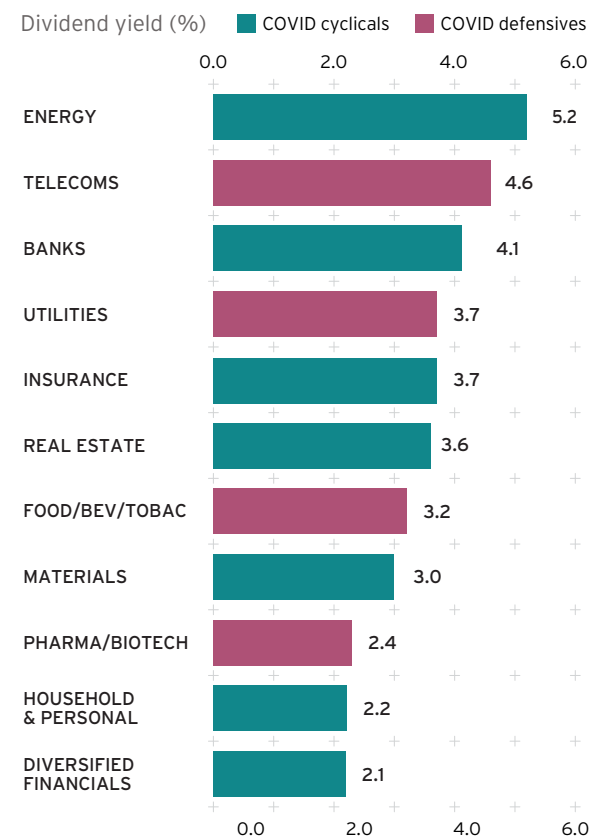
In particular, we see real estate as encapsulating the importance of this diversification. A few decades ago, the sector was dominated by retail, office, and multifamily REITs. Now, though, the current public real estate universe is much more diverse, with an increasing mix of “new economy” areas, including cell towers, industrial complexes, research centers, student housing and data centers. REITs are uniquely designed to be income-oriented assets, as they must pay out the vast majority of their accounting profits in order to maintain their tax-advantaged status. As the economy’s landlord, we believe the real estate

FIGURE 2.
DIVIDEND YIELDS BY REGION



The chart shows estimated 2021 dividend yields for MSCI Indices. Source: Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. See Glossary for definitions.

**FIGURE 3. GLOBAL CYCLICALS AND DEFENSIVES:
AMONG THE HIGHEST YIELDERS**



The chart shows estimated 2021 dividend yields for MSCI All Country World sector indices globally. Source: Bloomberg, as of 24 Nov 2020. Past performance is no guarantee of future returns. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. See Glossary for definitions.



sector is likely to continue to recover alongside the global economy in 2021, while maintaining above-market dividends along the way.

Dividends to help overcome financial repression

Today's interest-deprived environment poses a special challenge for investors. However, we believe the sort of dividend equities discussed herein are well placed to meet this challenge. But how best to reflect this approach in your portfolio? Given the unusual short- and long-term effects of the pandemic on many companies and industries, we think selectivity is essential. For that reason, we favor active managers focusing on dividend grower and high yield equities. We also think that capital markets strategies can help you target specific income outcomes in relation to dividend growers, high yield and other equities.

As the global economic recovery gathers pace in 2021 and beyond, we recommend getting dividend equities to work overtime in your portfolio. Both income and price appreciation will be possible.



3.3

Finding yield in a repressed world

KRIS XIPPOLITOS - Head of Global Fixed Income Strategy

Financial repression puts many fixed income assets right in the firing line. But we still see potential for seeking positive real returns and diversification benefits within this asset class.

- Negative real interest rates make it harder to seek returns from many bonds
- Despite this environment, we still see potential for seeking yield in select parts of the fixed income market
- This includes opportunities in investment grade, high yield, preferred securities, and other assets

Financial repression hurts fixed income more than any other asset class. As fixed income yields get driven lower, future cash flows to bondholders are reduced. If inflation causes the real yield to turn negative, the total value of the capital borrowed is also reduced.

For borrowers such as highly indebted governments, the benefits are clear. They pay lower servicing costs on their debt and may repay much less than they borrowed in real terms at maturity. Their gains, however, are at bondholders' direct expense.

As well as seeing their potential portfolio performance suffer, investors are also exposed to more risks when and if rates rise. That said, bonds with very low or negative yields can still react favorably in "risk-off" periods, so they may still provide diversification value. For this reason, we do not advocate complete divestment from such bonds.

Built in losses?

Today's low fixed income yields are already well below the current rate of inflation. Using Treasury Inflation Protected Securities (TIPS) as a measure of current inflation expectations, real US Treasury yields – i.e. adjusted for inflation – are deeply into negative territory – **FIGURE 1**. This creates big problems for investors who are seeking to generate returns greater than the rising value of money. Either investors need to consider extending duration to obtain positive real yields, or add risk, or both.

FIGURE 1. US TREASURY YIELDS ARE NEGATIVE AFTER INFLATION

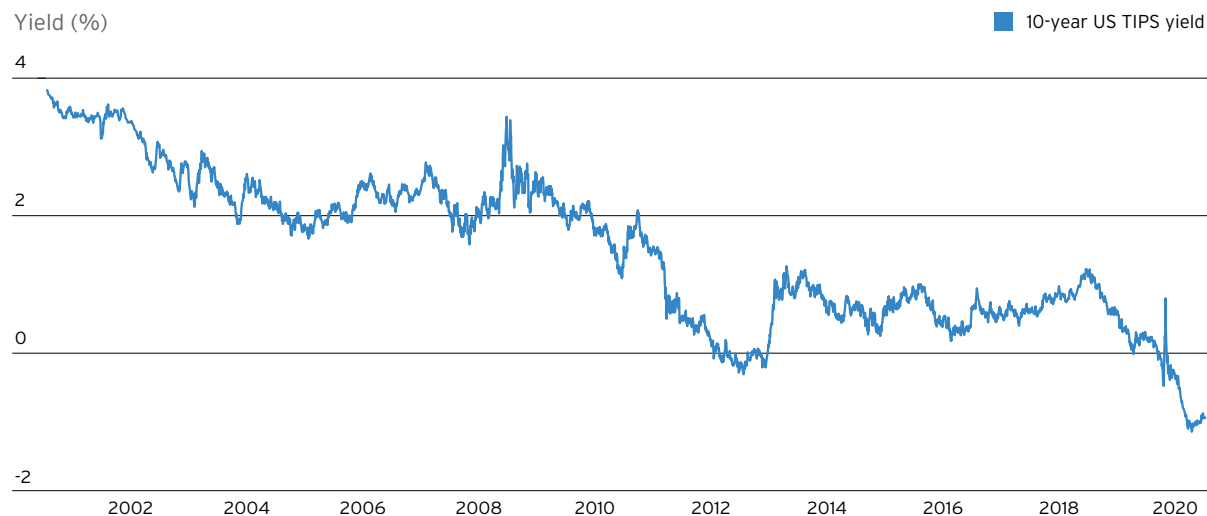


Chart shows 10-year US Treasury Inflation Protected Securities (TIPS) yield.

Source: Bloomberg as of 1 Nov 2020. Past performance is no guarantee of future results. Real results may vary

In our view, interest rate risks are elevated. With the discovery of effective vaccines, interest rates are already heading higher and may even double from present levels. If so, it could have severe negative price impacts within portfolios. Low coupons offer little to protect total returns. At the same time, we hold a constructive view on the post-COVID economic recovery. In certain parts of the global credit market, fundamentals will likely improve as economies do. Considering that credit markets offer wider yield premiums, we see them as better positioned to withstand a rise in risk-free rates.

Given the likelihood of intensifying financial repression, which areas within fixed income market might we favor in portfolios?

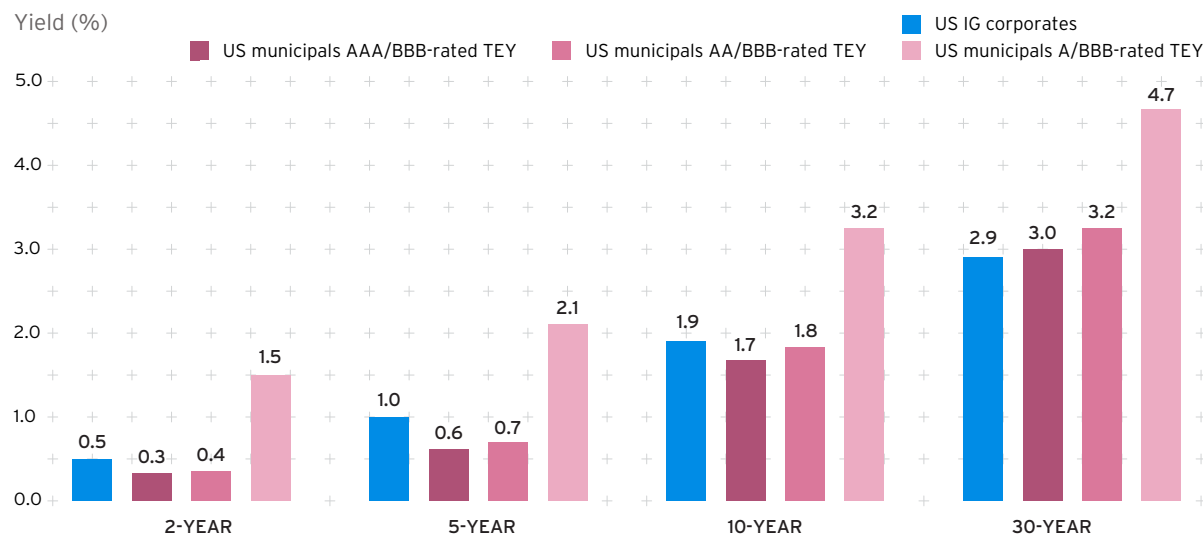
Investment grade bonds

Investment-grade (IG) corporate bonds have been a part of the European Central Bank's (ECB) quantitative easing program for many years. Beginning in May 2020, the US Federal Reserve joined the party, accumulating \$13 billion in exchange-traded funds (ETFs) and individual corporate bonds through their Secondary Market Corporate Credit Facility (SMCCF). As a result, the spreads of corporate yields over government yields have narrowed substantially and absolute yields have fallen to historical lows.

We favor select opportunities among US dollar-denominated BBB-rated issuers, which yield 2.1% and where spreads have some scope for additional tightening. Although the Federal Reserve's credit facilities are set to expire upon the New Year, its accommodating stance on broader monetary policy will likely remain supportive for the market. In Europe, BBB-rated euro-denominated bonds only yield 0.75%, on average. However, this is relatively attractive given that negative rates predominate in the euro-area.

For US investors, we also favor a "down-in-quality" bias within municipal bonds. In some instances, this is out of necessity, as taxable-equivalent yields for particular high quality tax-exempt municipal - or "muni" - bonds may not exceed those of taxable IG corporates - FIGURE 2. This dynamic is unlikely to change, as we expect the demand for tax-free debt to remain elevated. Political outcomes and the impact on future income tax rates are a consideration. Indeed, if income tax rates were to rise, it could fuel even greater demand for muni bonds.

FIGURE 2. US MUNICIPAL TAXABLE EQUIVALENT YIELDS VS. US IG CORPORATES



Source: Bloomberg as of 30 Oct 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary

High yield

Unlike the ECB, the Fed has been a buyer of certain high yield (HY) bonds. This has helped HY markets fully recover from their pandemic sell-off in early 2020. Despite that impressive turnaround, spreads are still relatively attractive, with average yields near 4.8%. Of course, these valuations imply exposure to some of the riskiest parts of the HY market. While we welcome lower-quality idiosyncratic exposure found in sectors within the broader market HY strategies, we prefer to complement with opportunities in the fallen angel (FA) market.

Fallen angels - or IG bonds downgraded to HY - can offer compelling total return opportunities, as their prices tend to fall prior through the downgrade. This creates attractive valuations for high yield managers. In many instances, fallen angels attempt to improve their balance sheets in order to become "rising stars" in the future. This dynamic has allowed fallen angels to outperform the broader high yield market 17 of the last 23 years, including 2020.

Preferred securities

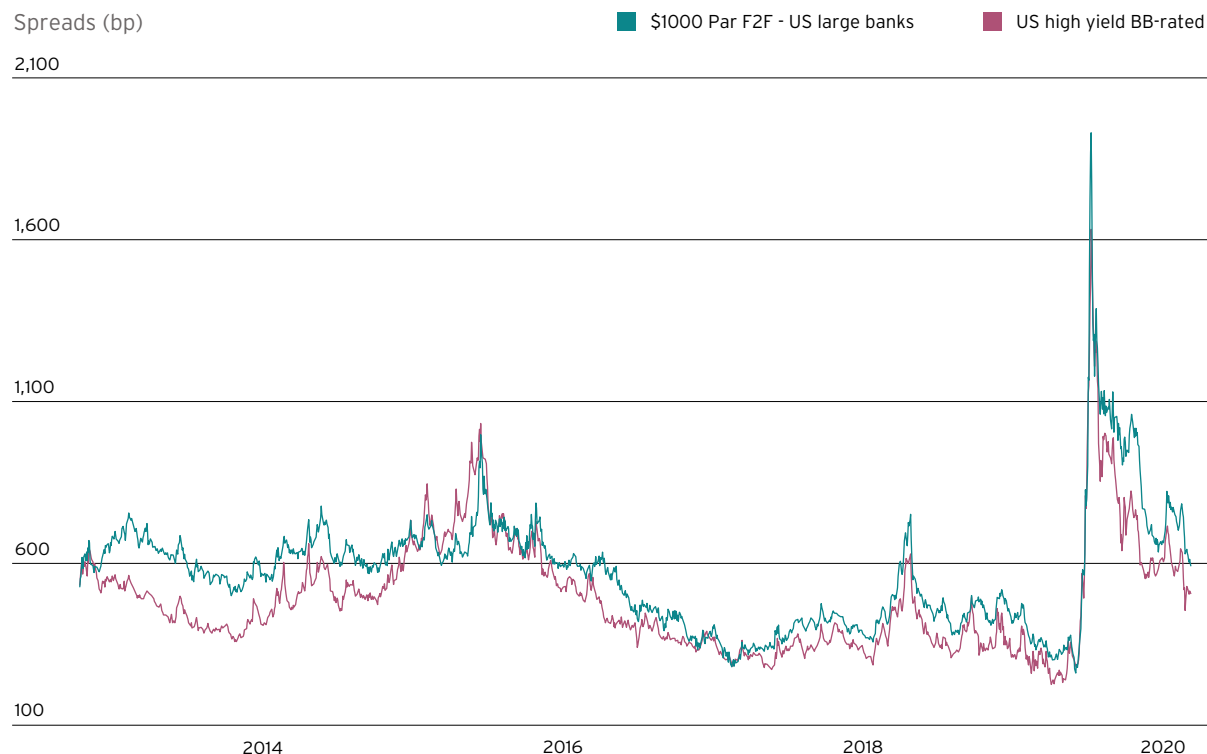
Preferred stocks have historically been a good source of high current yield. In the capital structure – the order in which investors get repaid in the event of bankruptcy – preferred stocks ranked above equity but below bonds. Due to the lack of new issuance and the demand for higher yields, preferred stock valuations have risen over the years, i.e. their yields have fallen. However, with US preferred yields averaging 4% and European yields 5%, we believe that value still exists. In many instances, preferred shares' valuations are comparable with similarly rated HY bonds – FIGURE 3. To be sure, while many bank preferreds' credit ratings are below those of IG, however, the parent ratings are firmly in investment grade territory.

Mortgage credit

Securities backed by consumer loans, commercial loans, or residential mortgages offer interesting yield propositions with varying degrees of risk. The quality of each opportunity is dependent on the bonds' priority to receive principal and interest from the underlying loans. One area less affected by the COVID-19 shutdown is the US housing market. As a result, the non-agency residential mortgage-backed securities (RMBS) market stands to benefit. Again, credit risk can vary, but the non-agency RMBS market can offer yields near 4%.

While the aforementioned opportunities can stand on their own merits, we believe these

FIGURE 3. US PREFERRED YIELDS OFFER VALUE



Source: Bloomberg and Bloomberg Barclays Indices as of 10 Nov 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

markets work best when combined together in a diversified portfolio. Other income generating ideas, such as emerging market debt, mortgage and real-estate investment trusts, and dividend growth stocks can all provide a level of uniqueness to income-focused investors.

Combining these opportunities within core portfolios can lower correlations, which can lower overall portfolio volatility and better help investors navigate the current low-yield world.

Bond-like alternatives

Mortgage real-estate investment trusts (MBS REITS) are companies whose investments are focused within the mortgage backed security (MBS) market. Some of these companies specialize in US government agency MBS debt like Fannie Mae and Freddie Mac, while others invest in private non-agency residential MBS or commercial mortgage-backed securities (CMBS) of various ratings and structures. Due to the high percentage of leverage used to fund these investments, dividend yields and the associated volatility tend to be high.

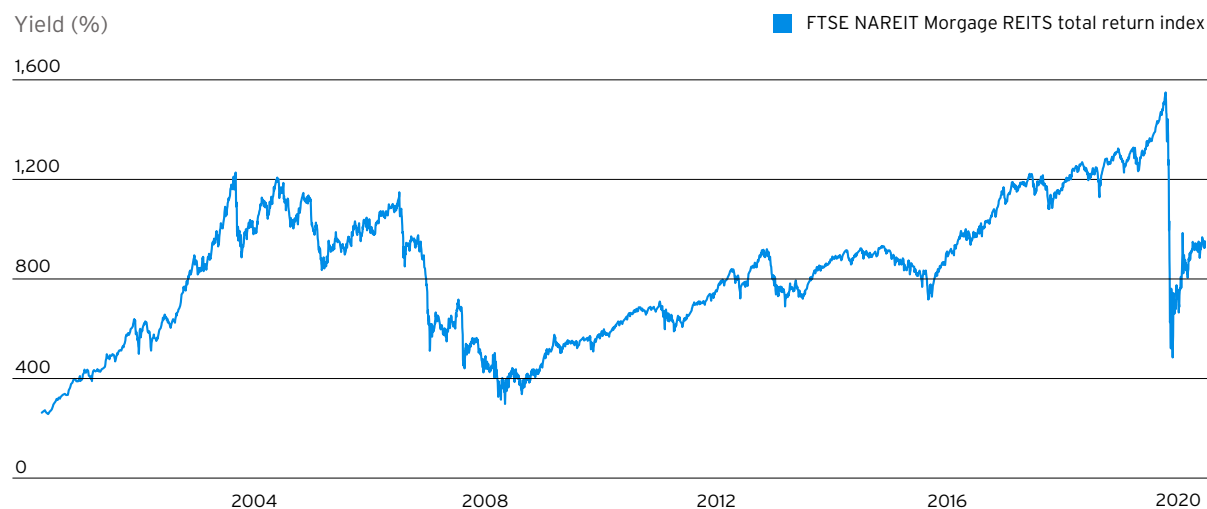
It should come as no surprise that this market was hit hard last March, with the broader US MBS REIT market falling 70%. However, despite US equity markets fully recuperating, the MBS REIT sector remains heavily depressed – FIGURE 4. This weakness can certainly be attributed to the pandemic's impact on the hotel and retail property sectors.

The Federal Reserve is expected to buy at least \$40 billion of agency MBS every month in 2021. Other Fed facilities have been orchestrated to keep financial conditions easy and markets calm. With policy rates at the zero bound, and likely

to stay there for the next few years, leveraged financing will remain cheap. Our expectation for a steeper US yield curve can also increase the value proposition for carry trades, which can support MBS REIT dividends.

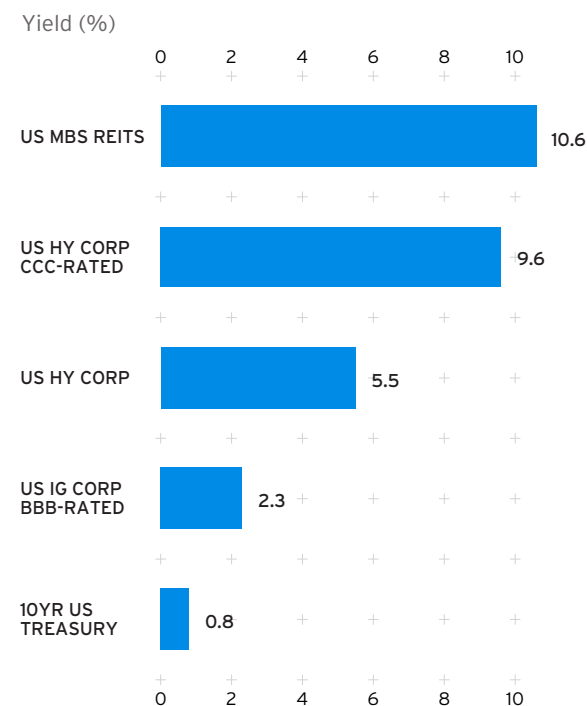
Joseph Kaplan also contributed to this article.

FIGURE 4. MBS REIT SECTOR STILL DEPRESSED



Source: Bloomberg and Bloomberg Barclays Indices as of 10 Nov 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.

FIGURE 5. THE MBS YIELD OPPORTUNITY



Source: Bloomberg and Bloomberg Barclays Indices as of 10 Nov 2020. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Past performance is no guarantee of future results. Real results may vary.



3.4

Taking alternative paths to portfolio income

DANIEL O'DONNELL - Global Head of Citi Investment Management Alternatives

ALEX RIZEA - Private Equity and Real Estate Research Director

MICHAEL YANNELL - Hedge Fund Research Director

Certain private equity, real estate, and hedge fund strategies offer distributions, diversification and profit potential. Qualified investors should consider taking such alternative paths to overcoming financial repression.

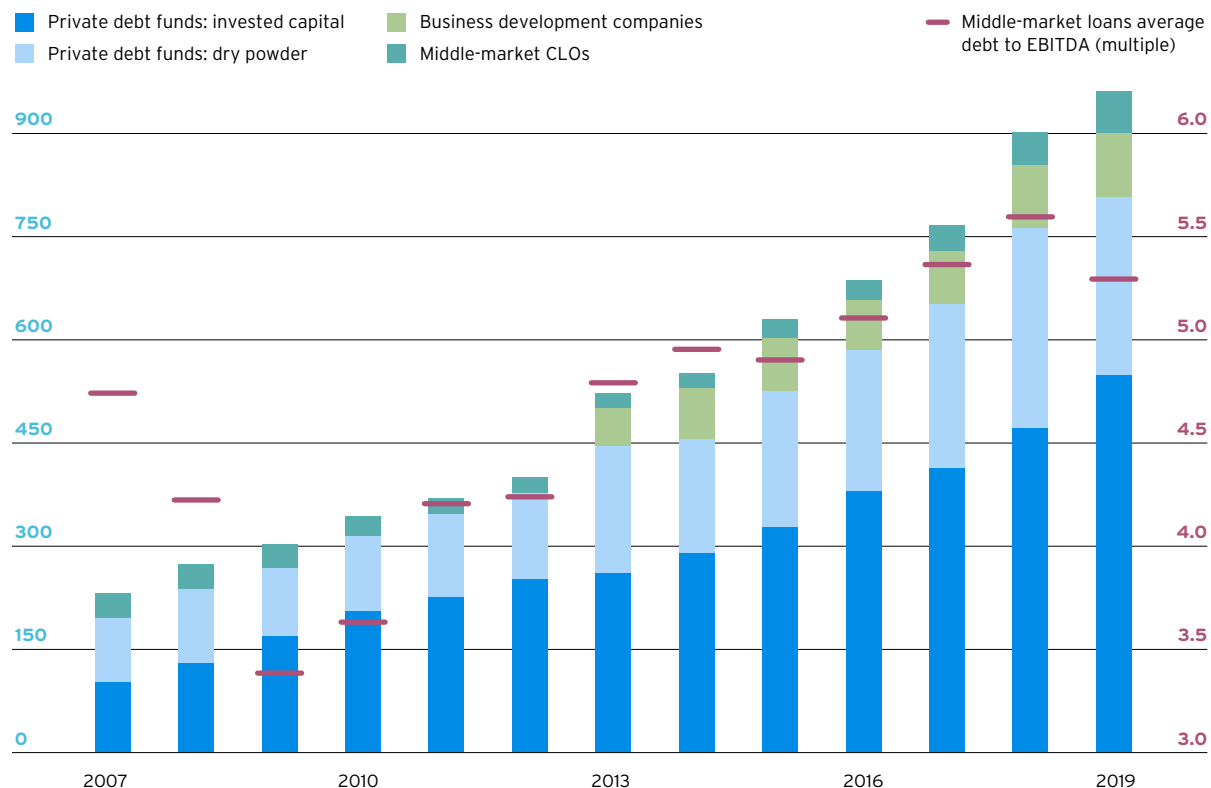
- For qualified investors willing to sacrifice liquidity and assume more risk, we recommend certain alternative strategies
- These strategies may provide opportunities to receive recurring distributions, as well as helping to diversify portfolios
- The distributions are not income in the traditional sense, as they may be paid intermittently, but their effect can be similar
- We highlight possibilities in corporate direct lending, structured credit, and fixed income relative value
- In public markets, we favor select hedge fund strategies, including structured credit managers and relative value fixed income managers

Financial repression forces us to consider replacing certain high-quality bonds in our portfolios. However, there is no single substitute for such bonds with the combination of income and diversification that they once offered. Instead, we advocate trying to replace them with investments from various asset classes. For qualified investors who are willing to sacrifice liquidity and assume more risk, certain alternative strategies may provide opportunities to receive recurring distributions, as well as help to diversify portfolios. The distributions are not income in the traditional sense, as they may be paid intermittently. However, their effect can be similar. Here, we set out some alternative paths that we have identified for overcoming financial repression.

Trends in the private debt market

Following the Global Financial Crisis of 2008-09, new regulations forced banks to boost their capital and liquidity levels. This reduced their ability to keep their newly issued loans on their balance sheets. Increasingly, they have relied instead upon an originate-to-distribute model, where loans are written and then sold to third parties. At the same time, the size of the non-bank financial intermediation market has increased 75% to \$51 trillion globally since 2010.¹ This has allowed non-bank financial institutions such as private debt and collateralized loan obligation (CLO) managers to become increasingly important players in the market.

FIGURE 1. THE GLOBAL PRIVATE DEBT MARKET'S GROWTH



The left-hand axis shows billions of US dollars. The right hand axis shows multiple of average debt to EBITDA. Source: IMF, S&P LCD, Preqin. As of Apr 2020. See Glossary for definitions.

Capitalizing on the secular shift towards private markets, the global private debt market has now reached almost \$1 trillion, more than four times its size in 2007² - FIGURE 1. Non-bank direct lending has replaced bank lending particularly for mid-market corporates, but has also created

¹ Financial Stability Board, Global Monitoring Report on Non-Bank Financial Intermediation 2019, January 2020

² IMF, Global Financial Stability Report, April 2020

opportunities in real estate lending. We believe that these trends are likely to accelerate after the COVID-19 pandemic.

Corporate direct lending

Alongside the entry of increasing numbers of private lenders in recent years, the amounts of capital raised have also increased significantly. As a result, many are sitting on substantial amounts of “dry powder,” or capital yet to be lent out, as **FIGURE 1** also shows. With more lenders with more capital available to lend, transactions have become more leveraged. Middle market corporate borrowers’ average leverage globally – as measured by the ratio of debt to their earnings before interest, tax, depreciation and amortization (EBITDA) – has risen from a depressed low of 3.41 in 2009 to 5.31 in 2019. While this obviously means increased risk, the amount of equity backing these loans has also risen, thanks to rising equity valuations in the US and Europe.

Amid the more competitive environment, margins – the spread of average loan rates over government bond yields – have tightened somewhat. Since 2010, US middle market direct lending senior financing margins reduced by approximately 150 basis points (bps) to between 550bps and 650bps. The European direct loan market took longer than the US market to start growing after the Global Financial Crisis. But since it did so in 2013, margins have also tightened by around 100bps to 600-700bps. Fees have remained relatively constant at between

250 to 300 bps.³ However, while spreads may have tightened over the last decade, we continue to view them as attractive, particularly given the considerable premium over public market spreads.

The shock of the COVID-19 pandemic has caused a partial reversal of these trends. Covenants have tightened, leverage multiples have fallen, and spreads have risen marginally. However, significant spread widening has not yet materialized. This is due to private debt managers’ focusing upon the most resilient corporates, with companies in the most pandemic-stricken sectors struggling to raise capital. One result could be opportunities for private debt funds to finance companies that, despite their strong fundamentals, no longer have access to the public markets. A further result could be opportunities for funds looking to provide supportive capital for challenged balance sheets.

Structured credit

Structured credit markets have also evolved since the financial crisis. This includes regulatory improvements such as risk retention, which require securitization sponsors to retain a portion of the credit risk. By forcing sponsors to keep some “skin the game,” there is a better alignment of interest with investors. While the universe of securities issued pre-2009 has declined, this has been offset by growth in new issuance. Structured credit markets now represent nearly \$4 trillion in securities outstanding.⁴ Despite this expansion,

regulatory capital changes have driven net dealer positions down by more than 60% since the beginning of 2014.⁵ The reduction in dealer capacity has resulted in greater inefficiency and illiquid gaps in the market, of which opportunistic hedge funds can take advantage.

As well as market dynamics, borrower profiles have also improved. For example, after the housing bubble burst, US consumers meaningfully reduced their leverage, with household debt-to-GDP declining by more than 20% since 2008.⁶ Over the same period, debt-to-income ratios and consumer credit scores for residential mortgages have improved too. For example, homeowners taking out 60-80% loan-to-value mortgages between 2009 and 2018 had weighted average FICO scores and debt-to-income ratios of 752 and 34% respectively, versus 726 and 39% for the 2005-2008 period.⁷

Despite these improved fundamentals, the COVID-19 crisis caused a dislocation in non-agency residential mortgage backed securities (RMBS). Investors found themselves forced into selling, while the Federal Reserve did not step in,

³ LCD’s High-End Middle Market Lending Review – 3Q 2020, Cliffwater 2020 Q2 Report on US Direct Lending, CPB PERE Research team market observations.

⁴ SIFMA, data excluding agency MBS, as of Dec 2019

⁵ Federal Reserve Bank of New York, data as of Sep 2020

⁶ Source: Bloomberg, as of Oct 2020

⁷ Fannie Mae, Connecticut Avenue Securities Investor Presentation, Jul 2020

as it did in other markets including investment grade and high yield corporates. While prices have somewhat recovered, yields are undistorted by central bank buying and remain elevated compared to pre-pandemic levels. We see this as a potential opportunity.

Fixed income relative value

In government bond markets, US Treasuries have witnessed significant issuance growth to help fund fiscal stimulus to address the pandemic. Much of that supply has been absorbed by the Federal Reserve, whose holdings in Treasuries have increased to over \$4 trillion as part of quantitative easing.⁸ The growth in issuance combined with the presence of large, price insensitive participation has created increased trading opportunities in liquid fixed income instruments. Relative value and arbitrage trades identified by hedge funds in these markets can produce consistent return streams that are uncorrelated with risk assets, with potentially elevated returns during periods of rate movements and volatility.

Getting exposure to alternatives

For qualified clients willing to sacrifice liquidity, we favor opportunistic private debt managers with flexible mandates who invest throughout the capital structure. Such managers have the potential to deliver attractive relative and absolute returns and yields. In public markets, hedge fund strategies can help pursue portfolio yield objectives. These include structured credit managers who can combine trading with credit analysis to take advantage of higher yields and market inefficiency, and fixed income managers with robust trading capabilities that can take advantage of relative value opportunities within government bond markets.

⁸ Federal Reserve Bank of New York, data as of Sep 2020

Alternative investments (hedge funds and private equity) referenced in this article are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and advisor risk.



3.5

Creating yield from volatility: What to do when the stars align

IAIN ARMITAGE - Global Head of Capital Markets

We expect equity volatility to remain elevated.
Convert this volatility into a valuable source of income.

- Investor fearfulness as expressed by higher volatility has been running above long-term average levels
- We advise clients who are willing to increase their risk level to use strategies that generate income from that volatility
- As well as seeking income, such strategies may enable buying into equities at lower levels



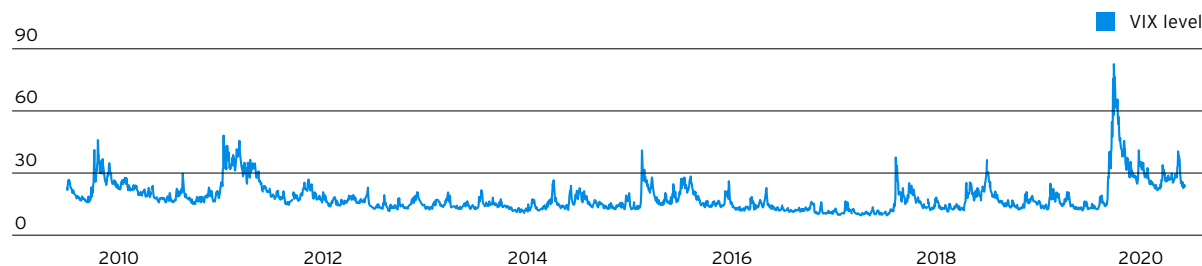
Every now and then, the planets and stars align in beautiful and unusual ways. Likewise financial market conditions occasionally align in a way that seems either especially favorable or detrimental for investors. Financial repression is an example of the negative alignment of the stars for bond investors – see [The return of financial repression](#). However, for some yield-seeking strategies we see the potential for a more positive outcome. And the opportunity that we identify is clear and material.

Over the last twelve months, we have consistently argued that elevated volatility in equity markets has offered an attractive opportunity. (See for example **What smart families are doing in capital markets in Mid-Year Outlook 2020**.) We have advised clients who are willing to increase their risk level to use strategies that generate income from that volatility, while offering the potential for them to buy equities at lower levels.

Today, we continue to see a strong case for harnessing investor fearfulness as expressed by higher volatility to generate portfolio income. And what's even better is that one doesn't have to be a rocket scientist to do this.

Equity market volatility has remained stubbornly elevated in 2020, as a result of COVID-19 and geopolitics among other factors, as illustrated by the VIX Index, an option market based estimate of the expected volatility of the S&P 500 Index. Admittedly, its recent readings have been well below March's record high of 81% and June's secondary peak of 41%. However, it now seems anchored in the mid-20s and looking back over many moons, that is double the pre-COVID long-

FIGURE 1. ELEVATED VOLATILITY



Source: Bloomberg 7 Nov 2020. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only. Past performance is no guarantee of future returns. Real results may vary.

term average of approximately 13% - **FIGURE 1**. We should therefore recognize this elevated volatility environment as a planet-sized shift from the long-term average.

What makes the opportunity particularly compelling at this time, however, is that another financial market celestial body has moved into alignment: interest rates. Global central banks' monetary easing has pushed rates across the yield curve even lower. And there is a widespread expectation that they will do even more to keep rates lower for longer.

This creates a challenge for investors who rely on traditional fixed income assets for income. As one wag quipped recently, "Fixed income assets are great. It's just that right now, they are not particularly fixed and they don't give any income."

As such, the relative value of seeking income from volatility, and "being paid to wait," before possibly buying into the equity market at lower levels, is particularly compelling right now. Investors who are currently sitting on the sidelines, waiting for an opportunity to buy equities if they dip, might do well to receive an income from the market in the meantime, instead of holding zero-yielding cash.

Once in a blue moon, the alignment of the stars occurs so investors hoping to receive coupon 2021 do not have to be living on another planet.

Glossary

ASSET CLASS DEFINITIONS:

Cash is represented by US 3-month Government Bond TR, measuring the US dollar-denominated active 3-Month, fixed-rate, nominal debt issues by the US Treasury.

Commodities asset class contains the index composites – GSCI Precious Metals Index, GSCI Energy Index, GSCI Industrial Metals Index, and GSCI Agricultural Index – measuring investment performance in different markets, namely precious metals (e.g., gold, silver), energy commodity (e.g., oil, coal), industrial metals (e.g., copper, iron ore), and agricultural commodity (i.e., soy, coffee) respectively. Reuters/ Jeffries CRB Spot Price Index, the TR/CC CRB Excess Return Index, an arithmetic average of commodity futures prices with monthly rebalancing, is used for supplemental historical data.

Emerging Markets (EM) Hard Currency Fixed Income is represented by the FTSE Emerging Market Sovereign Bond Index (ESBI), covering hard currency emerging market sovereign debt. Global Developed Market Corporate Fixed Income is composed of Bloomberg Barclays indices capturing investment debt from seven different local currency markets. The composite includes investment grade rated corporate bonds from the developed-market issuers.

Global Developed Market Equity is composed of MSCI indices capturing large-, mid- and small-cap representation across 23 individual developed-market countries, as weighted by the market capitalization of these countries. The composite covers approximately 95% of the free float-adjusted market capitalization in each country.

Global Developed Investment Grade Fixed Income is composed of Barclays indices capturing investment-grade debt from twenty different local currency markets. The composite includes fixed-rate treasury, government-related, and investment grade rated corporate and securitized bonds from the developed-market issuers. Local market indices for US, UK and Japan are used for supplemental historical data.

Global Emerging Market Fixed Income is composed of Barclays indices measuring performance of fixed-rate local currency emerging markets government debt for 19 different markets across Latin America, EMEA and Asia regions. iBoxx ABF China Govt. Bond, the Markit iBoxx ABF Index comprising local currency debt from China, is used for supplemental historical data.

Global High Yield Fixed Income is composed of Barclays indices measuring the non-investment grade, fixed-rate corporate bonds denominated in US dollars, British pounds and Euros. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt. Ibbotson High Yield Index, a broad high yield index including bonds across the maturity spectrum, within the BB-B rated credit quality spectrum, included in the below-investment-grade universe, is used for supplemental historical data.

Hedge Funds is composed of investment managers employing different investment styles as characterized by different sub categories – HFRI Equity Long/Short: Positions both long and short in primarily equity and equity derivative securities; HFRI Credit: Positions in corporate fixed income securities; HFRI Event Driven: Positions in companies currently or prospectively involved in wide variety of corporate transactions; HFRI Relative Value: Positions based on a valuation discrepancy between multiple securities; HFRI Multi Strategy: Positions based on realization of a spread between related yield instruments; HFRI Macro: Positions based on movements in underlying economic variables and their impact on different markets; Barclays Trader CTA Index: The composite performance

of established programs (Commodity Trading Advisors) with more than four years of performance history.

High Yield Bank Loans are debt financing obligations issued by a bank or other financial institution to a company or individual that holds legal claim to the borrower's assets in the event of a corporate bankruptcy. These loans are usually secured by a company's assets, and often pay a high coupon due to a company's poor (non-investment grade) credit worthiness.

Private Equity characteristics are driven by those for Developed Market Small Cap Equities, adjusted for illiquidity, sector concentration, and greater leverage.

INDEX DEFINITIONS:

The Bloomberg Barclays Global Aggregate Bond Index is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

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

Bloomberg Barclays US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury.

Bloomberg-JP Morgan Asia currency index is a spot index of the most actively traded currency pairs in Asia's emerging markets valued against the US dollar.

FTSE All-World Index is a stock market index representing global equity performance that covers over 3,100 companies in 47 countries starting in 1986.

The **FTSE Nareit Mortgage REITs Index** is a free-float adjusted, market capitalization-weighted index of US Mortgage REITs. Mortgage REITs include all tax-qualified REITs with more than 50 percent of total assets invested in mortgage loans or mortgage-backed securities secured by interests in real property.

MSCI AC Asia ex-Japan Index captures large and mid-cap representation across 2 of 3 Developed Markets (DM) countries* (excluding Japan) and 9 Emerging Markets (EM) countries* in Asia. With 1,187 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI China Index captures large and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 704 constituents, the index covers about 85% of this China equity universe.

MSCI Emerging Markets Index captures large- and mid- cap representation across twenty-four Emerging Markets (EM) countries. With 837 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets (EM) Latin America Index captures large and mid-cap representation across five Emerging Markets (EM) countries in Latin America. With 113 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

The **MSCI Global Alternative Energy Index** includes developed and emerging market large-, mid- and small-cap companies that derive 50% or more of their revenues from products and services in Alternative energy.

The **MSCI AC World Automobiles Index** is composed of large- and mid-cap automobile stocks across emerging and developed countries.

The **MSCI World Information Technology Index** tracks the large- and mid-cap IT segments across 23 developed markets countries.

The **MSCI World Index** covers large- and mid-cap equities across 23 Developed Markets countries. With 1,603 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Nasdaq 100 is a large-cap growth index consisting of 100 of the largest US and international non-financial companies listed on the Nasdaq Stock Market based on market capitalization.

The **Russell 2000 Index** measures the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000 Index representing some 10% of the total market capitalization of that index.

The **S&P 500 Index** is a capitalization-weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large-cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market.

The **S&P Global Dividend Aristocrats** is designed to measure the performance of the highest dividend yielding companies within the S&P Global Broad Market Index (BMI) that have followed a policy of increasing or stable dividends for at least ten consecutive years.

The **VIX** or the Chicago Board Options Exchange (CBOE) Volatility Index, is a real-time index representing the market's expectation of 30-day forward-looking volatility, derived from the price inputs of the S&P 500 index options.

OTHER TERMINOLOGY:

Adaptive Valuations Strategies is Citi Private Bank's own strategic asset allocation methodology. It determines the suitable long-term mix of assets for each client's investment portfolio.

Correlation is a statistical measure of how two assets or asset classes move in relation to one another. Correlation is measured on a scale of 1 to -1. A correlation of 1 implies perfect positive correlation, meaning that two assets or asset classes move in the same direction all of the time. A correlation of -1 implies perfect negative correlation, such that two assets or asset classes move in the opposite direction to each other all the time. A correlation of 0 implies zero correlation, such that there is no relationship between the movements in the two over time.

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Bond rating equivalence

Alpha and/or numeric symbols used to give indications of relative credit quality. In the municipal market, these designations are published by the rating services. Internal ratings are also used by other market participants to indicate credit quality.

Bond credit quality ratings	Rating agencies		
	Moody's ¹	Standard and Poor's ²	Fitch Ratings ²
Investment grade			
Highest quality	Aaa	AAA	AAA
High quality (very strong)	Aa	AA	AA
Upper medium grade (strong)	A	A	A
Medium grade	Baa	BBB	BBB
Not Investment grade			
Lower medium grade (somewhat speculative)	Ba	BB	BB
Low grade (speculative)	B	B	B
Poor quality (may default)	Caa	CCC	CCC
Most speculative	Ca	C	CC
No interest being paid or bankruptcy petition filed	C	D	C
In default	C	D	D

¹ The ratings from Aa to Ca by Moody's may be modified by the addition of a 1, 2, or 3 to show relative standing within the category.

² The ratings from AA to CC by Standard and Poor's and Fitch Ratings may be modified by the addition of a plus or a minus to show relative standing within the category.

choose to borrow money at a lower interest rate, while paying off its previously issued bonds. As a consequence, underlying bonds will lose the interest payments from the investment and will be forced to reinvest in a market where prevailing interest rates are lower than when the initial investment was made.

(MLP's) – Energy Related MLPs May Exhibit High Volatility. While not historically very volatile, in certain market environments Energy Related MLPs may exhibit high volatility.

Changes in Regulatory or Tax Treatment of Energy Related MLPs. If the IRS changes the current tax treatment of the master limited partnerships included in the Basket of Energy Related MLPs thereby subjecting them to higher rates of taxation, or if other regulatory authorities enact regulations which negatively affect the ability of the master limited partnerships to generate income or distribute dividends to holders of common units, the return on the Notes, if any, could be dramatically reduced. Investment in a basket of Energy Related MLPs may expose the investor to concentration risk due to industry, geographical,

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Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk).

Additionally, the underlying collateral supporting non-Agency MBS may default on principal and interest payments. In certain cases, this could cause the income stream of the security to decline and result in loss of principal. Further, an insufficient level of credit support may result in a downgrade of a mortgage bond's credit rating and lead to a higher probability of principal loss and increased price volatility. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. Default risk may be pronounced in cases where the MBS security is secured by, or evidencing an interest in, a relatively small or less diverse pool of underlying mortgage loans.

MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements. Price volatility may also occur from other factors including, but not limited to, prepayments, future prepayment expectations, credit concerns, underlying collateral performance and technical changes in the market.

Alternative investments referenced in this report are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in the fund, potential lack of diversification, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and

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Asset allocation does not assure a profit or protect against a loss in declining financial markets.

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Past performance is no guarantee of future results.

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Factors affecting commodities generally, index components composed of futures contracts on nickel or copper, which are industrial metals, may be subject to a number of additional factors specific to industrial metals that might cause price volatility. These include changes in the level of industrial activity using industrial metals (including the availability of substitutes such as manmade or synthetic substitutes); disruptions in the supply chain, from mining to storage to smelting or refining; adjustments to inventory; variations in production costs, including storage, labor and energy costs; costs associated with regulatory compliance, including environmental regulations; and changes in industrial, government and consumer demand, both in individual consuming nations and internationally. Index components concentrated in futures contracts on agricultural products, including grains, may be subject to a number of additional factors specific to agricultural products that might

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