

# INVESTMENT OUTLOOK

JANUARY 2019

By Craig Burelle, VP, Macro Analyst



MODEST TOTAL RETURNS AND ABOVE-AVERAGE VOLATILITY MAY DEFINE THE RISK ASSET LANDSCAPE IN 2019 AS ECONOMIC AND CORPORATE EARNINGS GROWTH SLOW.

Consensus expectations for emerging and developed economy growth have been revised lower, but we see limited evidence to suggest the global or US economy is heading toward recession in the near term. Investors may need patience as we transition toward slower growth in this mature phase of the expansion.





## MACRO DRIVERS

Valuations contracted as a number of risks kept investors on edge. Risk assets are looking cheap in several markets.

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## CREDIT

We do not expect substantial spread tightening, even if risk asset volatility subsides.

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## GOVERNMENTS & CURRENCIES

It may take another catalyst, like much slower US growth, to spark a sustainable rally across emerging markets and other foreign currencies.

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## EQUITY

We estimate mid- to high-single-digit earnings growth across global markets in 2019. Price-to-earnings multiples are compelling.

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## POTENTIAL RISKS

An upturn in developed or emerging market economic data could spark a global risk asset rally, but watch for volatility ahead.

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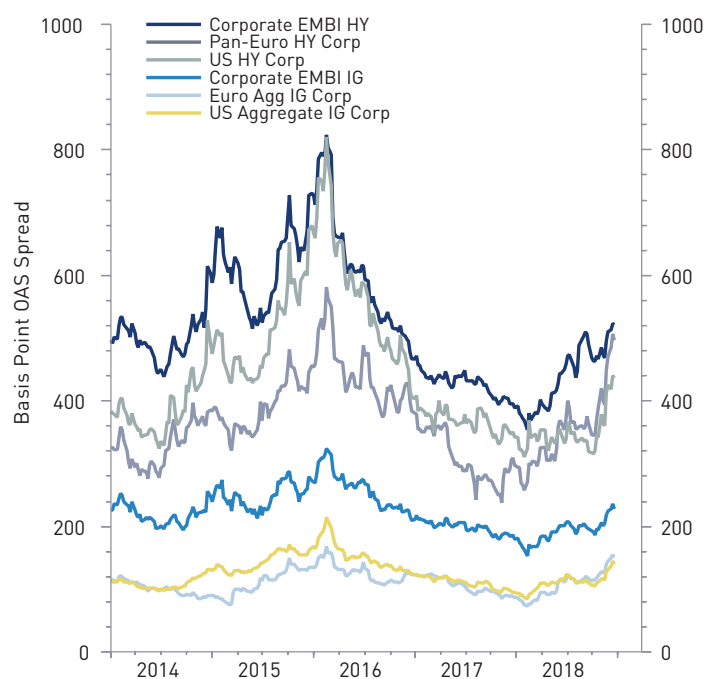
## MACRO DRIVERS

### It's Not Just a Global Growth Slowdown

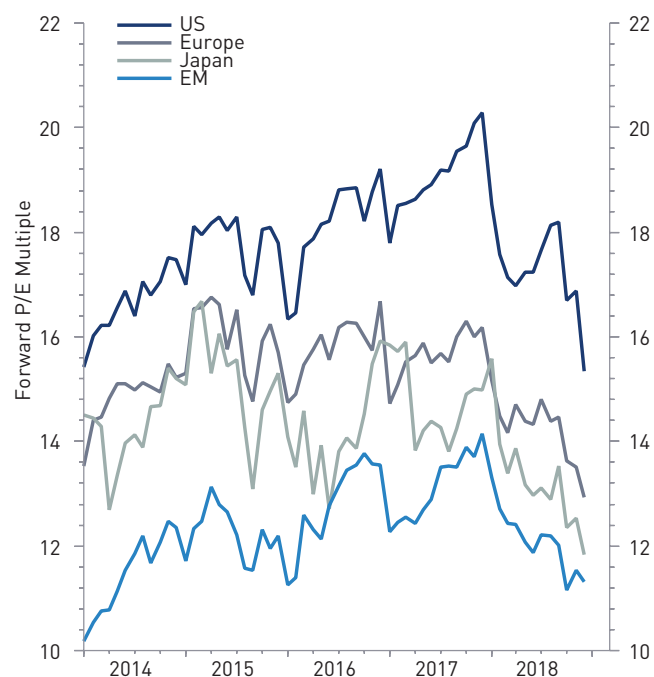
- The market is now priced for several risks, including slower global growth, Federal Reserve tightening, US/China trade relations, global political disruptions and lower-than-anticipated oil prices. These risks are likely to suppress risk asset valuations unless positive resolutions emerge.
- Fed tightening is likely to continue in 2019, with hikes forecasted at mid-year and at year-end. Slowing the pace of hikes should support interest rate-sensitive areas of the US economy, where higher borrowing costs have already started to curtail activity.
- The US/China trade truce remains in effect until March 1, 2019, but we are skeptical that both sides will make meaningful progress during the truce. An extension of the truce is possible.
- The global political environment has grown increasingly complex. The Brexit saga, protests in France and security concerns related to cross-border technology manufacturing should continue to keep investors on high alert.
- Forward valuation for many asset classes has improved through credit spread widening and contraction of price-to-earnings multiples.

## RISK ASSET VALUATIONS HAVE ADJUSTED TO REFLECT PERSISTENT MACROECONOMIC RISKS

### FIXED INCOME CREDIT SPREADS



### EQUITY FORWARD P/E MULTIPLES



Source: Thomson Reuters Datastream, JP Morgan, Bloomberg Barclays, MSCI, data as of 12/26/2018.



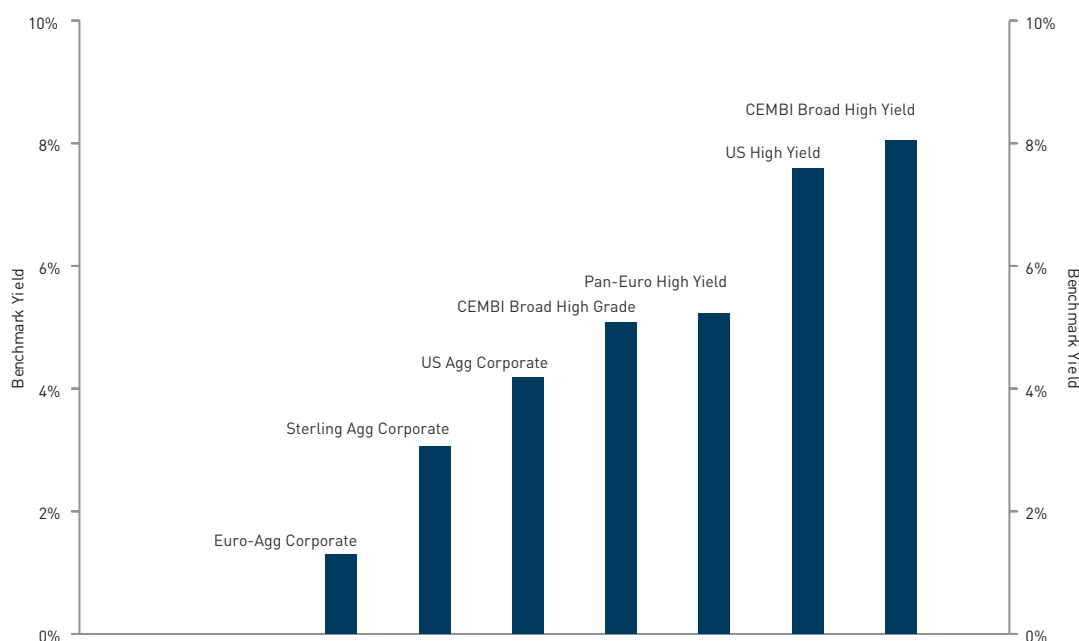
## CREDIT

### Certain Macro Drivers Look Supportive, but the Best Could Be Behind Us

- Estimated default rates remain low, global growth is decent and 2019 corporate earnings are likely to rise between 5% and 9% in aggregate. However, these positive factors do not mean credit spreads can revisit the lows seen earlier in the cycle.
- Spreads have been rising across global credit markets, but further widening does not look necessary if consensus expectations for growth and inflation come through over the course of 2019.
- We estimate excess returns over government bonds will be positive but not substantial, especially if spreads remain range-bound at current higher levels as the global credit cycle progresses.
- A US recession does not seem imminent. However, we believe credit market valuations are likely to stick at current adjusted levels, especially if the Fed continues to tighten financial conditions.
- Wider spreads have restored meaningful risk premia to credit markets, increasing the value proposition of the asset class. Our sanguine outlook would be at risk if corporate profitability expectations prove too lofty.
- Credit investors should be able to harvest yield and achieve modest total returns as long as corporate profits remain healthy, the global economy continues to expand, and monetary policy does not become too restrictive.

#### CREDIT MARKET YIELDS NOW LOOK MORE ATTRACTIVE

Global Credit  
Benchmark Yields



Source: Thompson Reuters Datastream, Bloomberg Barclays, JP Morgan, data as of December 27, 2018.





## GOVERNMENTS & CURRENCIES

### We See Modestly Higher Government Bond Yields and Limited US Dollar Upside

- The Fed is likely to continue hiking short-term rates in 2019, but at a slower pace than previously anticipated. We believe the Fed is reacting to softer economic activity, tighter financial conditions, and core inflation hovering at or below target levels.
- Consensus expectations for global growth have been revised lower and fiscal stimulus in the US could fade in the coming quarters. We view this period as a soft patch in a continued expansion that likely leads economic growth back toward levels consistent with the global economy's long-run potential.
- In 2018, the US dollar benefited from the high level of US growth and interest rates relative to those of other countries. However, if the US economy slows next year as expected, the dollar may come off its recent trend higher and establish a trading range.
- We expect the soft patch to end and growth to stabilize, which should drive high-quality government bond yields modestly higher while inflationary pressure remains subdued.

**THE US DOLLAR HAS  
REACHED CRITICAL  
RESISTANCE; OTHER  
CURRENCIES LOOK  
INEXPENSIVE**

US Broad Trade-  
Weighted Dollar Index

— US Trade-Weighted Dollar  
Index  
— 200-Day Moving Average



Source: Thompson Reuters Datastream, data as of December 27, 2018.





## EQUITY

### Valuations Look Compelling, but Volatility Could Stay Elevated

- Macro risks are likely to dominate the equity landscape during the next few quarters, despite decent earnings growth and valuations reaching the most attractive levels in several years.
- Late-cycle threats like tighter financial conditions and accelerating wage growth may lead to increased volatility, particularly when compared with earlier periods of the expansion. Trade wars and global economic softness are additional key risks likely to remain in the near term.
- The severe challenges of 2018 left many equity sectors firmly in bear market territory. Equity markets need time and patience to repair the technical damage endured by even the highest-growth areas of the market.
- Equities could have meaningful upside if the macro backdrop becomes a bit more supportive. We believe US stocks are most likely to lead an equity recovery. Emerging markets could also present an attractive opportunity—especially if the US dollar remains range-bound or trends weaker.
- We estimate mid- to high-single-digit earnings growth across several global and domestic equity markets in 2019. Higher interest expenses and labor costs could slowly erode profit margins, but price hikes may soften the blow.

**THE GLOBAL EQUITY BULL MARKET BROKE DOWN IN JANUARY 2018; US EQUITIES HELD UP UNTIL THE FOURTH QUARTER**

Global Equity Relative Performance



Source: Thomson Reuters Datastream, data as of December 31, 2018.





## POTENTIAL RISKS

### Market Pricing Reflects a Distressing Backdrop

- Financial markets and the overall investment outlook could deteriorate if the domestic and global economy cannot work through tighter financial conditions brought on by Fed rate hikes and other headwinds.
- Economists and investors have revised 2019 global growth expectations modestly lower to reflect a slowdown. Further downward revisions would likely generate financial market volatility.
- The US's trade policy, including the ongoing trade war with China, and the flattening US yield curve create an uncertain outlook for the US economy. This uncertainty may prevent corporations from engaging in capital expenditures and would be negative for domestic growth.
- Further downside risks are present, but an upturn in global economic data could boost investor sentiment and ignite a recovery across global markets.
- Discernible risks took down asset valuations in 2018. Positive political or economic developments could go a long way to support investor sentiment and risk asset performance.

## ASSET CLASS OUTLOOK

■ Current View    ■ Previous View

ASSET CLASS		OUR VIEW				
		-		N		+
RATES	US					
	Developed ex US					
	EM Local					
CREDIT	US Credit					
	US Securitized					
	Europe IG					
	EM Sovereign					

ASSET CLASS		OUR VIEW				
		-		N		+
EQUITIES	US					
	Developed ex US					
	EM					
CURRENCY	US Dollar					
	Yen					
	Euro					
	EM FX					





## Fourth Quarter Review

By Craig Burelle, VP, Macro Analyst

### INDEX RETURNS BY SECTOR

as of December 31, 2018

INDEX					
US BROAD MARKET		1 MONTH	3 MONTH	6 MONTH	1 YEAR
BBG BARC US AGGREGATE BOND		1.84	1.64	1.65	0.01
BBG BARC US GOVERNMENT/CREDIT		1.86	1.46	1.51	-0.42

The US aggregate and US government/credit indices finished the quarter with positive total returns. Excess returns over like-duration US Treasuries suffered as credit spreads widened steadily throughout the quarter. Corporate profits remained firm, but macroeconomic risks like tighter Fed policy and global trade turmoil limited investor risk appetite.

	US GOVERNMENTS	1 MONTH	3 MONTH	6 MONTH	1 YEAR
BBG BARC US TREASURYS		2.15	2.57	1.96	0.86
3-MONTH T-BILLS		0.19	0.57	1.07	1.89
2-YEAR TREASURY		0.81	1.28	1.42	1.40
5-YEAR TREASURY		1.86	2.81	2.52	1.42
10-YEAR TREASURY		3.01	3.87	2.74	0.00
30-YEAR TREASURY		5.94	4.10	0.70	-2.72
BBG BARC US TIPS		0.55	-0.42	-1.24	-1.26
BBG BARC US AGENCY		1.42	1.90	1.88	1.34

The Fed delivered the ninth rate hike of this economic expansion in December, bringing the target federal funds range to 2.25% - 2.50%. The yield curve continued to flatten throughout the quarter, led by a rise in the front end while other rates declined. Risk aversion and declining inflation expectations kept downward pressure on the long end of the curve. Investors remained focused on yield curve inversion and its historical precedent as a bellwether for recession. The 2-year, 5-year curve inverted by a few basis points in the fourth quarter, but the 2-year, 10-year and 2-year federal funds spreads retained some steepness.

	US MUNICIPALS	1 MONTH	3 MONTH	6 MONTH	1 YEAR
BBG BARC US MUNICIPALS		1.20	1.69	1.53	1.28

Although excess returns were slightly negative, municipal bonds quietly delivered a strong total return in the quarter. Duration is nearly in line across credit quality segments of the municipal bond index. As such, the highest credit quality component outperformed in a quarter marked by investor risk aversion.

	US SECURITIZED	1 MONTH	3 MONTH	6 MONTH	1 YEAR
BBG BARC MBS		1.81	2.08	1.96	0.99
BBG BARC ABS		0.79	1.25	1.75	1.77
BBG BARC CMBS		1.62	1.72	2.19	0.78

US securitized indices delivered solid total returns in the quarter, led by US mortgage-backed securities. High credit quality and a strong correlation to US Treasuries assisted total return potential. Excess returns were modestly negative as credit spreads headed steadily higher over the period. The fundamental backdrop for real estate and consumers remained stable, even though spread widening signaled investor concern.

*Data Sources: Bloomberg Barclays indices from Barclays Live; currency returns, JPMorgan and Citigroup indices from Bloomberg; bank loans from S&P Global Market Intelligence.*

*All returns in US dollars, unless noted. Past performance is no guarantee of future results.*





## INDEX RETURNS BY SECTOR

as of December 31, 2018

INDEX					
CORPORATES		1 MONTH	3 MONTH	6 MONTH	1 YEAR
BBG BARC US INVESTMENT GRADE		1.47	-0.18	0.79	-2.51
AAA		2.69	1.43	1.41	-2.08
AA		1.81	1.08	1.67	-0.52
A		1.66	0.27	0.99	-2.50
BBB		1.22	-0.82	0.46	-2.85
BBG BARC EUROPEAN INVESTMENT GRADE -LOCAL CURRENCY RETURNS		0.21	-0.62	-0.61	-1.25
AAA		0.08	0.09	-0.36	0.15
AA		0.20	0.16	-0.03	0.21
A		0.22	-0.44	-0.52	-0.86
BBB		0.20	-0.91	-0.81	-1.85
BBG BARC STERLING INVESTMENT GRADE -LOCAL CURRENCY RETURNS		1.28	-0.07	-0.38	-2.24
AAA		4.16	0.47	-2.24	-6.40
AA		1.35	0.92	0.52	-0.63
A		1.62	0.05	-0.37	-2.35
BBB		0.96	-0.33	-0.47	-2.30

Concerns about leverage in the investment grade corporate sector mounted in the latter half of 2018. During the fourth quarter, significant spread widening from historically low levels led to poor excess returns and mixed total returns. The sector's long duration was a positive factor, but spread widening kept total returns under pressure. A similar theme played out in the global investment grade corporate space, where a strong rally in government bonds led yields lower, supporting long-duration securities. However, growing macroeconomic concerns, including softer global growth, caused credit spreads to widen.

	CORPORATES	1 MONTH	3 MONTH	6 MONTH	1 YEAR
BBG BARC US HIGH YIELD		-2.14	-4.53	-2.24	-2.08
BB		-1.31	-2.91	-0.65	-2.41
B		-2.19	-4.35	-2.16	-1.31
CCC		-4.27	-9.28	-6.80	-3.84
BBG BARC PAN-EURO HIGH YIELD -LOCAL CURRENCY RETURNS		-0.55	-3.71	-2.20	-3.59
BB		-0.13	-2.65	-1.05	-2.93
B		-1.16	-5.19	-3.53	-3.83
CCC		-2.46	-8.83	-9.29	-9.97

US high yield spreads reached the lowest levels of 2018 in early October before reversing meaningfully higher throughout the fourth quarter. Spreads widened across sectors, but energy was hit particularly hard as WTI crude oil prices collapsed nearly 40%. Expectations of lower US corporate profits in 2019 led to increased concern that the end of the credit cycle may be closer than previously anticipated. Risk aversion weighed on global risk assets as well, including pan-euro high yield, where credit spreads had been widening for most of 2018. Slowing growth in euro zone economies led to similar credit cycle fears and concern over future corporate profitability.

*Data Sources: Bloomberg Barclays indices from Barclays Live; currency returns, JPMorgan and Citigroup indices from Bloomberg; bank loans from S&P Global Market Intelligence.*

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## INDEX RETURNS BY SECTOR

as of December 31, 2018

INDEX					
	BANK LOANS	1 MONTH	3 MONTH	6 MONTH	1 YEAR
S&P/LSTA LEVERAGED LOAN		-2.54	-3.45	-1.68	0.44
BB		-2.56	-3.50	-2.02	-0.42
B		-2.52	-3.29	-1.40	0.86
CCC		-3.34	-5.53	-2.25	2.35

The macroeconomic risks that impacted the high yield bond market bled through to the bank loan market, but to a lesser extent. Outflows from the asset class weighed on performance as well. The outlook for corporate defaults was essentially unchanged in the quarter, while the number and value of expected bank loan maturities remained very limited.

DEVELOPED COUNTRIES	1 MONTH	3 MONTH	6 MONTH	1 YEAR
CITIGROUP WGBI -LOCAL CURRENCY RETURNS	1.49	1.94	1.01	1.10
CITIGROUP NON-USD WGBI	1.12	1.59	0.48	1.16
UNITED STATES	2.13	2.52	1.91	0.84
CANADA	1.85	2.78	1.71	2.42
JAPAN	0.88	1.59	0.35	1.08
AUSTRALIA	2.00	2.82	3.31	5.20
UNITED KINGDOM	2.56	1.96	-0.06	0.36
EUROPEAN GBI	0.94	1.46	0.33	0.88
FRANCE	-0.12	0.62	-0.45	1.14
GERMANY	0.53	1.56	0.78	2.31
IRELAND	0.17	0.57	-0.59	0.44
ITALY	3.17	3.40	1.42	-1.43
SPAIN	0.70	0.65	0.16	2.58

Slowing global growth and limited inflation pressure defined the economic backdrop throughout the quarter. Investor risk appetite grew weaker as the quarter advanced, leading investors toward perceived safe havens like high-quality government bonds. As a result, developed economy government bond yields adjusted meaningfully lower and delivered very strong quarterly total returns.

EMERGING MARKET BONDS	1 MONTH	3 MONTH	6 MONTH	1 YEAR
JP MORGAN EMBIG -SOVEREIGN/QUASI-SOVEREIGN, USD	1.46	-1.19	0.65	-4.61
JP MORGAN CEMBI BROAD DIVERSIFIED -CORPORATES, USD	0.72	-0.04	1.26	-1.65
JP MORGAN GBI-EM GLOBAL DIVERSIFIED -GOVERNMENTS, LOCAL CURRENCY	1.27	2.93	3.18	3.18

Emerging market total returns held up relatively well when compared to other high-yielding fixed income asset classes. Many of the key risks that negatively swayed investor sentiment in the quarter (slowing global growth, tighter Fed policy and ongoing China/ US trade negotiations) are directly linked to emerging markets. Despite the connection, emerging market performance was positive in December.

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## INDEX RETURNS BY SECTOR

as of December 31, 2018

INDEX				
CURRENCY MARKETS	1 MONTH	3 MONTH	6 MONTH	1 YEAR
<b>DOLLAR BLOC</b>				
CANADIAN DOLLAR	-2.53	-5.35	-3.70	-7.82
AUSTRALIAN DOLLAR	-3.52	-2.42	-4.81	-9.73
NEW ZEALAND DOLLAR	-2.23	1.51	-0.72	-5.34
<b>WESTERN EUROPE</b>				
EURO	1.33	-1.18	-1.86	-4.48
NORWEGIAN KRONE	-0.26	-5.63	-5.71	-5.05
SWEDISH KRONA	2.85	0.41	1.01	-7.57
SWISS FRANC	1.61	-0.04	0.87	-0.79
BRITISH POUND	0.04	-2.13	-3.43	-5.62
<b>EMERGING EUROPE &amp; AFRICA</b>				
CZECH KORUNA	2.26	-1.01	-0.88	-5.10
HUNGARIAN FORINT	2.15	-0.40	0.66	-7.51
POLISH ZLOTY	1.46	-1.31	0.14	-6.77
RUSSIAN RUBLE	-3.93	-5.97	-10.00	-17.34
SOUTH AFRICAN RAND	-3.32	-1.43	-4.33	-13.69
TURKISH NEW LIRA	-1.40	14.49	-13.17	-28.19
<b>ASIA</b>				
JAPANESE YEN	3.54	3.66	0.98	2.73
CHINESE RENMINBI	1.19	-0.14	-3.74	-5.41
INDONESIAN RUPIAH	-0.61	3.56	-0.42	-5.71
MALAYSIAN RINGGIT	1.23	0.12	-2.30	-2.10
PHILIPPINE PESO	-0.25	2.74	1.42	-5.06
SINGAPORE DOLLAR	0.70	0.30	-0.04	-1.97
SOUTH KOREAN WON	0.44	-0.59	-0.11	-4.05
<b>LATIN AMERICA</b>				
ARGENTINE PESO	0.21	9.66	-23.21	-50.56
BRAZILIAN REAL	-0.57	4.51	0.05	-14.61
CHILEAN PESO	-3.46	-5.30	-5.66	-11.27
COLOMBIAN PESO	-0.35	-8.55	-9.82	-8.09
MEXICAN PESO	2.98	-4.74	1.31	0.04
PERUVIAN NEW SOL	0.39	-1.91	-2.73	-3.89

Foreign currency performance was mixed over the quarter. Some of the traditionally volatile markets delivered the highest total returns. Turkey and Argentina were standout performers relative to the US dollar, though they remained firmly in negative territory for the 12-month period. Emerging market currencies like the Brazilian real and Indonesian rupiah also delivered solid quarterly returns. The Japanese yen, which is often seen as a secondary safe haven to the US dollar, showed strength as well, especially in the month of December.

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## GLOBAL EQUITY MARKETS

as of December 31, 2018

INDEX TOTAL RETURNS (%)					
	INDEX	3 MONTH	1 YEAR	3 YEAR	5 YEAR
	S&P 500®	-13.52	-4.38	9.26	8.49
	MSCI ALL COUNTRY WORLD	-12.65	-8.93	7.18	4.82
	MSCI EUROPE	-12.68	-14.32	2.72	-0.03
	MSCI JAPAN	-14.20	-12.58	3.76	3.40
	MSCI EMERGING MARKETS	-7.40	-14.25	9.65	2.03

Global equity markets faced challenges throughout the quarter as a number of macroeconomic concerns overwhelmed decent underlying corporate fundamentals. US equity market volatility remained well above average as the S&P 500 wiped out year-to-date gains and finished the year in the red. Similarly, global equity indices finished the quarter with double-digit losses. Emerging market equities began to outperform peer indices in the quarter, though total returns were negative.

## US EQUITY MARKETS

as of December 31, 2018

INDEX TOTAL RETURNS (%)					
	INDEX	3 MONTH	1 YEAR	3 YEAR	5 YEAR
	RUSSELL 1000®	-13.82	-4.78	9.09	8.21
	GROWTH	-15.89	-1.51	11.15	10.40
	VALUE	-11.72	-8.27	6.95	5.95
	RUSSELL MIDCAP®	-15.37	-9.06	7.04	6.26
	GROWTH	-15.99	-4.75	8.59	7.42
	VALUE	-14.95	-12.29	6.06	5.44
	RUSSELL 2000®	-20.20	-11.01	7.36	4.41
	GROWTH	-21.65	-9.31	7.24	5.13
	VALUE	-18.67	-12.86	7.37	3.61

A broad selloff took most equity sectors and styles down in the quarter. Reversing a trend, value outperformed growth during the period. Large caps outperformed mid and small caps for the quarter and full year. The Russell 2000 declined just over 20% for the quarter, putting the index officially into bear market territory. US equity valuations now appear more attractive and any easing of macroeconomic headwinds could lead to better performance.

## S&P 500 SECTORS

as of December 31, 2018

SECTOR PERFORMANCE ATTRIBUTION (%)					
	INDEX	3 MONTH	1 YEAR	3 YEAR	5 YEAR
	UTILITIES	1.36	4.11	10.72	10.74
	REAL ESTATE	-3.83	-2.22	3.96	9.09
	CONSUMER STAPLES	-5.21	-8.38	3.49	6.23
	HEALTHCARE	-8.70	6.49	7.77	10.91
	MATERIALS	-12.31	-14.70	7.19	3.50
	FINANCIALS	-13.11	-13.03	8.93	7.32
	COMMUNICATION SERVICES	-13.19	-14.75	8.04	9.55
	CONSUMER DISCRETIONARY	-16.42	0.87	10.79	10.79
	INDUSTRIALS	-17.24	-13.25	7.55	5.85
	INFORMATION TECHNOLOGY	-17.34	-0.05	18.42	15.37
	ENERGY	-23.78	-18.08	1.06	-5.82

The spread between the top- and bottom-performing sectors was particularly high during the quarter at just over 25%. Only utilities earned a positive total return. Other defensive sectors showed modest losses but outperformed the S&P 500. Defensive leadership is common in volatile markets as investors seek lower-beta alternatives within the equity asset class. An outsized crude oil price decline surprised many investors and led to especially weak energy sector performance.

Data Source: FactSet. All returns quoted in US dollars. Performance for one and multi-year periods is annualized. Sorted by index quarterly returns. Due to rounding, sector totals may not equal 100%. Past performance is no guarantee of future results.





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VP, Macro Analyst

## Disclosure

*All data as of December 31, 2018, unless otherwise noted.*

*This commentary is provided for informational purposes only and should not be construed as investment advice. Any opinions or forecasts contained herein reflect the subjective judgments and assumptions of the authors only and do not necessarily reflect the views of Loomis, Sayles & Company, L.P. Investment recommendations may be inconsistent with these opinions. There is no assurance that developments will transpire as forecasted and actual results will be different. Data and analysis do not represent the actual or expected future performance of any investment product. Information, including that obtained from outside sources, is believed to be correct, but Loomis Sayles cannot guarantee its accuracy. This information is subject to change at any time without notice.*

***Past performance is no guarantee of future results.***

*Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.*

*Investing involves risk including possible loss of principal.*

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## Index Definitions

***Bloomberg Barclays US Aggregate Bond Index*** represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the US investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

***Bloomberg Barclays US Government/Credit Index*** includes securities in the government and credit indices. The government index includes treasuries -i.e., public obligations of the US Treasury that have remaining maturities of more than one year and agencies -i.e., publicly issued debt of US Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the US Government. The credit index includes publicly issued US corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

***Bloomberg Barclays US Treasury Index*** includes public obligations of the US Treasury with at least one year until final maturity, excluding certain special issues such as state and local government series bonds -SLGs, US Treasury TIPS and STRIPS.

***Bloomberg Barclays US Treasury Inflation Protected Securities Index*** consists of inflation-protection securities issued by the US Treasury that have at least one year to maturity and at least \$250 million par amount outstanding.

***Bloomberg Barclays US Agency Index*** includes agency securities that are publicly issued by US Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the US Government -such as USAID securities.

***Bloomberg Barclays US Municipal Index*** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. The index has four main sectors: general obligation bonds, revenue bonds, insured bonds -including all insured bonds with a Aaa/AAA rating, and prerefunded bonds.

***Bloomberg Barclays Mortgage-Backed Securities -MBS Index*** is a component of the Bloomberg Barclays Aggregate Index covering mortgage-backed pass-through securities of Ginnie Mae -GNMA, Fannie Mae -FNMA and Freddie Mac -FHLMC. The MBS Index is formed by grouping the universe of over 600,000 individual fixed rate MBS pools into approximately 3,500 generic aggregates.



**Bloomberg Barclays Asset-Backed Securities -ABS Index** is a component of the Bloomberg Barclays US Aggregate Index including pass-through, bullet and controlled amortization structures. The ABS Index includes only the senior class of each ABS issue and the ERISA-eligible B and C tranche. Constituents must have an average life of at least one year and a deal size of at least 500 million.

**Bloomberg Barclays Commercial Mortgage-Backed Securities -CMBS ERISA-Eligible Index** is a component of the Bloomberg Barclays US Aggregate Index and the ERISA-eligible component of the Bloomberg Barclays CMBS Index. This index, which includes investment grade securities that are ERISA eligible under the underwriter's exemption, is the only CMBS sector that is included in the US Aggregate Index.

**Bloomberg Barclays US Corporate Index** contains publicly issued US corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity and quality requirements. To qualify, bonds must be SEC-registered. The index includes both corporate and non-corporate sectors. The corporate sectors are Industrial, Utility, and Finance, which include both US and non-US corporations. The non-corporate sectors are Sovereign, Supranational, Foreign Agency, and Foreign Local Government.

**Bloomberg Barclays Euro-Aggregate Corporate Index** consists of bonds issued in the euro or the legacy currencies of the 16 sovereign countries participating in the European Monetary Union -EMU. All issues must be investment grade-rated, fixed-rate securities with at least one year remaining to maturity. The Euro-Aggregate Index excludes convertible securities, floating rate notes, perpetual notes, warrants, linked bonds, and structured products.

**Bloomberg Barclays Sterling Aggregate Corporate Index** is a broad-based benchmark that measures the investment grade, fixed-rate, taxable, corporate sterling-denominated bond market. Inclusion is based on the currency of the issue, not the domicile of the issuer. The index includes publically issued securities from industrial, utility, and financial companies that meet specified maturity, liquidity and quality requirements.

**Bloomberg Barclays US Corporate High-Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets -sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch are excluded, but Canadian and global bonds -SEC registered of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds -PIKs, as of October 1, 2009 are also included.

**Bloomberg Barclays Pan-European High-Yield Index** covers the universe of fixed-rate, sub-investment grade debt denominated in euros or other European currencies -except Swiss francs. Securities must be rated high-yield -Ba1/BB+ or lower by at least two of the following rating agencies: Moody's, S&P, Fitch. Excludes emerging markets.

**S&P/LSTA Leveraged Loan Index**, is a market value-weighted index designed to measure the performance of the US leveraged loan market based upon market weightings, spreads and interest payments.

**Citigroup World Government Bond Index -WGBI** measures the performance of fixed-rate, local currency, investment grade sovereign bonds. The WGBI is a widely used benchmark that currently comprises sovereign debt from over 20 countries, denominated in a variety of currencies. The WGBI provides a broad benchmark for the global sovereign fixed income market.

**JPMorgan Emerging Markets Bond Index Global -EMBIG** tracks total returns for US dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds.

**JPMorgan Corporate Emerging Markets Bond Index -CEMBI Broad Diversified** tracks total returns of US dollar-denominated debt instruments issued by corporate entities in emerging markets countries. The CEMBI Broad is the most comprehensive corporate benchmark followed by the CEMBI, which consists of an investable universe of corporate bonds.





**JPMorgan Government Bond Index—Emerging Markets -GBI-EM Global Diversified** provides a comprehensive measure of local currency denominated, fixed rate, government debt issued in emerging markets.

**Standard & Poor's 500 -S&P 500® Index** is a market capitalization-weighted Index of approximately 500 common stocks chosen for market size, liquidity, and industry group representation to measure broad US equity performance. S&P 500® is a registered service mark of McGraw-Hill Companies, Inc.

**MSCI All Country World** is a market cap weighted index of stocks from developed and emerging markets providing a broad measure of global equity-market performance.

**MSCI Europe** is a free float-adjusted market cap index measuring equity market performance of the large and mid cap segments across European developed markets.

**MSCI Japan** is a free float-adjusted market cap index measuring equity market performance of the large and mid cap segments of the Japanese market.

**MSCI Emerging Markets Index** is a free float-adjusted market cap index measuring equity market performance of emerging markets.

**Russell 1000® Index** measures the performance of the large cap segment of the US equity universe. It is a subset of the Russell 3000 Index and includes approximately 1000 of the largest securities based on a combination of their market cap and current index membership.

**Russell 1000® Growth Index** measures the performance of the large cap growth segment of the US equity universe. It includes those Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values.

**Russell 1000® Value Index** measures the performance of the large cap value segment of the US equity universe. It includes those Russell 1000 Index companies with lower price-to-book ratios and lower expected growth values.

**Russell Midcap® Index** measures the performance of the mid cap segment of the US equity universe. The Russell Midcap is a subset of the Russell 1000 Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership.

**Russell Midcap® Growth Index** measures the performance of the mid cap growth segment of the US equity universe. It includes those Russell Midcap Index companies with higher price-to-book ratios and higher forecasted growth values.

**Russell Midcap® Value Index** measures the performance of the mid cap value segment of the US equity universe. It includes those Russell Midcap Index companies with lower price-to-book ratios and lower forecasted growth values.

**Russell 2000® Index** measures the performance of the small cap segment of the US equity universe. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

**Russell 2000® Growth Index** measures the performance of the small cap growth segment of the US equity universe. It includes those Russell 2000 Index companies with higher price-to-value ratios and higher forecasted growth values.

**Russell 2000® Value Index** measures the performance of small cap value segment of the US equity universe. It includes those Russell 2000 Index companies with lower price-to-book ratios and lower forecasted growth values.

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