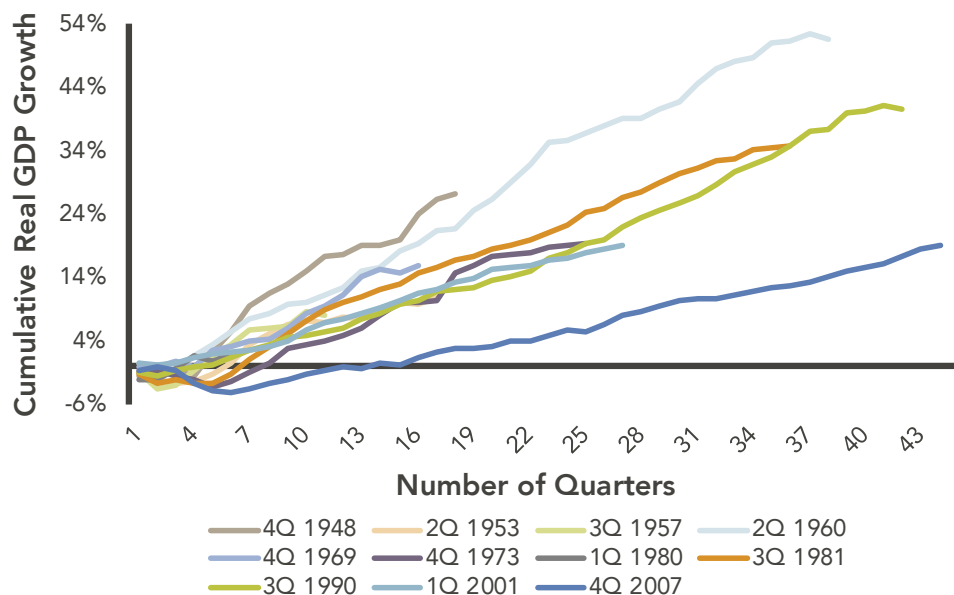


First Quarter Review of Asset Allocation

Heading into 2019, the primary risks facing financial markets were the trade war with China, the U.S. government shutdown, Brexit uncertainty, and further Fed rate hikes. However, in the first quarter the majority of these worries subsided. Although there is no further clarity around Brexit, the government shutdown was resolved, while the Fed has reversed course and now seems more likely to cut rather than raise interest rates. Trade negotiations with China are still ongoing but showing promise, with no new tariffs or increases expected. U.S. economic fundamentals also remain strong, with stable inflation, low unemployment, and steady GDP growth. As shown below, the current expansion is one of the longest on record, but cumulative growth has been modest.

Exhibit 1: Economic Growth Continues



Sources: BEA, NBER, JPM

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FIXED INCOME

Exhibit 2: Credit, Long Duration, and EM Lead in First Quarter for Fixed Income

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
Broad Market Indices							
Blm BC Aggregate	1.9	2.9	2.9	4.5	2.0	2.7	3.8
Intermediate Indices							
Blm BC Int. Gov./Credit	1.4	2.3	2.3	4.2	1.7	2.1	3.1
Government Only Indices							
Blm BC Long Gov.	5.2	4.6	4.6	6.2	1.5	5.4	5.2
Blm BC Int. Gov.	1.2	1.6	1.6	3.8	1.0	1.7	2.0
Blm BC 1-3 Year Gov.	0.6	1.0	1.0	2.7	1.0	1.0	1.1
Blm BC U.S. TIPS	1.8	3.2	3.2	2.7	1.7	1.9	3.4
Credit Indices							
Blm BC U.S. Long Credit	4.3	7.9	7.9	4.6	5.2	5.4	9.0
Blm BC High Yield	0.9	7.3	7.3	5.9	8.6	4.7	11.3
CS Leveraged Loan Index	-0.1	3.8	3.8	3.3	5.9	3.8	8.0
Securitized Bond Indices							
Blm BC MBS	1.5	2.2	2.2	4.4	1.8	2.6	3.1
Blm BC ABS	0.7	1.5	1.5	3.7	1.8	1.9	3.9
Blm BC CMBS	1.7	3.2	3.2	5.5	2.6	3.0	8.0
Non-U.S. Indices							
Blm BC Global Agg Hedged	1.8	3.0	3.0	4.9	2.8	3.6	4.1
JPM EMBI Global Diversified	1.4	7.0	7.0	4.2	5.8	5.4	8.5
JPM GBI-EM Global Diversified	0.6	2.7	2.7	3.5	6.3	6.7	7.8
Municipal Indices							
Blm BC Municipal 5 Year	1.6	2.9	2.9	5.4	2.7	3.7	4.7
Blm BC HY Municipal	2.6	3.8	3.8	8.1	6.1	6.1	8.7

Source: Bloomberg Barclays, Credit Suisse, JPMorgan as of March 31, 2019

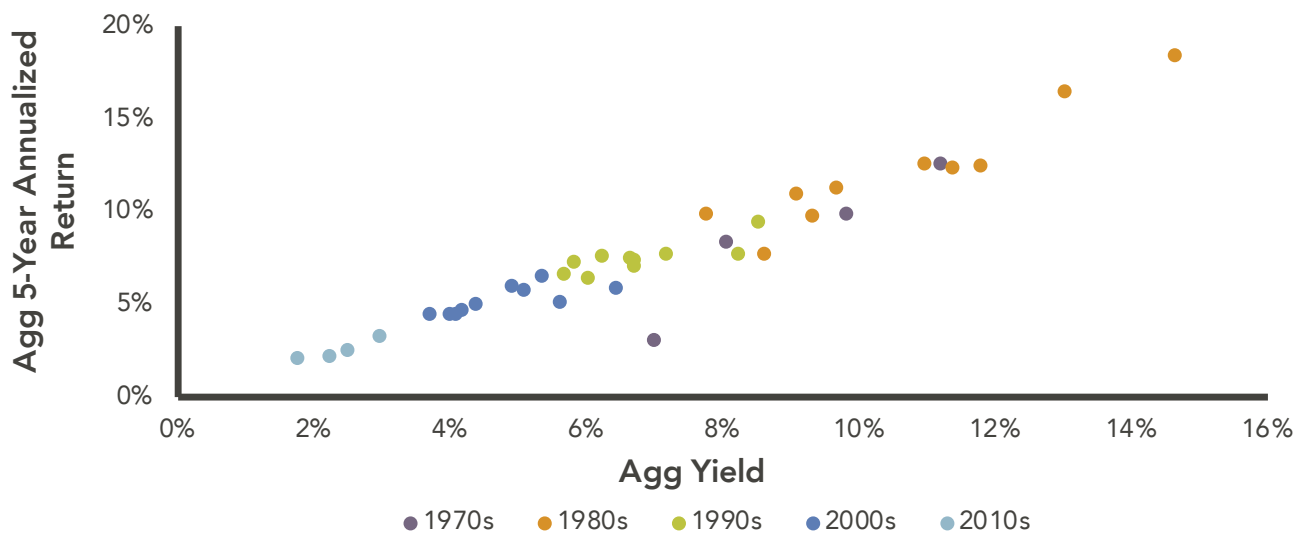
After a marked rebound in January and February following the fourth quarter 2018 dislocation, investors shifted into safe-haven assets in March as the 10-year declined and the yield curve inverted further, mostly due to additional global growth concerns as expressed by updated data from China and the OECD. The yield curve remains inverted in the 2 year to 5 year range but the March inversion that we saw in the 1 year to 10 year range has since returned to its typical positive sloping shape. Critically, there has not yet been inversion between the 2-year and 10-year Treasury yields, which is the bellwether for curve inversion and subsequent recessions and market corrections. The previous three recessions had inversions in all three of these aforementioned ranges.

Furthermore, the massive Japanese, Chinese and European ownership of long U.S. Treasury bonds has helped to depress longer-term yields and thus dilutes the credibility of yield curve inversion as a predictor of a looming recession and/or market correction. Our recent newsletter covered the March 22 curve inversion in greater detail and can be found [here](#).

Spreads for bank loans, high yield bonds and emerging markets debt are now roughly halfway between their respective long-term averages (excluding 2008 and 2009) and all-time tights, a position that indicates limited value. A concern is that bank loan and high yield aggressive issuance is now at elevated levels, as new issuance use of proceeds towards acquisitions/LBOs for both bank loan and high yield bonds are around 2007 levels, at least based on first quarter deals. However, other fundamentals such as leverage and issuance amounts are not concerning, although high yield leverage ticked up last month and is now at its long-term average. Emerging markets debt is showing moderate value but with volatility expected to continue. Municipal bonds are still attractive for taxable investors based on favorable tax-equivalent yields and tailwinds from net negative supply.

Looking forward, while the yield curve remains inverted in the 2–5 year range, the 1-10 inversion has abated and the 10s/2s have not yet inverted. If the Fed keeps rates steady or cuts rates, economic growth may pick up from its current pace and a more upward sloping curve should follow. However, if the Fed were to reverse course from its most recent guidance and proceed to hike rates further, we would expect inversion to intensify and a recession could become more of a realistic threat to the economy and financial markets.

Exhibit 3: Starting Yields vs. Forward 5-Year Annualized Returns



Source: Bloomberg; latest data available as of March 2019

As bond yields are much higher today than they were only three years ago, fixed income investors expect higher returns in the future. Exhibit 3 examines the relationship between historical yields and their five year forward returns. We can see that there is a strong linear relationship: the higher the yields at each starting point, the higher the returns in the following years. Given where rates have been and where they are today, fixed income investors are expected to benefit from stronger annualized returns over the next five years compared to each point over the last 10 years since the Great Recession.

U.S. EQUITY

Exhibit 4: All U.S. Equity Sectors Deliver Double Digit Returns in First Quarter

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
Broad Market Indices							
Dow Jones	0.2	11.8	11.8	10.1	16.4	12.2	16.0
Wilshire 5000	1.5	14.1	14.1	8.9	13.6	10.5	16.0
Russell 3000	1.5	14.0	14.0	8.8	13.5	10.4	16.0
Large-Cap Market Indices							
S&P 500	1.9	13.6	13.6	9.5	13.5	10.9	15.9
Russell 1000	1.7	14.0	14.0	9.3	13.5	10.6	16.0
Russell 1000 Value	0.6	11.9	11.9	5.7	10.5	7.7	14.5
Russell 1000 Growth	2.8	16.1	16.1	12.7	16.5	13.5	17.5
Mid-Cap Market Indices							
Russell MidCap	0.9	16.5	16.5	6.5	11.8	8.8	16.9
Russell MidCap Value	0.5	14.4	14.4	2.9	9.5	7.2	16.4
Russell MidCap Growth	1.3	19.6	19.6	11.5	15.1	10.9	17.6
Small-Cap Market Indices							
Russell 2000	-2.1	14.6	14.6	2.0	12.9	7.1	15.4
Russell 2000 Value	-2.9	11.9	11.9	0.2	10.9	5.6	14.1
Russell 2000 Growth	-1.4	17.1	17.1	3.9	14.9	8.4	16.5

Source: Morningstar Direct

At the end of 2018, the S&P 500 had delivered its worst December since 1931, the Russell 2000 had its worst monthly performance ever, and at its trough the S&P 500 fell within 0.40% of a full-on bear market. No one could have predicted the strength of the market rebound in the first quarter and the recovery has been almost as swift as the market decline. The S&P 500 has returned 13.6% year-to-date with most of the gain coming in January. Not surprisingly there is a lot of good news to report: we saw the best January since 1987 and the best quarter since 1998, every sector was up, and market breadth — an indication of the number of stocks advancing relative to the number of stocks declining — was high.

However, we cannot say things are exactly as they were. Investors did not entirely shun defensive sectors like Real Estate, up 17.5%, and Consumer Staples, up 15.7%, for cyclical sectors like Technology, up 20.7%, and Industrials, up 17.2%. Some themes like the outperformance of growth over value re-emerged in 2019, but the outperformance was much weaker than what investors saw in 2017 and the majority of 2018. In addition, investors favored smaller stocks over their larger, multinational peers. At the end of the quarter, the S&P 500 was trading at 17.0x forward earnings, which is slightly above the 10-year historical average.

The market was pessimistic about the fading effects of tax reform, a hawkish Fed, the government shutdown, and slowing global growth (i.e. trade tensions) leading to an imminent recession at the end of 2018. Per our comments in the [2019 market preview](#), we thought the market was oversold. Many of these issues have been

resolved almost in lockstep with the market rebound. Earnings growth will be lower in 2019 (current estimates are ~4%), but critically, remain positive. The Fed announced that it was unlikely to hike rates for the remainder of the year and the government shutdown concluded. Slowing global growth and the U.S.–China trade dispute continue to be significant risks for equity markets to the downside and a ceiling for further upside in 2019. Ultimately, we continue to be in ‘wait and see’ mode until there are further resolutions to these issues.

NON-U.S. EQUITY

 **Exhibit 5:** Sharp Rebound for Non-U.S. Equities in First Quarter

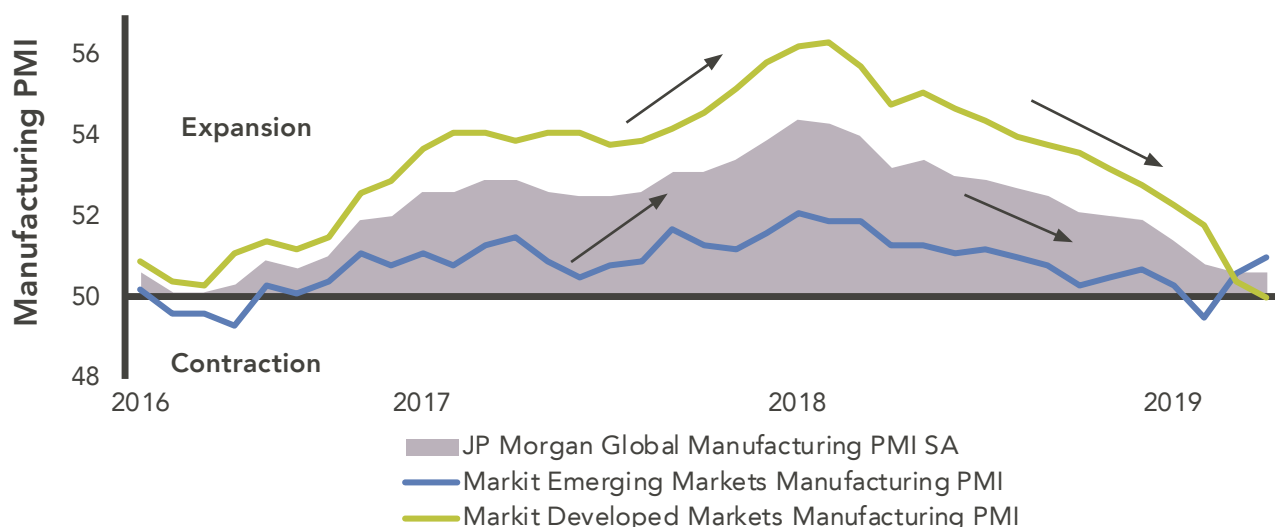
	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
MSCI ACWI ex. U.S.	0.6	10.3	10.3	-4.2	8.1	2.6	8.9
MSCI EAFE	0.6	10.0	10.0	-3.7	7.3	2.3	9.0
MSCI EAFE Local	1.3	10.6	10.6	2.8	8.5	6.0	9.8
MSCI Emerging Markets	0.8	9.9	9.9	-7.4	10.7	3.7	8.9
MSCI EM Local	1.4	9.8	9.8	-1.9	11.3	7.1	10.2
MSCI EAFE Small-Cap	0.2	10.7	10.7	-9.4	7.5	4.5	12.8
MSCI EM Small-Cap	0.9	7.8	7.8	-12.4	6.0	1.8	10.4
MSCI Frontier	1.2	6.9	6.9	-15.0	6.9	0.6	7.5

Source: Bloomberg

After a tough 2018 that produced double digit losses, non-U.S. stocks have rebounded in 2019. Both developed and emerging markets have generated a 10% return through the first quarter. Last year’s sell-off was largely due to a dramatic rise in global uncertainty and a notable slowdown in economic and earnings growth momentum. This year, improved U.S.–China trade relations has fueled investor optimism. Additionally, central banks in the U.S., China, and Europe have reacted to weaker global growth with more accommodative stances, a welcomed position from markets.

As of yet there has not been a material improvement in global economic activity and earnings momentum remains under pressure. In the UK, the Brexit event is still unresolved even though we have moved past the original March 31st exit date. Investors should also note that while the U.S.–China trade relationship appears to be improving, negotiations are still ongoing. The previous three points should dampen investor expectations as the remainder of the year unfolds.

Exhibit 6: Manufacturing Slowdown Across the Globe



Source: Bloomberg

HEDGE FUNDS

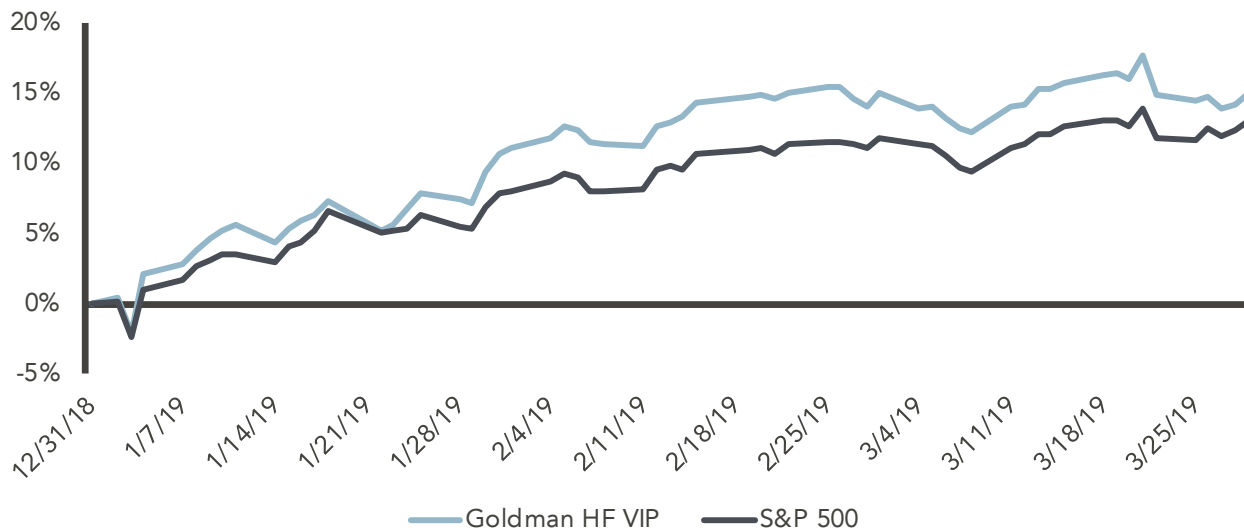
Exhibit 7: Strong Start for Hedge Funds

	Month (%)	3-Month (%)	YTD (%)	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)
HFRX Global	-0.2	2.6	2.6	-3.3	1.9	-0.3	1.7
HFRX Hedged Equity	0.8	6.0	6.0	-5.1	2.9	0.7	1.9
HFRI Composite	1.0	5.9	5.9	0.9	5.1	3.1	5.5
HFRI Fund of Funds	1.3	5.0	5.0	0.5	4.1	2.3	3.6
HFRI Convertible Arbitrage	1.4	5.6	5.6	1.5	5.6	3.5	8.2
HFRI Equity Hedge	0.7	7.9	7.9	-0.1	6.8	3.6	6.5
HFRI Event-Driven	0.0	4.2	4.2	1.9	6.9	3.0	6.9
HFRI Macro	2.1	2.9	2.9	0.3	0.1	1.3	1.4
HFRI Merger Arbitrage	0.5	2.7	2.7	6.0	4.4	3.7	4.1
HFRI Relative Value	0.5	3.8	3.8	2.9	5.5	3.5	6.9

Source: Bloomberg

Hedge fund strategies concluded their strongest first quarter performance since 2006. Equity hedge managers led all strategies during the quarter, as risk tolerances of managers and equity markets recovered. Event-driven strategies had a strong start to the year led by activist managers. Macro hedge funds were led by quantitative, trend-following strategies which profited as U.S. interest rates fell. Relative value strategies benefited from late quarter fixed income gains. Going forward we are expecting higher market volatility as companies begin to report first quarter earnings. Earnings growth is likely to slip causing market volatility to rise and managers who are actively shorting and running with lower net exposure will be best situated for this environment.

Exhibit 8: Hedge Fund Favorites Rebounded



Source: Bloomberg

REAL ESTATE

Preliminary 1Q19 real estate returns have delivered a positive 1.42% gross return. The industrial sector continues to drive performance while retail write-downs and mark-to-market debt adjustments due to lower interest rates have detracted from performance. Real estate fundamentals are generally strong and should provide support for a continuation of moderate returns with an emphasis on income growth and a premium to fixed income over the near future. However, the macro picture is filled with uncertainty driven by a slowing economy, slower job growth, and potential negative impacts if an agreement is not established between the U.S. and China.

INFRASTRUCTURE

Investor appetite for stable cash flows and favorable risk-adjusted returns has driven demand for infrastructure investments over the last few years, particularly in this relatively low-yielding environment. With global accommodative policies seemingly coming to an end, investors may be wondering how infrastructure investments will react in a contractionary market environment.

The historically high levels of dry powder, new entrants into the market, and contractionary market environment generally present significant risk for infrastructure investments. However, it is not all doom and gloom for the asset class. Infrastructure assets vary by revenue type and contract, each of which has varying degrees of sensitivity to rising interest rates and inflation. We expect demand for infrastructure assets to be robust as investors seek favorable risk-adjusted returns and investment managers take advantage of opportunities in sectors and regions in need of upgrades and revitalization, in spite of slowing growth and geopolitical risks.

PRIVATE EQUITY

For private equity there are not yet benchmark performance numbers for 2019. However, we have seen the number of private equity backed businesses continue to grow as capital is increasingly deployed and private market fundamentals remain positive. Business revenue and profitability remained strong in 2018 with the tax benefit driving higher levels of cash generation for many small U.S.-focused private equity owned businesses.

The pace of fundraising in 2018 slowed from 2017's historical peak as fewer funds were raised globally which resulted in 20% less capital commitments from investors. However, dry powder continues to accumulate, particularly within large and mega funds, and competition for assets remains intense.

Secondary funds continue to face the most intense competition for assets as the lack of market volatility has produced lower discounts and hence lower expected returns. Overall private equity valuations contracted in 2018 from peak 2017 levels with the average middle market transactions at 9.0x EBITDA, representing a 27% discount to public markets (Russell 3000). The emergence of mega funds in both buyouts and venture capital continue to drive a lot of the headlines as managers have responded to robust investor interest in private markets. While we expect industry returns to decelerate to low double digits, we believe private equity still presents a relatively attractive investment opportunity for investors with strong fundamentals and discounted valuation multiples to public markets.

CONCLUSION

As Exhibit 9 shows, the winners and losers among asset classes displays great variability from year to year and realistically, quarter to quarter. The returns from all asset classes — particularly equities — was a welcome development during the first quarter but we caution investors to stay diversified and rebalance as appropriate. There are always potential disruptors to the financial markets and the most powerful tend to be largely unexpected. We will continue to monitor markets and developments as they occur to guide our clients to the most optimal portfolio decisions given the backdrop of program goals and risk tolerance. ■

Exhibit 9: Periodic Table of Asset Class Returns as of March 31, 2019

2019 YTD*	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	5yr	10yr
Mid Cap 16.5%	Real Estate 6.7%	Emerging Markets 37.3%	Small Cap 21.3%	Real Estate 13.3%	Large Cap 13.7%	Small Cap 38.8%	Intl Small Cap 20.0%	Real Estate 14.3%	Small Cap 26.9%	Emerging Markets 78.5%	Large Cap 10.9%	Mid Cap 16.9%
Commodities 15.0%	Bank Loans 1.1%	Intl Small Cap 33.0%	High Yield 17.1%	Intl Small Cap 9.6%	Mid Cap 13.2%	Mid Cap 34.8%	Emerging Markets 18.2%	Core Bond 7.8%	Mid Cap 25.5%	High Yield 58.2%	Broad U.S. Equities 10.4%	Broad U.S. Equities 16.0%
Small Cap 14.6%	Core Bond 0.0%	Broad Intl Equities 27.2%	Mid Cap 13.8%	Large Cap 1.4%	Broad U.S. Equities 12.6%	Broad U.S. Equities 33.6%	Intl Large Cap 17.3%	High Yield 5.0%	Intl Small Cap 22.0%	Intl Small Cap 46.8%	Real Estate 9.3%	Large Cap 15.9%
Broad U.S. Equities 14.0%	High Yield -2.1%	Intl Large Cap 25.0%	Broad U.S. Equities 12.7%	Core Bond 0.5%	Real Estate 11.8%	Large Cap 32.4%	Mid Cap 17.3%	Large Cap 2.1%	Emerging Markets 18.9%	Bank Loans 44.9%	Mid Cap 8.8%	Small Cap 15.4%
Large Cap 13.6%	Hedge Funds -4.0%	Large Cap 21.8%	Large Cap 12.0%	Broad U.S. Equities 0.5%	Core Bond 6.0%	Intl Small Cap 29.3%	Broad Intl Equities 16.8%	Bank Loans 1.8%	Broad U.S. Equities 16.9%	Broad Intl Equities 41.4%	Small Cap 7.1%	Intl Small Cap 12.8%
Intl Small Cap 10.7%	Large Cap -4.4%	Broad U.S. Equities 21.1%	Commodities 11.4%	Hedge Funds -0.3%	Small Cap 4.9%	Intl Large Cap 22.8%	Broad U.S. Equities 16.4%	Broad U.S. Equities 1.0%	High Yield 15.1%	Mid Cap 40.5%	High Yield 4.7%	High Yield 11.3%
Broad Intl Equities 10.3%	Broad U.S. Equities -5.2%	Mid Cap 18.5%	Emerging Markets 11.2%	Bank Loans -0.4%	Hedge Funds 3.4%	Broad Intl Equities 15.3%	Small Cap 16.3%	Commodities -1.2%	Large Cap 15.1%	Intl Large Cap 31.8%	Intl Small Cap 4.5%	Intl Large Cap 9.0%
Intl Large Cap 10.0%	Mid Cap -9.1%	Small Cap 14.6%	Bank Loans 9.9%	Intl Large Cap -0.8%	High Yield 2.5%	Real Estate 11.0%	Large Cap 16.0%	Mid Cap -1.5%	Real Estate 13.1%	Broad U.S. Equities 28.3%	Bank Loans 3.8%	Emerging Markets 8.9%
Emerging Markets 9.9%	Small Cap -11.0%	Hedge Funds 7.8%	Real Estate 8.0%	Mid Cap -2.4%	Bank Loans 2.1%	Hedge Funds 9.0%	High Yield 15.8%	Small Cap -4.2%	Broad Intl Equities 11.2%	Small Cap 27.2%	Emerging Markets 3.7%	Broad Intl Equities 8.8%
High Yield 7.3%	Intl Large Cap -13.8%	High Yield 7.5%	Broad Intl Equities 4.5%	Small Cap -4.4%	Emerging Markets -2.2%	High Yield 7.4%	Real Estate 10.5%	Hedge Funds -5.7%	Bank Loans 10.0%	Large Cap 26.5%	Core Bond 2.7%	Bank Loans 8.0%
Real Estate 6.7%	Commodities -13.8%	Real Estate 7.0%	Core Bond 2.6%	High Yield -4.5%	Broad Intl Equities -3.9%	Bank Loans 6.2%	Bank Loans 9.4%	Intl Large Cap -12.1%	Commodities 9.0%	Commodities 13.5%	Broad Intl Equities 2.6%	Real Estate 7.5%
Bank Loans 3.8%	Broad Intl Equities -14.2%	Commodities 5.8%	Intl Small Cap 2.2%	Broad Intl Equities -5.7%	Intl Large Cap -4.9%	Commodities -1.2%	Hedge Funds 4.8%	Broad Intl Equities -13.7%	Intl Large Cap 7.8%	Hedge Funds 11.5%	Intl Large Cap 2.3%	Core Bond 3.8%
Hedge Funds 3.7%	Emerging Markets -14.6%	Bank Loans 4.2%	Intl Large Cap 1.0%	Emerging Markets -14.9%	Intl Small Cap -4.9%	Core Bond -2.0%	Core Bond 4.2%	Intl Small Cap -15.9%	Core Bond 6.5%	Core Bond 5.9%	Hedge Funds 1.9%	Hedge Funds 3.5%
Core Bond 2.9%	Intl Small Cap -17.9%	Core Bond 3.5%	Hedge Funds 0.5%	Commodities -32.9%	Commodities -33.1%	Emerging Markets -2.6%	Commodities 0.1%	Emerging Markets -18.4%	Hedge Funds 5.7%	Real Estate -16.9%	Commodities -12.6%	Commodities -3.4%

Source: Bloomberg; please see next page for list of benchmarks

List of Benchmarks

Core Bond - Barclays Aggregate	Intl Large Cap - EAFE
High Yield - Barclays High Yield	Intl Small Cap - EAFE Small Cap
Bank Loans - CS Leveraged Loan	Emerging Markets - MSCI EM
Broad U.S. Equities - Russell 3000	Commodities - S&P GSCI
Large Cap - S&P 500	Hedge Funds - HFRI FoFs
Mid Cap - Russell Mid Cap	Real Estate - NCREIF
Small Cap - Russell 2000	
Broad Intl Equities - ACWI ex-U.S.	*Hedge Fund returns through 2/28/2019

*Real Estate returns through 12/31/2018

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