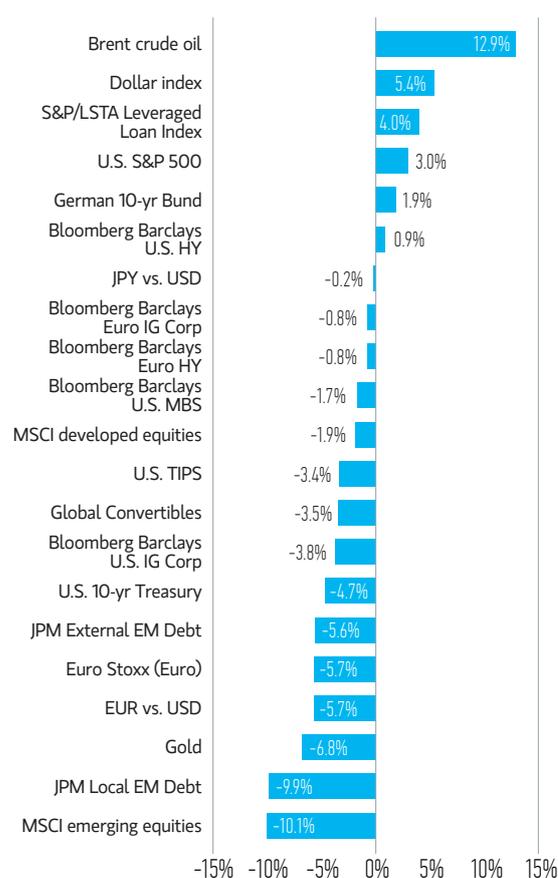


An October to Remember

FIXED INCOME | GLOBAL FIXED INCOME TEAM | MACRO INSIGHT | NOVEMBER 2018

The month of October is infamous for market volatility and this past October lived up to its reputation. Indeed, it has been referred to as “Red October.” Most surprising was the inability of U.S. Treasury yields to rally (move lower) despite the dislocations occurring in equity markets. While credit markets were not as negatively impacted as equities, they sold off in sympathy. Despite very weak asset markets and dire pronouncements about the impending end of the expansion, we are more sanguine. We do not think this is the beginning of a broader bear market in fixed income and we expect markets to improve, if gradually. U.S. Treasury yields are closing in on their likely peak; U.S. economic data is likely to remain firm, if a bit softer than the blistering pace of the last two quarters; the U.S. Federal Reserve (Fed) will continue to hike interest rates but is likely to stop tightening in 2019; Chinese stimulus will hit the global economy; and emerging market (EM) economies should stabilize. The U.S. dollar seems to have made a local peak (although we would emphasize the word “local” for now), also a good sign for EM and the global economy in general.

DISPLAY 1
Asset Performance Year-to-Date



Note: USD-based performance. Source: Thomson Reuters Datastream. Data as of October 31, 2018. The indexes are provided for illustrative purposes only and are not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.** See pages 6 and 7 for index definitions.

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DISPLAY 2
Currency Monthly Changes Versus U.S. Dollar

(+ = appreciation)



Source: Bloomberg. Data as of October 31, 2018. Note: Positive change means appreciation of the currency against the USD.

DISPLAY 3
Major Monthly Changes in 10-Year Yields and Spreads

COUNTRY	10-YR YIELD LEVEL (%)	MONTH CHANGE (BPS)	10-YR SPREAD (BPS)	MONTH CHANGE (BPS)
(Spread over USTs)				
United States	3.14	+8		
United Kingdom	1.44	-14	-171	-22
Germany	0.39	-9	-276	-17
Japan	0.13	0	-302	-9
Australia	2.63	-4	-52	-12
Canada	2.49	+7	-65	-2
New Zealand	2.72	0	-43	-8
(Spread over Bunds)				
France	0.75	-5	37	+3
Greece	4.24	+5	385	+14
Italy	3.43	+28	304	+37
Portugal	1.87	-1	149	+8
Spain	1.55	+5	116	+13
EM	INDEX LOCAL YIELD (%)	MTD CHANGE (BPS)	USD SPREAD (BPS)	MTD CHANGE (BPS)
EM External Spreads			391	+31
EM Local Yields			6.74	+7
EM Corporate Spreads			300	+14
Brazil	8.74	-133	262	-27
Colombia	6.84	+25	191	+23
Hungary	2.62	0	126	+17
Indonesia	8.74	+57	220	+38
Malaysia	4.14	+7	132	+9
Mexico	8.35	+41	287	+31
Peru	5.87	+18	156	+23
Philippines	6.59	+15	118	+24
Poland	2.50	-11	67	+20
Russia	8.38	+13	226	+16
South Africa	9.89	+29	345	+48
Turkey	19.61	-42	445	+15
Venezuela	-	-	6034	+535
CREDIT			SPREAD (BPS)	MTD CHANGE (BPS)
U.S. IG			117	+11
EUR IG			128	+14
U.S. HY			371	+55
EUR HY			397	+68
SECURITIZED				
Agency MBS			93	+10
U.S. BBB CMBS			254	+2

Positive Neutral Negative

Source: Bloomberg, JP Morgan. Data as of October 31, 2018.

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Fixed Income Outlook

A notable development in October was the impressive ability of U.S. Treasuries NOT to rally, e.g., see yields fall, despite the selloff across equities and credit markets. Despite an approximate 10 percent selloff in equity indexes, U.S. Treasury 10-year yields barely dropped 10 basis points and have since rebounded higher. Another surprise is that U.S. 10-year real yields, as measured by TIPS (Treasury Inflation Protected Securities), rose above 1.00 percent by the end of October, which breaks to the upside of their post-crisis yield range. The implication is that the U.S. economy may be growing stronger for longer and/or the Fed is going to have to push up short-real rates to slow the economy enough to prevent inflation from rising too far. Interestingly, core European government bonds, despite much lower yields, were able to rally in the face of lower equities and wider credit spreads.

Credit markets followed equities lower and October witnessed a notable widening in spreads. This widening seems a bit overdone considering solid economic and corporate fundamentals. As such, we expect a recovery/stabilization in risk sentiment into year's end and possibly a narrowing of spreads. High-yield bonds had outperformed other fixed income sectors this year so it was not surprising that the market struggled until the last few days of the month. Again, the selloff looks overdone and we expect to see some rebound (tightening in spreads).

While it is difficult to know exactly what the fed funds rate peak will be, we are comfortable thinking that current market pricing is not too far off, e.g., a 3.25-3.5 percent level. This creates a center of gravity for U.S. rate markets to revolve around. A bold guess might be that U.S. Treasury 10-year yields peak around 3.5 percent. Only negative inflation surprises likely could drive it much higher, a development we do not expect, at least at the current time.

From an investment perspective, we remain biased toward positions that can benefit from still-strong economic growth and low default probabilities. With the widening of spreads this year we think the probability of excess returns has increased and with equities well off their highs, future volatility from that direction is unlikely to be negative. Assets we like both in the U.S. and Europe are non-agency mortgages, high yield and a select portion of investment grade credit, namely financials.

As we look outside the U.S. and Europe, we see improved opportunities in EM. Valuations have improved substantially this year and actions in most countries have been in the right direction. We believe it will only take the absence of bad news, not necessarily more good news, for this asset class to perform well in the fourth quarter and into next year. Small improvements in the Chinese outlook as well as stabilization in U.S. rates and the U.S. dollar will likely create a much more benign external environment. EM could be one of the better-performing fixed income sectors in the remainder of the year.

Euro markets still need to contend with political uncertainty in Italy. We believe there will be a rational outcome, with the European Union (EU) and Italy coming to an agreement over fiscal policy, but the political will to execute is still lacking. It may require a more "crisis"-like environment to get the respective parties to compromise. In the interim, it will be difficult for European credit markets to rally.

Broadly, we do not expect a continuation of October's performance in the months ahead. Except for U.S. Treasury yields, most fixed income sectors look oversold. That said, uncertainties surrounding U.S.-China Trade, Italian fiscal issues, Brexit, Chinese stimulus and over the likely direction of the U.S. dollar will keep gains muted for the time being. But with U.S. Treasury yields ever closer to their peak, we are optimistic that fixed income returns will improve in the months ahead.

MONTHLY REVIEW

OUTLOOK

Developed Market (DM) Rate/Foreign Currency (FX)

In October, risky assets sold off again, driven mainly by DM equity markets. As a result, yields in Germany and other core Euro areas fell. German bunds yields fell 5-10 basis points and U.K. bonds rallied 5-15 basis points across the curve. However, U.S. yields continued their seemingly inexorable rise, with U.S. Treasury 10-year yields up 8 basis points and 30-year bond yields up 19 basis points, steepening the yield curve. Italian government bonds sold off another 28 basis points on the long end of the curve as tensions over budget negotiations continued to rise. Impacts on other peripherals were mixed with Spanish yields up 5-10 basis points across the curve; Portugal bucked the trend, with short maturities rallying around 5 basis points and only marginal increases on the long end.¹

We believe the Fed will continue its gradual rate-hiking strategy in 2019, allowing a modest inflation overshoot. Recent meetings showed that the Fed reaffirmed its plan to hike interest rates three times in 2019, and the market is coming around to this view, given recent firming pressures in wages and business confidence. As for U.S. 10-year Treasury yields, we believe they will be confined to a 3-3.5 percent range. As we have previously noted, Japanese Government Bonds (JGBs) have served to help anchor yields worldwide (as has European Central Bank (ECB) quantitative easing (QE)). A wider band for JGB trading, as the Bank of Japan (BoJ) adjusts the yield curve control policy, could introduce more volatility and upward pull for risk-free rates, but, for now, the BoJ does not appear to be in a rush. In the Eurozone, the ECB will likely continue to diverge from the Fed's monetary policy, although it will likely end QE this year, further increasing the global liquidity drain. There is no doubt that the global liquidity environment is getting less friendly.

Emerging Market (EM) Rate/FX

EM fixed income assets started the fourth quarter off on weaker footing as the optimism for global growth waned, punctuated by a selloff in equity markets. While not calling for a recession in the near future, global growth estimates have been reduced as reality has underperformed optimism. While global trade headwinds remain, the outlook for North American trade improved as the United States-Mexico-Canada Agreement (USMCA) trade agreement to replace North American Free Trade Agreement (NAFTA) was announced. Over the month, soft commodities rose in price, while energy markets weakened and metals were mixed. Infrastructure commodities such as aluminum and copper weakened, while prices for precious metals such as gold, silver, platinum and palladium rose in the month. Within dollar-denominated EM assets, corporates outperformed sovereigns, while in local debt, currency weakness versus the U.S. dollar weighed on returns. Investors withdrew \$1.1 billion in assets from the asset class, primarily from local currency strategies as local currency debt continued to drive volatility in the month.²

While we believe second- and third-quarter weakness in EM valuations has created market opportunities to add risk, we have become more selective as the outlook for EM fundamentals has become less certain. At a structural level, the world seems to be leaving global growth synchronicity behind and entering a new phase of diverging growth, as evidenced by still-healthy growth in the U.S., stabilization in Europe and Japan, but a more recent deceleration of activity in EM. Trade issues top the list of concerns, with the U.S. and China locked in what seems likely to be a protracted battle that could undermine growth expectations more broadly. Threats that the U.S. may consider expanding tariffs to the remaining \$267 billion worth of U.S. imports from China could unleash another retaliatory round from the latter, thus weighing on global growth/market sentiment. On the positive side, however, the announcement of a revamped NAFTA agreement, named USMCA, highlights the propensity of the U.S. to strike deals and is an important step toward removing one large source of trade-related uncertainty, once national congresses approve the tentative deal.

¹ Source: Bloomberg. Data as of October 31, 2018. ² Source: JP Morgan. Data as of October 31, 2018.

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MONTHLY REVIEW

OUTLOOK

Credit

Global investment grade spreads widened in October, ending the month at levels last seen in mid-summer. The Bloomberg Barclays U.S. Corporate Index spread over government bonds widened by 12 basis points in October to end the month at 118 basis points, with nonfinancials leading the market wider.³ Spreads in the U.S. have now given back any gains made in the third quarter. For the year, U.S. investment grade corporates are 25 basis points wider on average. In Europe, the Bloomberg Barclays Euro-Aggregate Corporate Index moved 14 basis points wider to end the month at 128 basis points relative to governments.⁴ European corporate bonds have now materially underperformed U.S. credit, as European investment grade corporates are 42 basis points wider for the year.⁵

Looking forward, the key question markets are asking is whether this is a healthy correction or a sign of an imminent slowdown. Our base case is that the current market volatility is a healthy midcycle correction. Corporates are seeing uncertainty over future demand and some input costs are increasing with oil higher, but in general corporate results remain strong. We believe earnings growth will likely slow, but do not expect leverage to increase. Leverage remains high in the U.S. but the cost of debt is quite manageable, and many corporates have termed out their debt at low rates and have flexibility in their business model if additional steps to de-lever are needed. In Europe, leverage tends to be lower, reflecting lower confidence in the broad market (i.e., European companies tend to be in an earlier part of the business cycle). Uncertainty over Italy remains, which will continue to be a negative for European financials and a key driver of spreads, while ongoing trade disputes are likely to weigh on credits globally.

Securitized

Rising interest rates and increased volatility were the primary themes in October, and spreads across nearly all securitized sectors drifted wider as a result. Credit-sensitive securitized securities continued to outperform more rate-sensitive securities, as real estate and consumer credit conditions remained generally positive and the higher cash flow carry on credit-oriented securities served as a buffer from the impacts of higher rates and wider spreads. Material upward rate moves in 2018, which have triggered increased market volatility, have had an impact on both equity and fixed income asset classes. Securitized assets have generally performed well in 2018, but now appear to be feeling some pressure from higher rates and increasing volatility.

Our investment thesis remains largely unchanged for November: We remain generally constructive on securitized credit opportunities and cautious on U.S. agency mortgage-backed securities (MBS). We believe the U.S. economy remains strong, due in part to improving consumer and real estate credit fundamentals. We remain underweight agency MBS due to concerns over rising rates, potential higher interest rate volatility, and the deteriorating supply-demand dynamic with the Fed reducing its MBS purchases and large banks potentially also reducing their holdings. Although nominal spreads widened significantly in October and are now more than 25 basis points wider year-to-date, agency MBS still look marginally expensive from a historical spread perspective, and we believe spreads will need to widen to attract new investors in order to offset the Fed's reduced purchases and potentially weaker bank demand. We may begin to taper our agency MBS underweight in the coming months if the sector continues to cheapen. We believe that most of the duration extension from higher interest rates and slowing prepayment speeds has already been realized.

³ Source: Bloomberg Barclays. Data as of October 31, 2018.

⁴ Source: Bloomberg Barclays. Data as of October 31, 2018.

⁵ Source: Bloomberg Barclays. Data as of October 31, 2018.

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Risk Considerations

Fixed income securities are subject to the ability of an issuer to make timely principal and interest payments (credit risk), changes in interest rates (interest rate risk), the creditworthiness of the issuer and general market liquidity (market risk). In the current rising interest rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. **Longer-term securities** may be more sensitive to interest rate changes. In a declining interest rate environment, the portfolio may generate less income. Certain **U.S. government securities** purchased by the strategy, such as those issued by Fannie Mae and Freddie Mac, are not backed by the full faith and credit of the U.S. It is possible that these issuers will not have the funds to meet their payment obligations in the future. Public bank

loans are subject to liquidity risk and the credit risks of lower-rated securities. **High-yield securities (junk bonds)** are lower-rated securities that may have a higher degree of credit and liquidity risk. **Sovereign debt securities** are subject to default risk. **Mortgage- and asset-backed securities** are sensitive to early prepayment risk and a higher risk of default, and may be hard to value and difficult to sell (**liquidity risk**). They are also subject to credit, market and interest rate risks. The **currency market** is highly volatile. Prices in these markets are influenced by, among other things, changing supply and demand for a particular currency; trade; fiscal, money and domestic or foreign exchange control programs and policies; and changes in domestic and foreign interest rates. Investments in **foreign markets** entail special risks such as currency, political, economic and

market risks. The risks of investing in **emerging market** countries are greater than the risks generally associated with foreign investments. **Derivative instruments** may disproportionately increase losses and have a significant impact on performance. They also may be subject to counterparty, liquidity, valuation, correlation, and market risks. **Restricted and illiquid securities** may be more difficult to sell and value than publicly traded securities (liquidity risk). Due to the possibility that prepayments will alter the cash flows on **collateralized mortgage obligations (CMOs)**, it is not possible to determine in advance their final maturity date or average life. In addition, if the collateral securing the CMOs or any third-party guarantees are insufficient to make payments, the portfolio could sustain a loss.

DEFINITIONS

R* is the real short term interest rate that would occur when the economy is at equilibrium, meaning that unemployment is at the neutral rate and inflation is at the target rate.

INDEX DEFINITIONS

The indexes shown in this report are not meant to depict the performance of any specific investment, and the indexes shown do not include any expenses, fees or sales charges, which would lower performance. The indexes shown are unmanaged and should not be considered an investment. It is not possible to invest directly in an index.

The **National Association of Realtors Home Affordability Index** compares the median income to the cost of the median home.

Purchasing Managers Index (PMI) is an indicator of the economic health of the manufacturing sector.

Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.

The **JP Morgan Emerging Markets Bond Index Global (EMBI Global)** tracks total returns for traded external debt instruments in the emerging markets and is an expanded version of the EMBI+. As with the EMBI+, the EMBI Global includes U.S. dollar-denominated Brady bonds, loans and eurobonds with an outstanding face value of at least \$500 million.

The **JP Morgan CEMBI Broad Diversified Index** is a global, liquid corporate emerging markets benchmark that tracks U.S.-denominated corporate bonds issued by emerging markets entities.

The **JP Morgan GBI-EM Global Diversified Index** is a market-capitalization weighted, liquid global benchmark for U.S.-dollar corporate emerging market bonds representing Asia, Latin America, Europe and the Middle East/Africa.

The **ISM Manufacturing Index** is based on surveys of more than 300 manufacturing firms by the Institute of Supply Management. The ISM Manufacturing Index monitors employment, production inventories, new orders and supplier deliveries. A composite diffusion index is created that monitors conditions in national manufacturing based on the data from these surveys.

The **Bloomberg Barclays U.S. Mortgage Backed Securities (MBS) Index** tracks agency mortgage-backed pass-through securities (both fixed-rate

and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage. Introduced in 1985, the GNMA, FHLMC and FNMA fixed-rate indexes for 30- and 15-year securities were backdated to January 1976, May 1977 and November 1982, respectively. In April 2007, agency hybrid adjustable-rate mortgage (ARM) pass-through securities were added to the index.

The **Bloomberg Barclays Global Aggregate Corporate Index** is the corporate component of the Barclays Global Aggregate index, which provides a broad-based measure of the global investment-grade fixed income markets.

The **Nikkei 225 Index (Japan Nikkei 225)** is a price-weighted index of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange.

The **U.S. Dollar Index (DXY)** is an index of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners' currencies.

Italy 10-Year Government Bonds—Italy Benchmark 10-Year Datastream Government Index.

The **MSCI World Index (MSCI developed equities)** captures large and mid-cap representation across 23 developed market (DM) countries.

Spain 10-Year Government Bonds—Spain Benchmark 10-Year Datastream Government Index.

The **ICE BofAML European Currency High-Yield Constrained Index (ICE BofAML Euro HY constrained)** is designed to track the performance of euro- and British pound sterling-denominated below investment-grade corporate debt publicly issued in the eurobond, sterling domestic or euro domestic markets by issuers around the world.

The **S&P 500® Index (U.S. S&P 500)** measures the performance of the large-cap segment of the U.S. equities market, covering approximately 75 percent of the U.S. equities market. The index includes 500 leading companies in leading industries of the U.S. economy.

The **JPMorgan Government Bond Index Emerging Markets (JPM External EM Debt)** tracks local currency bonds issued by emerging market governments. The index is positioned as the investable benchmark that includes only those countries that are accessible by most of the international investor base (excludes China and India as of September 2013).

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U.K. 10YR government bonds—U.K. Benchmark 10-Year Datastream Government Index. For the following Datastream government bond indexes, benchmark indexes are based on single bonds. The bond chosen for each series is the most representative bond available for the given maturity band at each point in time. Benchmarks are selected according to the accepted conventions within each market. Generally, the benchmark bond is the latest issue within the given maturity band; consideration is also given to yield, liquidity, issue size and coupon.

German 10YR bonds—Germany Benchmark 10-Year Datastream Government Index; **Japan 10YR government bonds**—Japan Benchmark 10-Year Datastream Government Index; and **10YR U.S. Treasury**—U.S. Benchmark 10-Year Datastream Government Index.

The **ICE BofAML U.S. Mortgage-Backed Securities (ICE BofAML U.S. Mortgage Master) Index** tracks the performance of U.S. dollar-denominated, fixed-rate and hybrid residential mortgage pass-through securities publicly issued by U.S. agencies in the U.S. domestic market.

The **S&P/LSTA U.S. Leveraged Loan 100 Index (S&P/LSTA Leveraged Loan Index)** is designed to reflect the performance of the largest facilities in the leveraged loan market.

The **Bloomberg Barclays Euro Aggregate Corporate Index (Bloomberg Barclays Euro IG Corporate)** is an index designed to reflect the performance of the euro-denominated investment-grade corporate bond market.

The **Bloomberg Barclays U.S. Corporate Index (Bloomberg Barclays U.S. IG Corp)** is a broad-based benchmark that measures the investment-grade, fixed-rate, taxable corporate bond market.

The **ICE BofAML United States High Yield Master II Constrained Index (ICE BofAML U.S. High Yield)** is a market value-weighted index of all domestic and Yankee high-yield bonds, including deferred-interest bonds and payment-in-kind securities. Its securities have maturities of one year or more and a credit rating lower than BBB-/Baa3, but are not in default.

JPY vs. USD—Japanese yen total return versus U.S. dollar.

Euro vs. USD—Euro total return versus U.S. dollar.

MSCI Emerging Markets Index (MSCI emerging equities) captures large- and mid-cap representation across 23 emerging markets (EM) countries.

The **MSCI AC Asia ex-Japan Index (MSCI Asia ex-Japan)** captures large- and mid-cap representation across two of three developed markets countries (excluding Japan) and eight emerging markets countries in Asia.

The **S&P GSCI Softs (GSCI soft commodities) Index** is a sub-index of the S&P GSCI that measures the performance of only the soft commodities, weighted on a world production basis. In 2012, the S&P GSCI Softs Index included the following commodities: coffee, sugar, cocoa and cotton.

The **Dow Jones Commodity Index Gold (Gold)** is designed to track the gold market through futures contracts.

The **JPMorgan Government Bond Index**—Emerging markets (**JPM local EM debt**) tracks local currency bonds issued by emerging market governments. The index is positioned as the investable benchmark that includes only those countries that are accessible by most of the international investor base (excludes China and India as of September 2013).

The **ICE Brent Crude futures contract (Brent crude oil)** is a deliverable contract based on EFP delivery with an option to cash settle.

The **S&P GSCI Copper Index (Copper)**, a sub-index of the S&P GSCI, provides investors with a reliable and publicly available benchmark for investment performance in the copper commodity market.

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