

# Market Quarterly

Chief Investment Office Reports

Q4 2016





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### **Macroeconomic Summary**

#### Improving economy leads to increased rates

- Proprietary BofAML Global Research tracking indicators estimate 4<sup>th</sup>-quarter growth of 2.5%\* SAAR for U.S. gross domestic product (GDP). This signals some moderation after solid 3<sup>rd</sup>-quarter growth of 3.2%. Firm consumption, steady job growth and rising confidence have been tailwinds. For 2016, BofAML Global Research expects growth of 1.6% and a gradual acceleration to 2.0% in 2017. Meanwhile headline inflation has continued to recover towards the Federal Reserve's target of 2.0%. Data improvement led the Federal Reserve to raise its policy rate in December.
- Globally, inflation has begun to recover, primarily on the passing effects of lower commodity prices. In China, producer prices began to grow in early 2012. In Japan and Europe, inflation has trailed that of the U.S. with the latter showing growing dispersion on a country basis. Diverging inflation trajectories have meant increased focus on the implications for monetary policy. The Bank of Japan maintains its "yield curve control" program, while the European Central Bank continues its updated smaller but longer Quantitative Easing (QE) program.

### **Equities**

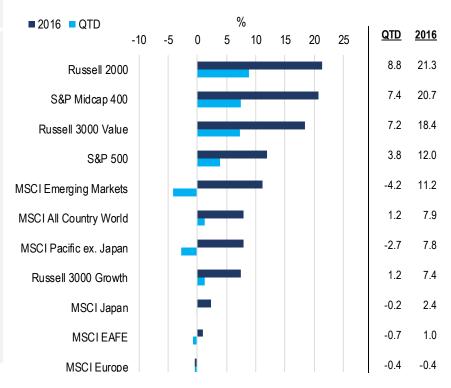
#### Equities rallied in Q4, driven by small caps

- Global equity performance overall was lower in the fourth quarter, with the MSCI All Country World Index (ACWI) up 1.2%, compared to third-quarter gain of 5.3%.
- In U.S. equity markets, the S&P 500 Index was up 3.8%. A post-presidential election rally was driven by small caps (Russell 2000: +21.3% for the year), while cyclical equities led defensives and value beat growth.
- Emerging Markets (EM) lagged international developed markets with returns of -4.2% versus +7.5%. Within Developed Markets, the North America region was the best performer, led by the United States (+3.4%). The MSCI Europe Index fell 0.4% in the fourth quarter. Within EMs, Asia fell -6.1%, with China (-7.1%) and South Korea (-5.6%) driving losses. Meanwhile, the Philippines was the region's worst performer, down 12.8%. In LatAm, Chile (+2.2%) continued its solid performance. Mexico fell victim to worries on external political conditions, falling 7.9%, while Brazil posted a marginal gain of 2.1% during the quarter.

#### **U.S. Macroeconomic Variables\***

	Q2'16	Q3'16	Q4'16 F	Q1'17 F	Q2'17F
Real GDP (% change, QoQ, SAAR)	1.4	3.2	2.5	1.5	1.5
CPI, Consumer Prices (% change, YoY)	1.1	1.1	1.8	2.6	2.4
Unemployment Rate (civilian, %)	4.9	4.9	4.7	4.7	4.7
Industrial Production (% SAAR)	-0.8	1.9	-1.0	1.2	1.4

### **Global Equities – Index Total Returns**





### **Fixed Income**

#### Fixed income suffered in the fourth quarter

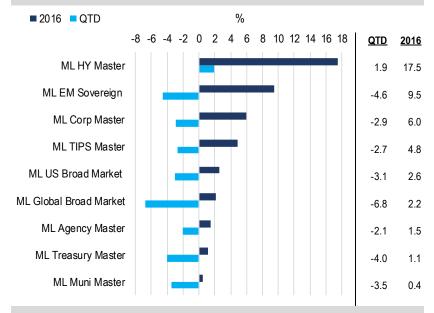
- The market's increased expectation for rising inflation and the Federal Reserve's decision to raise rates negatively affected long-duration investments in the fourth guarter. The ML Global Broad Market Index was down 6.8%.
- U.S. bonds fell 3.1%. U.S. Treasury notes and bonds were lower on aggregate by 4.0%. U.S. Corporates were down 2.9%, and U.S. Treasury Inflation-Protected Securities (TIPS) posted a 2.7% loss.
- The municipal bond market fell 3.5%. High Yield bonds led fixed income returns, rising 1.9% in the fourth quarter, contributing to a 17.5% year-to-date performance.
- EM sovereign debt performed well this year (+9.5%), notwithstanding this quarter's -2.6% result.

### **Alternative Investments**

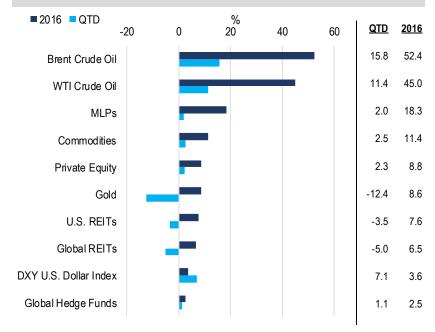
### **Commodities generally rose**

- Amid OPEC's decision to cut oil production and continued stabilization in China, the Bloomberg Commodity Index gained 2.7% in the fourth quarter. WTI crude and Brent crude rose 11.4% and 15.8%, respectively.
- Given rising expectations for tightening Fed policy, gold was hit hard, returning -12.8% during the quarter. This continues the third quarter's drop of 0.5%. For the year, the yellow metal still gained a respectable 8.1%.
- The DXY dollar index gained in the fourth quarter, rising 7.1%, resulting in an annual appreciation of 3.6%. The British pound was again a laggard, falling 4.9%, ending the year down 16.3%. EM currencies generally lagged versus the dollar.
- The HFRX Global Hedge Fund index rose 1.3%, while the LPX50 Private Equity Index rose 2.3%. U.S. Master Limited Partnerships (MLPs) rose 2.0%, while global Real Estate Investment Trusts (REITs) fell 5.8%.

#### Global Fixed Income - Index Total Returns



#### **Alternative Investments - Index Total Returns**



### Macroeconomic Outlook

Globally we look for a shift from secular stagnation to fiscal reflation. However, we expect uncertainty to persist amid this new era proceeding at different stages and speeds regionally.

- In the U.S., reacceleration from a mid-cycle slowdown is supported by improvement in capital spending and manufacturing exports. This improvement comes amid continued job growth and real wage gains and U.S. consumers entering a "feel good" phase. With inflation gradually rising, we expect one to three Fed rate increases in 2017.
- In Emerging Markets (EMs), Chinese economic growth has stabilized, while other EMs, like Brazil, are poised for a cyclical upswing. Many EMs are at the beginning of economic expansions. However, there are risks in potential protectionism, China's new growth paradigm, a stronger dollar and rising U.S. interest rates.
- Key drivers of our corporate profit outlook in 2017 are improved nominal growth, a recovery in resource sectors driven by easier comparisons and solid earnings from financials. We expect 2017 S&P 500 profits of \$129-\$138 per share.

### **Equity Outlook**

Shift from a defensive search to extracting value and increasing cyclical exposure.

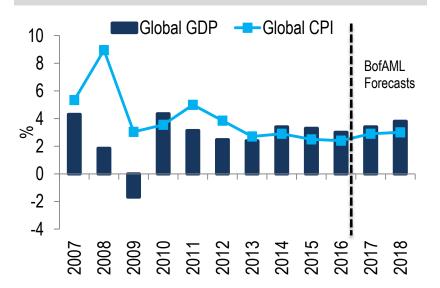
- Higher nominal growth, improving sales and earnings growth favor U.S. large cap
  equities. Rather than expanding multiples, performance is likely to be more driven
  by earnings growth. We favor value over growth as well as cyclical sectors, such as
  Consumer Discretionary, Financials, Energy and select industrial segments.
- We favor small cap equities on benefits from the potential for domesticallyfocused fiscal stimulus, lower corporate taxes and a lighter regulatory burden.

Globally, neutral int'l Developed Markets, while moderately positive on EMs.

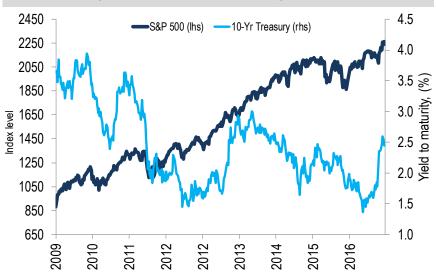
- We are moderately positive on EMs, given attractive valuations, improving
  economic activity and rising commodity prices. However, our enthusiasm is
  tempered by the risks of potential protectionism from the U.S., as well as spillover
  effects from a potentially higher U.S. dollar and rising interest rates. It is
  important to remain selective, focusing on reform-oriented countries, such as
  India, with the potential for a growing consumer class.
- For international Developed markets, we prefer Japan over Europe. The former
  provides an increasingly pro-cyclical environment with fiscal and monetary
  stimulus, which should result in a weaker yen and the potential for improving
  domestic demand. We are cautious on Europe, given major elections taking place
  in Germany, Netherlands, France and potentially Italy.



### Global growth and inflation are both likely to inch higher



### We expect stocks to continue to outperform bonds



Source: BofAML Global Economics Research, Bloomberg and GWIM Chief Investment Office. Data as of December 30, 2016. The economic and market forecasts presented are for informational purposes as of the date of this report. There can be no assurance that the forecasts will be achieved.

Past performance is no quarantee of future results.

### Fixed Income Outlook

We remain underweight fixed income, but emphasize that the asset class provides portfolio diversification, income and stability. We find opportunities selectively in credit.

- We recommend that investors maintain a slightly short duration in strategies appropriate for their risk tolerance and caution against over-allocating to longduration assets given unfavorable risk-reward trade-offs.
- We prefer credit over Treasuries, with an emphasis on investment-grade corporate bonds. While we also favor municipals over the intermediate-to-long term, we are cautious over the near term until discussions on tax reform bring greater clarity as to the eventual treatment of tax-exempt municipals. Given the upward bias of the U.S. dollar and unattractive yields, we are generally avoiding non-dollar sovereign bonds.

### Stick with active management with High Yield

 Valuations are fair-to-rich while fundamental risks, including the acceleration in default rates, lead us to be cautious on allocations to index-based solutions in High-Yield. Investments into High-Yield should be in managed solutions that overweight the higher end of the quality spectrum.

### **Alternative Investment Outlook**

#### **Neutral Commodities**

 Commodity markets are likely to remain range-bound in the near-term, weighed down by global economic policy uncertainty but held up by stable global cyclical momentum. For oil, the aforementioned factors are in addition to a credible inventory drawdown scenario. We believe oil prices will remain within the range of \$50-\$70 per barrel in 2017.

#### U.S. dollar firmer

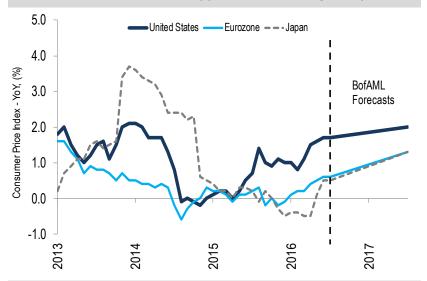
 Stronger U.S. growth and a potentially less dovish Federal Reserve policy (relative to those of other Developed Market central banks) support a stronger dollar going forward.

### Neutral on hedge funds, private equity and real estate as an asset class

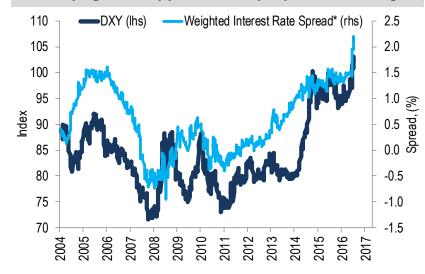
- We currently emphasize hedge fund strategies that have low-to-moderate levels
  of market exposure, as well as those whose managers can generate a large
  portion of their returns from asset selection and/or market timing.
- For private equity, we see potential opportunities in private credit, special situations and energy, as well as select opportunities in real estate.
- For real estate, we prefer opportunistic and value sectors.



### Low inflation should support fixed income globally



### Relatively high Treasury yields have helped push the dollar higher



Source: Bloomberg, BofAML Global Research (Top), Bloomberg (Bottom). Data as of December 30, 2016. \*Weighted interest rate spread calculated as U.S. five-year Treasury yield minus weighted five-year government bond yields of Europe, Japan, U.K., Canada, Sweden and Switzerland. Respective weights are same as those in the DXY Index. The economic and market forecasts presented are for informational purposes as of the date of this report. There can be no assurance that the forecasts will be achieved. Past performance is no quarantee of future results.

### Growth

Bounce back for U.S. growth versus a slower first half remains intact in 4<sup>th</sup> quarter. Eurozone and U.K. growth remains meager. China policy challenged.

- Encouraging survey data suggests the industrial sector is stabilizing, helping the more notable growth drivers of consumption and housing. These and a turn in the inventory cycle leads BofAML Global Research to expect fourth-quarter U.S. gross domestic product growth of 2.5% QoQ at a SAAR.
- As the U.K. & Eurozone meander through the uncertainty of Brexit along with structural headwinds, uncertainty remains high and growth prospects remain limited. BofAML Global Research expects fourth-quarter growth of 0.4% and 0.3% quarter-over-quarter for the Eurozone & U.K., respectively. In China, the government faces challenges in maintaining growth and financial stability.

### Inflation

### Inflation remains subdued but pressures are building.

• With the effects of a collapse in commodity prices subsiding, headline inflation figures have broadly increased across regions. Meanwhile, core measures of inflation that exclude food and energy are relatively stable.

### **Policy**

### The Fed has tightened. Negative interest regimes have lost favor.

As growth prospects increase along with inflationary pressures, the Fed has signaled
a base case of three hikes in 2017. This comes against a continued backdrop of
accommodative monetary policy from the Bank of England (BoE), the European
Central Bank (ECB) and the Bank of Japan (BoJ). However, we do believe that the
ECB may have reached the limits of the level of accommodation achievable through
quantitative easing.

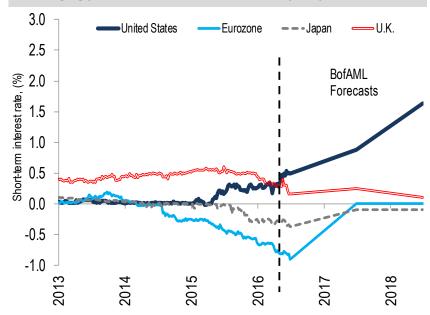
### **Risks**

### Global volatility expected to persist on increase in political risk & policy uncertainty.

 There is no shortage of risk as we enter 2017. The fallout from the U.S. elections along with Brexit and the Italian Referendum have fostered policy uncertainty. The risk of a Chinese policy mistake is an additional notable factor. Together these concerns should promote general investor uneasiness, leading to continued bouts of episodic volatility.







### **BofAML Global Research Key Economic Forecasts**

	<b>Annual GDP</b>	Forecasts (%)	Annual CPI	Forecasts (%)
	2017 E	2018 E	2017 E	2018 E
Global	3.4	3.8	2.9	3.0
U.S.	2.0	2.5	2.4	2.0
Global ex-U.S.	3.7	4.0	3.0	3.2
Euro area	1.4	1.5	1.2	1.3
Japan	1.5	1.2	1.3	1.2
EM	4.6	5.0	3.6	3.8
China	6.6	6.6	1.8	2.1



### **U.S.** Equities

### Projected fiscal stimulus & pro-growth policy beneficiaries rising.

- In U.S. equity markets, the S&P 500 was up 3.8% in the fourth quarter, with volatility ebbing after U.S. elections. Sectors projected to benefit from the incoming administration, including Financials and Energy, outperformed while Health Care and Consumer Staples struggled. Increased expectations for fiscal stimulus, less accommodative monetary policy and the reduction of regulation were drivers.
- Small-cap and value-oriented stocks outperformed, as prospects for enhanced domestically-sourced corporate growth increased.

### **International Developed**

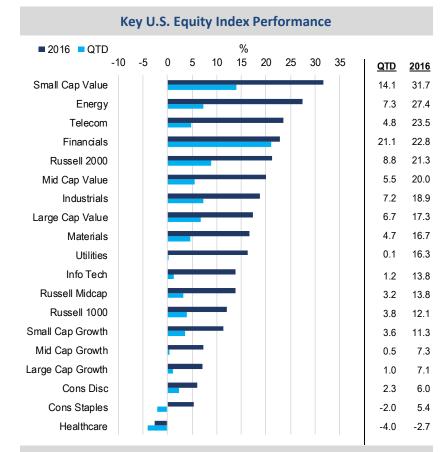
### Japan outperformed Europe, while both struggled relative to U.S.

- European equities lost 0.4% in the fourth quarter, ending the year flat-tonegative. Financial and Energy stocks were leaders, offset by Utilities and Consumer Staples.
- Japanese equities lost 0.2%, largely due to currency depreciation, reducing their full-year return to 2.4%. The yen gave up 13.4% versus the U.S. dollar in the fourth-quarter, a stunning turnaround which was not enough to erase total gains of 2.8% for the currency for the year.

### **Emerging Markets**

### Emerging Markets generally encountered a difficult fourth quarter.

- EM lost 4.2% during the fourth quarter, hindered by MSCI China having given up 7.1% and MSCI India having lost 8.0%. However, through the full year EM performed admirably, rewarding investors with returns of 11.2% in 2016.
- The MSCI EM Latin America Index lost 0.9% in the fourth quarter, dragged down by the performance of Mexico (-7.9%). Alternatively, MSCI Russia surged 18.6%.



BofAML Global Research Key Equity Forecasts				
Equity Index Level				
	December 30, 2016	2017 Year-end Estimate		
S&P 500	2239	2300		
Nikkei 225	19114	20000		
Shanghai Composite	3104	2600		
Hang Seng (HSCEI)	9395	8300		



### **U.S.** Treasuries

#### Amid rising rates, duration struggled.

 U.S. Treasuries, as measured by the ML U.S. Treasury Index, were down 4.0% in the fourth quarter and fell broadly. Amidst a Fed rate hike in the December meeting, investors were concerned with interest rate volatility and fled longerduration bonds. The 15+ year U.S. Treasury index was down 11.7%, while the 7-10-year maturities fell 5.5% in the quarter. TIPS were not fully spared, having lost 2.7%, but rose 4.8% for the year.

### **U.S.** Corporates

#### High Yield led returns as credit outperformed government issues.

- High Yield bonds outperformed in the fourth quarter relative to other fixed income sectors. The ML U.S. High Yield index rose 1.9%, as risks for default abated but duration considerations became more prominent to investors focus.
- The broad U.S. corporate index lost 2.8%, as credit performed a bit better than Treasuries but were not fully insulated from losses.

### Municipals

### Municipals were not spared from pressures in fixed income.

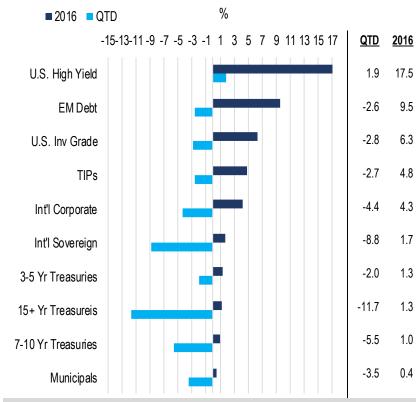
• The municipal bond market fell 3.5% in the fourth quarter, bringing year-to-date returns to 0.4%. Valuations relative to U.S. Treasuries remain attractive, and the tax-exempt status is not likely to be threatened in the near term.

### International

### International bonds were challenged after a strong start in 2016.

• EM dollar-denominated debt gave back some of the impressive gains accrued through the year, having lost 2.6% in the fourth quarter but adding 9.5% for the full year. International sovereign debt gave up 8.8% in returns, while international corporate bonds lost 4.4%.

### **Key Fixed Income Index Returns**



**BofAML Global Research Key Fixed Income Forecasts** 

Short-Term Policy Interest Rate (%)			
	Current	2017 Year-end Estimate	
U.S.	0.38	0.88	
Euro Area	0.00	0.00	
Japan	-0.10	-0.10	
Global	3.57	3.44	

### Commodities and real assets

### Commodities were mixed; oil and gas led gains while precious metals lagged.

- Commodities resumed their ascent during the fourth quarter, returning 2.6%. For the year, the asset class has returned 11.4%. Led by oil, commodities produced solid returns during the 2<sup>nd</sup> quarter on signs of stabilization in China and expectations that oversupply in the oil markets would diminish on falling output.
- Within oil markets, WTI and Brent crude gained 11.4% and 15.8%, respectively in Q4.
- Precious metals returned -14.0% in Q4, giving up large gains en route to full-year returns of 9.5%. In a tale of two halves of the year, investors have become more cautious on the outlook for monetary policy.

### Mixed performance among Master Limited Partnerships and REITs in the quarter.

 U.S. MLPs rose 2.0% in Q4, encouraging performance that was boosted by energy gains. Global Real Estate Investment Trusts lost 5.0% and U.S. REITs lost 3.5%, continuing their slide after solid performance in the first half of 2016. REIT performance was affected by a turnaround in the search for yield.

### **Currencies**

- The DXY dollar index advanced 7.1% after more contained appreciation in prior quarters. The prospects of a less accommodative Fed along with dovish European Central Bank and Bank of Japan policies have kept the currency in demand.
- The Japanese yen was the worst-performing currency within the developed world, falling 13.4% during the fourth quarter. The Turkish lira was the worst performer among emerging economies, giving up 14.8% through the quarter while the Russian ruble gained 2.2%.

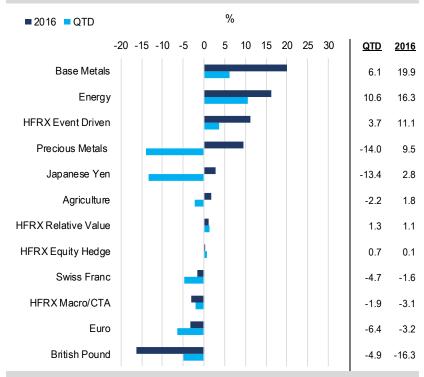
### **Hedge Funds**

### Hedge fund performance was mixed across different strategies.

• The HFRX Global Hedge Fund index rose 1.1% in the fourth quarter, resulting in a full year gain of 2.5%. Event-driven strategies were the best-performing segment for the third consecutive quarter, with a fourth-quarter gain of 3.7%, following a prior-quarter advance of 3.8%. Weighing on the aggregate were macro strategies, at -1.9% for the quarter.



### **Key Alternative Investment Index Returns**

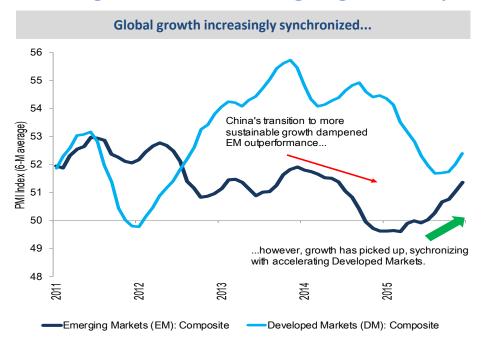


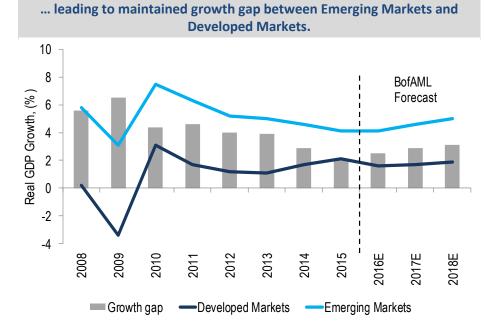
### **BofAML Global Research Key Currency & Commodity Forecasts**

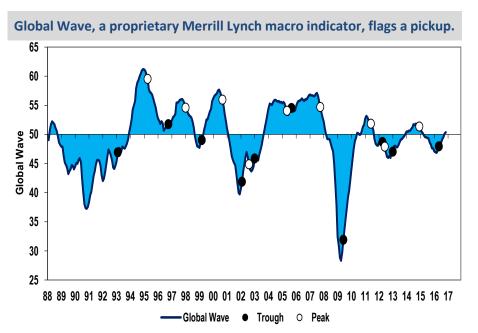
Price Target			
	December 30, 2016	*2017 Year-end Estimate ** 2017 period average	
EUR/USD*	1.05	1.05	
USD/JPY*	116.96	120.00	
USD/CNY*	6.95	7.25	
Brent Crude(\$/bbl)**	56.82	61.00	
WTI Crude (\$/bbl)**	53.72	59.00	
Gold (\$/oz)**	1151.70	1275.00	
Copper (\$/t)**	5535.50	5350.00	

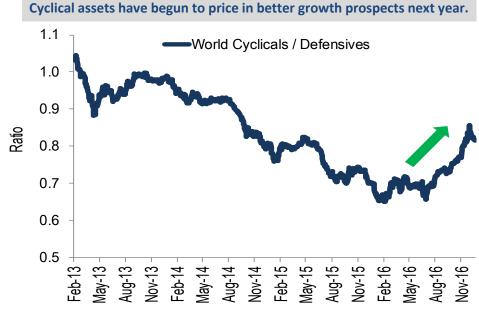
## Global growth showing signs of cyclical upturn.







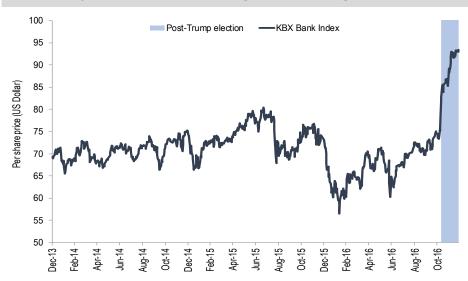




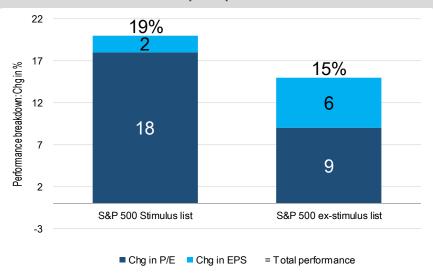
# The Trump administration is raising expectations for a flip in economic policy from monetary to fiscal stimulus.



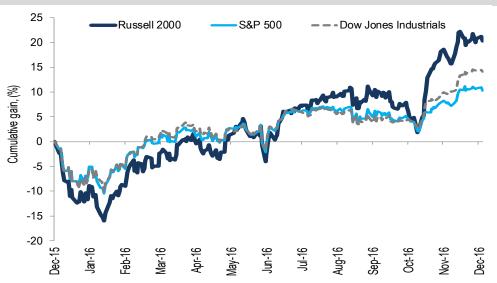
Financial companies have outperformed on the prospects of a steepening yield curve and accelerating U.S. economic growth.



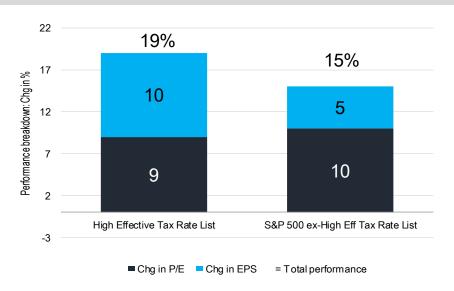
Markets have priced in increased spending from fiscal stimulus by way of multiple expansion...



Small Caps & Industrials have increased on rising expectations of business-friendly policies.



...However, tax reform beneficiaries have not seen as much of an expansion.

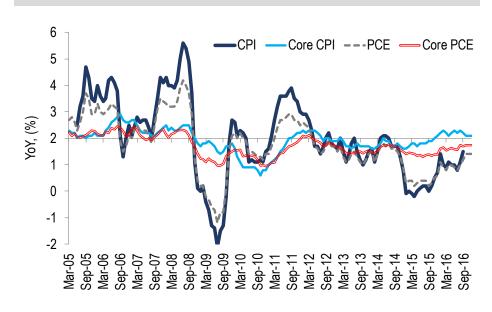


# In the U.S., expectations are for rising inflation on tightening Amerill Lynch Bank of America Corporation labor supply, coupled with pro-business economic policies.

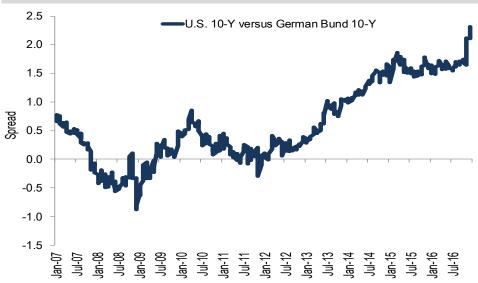




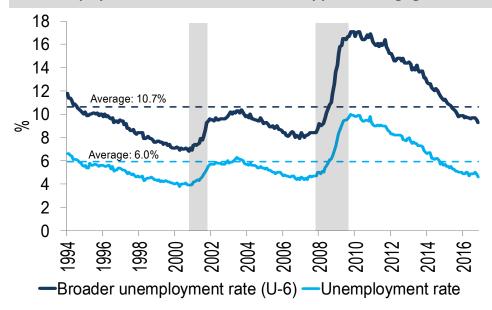
### Headline inflation has trended higher towards core inflation.



### Spread between U.S. and German bonds suggests markets expect higher inflation in the U.S. than Europe.



#### Unemployment rate has declined, which may pressure wage growth.

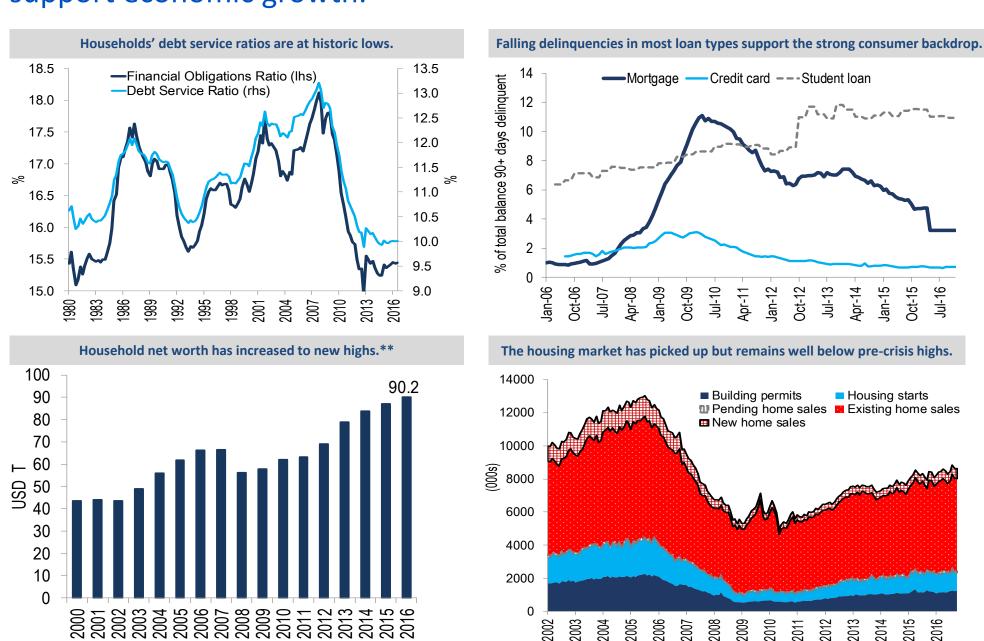


# In the U.S., better finances among households should help America Corporation



# support economic growth.

MACRO



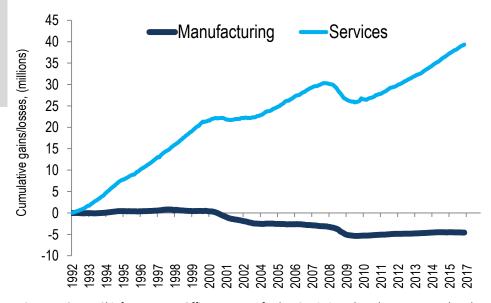
Source: GWIM Chief Investment Office; Federal Reserve; Bloomberg; Census Bureau. Data updated December 27, 2016. \*The household debt service ratio is the ratio of total required household debt payments to total disposable income. The financial obligations ratio is the ratio of mortgage payments, credit cards, property tax, lease payments, homeowner's insurance and rental payments to total disposable income. \*\*Household net worth is the value of all assets less all liabilities for households and nonprofit organizations, including hedge funds, private equity funds and personal trusts.

# Improvement of the U.S. labor market is ongoing, but structural shifts may drag on performance.

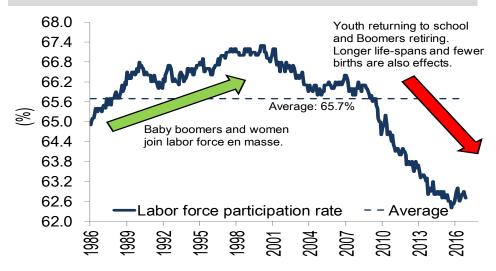




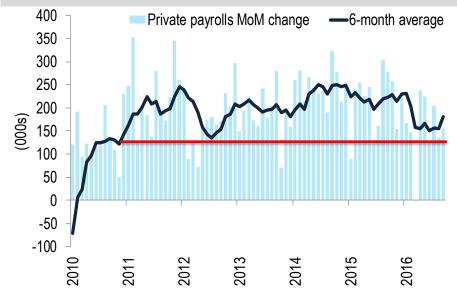
manufacturing jobs due to high labor costs and automation.



### But the labor participation rate has been steadily falling since 1999.

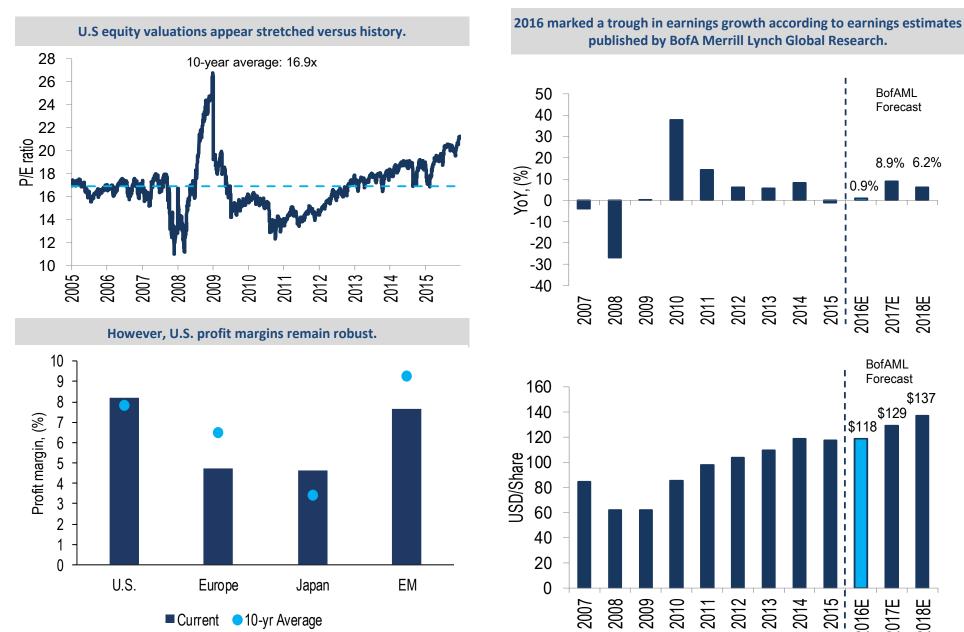


The result is developing drag in job growth: The six-month average of monthly private job creation is approaching lows of recovery and expansion.



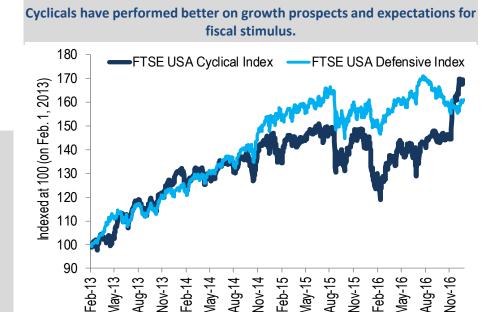
# In the U.S., improving fundamentals from a pickup in growth would justify stretched valuations.

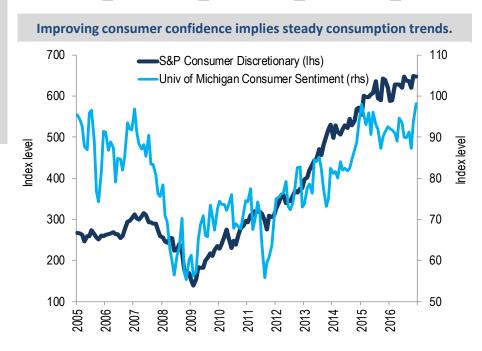




# Cyclical exposure makes sense on a pickup in economic activity over coming quarters.



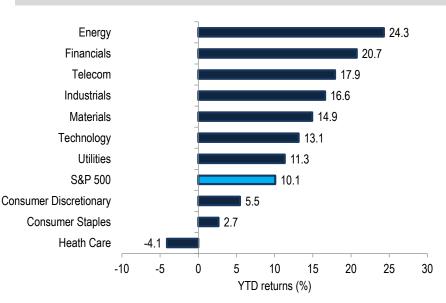






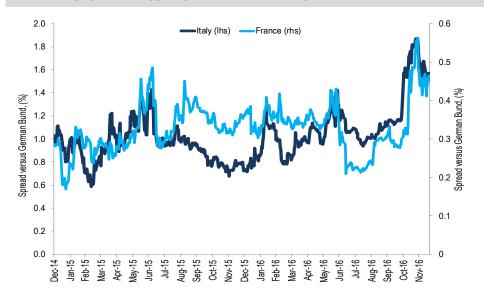


### Cyclical assets stormed back after an early set back.



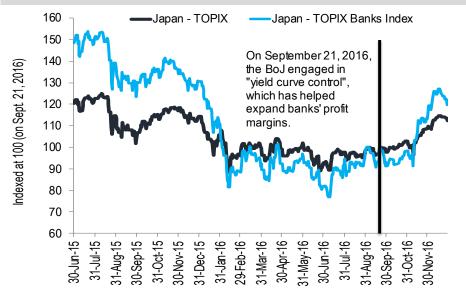
# International Developed Markets: Political risk remains a Merrill Lynch constraint for Europe. Japan is helped by fiscal and monetary stimulus.

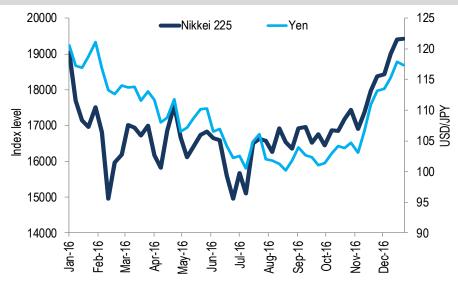
### Rising spreads suggest political risk in Europe remains elevated. Pivotal Dutch, French and German elections are slated to take place in 2017.



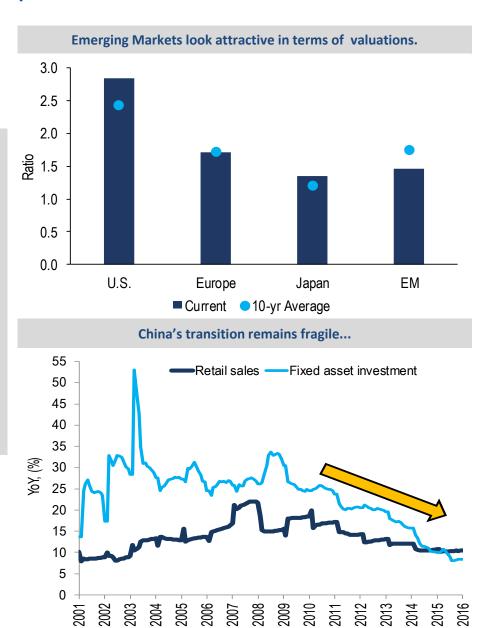
Date	Country	Event
Mar-2017	Netherlands	General parlimentary election
Apr-May 2017	France	Presidential election
Aug-Oct 2017	Germany	Federal election (Bundestag)

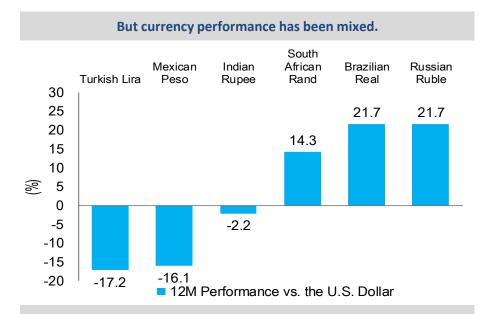
### A shift in Japan's monetary policy has helped the country's banks and weakened the yen. Markets signal improvement in the economic outlook.

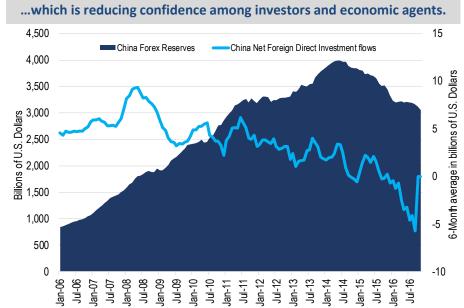




# Valuations for Emerging Markets are cheap, while commodity prices have rebounded. But China's transition could again rock the boat.





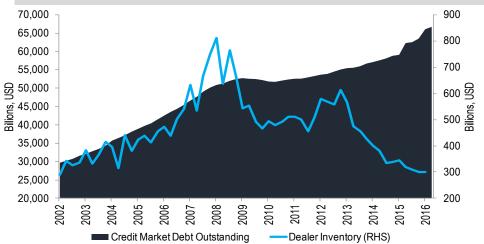


# Merrill Lynch Bank of America Corporation

# Bond market volatility is likely to pick up on liquidity sak of America concerns and uncertainty around the timing of policy rate changes.





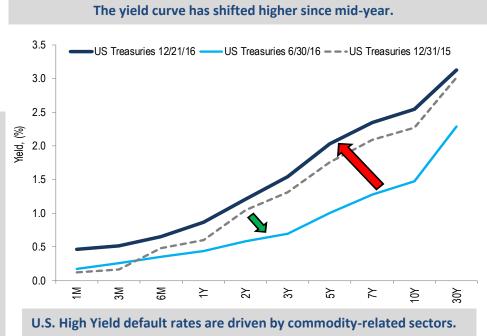


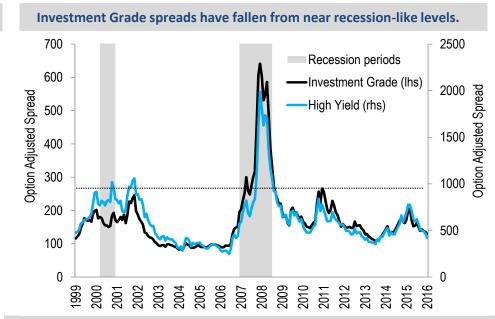
### BofAML's Move index, which measures bond volatility has risen.

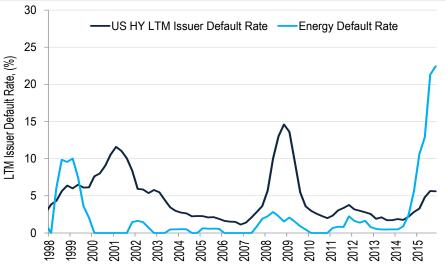




# Investment Grade bonds add value to a multi-asset portfolio due to their diversification and cash flow qualities.







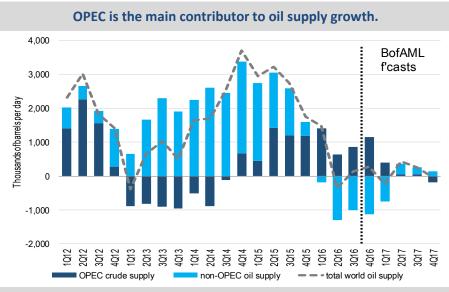
High-duration fixed income is most vulnerable to an increase in interest rates.

	Price Change for 1	Annual Income	Appx years of
	pct pt rise in yield	Ailluai ilicollie	income needed
	(1)	(2)	(1)/(2)
Treasury			
5-year	-4.7%	1.9%	2.5
10-year	-8.9%	2.4%	3.6
30-year	-19.7%	3.1%	6.5
Corporate bonds			
Investment grade	-6.8%	3.4%	2.0
High yield*	-4.7%	6.5%	2.1
Preferreds	-13.6%	6.2%	2.2
10-15 yr munis	-9.3%	3.7%	2.5

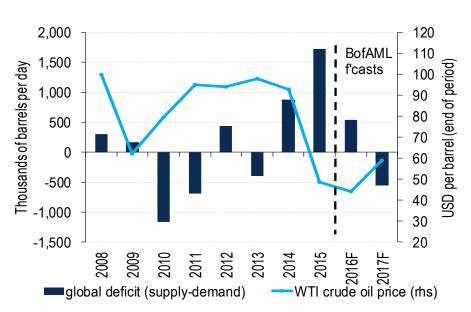
Source: GWIM Chief Investment Office. BofAML Global Research. Bloomberg. Top left chart data: as of December 21, 2016; Bottom right chart: As of December 30, 2016; High Yield assumes 6% default rate, 30% recovery. Rest of charts: data updated December 30, 2016. The economic and market forecasts presented are for informational purposes as of the date of this report. There can 22 be no assurance that the forecasts will be achieved. Past performance is no quarantee of future results.



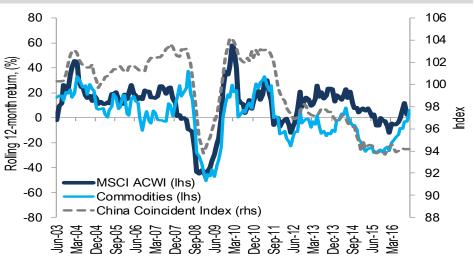
# Commodity prices have steadied on signs of reduced oversupply and stability in Emerging Markets.



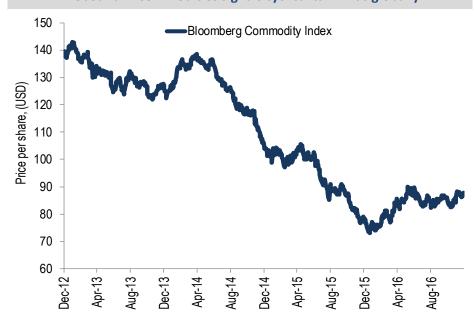
Oil prices remain pressured from supply/demand imbalances.



Stabilization in China has helped commodities and other risk assets.



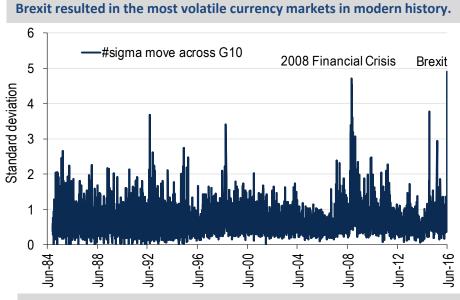
A rebound in commodities signals cyclical tailwinds globally.



Source: GWIM Chief Investment Office. BofAML Global Research. Bloomberg. Top and bottom left: data updated on December 22, 2016. Top and bottom right: data updated on December 29, 2016. The economic and market forecasts presented are for informational purposes as of the date of this report. There can be no assurance that the forecasts will be achieved.



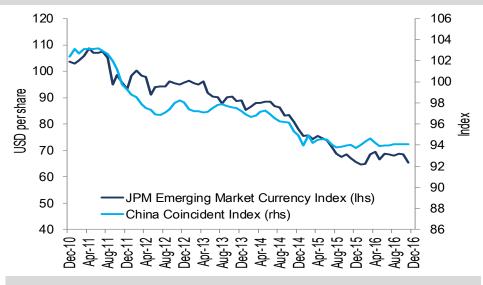
# Currency volatility may persist. Triggers may lie in heightened political risk and economic policy uncertainty.



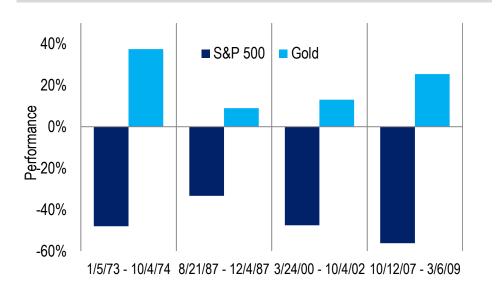
The effects of diverging economic policies are raising uncertainty.



**Emerging Market currencies may come under pressure if outflows persist.** 



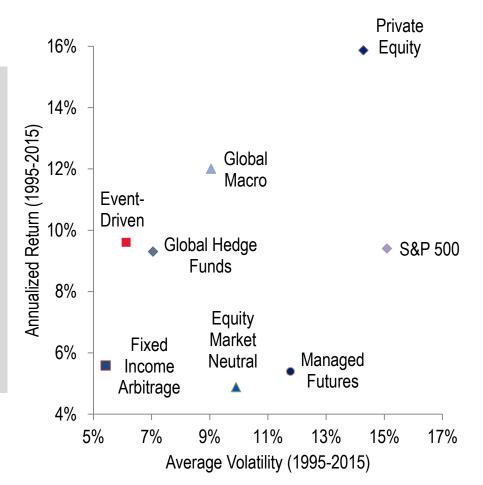
During times of turmoil, gold has served as a good hedge.

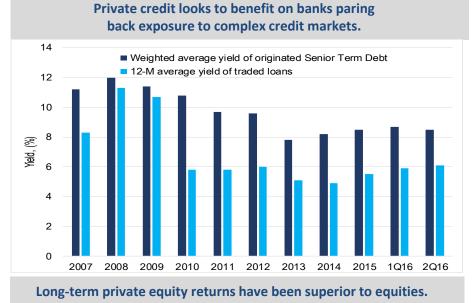


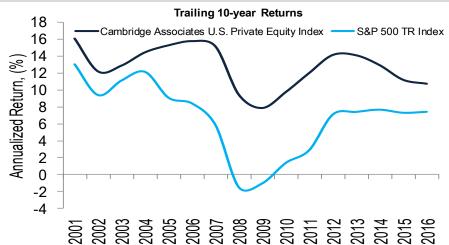


# For qualified investors, Alternative Investments can provide diversification and may help lower volatility.

Alternative Investments (AI) can complement portfolios by potentially lowering volatility and/or enhancing returns.



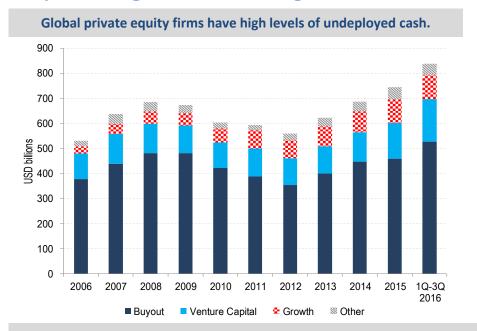


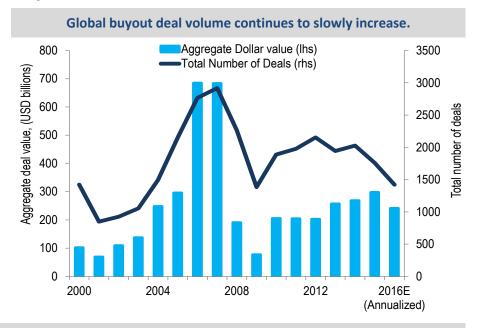


Source: (Left) Bloomberg. Strategies represented by respective Credit Suisse indexes, and Cambridge Associates Private Equity Index. (Top right) S&P. Ares Capital Corporation. Data as of Jun 30, 2016. (Bottom right) Cambridge Associates. Bloomberg. with data as of June 30, 2016. Asset allocation does not assure a profit or protect against a loss in declining markets. Results shown are based on indexes and are illustrative; they assume reinvestment of income, no transaction costs or taxes, and do not constitute a portfolio recommendation. They do not represent benchmarks or proxies for the return of any particular investable hedge fund product. Past performance is no guarantee of future results. The prerequisite for funds to be included in the components of the indices interjects a significant element of "survivor bias" into the reported levels of the indices, as generally only successful funds will continue to report results for the minimum time period required by the index. There can be no assurance that such funds will continue to be successful in the future. There is a "risk of ruin" in these strategies which has historically had a material effect on long-term performance but which is not reflected in performance volatility. From time to time, extremely low volatility alternative investments have incurred sudden and material losses. Alternative Investments are not appropriate for all investors based on factors such as risk tolerance and liquidity preferences. See appendix for more details.

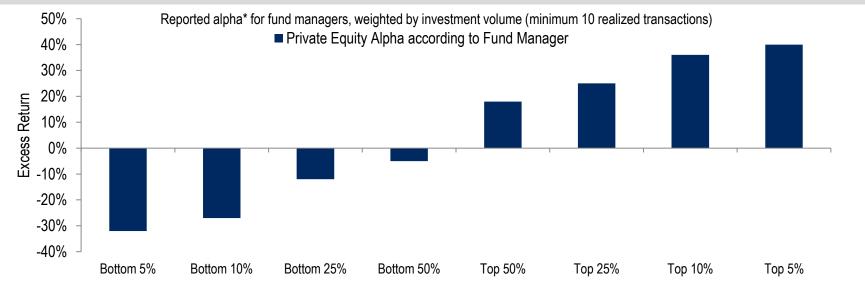


# Private equity firms are cash-rich and deal volume is improving, but manager selection is important.





### Alpha\* across private equity managers has been historically wide.



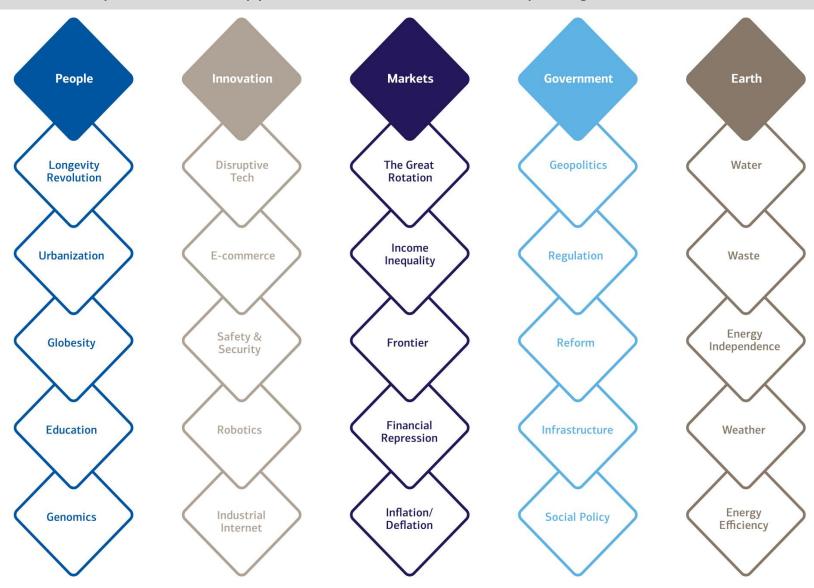
Source: (Bottom) Golding Capital Partners, HEC (Private Equity Study: Finding Alpha 2.0). \*Alpha calculated as excess return of a private equity investment relative to a comparable investment in shares, adjusted for size, leverage and timing. Data as of November 7, 2011. (Top Right) Dealogic. Data as of September 30, 2016. (Top left): Pregin. Data as of September 30, 2016. Past performance is no quarantee of future results.

## A Transforming World: Five Macro Themes



Cyclical and secular trends are transforming our world at a fast and meaningful pace.

We've developed a framework to help you understand the new investment landscape through a lens of five investment themes:



Source: BofAML Global Research, GWIM Chief Investment Office.

### The handoff from monetary to fiscal stimulus.

- As central banks scale back their historic monetary stimulus, fiscal policy looks to become the next potential driver of returns.
- Infrastructure is in dire need of investment. The American Society
  of Civil Engineers assigned the United States a grade of "D+" while
  estimating a spending need of \$450 billion per annum in order to
  simply keep current structures in good repair.
- The incoming Trump administration has proposed measures to effectively fund up to \$1 trillion of investment towards projects including airports, roads and bridges. These investments are crucial to unleashing the full capabilities of the economy and propelling productivity growth.

### **Disruptive Technology**

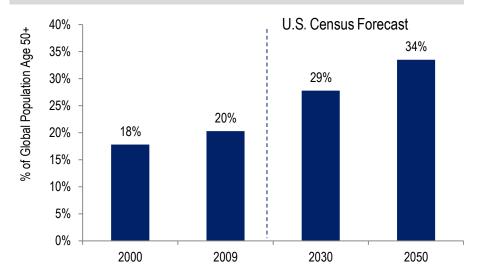
- Robotics is an area that is rapidly changing industries such as manufacturing and health care. In the past 10 years, the number of global industrial robots has grown 72%, while the number of U.S. manufacturing jobs has fallen 16%, according to BofAML Global Research.
- Crime in the form of cyberattacks and data breaches is on the rise globally. Costs to companies of attacks and investment in cybersecurity are large and expected to grow.
- Within Disruptive Technologies, we see attractive growth potential in companies with innovative, low-cost, secure and disruptive products.

### **Longevity and Aging Demographics**

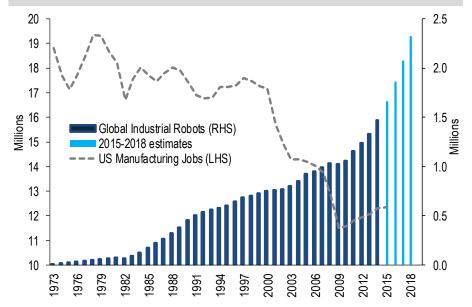
- The global population is aging, driven by increased life expectancy and lower birth rates.
- Companies are repositioning strategies to cater to this growing demographic.
- Potential beneficiaries include retail pharmacies and drug stores, home improvement, long-term care services, senior housing and health care properties and insurance companies.



### The global population aged 50 and older is expected to rise.



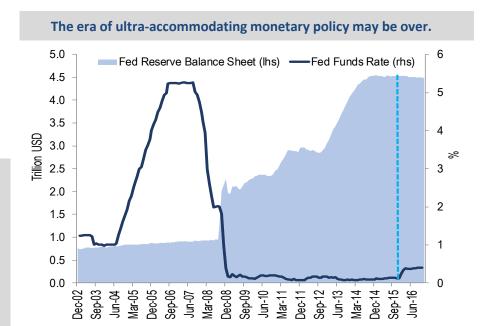
### Robots are taking over manufacturing.



Source: (Top) BofAML Global Research, Bloomberg. \* International Federation of Robots Forecasts. (Bottom) BofAML Global Research estimates. U.S. Census Bureau. Data as of December 2015. The economic and market forecasts presented are for informational purposes as of the date of this report. There can be no assurance that the forecasts will be achieved. Past performance is no guarantee of future results.

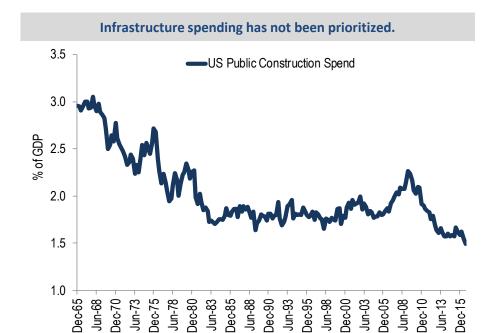
## Fiscal stimulus is expected to take the baton from monetary. Rank of America Corporation





#### Current infrastructure conditions are dire.

Infrastructure	Grade
Dams	D
Drinking Water	D
Hazardous Waste	D
Levees	D-
Solid Waste	B-
Wastewater	D
Aviation	D
Insland Waterways	D-
Ports	С
Rail	C+
Roads	D
Transit	D
Public Parks	C-
Schools	D
Energy	D+
<b>America's Overall Grade:</b>	D+

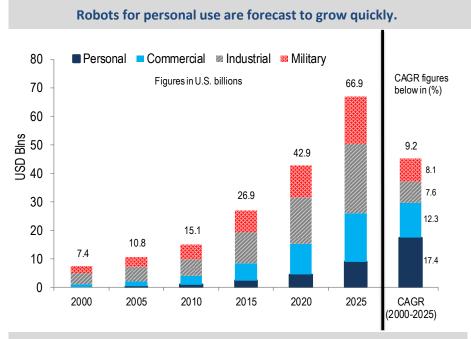


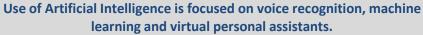
Infrastructure spending enjoys greater marginal efficacy.

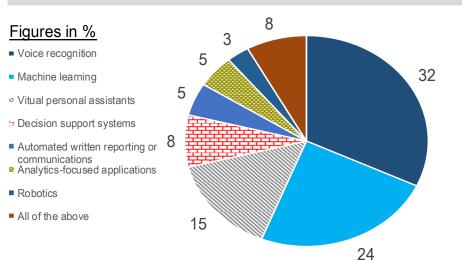
Multiplier	estimates
Low	High
0.5	2.5
0.4	2.2
0.4	1.8
0.4	2.1
0.2	1
0.3	1.5
0.1	0.6
0.2	0.8
0	0.4
	0.5 0.4 0.4 0.4 0.2 0.3 0.1 0.2

# Disruptive technologies are creating new growth opportunities.

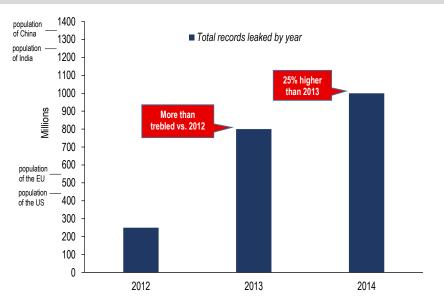




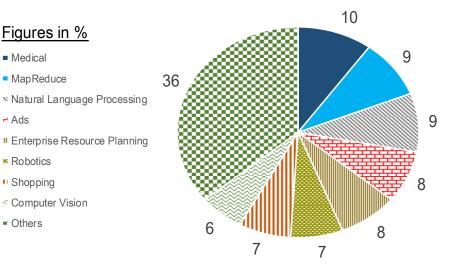




### Cybersecurity is urgently needed to plug many holes.



Medical applications have seen the most investment within a broad array.



Source: (Top Left) Boston Consulting Group. Published November 2015 on BofAML Global Research. (Bottom Left) Narrative Science. Published November 2015 on BofAML Global Research. (Top Right): IBM. Published September 2015 on BofAML Global Research. (Bottom Right) Capital IQ. Quid. Iftf. Published November 2015 on BofAML Global Research. The economic and market forecasts presented are for informational purposes as of the date of this report. There can be no assurance that the forecasts will be achieved.

Figures in %

Medical

- Ads

■ Robotics

Shopping

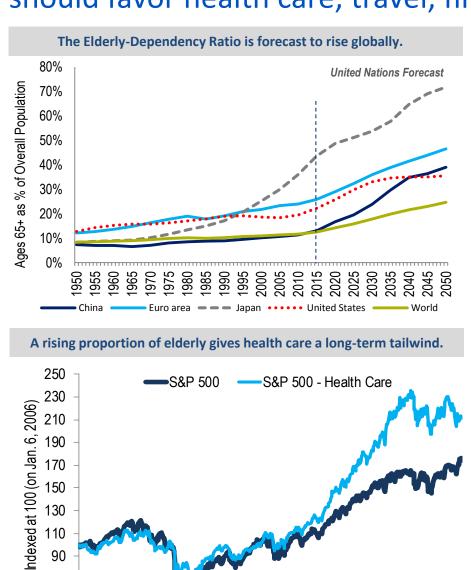
■ Others

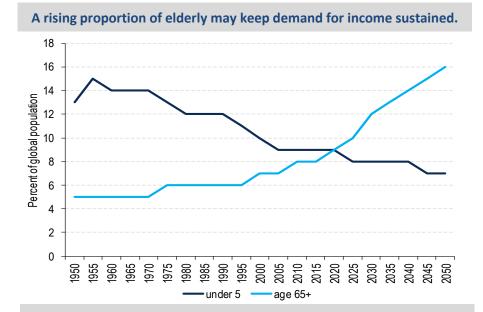
Computer Vision

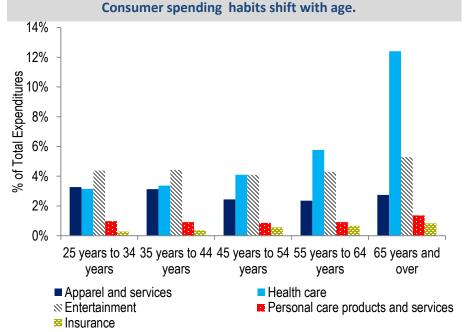
MapReduce

# The Longevity Revolution: An aging global population should favor health care, travel, financials and income.





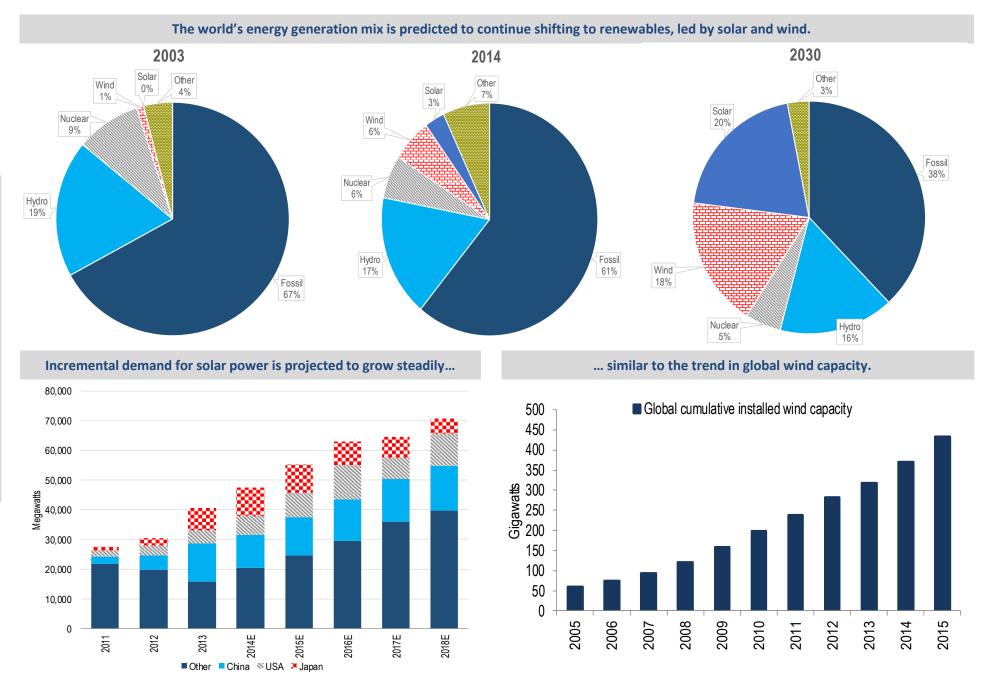




Source: (Top left) United Nations. Data as of December 31, 2015. (Top right and bottom left) United Nations. BofAML Global Research report published May 9, 2016 respectively. (Bottom Right) 31 AgeWave. Data as of May 2013. The economic and market forecasts presented are for informational purposes as of the date of this report. There can be no assurance that the forecasts will be achieved.

## Alternative energy: Shift to renewables led by solar and wind. Alternative energy: Shift to renewables led by solar and wind.





Source: (Top and bottom left) International Energy Agency. BofAML Global Research approximations. "A Call to Action: Climate Change Solutions Primer. November, 2015. (Bottom Right) Global Wind Energy Council, REN21, "Renewables 2016 Global Status Report" on June, 2016. The economic and market forecasts presented are for informational purposes as of the date of this 32 report. There can be no assurance that the forecasts will be achieved.

Appendix



## **Historical Asset Class Performance**



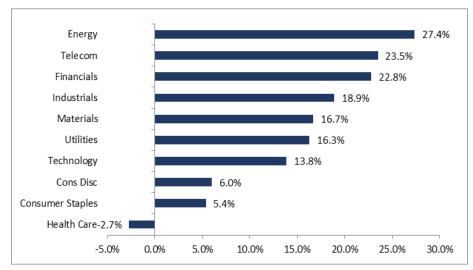
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Commodities 31.8%	US Fixed Inc. 8.3%	Commodities 25.9%	MSCI EM 56.3%	REITS 32.0%	MSCI EM 34.5%	REITS 37.5%	MSCI EM 39.8%	US Treasuries 14.0%	MSCI EM 79.0%	Gold 29.2%	US Treasuries 9.8%	REITS 23.8%	S&P 500 32.4%	S&P 500 13.7%	S&P 500 1.4%	S&P 500 12.0%
US Treasuries 13.4%	US Treasuries 6.7%	Gold 25.6%	MSCI EAFE 39.2%	MSCI EM 26.0%	Commodities 21.4%	MSCI EM 32.6%	Gold 31.9%	US Fixed Inc. 4.5%	MSCI EAFE 32.5%	MSCI EM 19.2%	Gold 8.9%	MSCI EM 18.6%	MSCI World 27.4%	REITS 11.7%	US Treasuries 0.8%	Commodities 11.8%
US Fixed Inc. 11.7%	Cash 4.4%	US Treasuries 11.6%	MSCI World 33.8%	MSCI EAFE 20.7%	Gold 17.8%	MSCI EAFE 26.9%	Commodities 16.2%	Gold 4.3%	REITS 31.7%	Commodities 16.8%	US Fixed Inc. 7.8%	MSCI EAFE 17.9%	MSCI EAFE 23.3%	US Fixed Inc. 6.3%	US Fixed Inc. 0.6%	MSCI EM 11.2%
REITS 8.5%	Hedge Funds 2.8%	US Fixed Inc. 10.3%	REITS 33.5%	MSCI World 15.2%	MSCI EAFE 14.0%	Gold 23.2%	MSCI EAFE 11.6%	Cash 2.1%	MSCI World 30.8%	REITS 15.9%	S&P 500 2.1%	MSCI World 16.5%	Moderate Portfolio 11.9%	US Treasuries 6.0%	Cash 0.1%	Gold 8.6%
Cash 6.2%	Gold -0.7%	Cash 1.8%	S&P 500 28.7%	Moderate Portfolio 11.8%	REITS 10.7%	MSCI World 20.7%	Moderate Portfolio 10.9%	Hedge Funds -20.9%	S&P 500 26.5%	S&P 500 15.1%	Cash 0.1%	S&P 500 16.0%	Hedge Funds 9.0%	MSCI World 5.5%	MSCI EAFE -0.8%	MSCI World 7.5%
Hedge Funds 2.5%	MSCI EM -2.4%	Hedge Funds 1.2%	Commodities 23.9%	S&P 500 10.9%	MSCI World 10.0%	S&P 500 15.8%	Hedge Funds 9.7%	Moderate Portfolio -25.4%	Gold 25.0%	MSCI World 12.3%	Moderate Portfolio -0.9%	Moderate Portfolio 11.0%	REITS 0.7%	Moderate Portfolio 4.3%	MSCI World -0.9%	Moderate Portfolio 5.5%
Moderate Portfolio -4.3%	Moderate Portfolio -5.4%	REITS -2.4%	Moderate Portfolio 22.3%	Commodities 9.1%	Moderate Portfolio 9.1%	Moderate Portfolio 14.7%	MSCI World 9.6%	Commodities -35.6%	Moderate Portfolio 21.8%	Moderate Portfolio 11.0%	Hedge Funds -5.0%	Gold 8.3%	Cash 0.1%	Hedge Funds 3.4%	Moderate Portfolio -1.6%	US Fixed Inc 2.6%
Gold -5.4%	REITS -7.8%	Moderate Portfolio -5.8%	Gold 19.9%	Hedge Funds 7.2%	Hedge Funds 7.5%	Hedge Funds 10.2%	US Treasuries 9.1%	S&P 500 -37.0%	Commodities 18.9%	MSCI EAFE 8.2%	MSCI World -5.0%	Hedge Funds 4.8%	US Fixed Inc. -2.2%	Gold 0.1%	REITS -3.4%	Hedge funds 2.5%
S&P 500 -9.1%	S&P 500 -11.9%	MSCI EM -6.0%	Hedge Funds 11.4%	Gold 4.6%	S&P 500 4.9%	Cash 4.9%	US Fixed Inc. 7.0%	MSCI World -40.3%	Hedge Funds 11.5%	US Fixed Inc. 6.8%	REITS -9.4%	US Fixed Inc. 4.5%	MSCI EM -2.3%	Cash 0.0%	Hedge Funds -3.5%	REITS 1.3%
MSCI World -12.9%	MSCI World -16.5%	MSCI EAFE -15.7%	US Fixed Inc. 4.1%	US Fixed Inc. 4.7%	Cash 3.1%	US Fixed Inc. 4.4%	S&P 500 5.5%	MSCI EAFE -43.1%	US Fixed Inc. 6.1%	US Treasuries 5.9%	MSCI EAFE -11.7%	US Treasuries 2.2%	US Treasuries -3.3%	MSCI EM -1.8%	Gold -10.4%	US Treasuries 1.1%
MSCI EAFE -14.0%	Commodities -19.5%	MSCI World -19.5%	US Treasuries 2.3%	US Treasuries 3.5%	US Treasuries 2.8%	US Treasuries 3.1%	Cash 5.0%	REITS -50.2%	Cash 0.2%	Hedge Funds 5.5%	Commodities -13.3%	Cash 0.1%	Commodities -9.5%	MSCI EAFE -4.5%	MSCI EM -14.9%	MSCI EAFE 1.0%
MSCI EM -30.6%	MSCI EAFE -21.2%	S&P 500 -22.1%	Cash 1.1%	Cash 1.3%	US Fixed Inc. 2.6%	Commodities 2.1%	REITS -10.0%	MSCI EM -53.2%	US Treasuries -3.7%	Cash 0.1%	MSCI EM -18.2%	Commodities -1.1%	Gold -27.3%	Commodities -17.0%	Commodities -24.7%	Cash 0.3%

Source: Bloomberg. Cash, Commodities, Gold, Hedge Funds, REITs, U.S. Fixed Income, and U.S. Treasuries represented by the BofAML 3-Month Treasury Bills Index, Bloomberg Commodity Total Return Index, GOLDS Index, HFRX Global Hedge Fund Index, UNGL Index, BofAML Broad Market Bond Index, and BofAML Treasury Master Index, respectively. Moderate Portfolio represents GWM Strategic Asset Allocation for Tier 0 (Highest Liquidity) Moderate Global Investor. Data as of December 30, 2016. Past performance is no guarantee of future results. Results shown are based on an index and are illustrative; they assume reinvestment of income and no transaction costs or taxes. Indexes are unmanaged. Direct investment cannot be made in an index. Diversification does not ensure a profit or protect against a loss in declining markets.

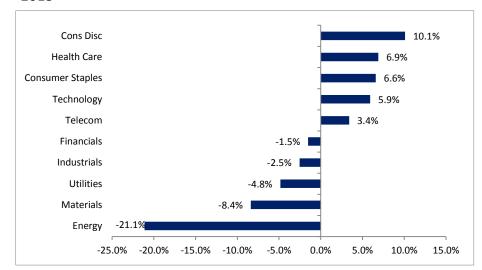
# U.S. Equity Sector Performance (S&P 500)



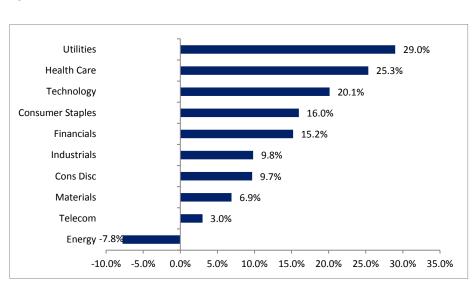
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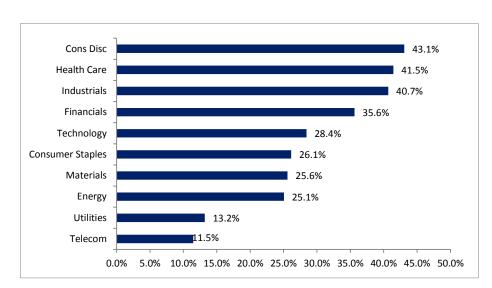
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Source: Bloomberg. U.S. equities represented by the S&P 500 Index. Returns calculated are total returns. Data as of December 30, 2016. Past performance is no quarantee of future results.

# U.S. Equities: Historical Sector Performance



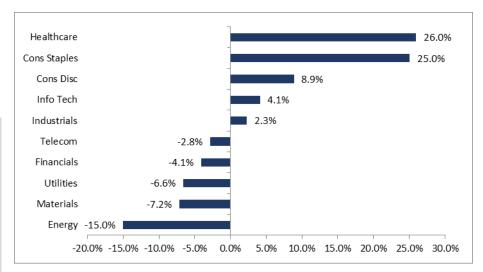
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Utilities	Materials	Cons Staples	Technology	Energy	Energy	Telecom	Energy	Cons Staples	Technology	Cons Disc	Utilities	Financials	Cons Disc	Utilities	Cons Disc	Energy
	57.2%	3.5%	-4.3%	47.2%	31.5%	31.4%	36.8%	34.4%	-15.4%	61.7%	27.7%	19.9%	28.8%	43.1%	29.0%	10.1%	27.4%
ı	Heath Care	Cons Disc	Materials	Materials	Utilities	Utilities	Energy	Materials	Heath Care	Materials	Industrials	Cons Staples	Cons Disc	Heath Care	Heath Care	Health Care	Telecom
	37.1%	2.8%	-5.5%	38.2%	24.3%	16.8%	24.2%	22.5%	-22.8%	48.6%	26.7%	14.0%	23.9%	41.5%	25.3%	6.9%	23.5%
	Financials	Industrials	Energy	Cons Disc	Telecom	Financials	Utilities	Utilities	Utilities	Cons Disc	Materials	Heath Care	Telecom	Industrials	Technology	Cons Staples	Financials
	25.7%	-5.7%	-11.1%	37.4%	19.9%	6.5%	21.0%	19.4%	-29.0%	41.3%	22.2%	12.7%	18.3%	40.7%	20.1%	6.6%	22.8%
	Cons Staples	Cons Staples	Financials	Industrials	Industrials	Heath Care	Financials	Technology	Telecom	Industrials	Energy	Telecom	Heath Care	Financials	Cons Staples	Technology	Industrials
	16.8%	-6.4%	-14.6%	32.2%	18.0%	6.5%	19.2%	16.3%	-30.5%	20.9%	20.5%	6.3%	17.9%	35.6%	16.0%	5.9%	18.9%
	Energy	Financials	Heath Care	Financials	Cons Disc	Materials	Cons Disc	Cons Staples	Cons Disc	Heath Care	Telecom	Cons Disc	Industrials	Technology	Financials	Telecom	Materials
	15.7%	-9.0%	-18.8%	31.0%	13.2%	4.4%	18.6%	14.2%	-33.5%	19.7%	19.0%	6.1%	15.3%	28.4%	15.2%	3.4%	16.7%
	Industrials 5.9%	Energy -10.4%	Cons Disc -23.8%	Utilities 26.3%	Materials 13.2%	Cons Staples 3.6%	Materials 18.6%	Industrials 12.0%	Energy -34.9%	Financials17.	Cons Staples 14.1%	Energy 4.7%	Materials 15.0%	Cons Staples 26.1%	Industrials 9.8%	Financials -1.5%	Utilities 16.3%
	Materials	Heath Care	Industrials	Energy	Financials	Industrials	Cons Staples	Telecom	Industrials	Cons Staples	Financials	Technology	Technology	Materials	Cons Disc	Industrials	Technology
	-15.7%	-11.9%	-26.3%	25.6%	10.9%	2.3%	14.4%	11.9%	-39.9%	14.9%	12.1%	2.4%	14.8%	25.6%	9.7%	-2.5%	13.8%
	Cons Disc	Telecom	Utilities	Heath Care	Cons Staples	Technology	Industrials	Heath Care	Technology	Energy	Technology	Industrials	Cons Staples	Energy	Materials	Utilities	Cons Disc
	-20.0%	-12.2%	-30.0	15.1%	8.2%	1.0%	13.3%	7.2%	-43.1%	13.8%	10.2%	-0.6%	10.8%	25.1%	6.9%	-4.8%	6.0%
	Telecom	Technology	Telecom	Cons Staples	Technology	Telecom	Technology	Cons Disc	Materials	Utilities	Utilities	Materials	Energy	Utilities	Telecom	Materials	Cons Staples
	-38.8%	-25.9%	-34.1%	11.6%	2.6%	-5.6%	8.4%	-13.2%	-45.7%	11.9%	5.5%	-9.8%	4.6%	13.2%	3.0%	-8.4%	5.4%
	Technology	Utilities	Technology	Telecom	Heath Care	Cons Disc	Heath Care	Financials-	Financials	Telecom	Heath Care	Financials	Utilities	Telecom	Energy	Energy	Health Care
	-40.9%	-30.4%	-37.4%	7.1%	1.7%	-6.4%	7.5%	18.6%	-55.3%	8.9%	2.9%	-17.1%	1.3%	11.5%	-7.8%	-21.1%	-2.7%

Source: Bloomberg. U.S. equities represented by the S&P 500 Index. Returns calculated are total returns. Data as of December 30, 2016. Past performance is no guarantee of future results. Results shown are based on an index and are illustrative; they assume reinvestment of income and no transaction costs or taxes. Indexes are unmanaged. Direct investment cannot be made in an index.

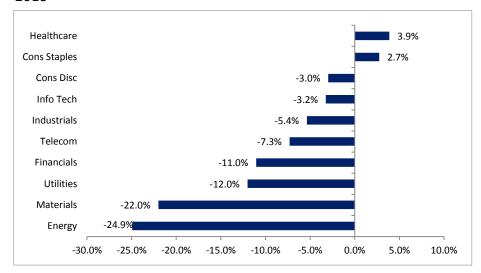
# International Equity Sector Performance (MSCI ACWI ex U.S.) Merrill Lynch



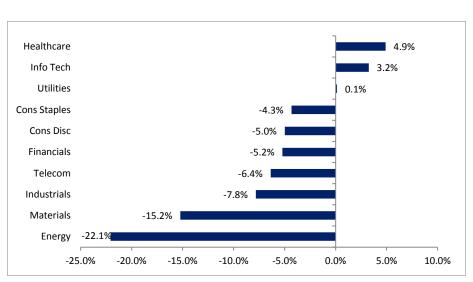
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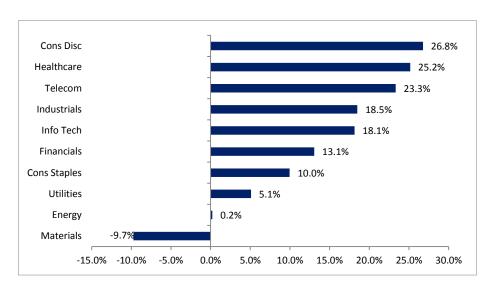
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Source: Bloomberg. Global equities represented by MSCI ACWI ex U.S. Returns calculated are total returns. Data as of December 30, 2016. Past performance is no quarantee of future results.

## International Equities: Historical Sector Performance



2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Heath Ca 14.8%	Energy -4.9%	Materials 3.5%	Materials 52.7%	Utilities 32.0%	Energy 31.5%	Utilities 49.5%	Materials 40.9%	Heath Care -18.6%	Materials 76.3%	Cons Disc 22.1%	Heath Care 5.7%	Financials 30.1%	Cons Disc 29.9%	Heath Care 7.8%	Health Care 3.9%	Energy 26.0%
Cons Staples 3.8%	Materials -7.5%	Energy 0.8%	Industrials 50.0%	Energy 26.5%	Materials 27.4%	Materials 35.1%	Telecom 41.0%	Utilities -29.7%	Technology 51.4%	Industrials 22.0%	Cons Staples 4.1%	Cons Disc 23.2%	Telecom 29.0%	Technology 5.0%	Cons Staples 2.7%	Materials 25.0%
Financia -1.5%	S Cons Staples -10.0%	Utilities -0.2%	Technology 49.5%	Financials 25.8%	Industrials 25.3%	Telecom 33.0%	Energy 32.3%	Cons Staples -31.2%	Energy 51.2%	Materials 21.9%	Telecom -0.9%	Cons Staples 19.5%	Heath Care 29.0%	Utilities 4.6%	Cons Disc -3.0%	Technology 8.9%
Utilities	Utilities -12.8%	Cons Staples -0.8%	Financials 48.9%	Industrials 22.9%	Financials 18.3%	Cons Staples 30.2%	Utilities 25.6%	Telecom -35.7%	Financials 48.6%	Cons Staples 16.0%	Energy -7.7%	Heath Care 18.8%	Industrials 21.4%	Cons Staples -1.4%	Technology -3.2%	Industrials 4.1%
Energy -4.7%	Heath Care -15.1%	Financials -12.6%	Telecom 40.4%	Materials 20.8%	Technology 13.9%	Financials 29.8%	Cons Staples 24.4%	Cons Disc -46.0%	Cons Disc 45.4%	Technology 14.7%	Cons Disc -13.5%	Technology 18.1%	Technology 20.0%	Financials -1.7%	Industrials -5.4%	Financials 2.3%
Industria -11.3%	Cons Disc -17.4%	Heath Care -14.4%	Cons Disc 39.1%	Telecom 20.6%	Heath Care 13.8%	Industrials 26.5%	Industrials 23.7%	Industrials -46.9%	Cons Staples 36.4%	Telecom 10.4%	Industrials -16.3%	Industrials 17.1%	Financials 17.3%	Telecom -2.7%	Telecom -7.3%	Cons Disc -2.8%
Material	Financials -21.9%	Cons Disc -14.8%	Utilities 35.4%	Cons Staples 19.3%	Utilities 13.7%	Cons Disc 23.9%	Technology 8.3%	Energy -46.9%	Industrials 35.6%	Energy 6.7%	Utilities -16.5%	Materials 10.6%	Cons Staples 13.1%	Cons Disc -2.8%	Financials -11.0%	Cons Staples -4.1%
Cons Dis -23.7%	c Industrials -24.0%	Industrials -17.8%	Energy 34.0%	Cons Disc 18.9%	Cons Disc 12.5%	Energy 20.3%	Cons Disc 6.2%	Technology -47.9%	Heath Care 19.9%	Financials 4.5%	Technology -17.8%	Telecom 5.2%	Utilities 10.3%	Industrials -5.6%	Utilities -12.0%	Utilities -6.6%
Technolo -37.6%	gy Telecom -30.1%	Telecom -21.1%	Heath Care 28.9%	Heath Care 14.0%	Cons Staples 11.4%	Heath Care 17.0%	Financials 3.8%	Materials -52.6%	Telecom 19.4%	Heath Care 3.8%	Financials -19.4%	Utilities 4.7%	Energy 4.5%	Materials -12.8%	Materials -22.0%	Telecom -7.2%
Telecon -41.3%	Technology -38.9%	Technology -22.5%	Cons Staples 24.7%	Technology 6.8%	Telecom -5.0%	Technology 13.0%	Heath Care 2.6%	Financials -54.0%	Utilities 10.9%	Utilities -1.4%	Materials -23.9%	Energy 2.4%	Materials -7.2%	Energy -18.6%	Energy -24.9%	Health Care -15.0%

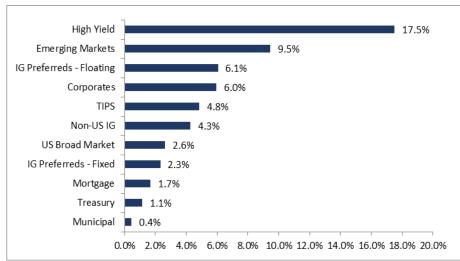
Source: Bloomberg. Global equities represented by MSCI ACWI ex U.S. Returns calculated are total returns. Data as of December 30, 2016. Past performance is no guarantee of future results.

Results shown are based on an index and are illustrative; they assume reinvestment of income and no transaction costs or taxes. Indexes are unmanaged. Direct investment cannot be made in an index.

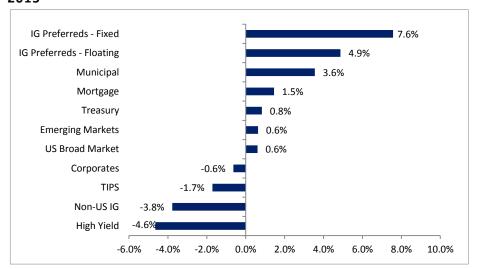
## **Fixed Income Returns**



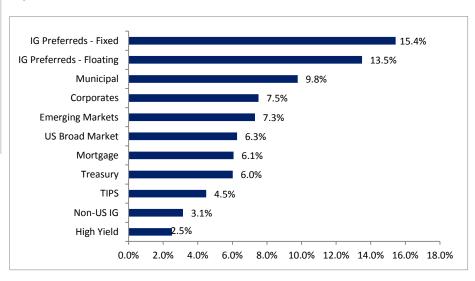
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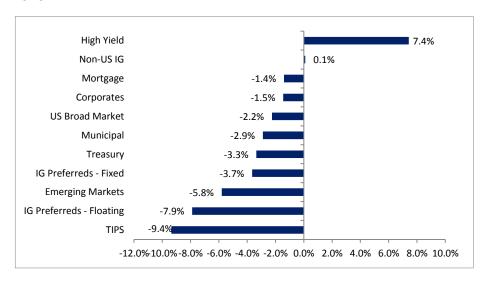
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Source: Bloomberg, BofAML Global Research. All indexes represented by BofA Merrill Lynch Global Bond Indexes and calculated using total returns. Data as of December 30, 2016. **Past performance is no guarantee of future results.** 

## Glossary



**Consumer Price Index (CPI) Level:** Base Year 1982-84: 100. The CPI represents changes in prices of all good and services purchased for consumption by urban households. User fees and sales and excise taxes paid by the consumer are also included. Income taxes and investment items are not included.

CPI Core Index Level: Base year 1982-84; it excludes food and energy items from the Consumer Price Index Level.

**Current Account Deficit:** Occurs when a country's total import of goods, services and transfers is greater than the country's total export of goods, services and transfers; this situation makes a country a net debtor to the rest of the world.

**Developed Market:** A country that is most developed in terms of its economy and capital markets. The country must be high-income, but this also includes openness to foreign ownership, ease of capital movement, and efficiency of market institutions.

**Emerging Market:** A country that is progressing toward becoming advanced, as shown by some liquidity in local debt and equity markets and the existence of some form of market exchange and regulatory body.

**GDP - Nominal:** Gross Domestic Product (GDP) equals the total income of everyone in the economy or the total expenditure on the economy's good and services. GDP includes only the value of final goods and services. Nominal GDP measures the value of goods and services at current dollar prices.

**GDP** - **Real**: The chain-weighted GDP measure of goods and services at constant dollar prices. The base year changes continuously over time (e.g., 1995, process measures real growth from 1995 to 1996). The figures are then linked to a chain that can compare goods and services in any two years. Chain-weighted figures never let prices get too far out of date.

Jobless Claims: Average weekly initial claims for unemployment insurance: measures the average number of new claims for unemployment compensation per week.

**U.S. Employees Non-Farm Private Payrolls:** A statistic that represents the total number of paid U.S. workers except for farm workers, general government employees, employees of nonprofit organizations that provide assistance to individuals and private household employees. The Non-Farm Private Payroll represents about 80% of the workers who produce the U.S. Gross Domestic Product.

# **Asset Class Proxies**



Asset Class	Index Proxy	
Cash	BofAML 3 month T-Bill Index	
U.S. Large Cap Equities	S&P 500 Index	
U.S. Small Cap Equities	Russell 2000 Index	
U.S. Large Cap Growth	Russell 1000 Growth Index	
U.S. Large Cap Value	Russell 1000 Value Index	
U.S. Mid Cap Growth	Russell Midcap Growth Index	
U.S. Mid Cap Value	Russell Midcap Value Index	
U.S. Small Cap Growth	Russell 2000 Growth Index	
U.S. Small Cap Value	Russell 2000 Value Index	
Developed International Equities	MSCI EAFE	
Emerging Markets Equities	MSCI EM	
Global Equities	MSCI ACWI	
U.S. Corporates	BofAML U.S. Corporate Master	
U.S. IG Fixed Income	Barclays U.S. Aggregate Bond Index	
U.S. High Yield	BofAML High Yield Master	
U.S. Munis	BofAML Municipal Master	
Global Fixed Income	BofAML Global Fixed Income Markets Index	
Hedge Fund Strategies	HFRX Global Hedge Fund Index	
Global REITs	FTSE NAREIT Global REITs Total Return	
U.S. REITs	FTSE NAREIT U.S. REITs Total Return	
Commodities	Bloomberg Commodity	
Gold	Gold Spot Price	
Private Equity	LPX 50 TR USD Index	

## **Index Definitions**



Alerian MLP Index is a composite of the 50 most prominent energy master limited partnerships and is calculated by Standard & Poor's using a float-adjusted, market capitalization-weighted methodology. The total return index is calculated on an end-of-day basis and is disseminated daily through its ticker symbol, AMZX, on the New York Stock Exchange.

**Barclays Capital U.S. Aggregate Index** is a broad-based benchmark that measures the Investment Grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed rate and hybrid ARM pass-throughs), ABS and CMBS.

**Bloomberg Commodity Index** is made up of 22 exchange-traded futures on physical commodities, which are weighted to account for economic significance and market liquidity.

Cambridge Associates Private Equity U.S. Total Return: Performance data is calculated quarterly by Cambridge Associates and published by Thomson Reuters Venture Economics' Private Equity Performance Database, which tracks the performance of thousands of U.S. and European venture capital and buyout funds formed since 1969. Sources are financial documents and schedules from Limited Partners investors and General Partners. All returns are calculated net to investors (net of fees and carried interest) by Thomson Venture Economics from the underlying financial cash flows using both cash on cash returns (distributions and capital calls) and the unrealized net asset value of funds as reported by private equity fund managers. The "U.S." category includes only U.S. funds.

**DJ Credit Suisse AllHedge Index** is an asset-weighted hedge fund index derived from the market leading Dow Jones Credit Suisse Hedge Fund Index. The Dow Jones Credit Suisse AllHedge Index provides a rules-based measure of an investable portfolio. Index performance data is published monthly and constituents are rebalanced semi-annually according to the sector weights of the Dow Jones Credit Suisse Hedge Fund Index.

**DJ Credit Suisse AllHedge Convertible Arbitrage Index** measures the aggregate performance of convertible arbitrage funds. Convertible arbitrage funds typically aim to profit from the purchase of convertible securities and the subsequent shorting of the corresponding stock when there is a pricing error made in the conversion factor of the security.

**DJ Credit Suisse AllHedge Equity Market Neutral Index** measures the aggregate performance of equity market neutral funds. Equity market neutral funds typically take both long and short positions in stocks while seeking to reduce exposure to the systemic risk of the market (i.e., a beta of zero is desired).

**DJ Credit Suisse AllHedge Event Driven Index** measures the aggregate performance of event-driven funds. Event-driven funds typically invest in various asset classes and seek to profit from potential mispricing of securities related to a specific corporate or market event. Such events can include mergers, bankruptcies, financial or operational stress, restructurings, asset sales, recapitalizations, spin-offs, litigation, regulatory and legislative changes, and other types of corporate events.

**DJ Credit Suisse AllHedge Emerging Markets Index** measures the aggregate performance of Emerging Market funds. Emerging Market funds typically invest in currencies, debt instruments, equities and other instruments of countries with "emerging" or developing markets (typically measured by GDP per capita). Such countries are considered to be in a transitional phase between developing and developed status.

**DJ Credit Suisse AllHedge Fixed Income Arbitrage Index** measures the aggregate performance of fixed income arbitrage funds. Fixed income arbitrage funds typically attempt to generate profits by exploiting inefficiencies and price anomalies between related fixed income securities. Fixed income arbitrage funds seek to limit volatility by hedging out exposure to the market and interest rate risk.

**DJ Credit Suisse AllHedge Long Short Equity Index** measures the aggregate performance of long/short equity funds. Long/short equity funds typically invest in both long and short sides of equity markets, generally focusing on diversifying or hedging across particular sectors, regions or market capitalizations.

**DJ Credit Suisse AllHedge Global Macro Index** measures the aggregate performance of global macro funds. Global macro funds typically focus on identifying extreme price valuations and leverage is often applied on the anticipated price movements in equity, currency, interest rate and commodity markets.

# Index Definitions (continued)



**DJ Credit Suisse AllHedge Managed Futures Index** measures the aggregate performance of managed futures funds. Managed futures funds (often referred to as CTAs or Commodity Trading Advisors) typically focus on investing in listed bond, equity, commodity futures and currency markets globally.

Dow Jones Industrial Average (DJIA) measures the performance of 30 leading U.S. blue-chip companies.

**DXY Index** indicates the general international value of the U.S. dollar. The Index does this by averaging the exchange rates between the dollar and major world currencies.

FTSE NAREIT U.S. Real Estate Index is a performance index based on publicly traded real estate investment trusts (REITs) that span commercial real estate space across the U.S. economy. The index series provides investors with exposure to all investment and property sectors. A REIT is a company that owns and, in most cases, operates income-producing real estate such as apartments, shopping centers, offices, hotels and warehouses. Some REITs also engage in financing real estate. To qualify as a REIT, a company must distribute at least 90% of its taxable income to its shareholders annually. A company that qualifies as a REIT is permitted to deduct dividends paid to its shareholders from its corporate taxable income. As a result, most REITs remit at least 100% of their taxable income to their shareholders and therefore owe no corporate tax.

FTSE®EPRA®/NAREIT® Global Index is a free float, market capitalization-weighted real estate index designed to represent publicly traded equity REITs and listed property companies globally.

**Gold** reflects the gold spot price and is quoted in U.S. dollars per Troy Ounce.

HFRX Global Hedge Fund Index is an asset-weighted index that includes over 55 constituent funds. All funds must be open to new investments, have at least \$50 million under management and have a 24-month track record. The index is rebalanced quarterly. The index is designed to be representative of the overall composition of the hedge fund universe.

**JPMorgan Global FX Volatility Index** tracks the implied volatility on three-month options on G7 and Emerging Market economy currencies, with individual weightings based on Bank of International Settlements (BIS) daily turnover percentages.

**BofAML U.S. Broad Market Index** tracks the performance of U.S. dollar-denominated Investment Grade government and corporate public debt issued in the U.S. domestic bond market, including collateralized products such as mortgage pass-through and asset-backed securities.

**BofAML U.S. Corporate Master Index** tracks the performance of U.S. dollar-denominated Investment Grade corporate public debt issued in the U.S. domestic bond market. Qualifying bonds must have at least one year remaining term to maturity, a fixed coupon schedule and a minimum amount outstanding of \$150 million. Bonds must be rated Investment Grade based on a composite of Moody's and S&P.

**BofAML Municipal Masters Index** tracks the performance of the Investment Grade U.S. tax-exempt bond market.

**BofAML Global Sovereign Broad Market Index** tracks the performance of local currency-denominated debt of Investment Grade-rated sovereign issuers.

**BofAML Global Emerging Markets Sovereign Index** tracks the performance of U.S. dollar-denominated debt of sovereign issuers domiciled in countries with a BB or lower foreign currency long-term sovereign debt rating.

**BofAML High Yield Master Index** tracks the performance of below Investment Grade U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market. "Yankee" bonds (debt of foreign issuers issued in the U.S. domestic market) are included in the index provided the issuer is domiciled in a country having an Investment Grade foreign currency long-term debt rating (based on a composite of Moody's and S&P).

# Index Definitions (continued)



**BofAML Mortgage Master Index** tracks the performance of U.S. dollar-denominated 30-year, 15-year and balloon pass-through mortgage securities having at least \$150 million outstanding per generic production year.

MSCI® World Index is a free float-adjusted market capitalization index that is designed to measure global Developed Market equity performance. As of July 2009, the index consisted of 23 Developed Market country indices: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States.

MSCI® EAFE (Europe, Australasia, and Far East) Index comprises 21 MSCI country indices, representing the Developed Markets outside of North America.

MSCI® Emerging Markets Index is a free float-adjusted market capitalization index designed to measure equity market performance in the global Emerging Markets. As of July 2009, the index consisted of 25 Emerging Market country indices: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, Morocco, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

MSCI® Europe non-U.K. Index is a free float-adjusted market capitalization index designed to measure Developed Market equity performance in Europe. As of July 2009, the index consisted of 15 Developed Market country indexes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland.

**Muni Yields** uses the Moody's Municipal Bond Yield Average AAA 10 Year. Derived from pricing data on unenhanced newly issued general obligation bonds each observation is an unweighted average.

WTI crude oil reflects the Bloomberg West Texas Intermediate Crushing Crude Oil Spot Price. The price is derived by adding spot market spreads to the NYMEX contract. Units are in U.S. dollars per barrel and is traded intraday.

Russell 1000 Growth Index® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 1000 Value Index® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

Russell 2000 Index® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

Russell 2000 Growth Index. The index measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

Russell 2000 Value Index. The index measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

**Silver** reflects the silver spot price and is quoted in U.S. dollars per Troy Ounce.

**S&P 500 Index**, widely regarded as the best single gauge of the U.S. equities market, includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the index focuses on the large-cap segment of the market, with approximately 75% coverage of U.S. equities, it is also an ideal proxy for the total market.

**S&P 400 Mid Cap Index** is representative of 400 stocks in the mid-range sector of the domestic stock market, representing all major industries.

**Ten-Year Treasury** relates the yield on a security to its time to maturity and is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market.

VIX Index, the Chicago Board Options Exchange Standard and Poor's Volatility Index, reflects a market estimate of future volatility, based on the weighted average of the implied volatilities for a wide range of strikes.



Reference to indices, or other measures of relative market performance over a specified period of time (each, an "index") are provided for illustrative purposes only, do not represent a benchmark or proxy for the return or volatility of any particular product, portfolio, security holding, or Al. Indices are unmanaged. The figures for the index reflect the reinvestment of dividends but do not reflect the deduction of any fees or expenses which would reduce returns. We strongly recommend that these factors be taken into consideration before an investment decision is made. Neither Merrill Lynch nor the index sponsor can verify the validity or accuracy of the self reported returns of the managers used to calculate the index returns. Merrill Lynch does not guarantee the accuracy of the index returns and does not recommend any investment or other decision based on the results presented. The indices referred in the presentation do not reflect the performance of any account or fund managed by Merrill Lynch or its affiliates, or of any other specific fund or account, and do not reflect the deduction of any management or performance fees or expenses. The hedge fund universe from which the components of the indices are selected is based on funds which have continued to report results for a minimum period of time. This prerequisite for fund selection interjects a significant element of "survivor bias" into the reported levels of the indices, as generally only successful funds will continue to report for the required period, so that the funds from which the statistical analysis or the performance of the indices to date is derived necessarily tend to have been successful. There can, however, be no assurance that such funds will continue to be successful in the future. Indices are unmanaged and results shown are not reduced by taxes or transaction costs such as fees. It is not possible to invest directly in an Index.

Alternative Investments are speculative and subject to a high degree of risk. Although risk management policies and procedures can be effective in reducing or mitigating the effects of certain risks, no risk management policy can completely eliminate the possibility of sudden and severe losses, illiquidity and the occurrence of other material adverse effects. Some or all alternative investment programs may not be suitable for certain investors. Many alternative investment products, specifically private equity and most hedge funds, require purchasers to be "qualified purchasers" within the meaning of the federal securities laws (generally, individuals who own at least \$5 million in "investments" and institutional investors who own at least \$25 million in "investments," as such term is defined in the federal securities laws). No assurance can be given that any alternative investment's investment objectives will be achieved. In addition to certain general risks, each product will be subject to its own specific risks, including strategy and market risk.

Alternative Investments such as derivatives, hedge funds, private equity funds, and funds of funds can result in higher return potential but also higher loss potential. Changes in economic conditions or other circumstances may adversely affect your investments. Before you invest in alternative investments, you should consider your overall financial situation, how much money you have to invest, your need for liquidity, and your tolerance for risk.

Investors should bear in mind that the global financial markets are subject to periods of extraordinary disruption and distress. During the financial crisis of 2008-2009, many private investment funds incurred significant or even total losses, suspended redemptions or otherwise severely restricted investor liquidity, including increasing the notice period required for redemptions, instituting gates on the percentage of fund interests that could be redeemed in any given period and creating side-pockets and special purpose vehicles to hold illiquid securities as they are liquidated. Other funds may take similar steps in the future to prevent forced liquidation of their portfolios into a distressed market. In addition, investment funds implementing alternative investment strategies are subject to the risk of ruin and may become illiquid under a variety of circumstances, irrespective of general market conditions.

There may be conflicts of interest relating to the alternative investment and its service providers, including Bank of America, and its affiliates, who are engaged in businesses and have clear interests other than that of managing, distributing and otherwise providing services to the alternative investment. These activities and interests include potential multiple advisory, transactional and financial and other interests in securities and instruments that may purchase or sell such securities and instruments. These are considerations of which investors in the alternative investments should be aware. Additional information relating to these conflicts is set forth in the offering materials for the alternative investment.

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