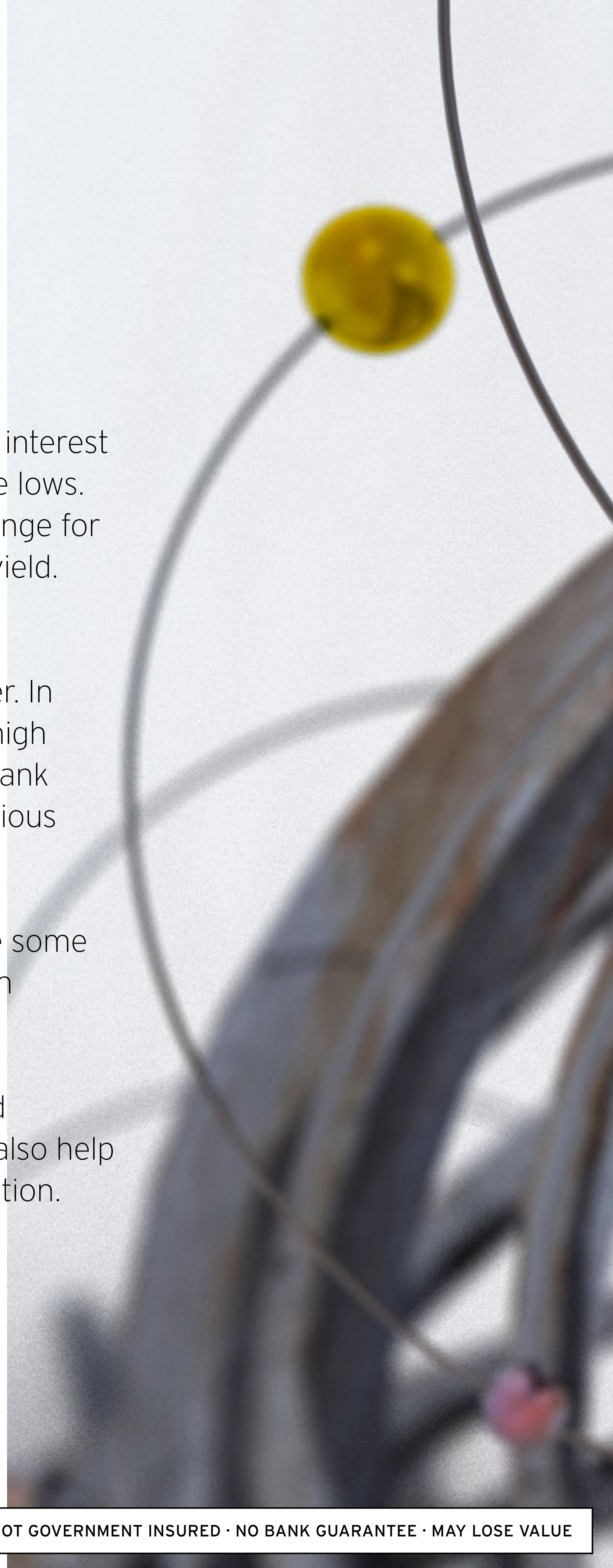
Core income strategies



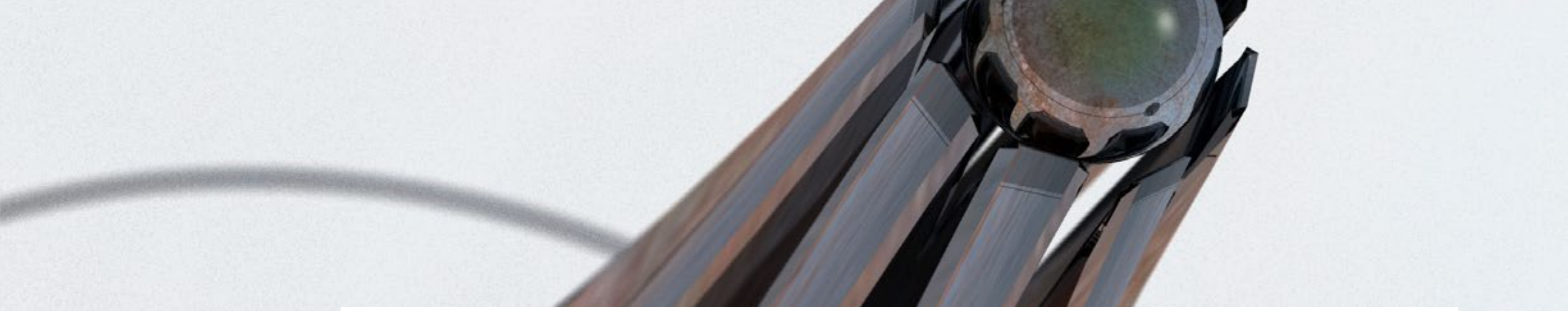
Even after rising in 2017, global interest rates remain near multi-decade lows. This creates a significant challenge for investors seeking to generate yield.

We believe that potential yield opportunities still exist, however. In fixed income, they include US high yield bonds and variable-rate bank loans, securitized debt, and various emerging market assets.

For investors willing to sacrifice some liquidity, we also see potential in private equity and real estate.

Having exposure to such varied sources of potential yield may also help to enhance portfolio diversification.

Diversification does not ensure against loss.



Seeking yield in all the right places

Kris Xippolitos, Global Head of Fixed Income Strategy
Dan O'Donnell, Global Head of Private Equity and Real Estate Research and Management

Even in today's world of very low interest rates, there are potential opportunities to seek yield and diversification.

Earning yield has seldom been as difficult as it is today. Despite a small rise in 2017, global interest rates are still almost as low as they have been at any time in the last fifty years. In Europe, for example, some 30% of government bond yields remain in negative territory. Global investment grade fixed income assets as a whole present average yields of 1.6%.

In 2018, we believe there is a growing risk that yields in developed fixed income markets will rise, creating a further challenge for investors. In the past, when yields were higher, allocations to fixed income often helped to dampen overall portfolio volatility. Today, many fixed income assets no longer offer sufficient future cash flows to provide a meaningful offset to the decline that we expect in fixed income prices over the coming year.

We believe that potential opportunities for investors to generate yield, both in fixed income and beyond, remain available, but not plentiful. Earning positive real returns after inflation is still possible by seeking opportunities that have diverged from core fixed income markets. There is also the potential to earn higher yields by sacrificing liquidity and taking on more risk with investments in private equity and real estate. Having exposure to a range of these varied sources of yield may also help to enhance portfolio diversification.

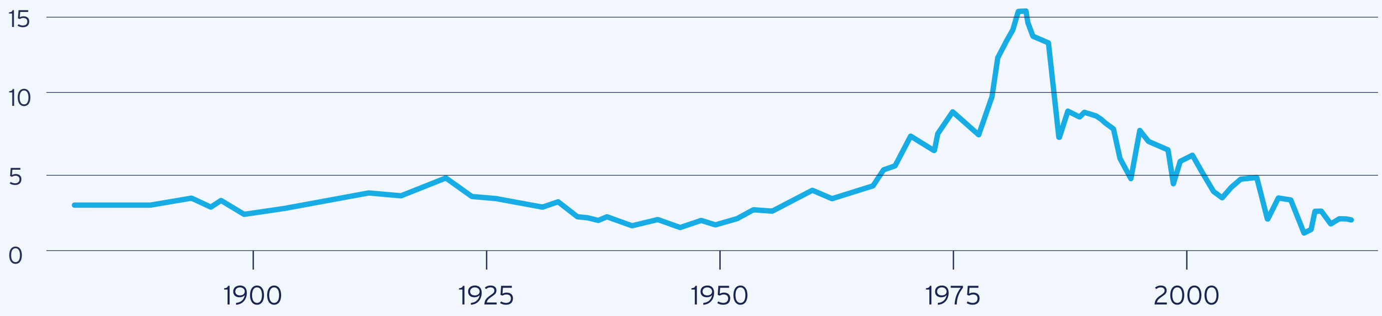
Core income strategies

Even in today's low-rate world, we see potential opportunities to generate yield

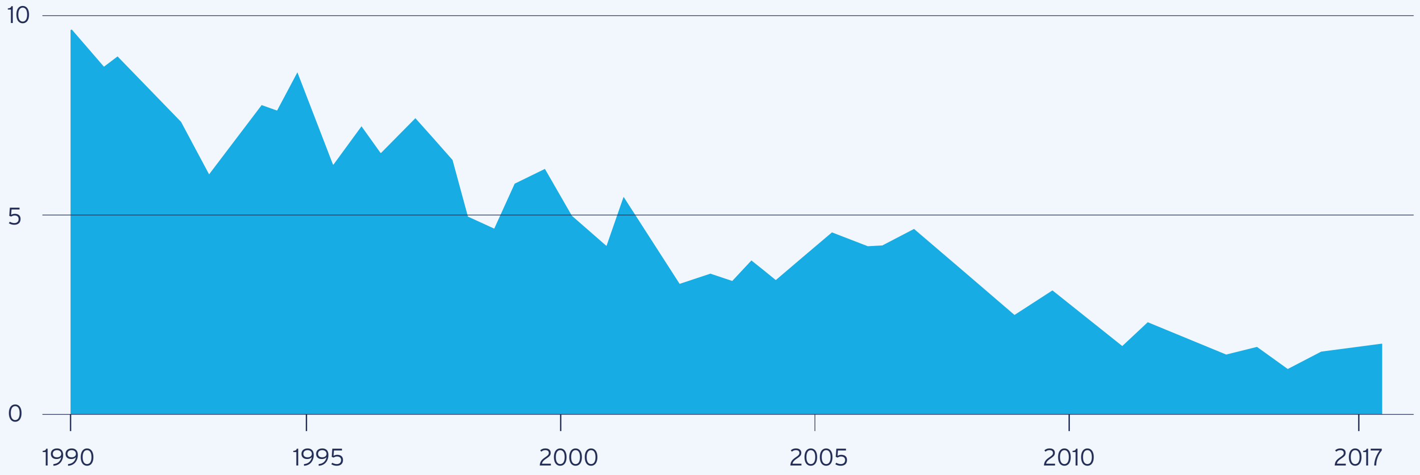
THE YIELD CHALLENGE

Global rates still around long-term lows[1]

US long rates since 1871



DEVELOPED INVESTMENT GRADE FIXED INCOME YIELD NEAR HISTORIC LOWS[3]

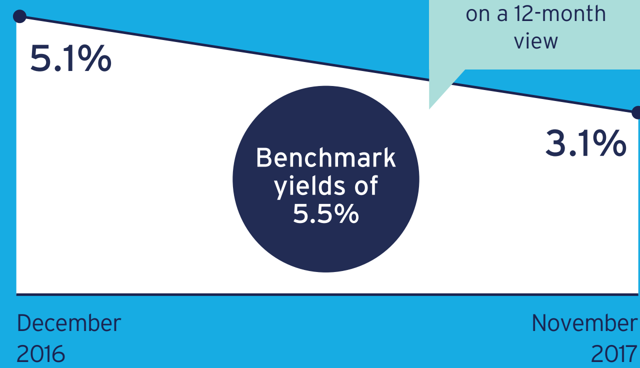


EXPOSURE TO VARIED SOURCES OF YIELD MAY ENHANCE PORTFOLIO DIVERSIFICATION

US high yield fixed income

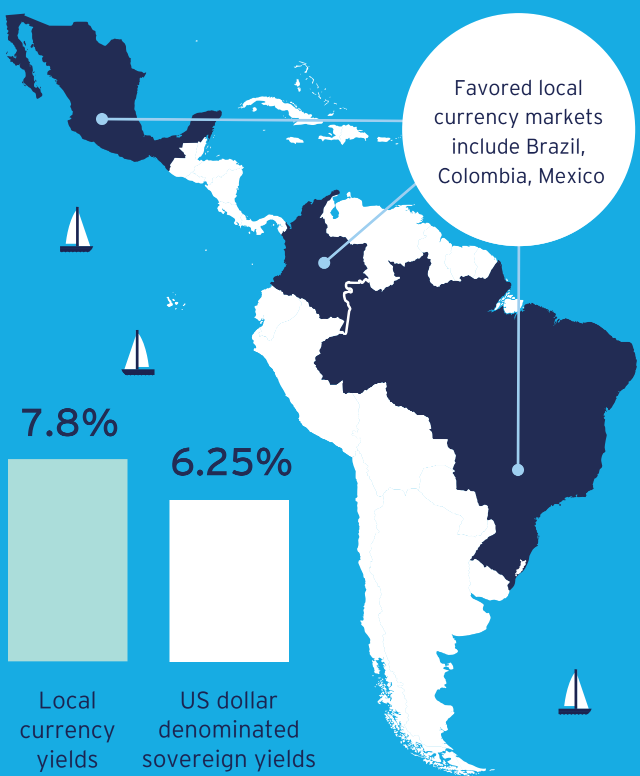
Default rates have fallen:[4]

We see return potential of 5-6% on a 12-month view



Emerging market debt: underappreciated[5]

Latin America is the most attractive EM region



Securitized debt

Backed by assets such as mortgages, car or aircraft loans

Typically have floating rate coupons, so can outperform when rates rise

Depending on underlying assets yields can range from

4-10% per year

Private equity

Providing growth capital to alternative investment managers

Potential for high growth and profit margins

Potential to structure yields* of

8-12% per year

plus potential capital appreciation

Real estate

Providing private lending to commercial real estate borrowers

Diversified portfolios of loans backed by US real estate assets

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We identify potential to generate yield in fixed income and beyond

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Sources: 1. US long rates since 1871: Factset, as of 27 Nov 2017. **2.** Negative interest rates: Bloomberg, as of 27 Nov 2017. **3.** Average inv grade yield: The Yield Book, as of 27 Nov 2017. **4.** Default rates: The Yield Book, as of 27 Nov 2017. **5.** Emerging market debt: The Yield Book, as of 27 Nov 2017.

*Private Equity investments are illiquid and investors do not always receive the distribution of yield for several years when investing in these products

All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Past performance is no guarantee of future events. Real results may vary.

Strategies and investments mentioned in this document may not be suitable for all investors. Products, strategies and services discussed herein may have eligibility requirements that must be met prior to investing. Each investor should carefully view the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's objectives.

Diversification does not guarantee a profit or protect against loss.

Take the high road

Simply investing in the highest yielding assets without regard to other factors is not something we would advocate. But with economic growth and corporate earnings increasing across much of the world, we believe markets with higher embedded risks offer some of the more attractive fixed income opportunities.

The Citi Private Bank Global Investment Committee has held a high conviction positive view on US high yield (HY) corporates for some time. With only one year of negative performance since the Global Financial Crisis of 2007-09, US HY as an asset class has delivered a total return of 190% since January 2009, an annualized return of 12%.[1] After producing an additional 7.25% return through October 2017, valuations have become expensive. Today, spreads are tight and yields are almost as low at any time during the last thirty years. Indeed, at 5.5%, HY benchmark yields are only 60bp higher than its 2014 all-time low.

Nonetheless, we believe these high valuations reflect positive long-term forces and may persist. First, with global interest rates low, the demand for higher yield is likely to continue. Second, improving fundamentals have made investors more comfortable with below-investment grade issuers. While total debt has grown over the years, low interest rates have improved HY borrowers' ability to meet interest payments, while rising corporate earnings have helped stabilized leverage ratios. As a result, HY default rates have fallen from 5.1% in December 2016 to 3.1% in November 2017 and may well fall even further. If they do, further HY outperformance may follow.

Besides offering yields substantially above many other fixed income instruments, HY bonds display lower correlations to the higher quality fixed income assets, such as US Treasuries and US agency mortgage backed securities (MBS). Instead, they tend to perform more in line with other risky assets, such as equities. Given that we believe equities will outperform in 2018, there is scope for the spreads on HY bonds to narrow further. Spread narrowing may occur as yields move higher, which could somewhat limit overall returns. That said, we still believe US HY can generate between 5% and 6% over the coming twelve months.

A less volatile alternative to US HY fixed income are US HY variable-rate bank loans. Most commonly accessed through third-party portfolio managers, bank loans' coupon payments are variable, rising and falling with US LIBOR rates. In 2017, HY bank loans underperformed HY bonds by nearly 3.5%. This was a result of issuers taking advantage of strong demand for yield and improving credit quality by repaying their existing loans early and refinancing at lower spreads. As a result, loan investors' future cash flows have been reduced, despite rising short-term rates, limiting overall returns.

While we believe this trend may continue in 2018, HY bank loans still offer investors reasonably higher levels of income with relatively lower price volatility. More importantly, given that portfolio diversification has become ever important, bank loans are negatively correlated to US Treasury debt. In an environment where high quality fixed-rate bonds will struggle to produce positive performance, variable-rate bank loans should provide relative portfolio resilience.

Asset backed

Securitized debt – or structured credit – is another area of fixed income where there may be opportunities to achieve higher yield and greater diversification with potentially more risk. These securities are backed by assets such as residential mortgages, car loans, or aircraft loans. They generally are less liquid and offer varying degrees of yield and risk. Yields can range between 4% and 10%, depending on the underlying pool of assets. They also typically have floating-rate coupons, which can contribute to potential outperformance in periods of rising interest rates. Economic strength can also help drive their performance, as the original borrowers are less likely to default during such times.

Another securitized asset class is the US agency mortgage-backed securities (MBS) market. Issued by government sponsored enterprises (GSE), these securities are implicitly guaranteed by the US government. Although typically overlooked by many investors, they make up nearly one-third of the Bloomberg Barclays US Aggregate Bond Index.

While their nominal yields of around 2.7% are less attractive, US agency MBS can benefit when interest rates rise. This is because mortgage holders' ability to refinance at lower rates diminishes. As the risk of early repayment reduces, the future stream of cash flow increases. So, while rising rates would negatively impact MBS prices, the boost from increased future cash flows offsets some of this impact. In eight of the last nine periods of rising rates, US agency MBS have outperformed most investment grade fixed income markets – **figure 1.**

1 Source: The Yield Book, as of 31 Oct 2017

Figure 1. US MBS outperformance in periods of rising rates

Periods of rising rates	Delta in 5yr US Treasury	US MBS	3-7yr US Treasury	Difference
	Basis points	Total return (%)	Total return (%)	(%)
Feb 1996 to Jun 1996	+125	-0.5	-1.8	1.3
Oct 1998 to Jan 2000	+260	1.9	-1.3	3.2
Nov 2001 to Mar 2002	+130	-0.2	-2.8	2.6
Jun 2003 to Jun 2004	+145	2.4	-1.3	3.6
Mar 2008 to Jun 2008	+90	0.0	-2.1	2.0
Dec 2008 to Jun 2009	+85	4.5	-1.3	5.7
Nov 2010 to Feb 2011	+100	-0.3	-2.8	2.4
May 2013 to Aug 2013	+95	-2.8	-2.9	0.1
Jul 2016 to Dec 2016	+90	-1.4	-3.0	1.5

Source: The Yield Book, as of 31 Oct 2017. Past performance is no guarantee of future returns. Real results may vary.

Under-appreciated emerging market debt

We also see a compelling opportunity in emerging markets (EM), a misunderstood and under-invested part of the fixed income universe. EM bond yields in both hard and local currency markets can offer more relative value. As with many other markets over the last year, valuations in EM fixed income have risen and are no longer considered cheap in absolute terms. That said, EM fundamentals may be consistent with further strong performance. Across EM countries, inflation rates have fallen, allowing central banks either to cut rates – as in Indonesia – or temper the pace of rate-rises – as in Mexico. More importantly, EM currencies are relatively underpriced after years of US dollar strength.

We see Latin America as the most attractive EM region. External – US dollar denominated – Latin America sovereign debt yields are around 6%. The average spread over US Treasury yields is 380bp, compared to US HY's spread of 360bp, despite sovereign issuers being considered more creditworthy than private issuers. Venezuelan political and economic turmoil could add to Latin American volatility in 2018, as Venezuela makes up 5% of the region's outstanding US dollar denominated debt. Nevertheless, we see regional performance of 5% to 6% over the coming twelve months.

We find local currency Latin American debt markets even more compelling. Average yields are around 7% and exchange rates in real terms are relatively cheap. A slow Fed rate-hiking cycle, stable commodity prices, low developed market yields and further US dollar weakness may fuel additional inflows to this asset class, driving prices and local currencies higher. Of course, these markets have also rallied significantly in 2017. But currency and price gains can continue in 2018, in our view. Returns will vary widely from country to country, but we believe there will be an average regional total return of around 6-7% in 2018. Our favored local markets include Brazil, Colombia and Mexico.

Despite tight spreads in external sovereign and corporate fixed income, Asia also offers compelling local EM opportunities. The real yields on China A1/A+ rated bonds are attractive, with 5-year yields around 2.2%, for example. Expectations of further currency strength should add to fixed income performances. The newly-introduced Bond Connect – a bond trading link that allows foreign investors to trade in China's debt markets without onshore accounts – is likely to encourage an increase in overseas demand. Further inflows should support bond prices and drive the Chinese yuan higher.

Five-year India real yields of near 4.5% are the most attractive in Asia. Indonesia is also still attractive, despite a strong rally in local yields and a stronger currency in nominal terms. Real yields are lower compared to peers like China and India, but absolute yields above 6% remain appealing. Though India and Indonesia bonds could both face near-term pressures from rising fiscal deficits, their favorable growth outlooks present a compelling longer-term opportunity.

Diverse opportunities exist across Central and Eastern Europe, the Middle East and Africa, but involve a wide range of geopolitical risks. Average yields are around 4.5%. Local Russia yields have generally fallen over the last three years, but remain elevated above 7.5%. Growth is modest, but the economy has benefited from stability in global oil prices.

Private equity

Alternative investment managers are experiencing the highest growth and profit margins in the asset management industry today. In order to take advantage of the ongoing growth potential, many of them are seeking outside capital funding. We believe that providing capital to fund the growth of alternative investment managers offers a potential opportunity to earn yield, so long as investors can accept diverse levels of illiquidity.

Investing in alternative managers could offer potential cash yields in the mid-teens dependent upon how each deal is structured within the fund portfolio. These yields are made up from three distinct cash return streams that alternative managers receive: management fees, profits participation, and equity returns. The management fees are regular, long-term, and contractual by nature. Not only do they contribute yield income, but they can also reduce the correlation of returns with private equity and real estate. By raising a number of funds with various different strategies, private equity firms could thereby create diversified annuity streams lasting eight to twelve years. It should be noted that not all of the income is paid to investors but can also be reinvested for the term of the fund.

One risk that private equity firms face is that today's high growth and profit margins attract more competition into the sector, putting downward pressure on fees and returns. Another risk is if investor appetite for private equity funds wanes, which could have similar negative effects. In addition, there are a limited number of exit options for these assets.

We also continue to explore opportunistic credit strategies that focus on under-served or capital constrained asset classes. These managers typically have flexible mandates with a bias towards capital preservation, while providing equity-like upside potential. These opportunities can range from non-control distressed investing during periods of market dislocation to growth-oriented structured equity. Credit and repositioned asset strategies have been a core part of the private equity and real estate platform for many years and are attractive in the current environment because of their structure and yield components. Private equity investments are illiquid and investors do not always receive the distribution of yield for several years when investing in these products.

Real estate

We currently see a potential opportunity in private lending to commercial real estate borrowers. As a result of new regulations and risk control measures, some property owners in the real estate sector are finding it hard to borrow because traditional lenders such as banks and insurance companies are reluctant to commit to junior loans – loans which rank lower for repayment in the event of default – where the loan-to-value amount is above 55%. With the demand for such loans exceeding the supply, we believe there is the potential to receive both current income and equity-like returns, but also receiving higher priority of repayment than equity holders if the borrower defaults.

Our preferred way of getting exposure to this opportunity is via private real estate lenders who create diversified portfolios of mezzanine loans and mortgage participations backed by US real estate assets. One risk involved in transactions such as this is if interest rate rises reduce demand for US commercial real estate purchases. Another is if competition among lenders picks up, which could also drive down potential returns.

In the real estate private equity space, we are evaluating value-add investment opportunities that have a current income component that may lower the risk profile of the investment and potentially provide a cash yield to investors in the long term. These strategies focus on transitioning assets from value-add to core and selling the assets to institutional investors. As with private equity, real estate investments are illiquid and investors do not always receive the distribution of yield for several years when investing in these products.

Jeffrey Locke, Stefan Backus, and Megan Malone also contributed to this article.

It should be noted that investing in either private equity or real estate may change the risk profile of your portfolio. There are also additional qualification requirements that need to be met prior to investing. Private equity and real estate are Alternative investments, they 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**

Investments mentioned in this document may not be suitable for all investors. Before making any investment, each investor must obtain the investment offering materials, which include a description of the risks, fees and expenses and the performance history, if any, which may be considered in connection with making an investment decision. Each investor should carefully view the risks associated with the investment and make a determination based upon the investor's own particular circumstances, that the investment is consistent with the investor's investment objective(s) and risk tolerance. No guarantee or representation is given that any product will achieve its investment objectives.

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.

All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events.

There may be additional risk associated with international investing, including foreign, economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets. International investing may not be for everyone.

Bonds are affected by a number of risks, including fluctuations in interest rates, credit risk and prepayment risk. In general, as prevailing interest rates rise, fixed income securities prices will fall. Bonds face credit risk if a decline in an issuer's credit rating, or creditworthiness, causes a bond's price to decline. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. Finally, bonds can be subject to prepayment risk. When interest rates fall, an issuer may 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.

ABS/MBS products

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.

Please read offering documents and/or prospectus information carefully for the risks associated with the particular MBS security you are purchasing.

High-Yield Bond

A bond with unfavorable credit characteristics that is typically non-rated or rated below investment grade. A high-yield bond trades at yields substantially higher than bonds with more favorable credit characteristics and often suffers from lack of liquidity and marketability.

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.

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.

Real Estate contains index contains all Equity REITs (US REITs and publicly-traded real estate companies) not designated as Timber REITs or Infrastructure REITs: NAREIT US REIT Index, NAREIT Canada REIT Index, NAREIT UK REIT Index, NAREIT Switzerland REIT Index, NAREIT Euro-zone REIT Index, NAREIT Japan REIT Index, NAREIT Hong Kong REIT Index, NAREIT Singapore REIT Index, NAREIT Australia REIT IndeX.

US Preferreds are equity securities that have preference over common stock in the event of a corporate bankruptcy. Because these securities are considered higher-quality, they exhibit characteristics of debt instruments and often do not contain voting rights for their owners.

Index definitions

The Barclays Multiverse Bond Index is a broad fixed-rate multi-currency benchmark.

The CBOE Volatility Index (VIX Index) is a leading measure of market expectations of near-term volatility conveyed by S&P 500 Index option prices.

Citi Emerging Markets Sovereign Bond Index includes local currency sovereign bond indices for 14 emerging markets countries. These indices comprise fixed-rate sovereign debt with at least one-year until maturity. They are market capitalization-weighted and rebalanced monthly for Brazil, Chile, Colombia, Hungary, Indonesia, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Thailand, Turkey, and South Africa.

The Citi Euro Broad Investment Grade Index is a multi-asset benchmark for investment-grade, Euro-denominated fixed income bonds. It includes government, government-sponsored, collateralized, and corporate debt.

Citi US Broad Investment Grade Index (USBIG)—Corporate, is a subsector of the USBIG. The index includes fixed rate US Dollar-denominated investment grade corporate debt within the finance, industrial and utility sectors. This index includes US and non-US corporate securities (excludes US government-guaranteed and non-US sovereign and provincial securities).

Citi's US High-Yield Market Index is a US dollar-denominated index which measures the performance of high-yield debt issued by corporations domiciled in the US or Canada. Recognized as a broad measure of the North American high-yield market amongst all Citi's fixed income indices, it includes cash-pay and deferred-interest securities. All the bonds are publically placed, have a fixed coupon, and are non-convertible

The Citi World Broad Investment Grade Index is a multi-asset, multi-currency benchmark which provides a measure of the global fixed income markets.

The MSCI Europe ex-UK Banking Industry index tracks the performance of major European depository institutions, excluding those domiciled in the United Kingdom.

The Euro Stoxx 600 represents large, mid and small cap companies across 17 countries across Europe including: Austria, Belgium, Czech Republic, Denmark, Finland, Germany, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

HFRI Equity Hedge (Total) Index is an equal weighted index if multiple equity hedge fund managers. Equity Hedge investing consists of a core holding of long equities hedged at all times with short sales of stocks and/or stock index options. Some managers maintain a substantial portion of assets within a hedged structure and commonly employ leverage. Where short sales are used, hedged assets may be comprised of an equal dollar value of long and short stock positions. Other variations use short sales unrelated to long holdings and/or puts on the S&P 500 index and put spreads. In addition to equities, some funds may have limited assets invested in other types of securities.

The HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single manager funds.

The HFRI Relative Value (Total) Index is an equal weighted index that maintains positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

The Korea Composite Stock Price Index or KOSPI is the index of all common stocks traded on the Stock Market Division.

The MSCI All Country World Index represents 48 developed and emerging equity markets. Index components are weighted by market capitalization.

The MSCI Asia ex-Japan index has large and mid-cap representation across 2 of 3 Developed Markets countries and 8 Emerging Markets countries in Asia. It captures approximately 85% of the free float-adjusted market capitalization in each country.

Chilean large and mid-cap companies are represented by the MSCI Chile Index. With 19 constituents, the index covers approximately 85% of the Chile equity market.

The MSCI Emerging Markets (EM) Latin America Index captures large and mid-cap representation across 5 Emerging Markets (EM) countries* in Latin America. With 121 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

European equities are represented by the MSCI Europe index, which captures large- and mid-cap representation across 15 Developed Markets (DM) countries in Europe. It covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe.

The MSCI Kuwait Index is designed to measure the performance of the large and mid cap segments of the Kuwait market. With 8 constituents, the index covers approximately 85% of the Kuwait equity universe.

The MSCI Jordan Index is designed to measure the performance of the large and mid cap segments of the Jordan market. With 4 constituents, the index covers approximately 85% of the Jordan equity universe.

The MSCI Lebanon Index is designed to measure the performance of the large and mid-cap segments of the Lebanese market. With 4 constituents, the index covers approximately 85% of the Lebanon equity universe.

The MSCI Russia Index is designed to measure the performance of the large and mid cap segments of the Russian market. With 22 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Russia.

The MSCI North America Index is designed to measure the performance of large and mid-cap segments of the US and Canada markets with 725 constituents.

The MSCI Qatar Index is designed to measure the performance of the large and mid cap segments of the Qatari market. With 12 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Qatar.

The MSCI Turkey Index is designed to measure the performance of the large and mid cap segments of the Turkish market. With 25 constituents, the index covers about 85% of the equity universe in Turkey.

The MSCI United Arab Emirates (UAE) Index is designed to measure the performance of the large and mid cap segments of the UAE market. With 10 constituents, the index covers approximately 85% of the UAE equity universe.

The MSCI USA Index represents more than 600 constituents and approximately 85% of the free float-adjusted market capitalization in the US.

The MSCI World Index represents the performance of more than 1,600 large- and mid-cap stocks across 23 developed markets countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

The MSCI World ex-USA Index represents the performance of large- and mid-cap representation across 22 of 23 developed markets countries excluding the United States. With 1,005 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

SG CTA Index is a benchmark of major commodity trading advisors and calculates the daily rate of return for a pool of CTAs selected from the larger managers that are open to new investment.

SG Macro Trading (Discretionary) Index represents the performance of all the trading strategies, whether available through either onshore or offshore fund structures, as well as managed accounts that are reported to SG Alternative Investment Solutions.

The Standard & Poor's 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 Infrastructure Index is designed to track 75 companies from around the world chosen to represent the listed infrastructure industry while maintaining liquidity and tradability. To create diversified exposure, the index includes three distinct infrastructure clusters: energy, transportation, and utilities.

S&P Global Internet Retail Index, shorthand for the S&P Global 1200 Internet & Direct Marketing Retail sub industry, is an index of companies that market and sell products to customers directly over the internet. This sub industry is a part of the Consumer Discretionary sector of the S&P Global 1200 index.

S&P Global Department Store Index, shorthand for the S&P Global 1200 Department Stores sub industry, is an index of companies that sell products in a physical retail establishment that offers a wide range of consumer goods from different product categories known as 'departments'. This sub industry is a part of the Consumer Discretionary sector of the S&P Global 1200 index.

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.

Diversifiers are hedge funds that typically are expected by HFRM to display low or negative correlation and/or beta to traditional asset classes though they may display significant degrees of market correlation at certain points of the investment cycle. The portfolio managers of such funds are often long volatility and generally may provide attractive diversification benefits to a client's portfolio though returns are often 'unpredictable' and can be volatile. This internal classification is based on the analysis and subjective views of HFRM. The internal classification is subject to change without notice to investors and there is no guarantee that the funds will perform as described above. It is important to note that the market strategy described above may not completely eliminate market risk. There is no guarantee that hedge funds classified as 'Diversifiers' will perform as described above. Hedge funds should not be invested in based on their classification as 'Diversifiers' and other assets in a client's overall portfolio should be taken into consideration before an investment is made.

Extreme Downside Risk (EDR) is a measure used to estimate the risk of an asset allocation. EDR seeks to estimate the typical type of loss, over a 12-month time horizon, that an asset allocation may experience in a period of extreme market stress. It is calculated using a proprietary methodology and database. For a given asset allocation, this approach estimates the loss, over a 12-month time horizon, that the asset allocation may have experienced during historical periods of extreme market stress. EDR is calculated by taking the average loss in the worst 5% of this historical periods of extreme market stress. EDR does not estimate the maximum possible loss. Potential losses for a given asset allocation may exceed the value of the EDR.

Global macro hedge fund strategies are generally fundamental and discretionary. Managers of these strategies analyze large quantities of macroeconomic data across markets and regions. Those managers try to identify large imbalances in the risk premiums relating to major asset classes, such as fixed income, equities, commodities and currencies. This top-down process helps them to identify potential directional and tactical opportunities.

Managed futures/CTA hedge fund strategies are generally systematic and technical (i.e., quant-driven). Many trade a large number of futures and forwards markets (often 100+) and take positions in response to systematic buy and sell signals generated by computer models that attempt to identify or anticipate market trends. Many of their inputs are price-based indicators, and most models are derived from proprietary trend-following algorithms.

Price-to-book ratio (P/B) compares the capitalization of an individual stock or of an index of stocks to the value of that stock or that index's combined shareholder capital. It is calculated by dividing the current closing price of the stock by the most recently reported book value per share. A low P/B can indicate a lowly-valued company or index, while a high P/B can indicate high valuation.

Price-earnings ratio (P/E) measures a company's or an index of companies' current share price relative to its earnings per share. A low P/E can indicate a lowly-valued company or index, while a high P/E can indicate high valuation.

Return on equity (ROE) is the amount of net income earned as a percentage of shareholders equity. It captures a company's profitability – or aggregate profitability among numerous companies – by showing how much profit is achieved with shareholders' capital.

Strategic asset allocation is the process of creating a long-term investment plan by assembling an appropriate mix of equities, fixed income, cash and other investments. It can potentially enhance portfolio returns and help manage risk.

Strategic Return Estimates are Citi Private Bank's forecast of returns for specific asset classes over a 10-year time horizon. The forecast for each specific asset class is made using a proprietary methodology that is appropriate for that asset class. Equity asset classes are forecast using a proprietary methodology based on the calculation of valuation levels with the assumption these valuation levels revert to their long-term trends over time. Fixed Income asset classes are forecast using a proprietary methodology based on current yield levels. Other asset classes have other specific forecasting methodologies. Please note that hedge funds, private equity, real estate, structured products and managed futures are generally illiquid investments and are subject to restrictions on transferability and resale. Each SRE is gross of actual client fees and expenses. Components of the methodology used to create the SREs include the rate of return for various asset classes based on indices. Termination and replacement of investments may subject investors to new or different charges. Past performance is not indicative of future results. Future rates of return cannot be predicted with certainty. Investments that pay higher rates of return are often subject to higher risk and greater potential loss in an extreme scenario. The actual rate of return on investments can vary widely over time, especially for long-term investments. This includes the potential loss of principal on your investment. It is not possible to invest directly in an index.

Tactical asset allocation looks to adjust the strategic asset allocation of a client's investment portfolio to incorporate shorter-term market insights.

Volatility arbitrage hedge fund strategies typically attempt to exploit differences between the forecasted future volatility of an asset and the implied volatility of options based on that asset.

Yield-to-Maturity (YTM) is the total return received on a bond or index of bonds when held to maturity. The total return includes both the payment of coupons and the return of the principal at maturity.

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**	
Credit risk	**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	CC	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.

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http://www.theocc.com/components/docs/riskstoc.pdf or

http://www.theocc.com/components/docs/about/publications/november_2012_supplement.pdf

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- Concentration Risk. Investment in a basket of Energy Related MLPs may expose the investor to concentration risk due to industry, geographical, political, and regulatory concentration.
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- Changes in tax or other laws affecting MLPs generally;

- Regulatory changes affecting pipeline fees and other regulatory fees in the energy sector;
- The effects of political events and government regulation;
- The impact of direct government intervention, such as embargos;
- Changes in fiscal, monetary and exchange control programs:
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- Changes in the output and trade of oil and other energy producers;
- Changes in environmental and weather conditions;
- The impact of environment laws and regulations and technological changes affecting the cost of producing and processing, and the demand for, energy products;
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