

# Guide to the Markets<sup>®</sup>

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U.S. | 2Q 2015 | As of April 30, 2015

*J.P. Morgan*

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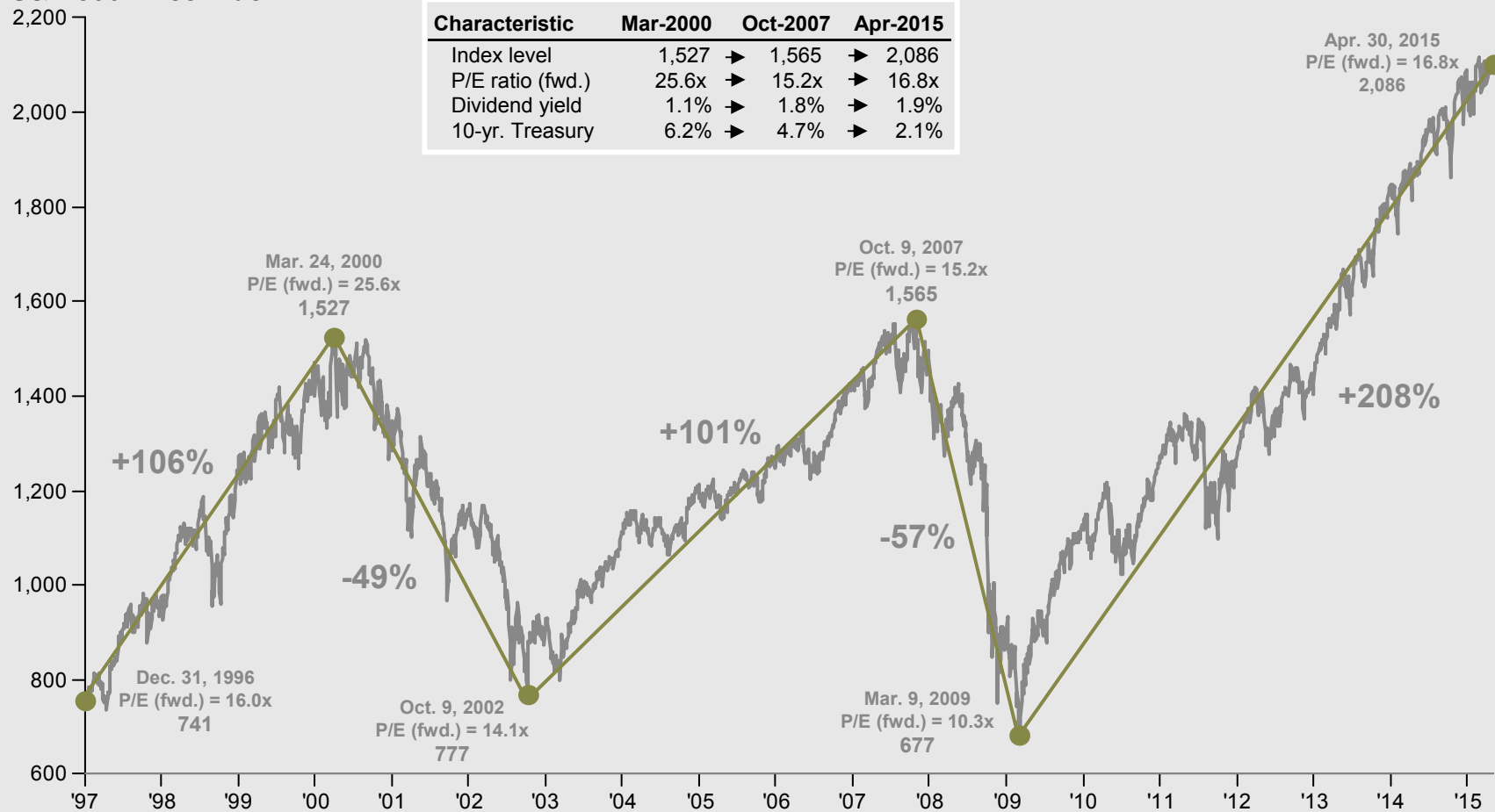
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## S&P 500 Price Index



Source: Standard & Poor's, Compustat, FactSet, J.P. Morgan Asset Management.

Dividend yield is calculated as the annualized dividend rate divided by price, as provided by Compustat. Forward Price to Earnings Ratio is a bottom-up calculation based on the most recent S&P 500 Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.

Data are as of April 30, 2015.

## U.S. Equity: Valuation Measures

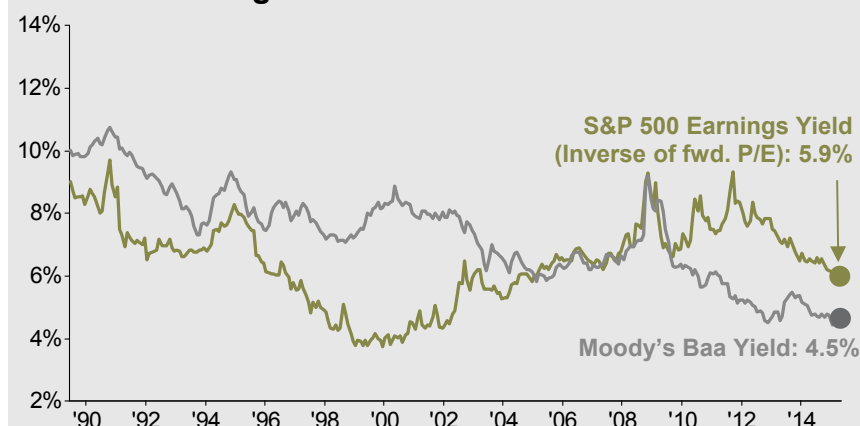
## Historical Averages

Valuation Measure	Description	Latest	1-year ago	5-year avg.	10-year avg.	25-year avg.*
P/E	Price to Earnings	16.8x	15.3x	13.6x	13.8x	15.7x
CAPE	Shiller's P/E	27.1	26.1	22.9	22.9	25.4
Div. Yield	Dividend Yield	1.9%	1.9%	2.0%	2.0%	2.1%
REY	Real Earnings Yield	4.0%	4.1%	5.0%	4.5%	3.0%
P/B	Price to Book	2.8	2.7	2.3	2.4	2.9
P/CF	Price to Cash Flow	11.9	11.2	9.5	9.7	11.3
EY Spread	EY Minus Baa Yield	1.4%	1.6%	2.2%	1.3%	-0.6%

## S&P 500 Index: Forward P/E Ratio



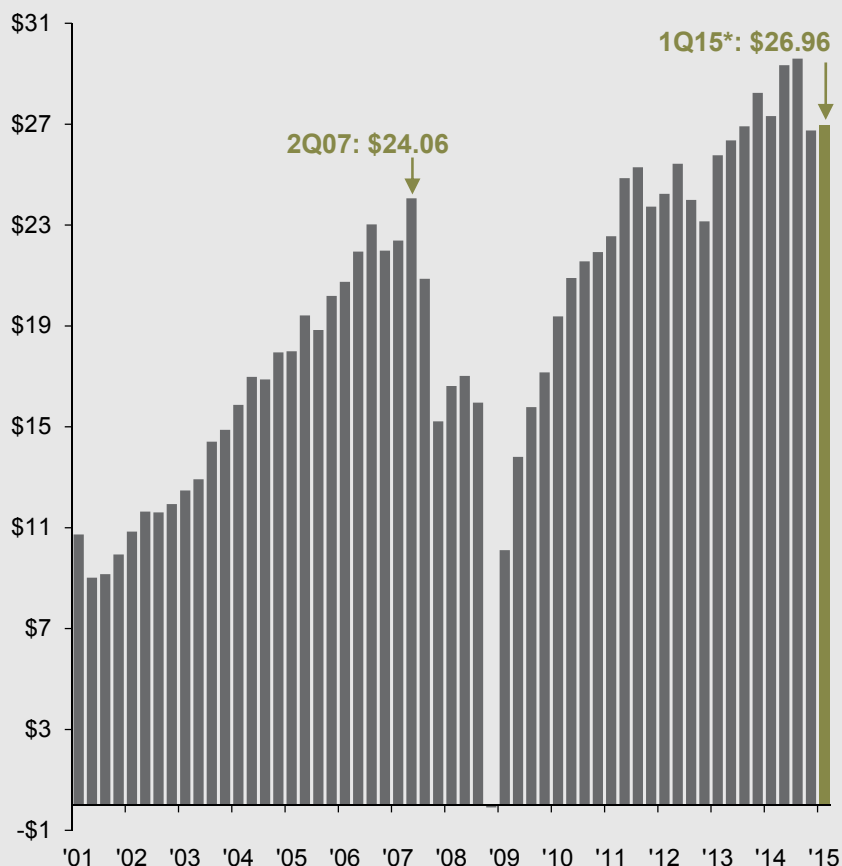
## S&P 500 Earnings Yield vs. Baa Bond Yield



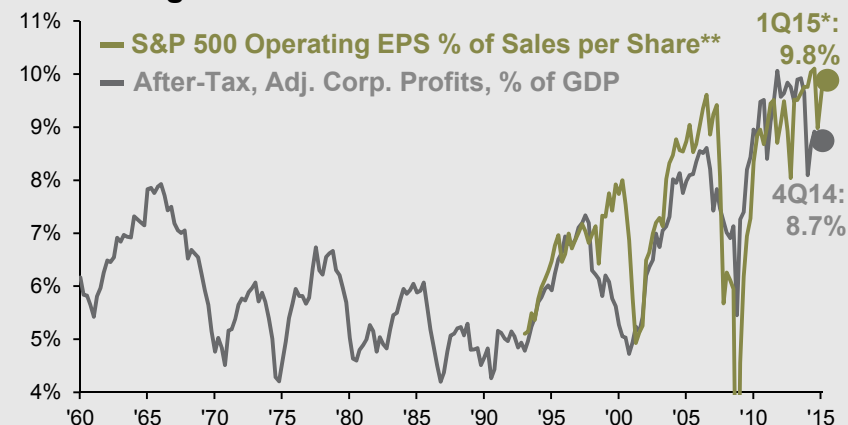
Source: Standard & Poor's, FactSet, Robert Shiller, FRB, J.P. Morgan Asset Management. Price to Earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months. Shiller's P/E uses trailing 10-years of inflation adjusted earnings as reported by companies. Dividend Yield is calculated as the trailing 12-month average dividend divided by price. Real Earnings Yield is defined as (trailing four quarters of reported earnings/price) - year over year core CPI inflation. Price to Book Ratio is the price divided by book value per share. Price to Cash Flow is price divided by NTM cash flow. EY Minus Baa Yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. \*P/CF is a 20-year avg. due to cash flow data availability. Data are as of April 30, 2015.

## S&P 500 Earnings Per Share

Index quarterly operating earnings



## Profit Margins



## Total Leverage

S&P 500, ratio of total debt to total equity, quarterly



Source: BEA, Standard & Poor's, Compustat, FactSet, J.P. Morgan Asset Management.

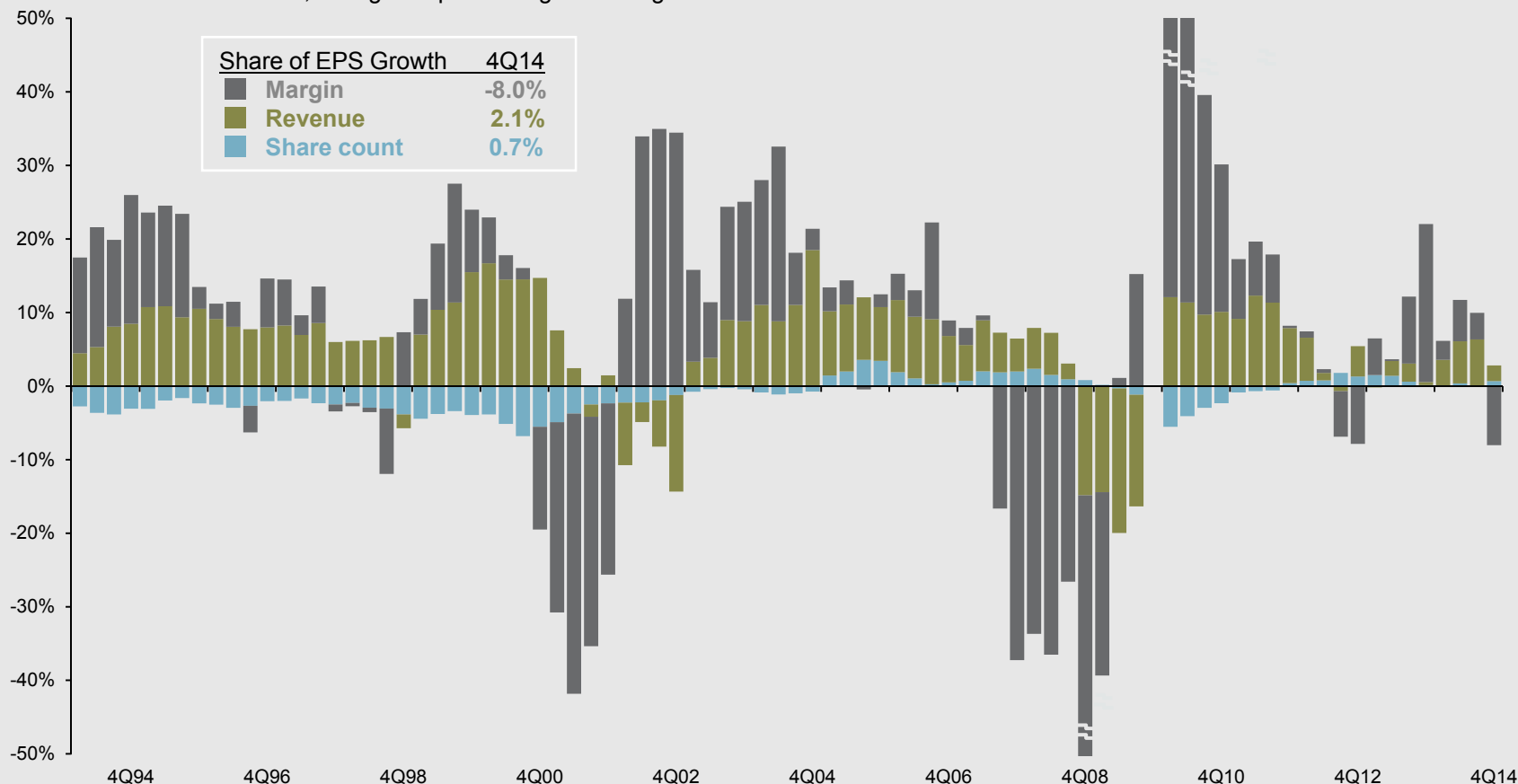
EPS levels are based on operating earnings per share. \*Most recently available data is 4Q14, as 1Q15 is a Standard & Poor's preliminary estimate.

\*\*S&P 500 Operating EPS % of Sales per Share fell to 0% in 4Q2008 and is adjusted on the chart. Past performance is not indicative of future returns.

Data are as of April 30, 2015.

**S&P 500 Year-Over-Year EPS Growth**

Growth broken into revenue, changes in profit margin &amp; changes in share count



Source: Standard &amp; Poor's, Compustat, FactSet, J.P. Morgan Asset Management.

EPS levels are based on operating earnings per share. Past performance is not indicative of future returns. 4Q2008, 1Q2010 and 2Q2010 reflect -101%, 92% and 51% growth in operating earnings, and are adjusted on the chart.

Data are as of April 30, 2015.

## YTD

	Value	Blend	Growth
Large	0.2%	1.9%	4.4%
Mid	1.3%	3.0%	4.6%
Small	-0.2%	1.7%	3.5%

## 2014

	Value	Blend	Growth
Large	13.5%	13.7%	13.0%
Mid	14.7%	13.2%	11.9%
Small	4.2%	4.9%	5.6%

## Since Market Peak (October 2007)

	Value	Blend	Growth
Large	42.4%	57.0%	77.5%
Mid	70.6%	75.1%	77.4%
Small	47.8%	60.2%	72.5%

## Since Market Low (March 2009)

	Value	Blend	Growth
Large	255.1%	250.8%	262.0%
Mid	335.5%	322.7%	310.2%
Small	265.5%	286.2%	307.0%

## Current P/E vs. 20-year avg. P/E

	Value	Blend	Growth
Large	16.4 / 14.1	16.8 / 16.2	19.2 / 21.1
Mid	17.6 / 14.3	19.5 / 16.6	21.6 / 22.0
Small	16.7 / 14.5	18.6 / 17.4	20.9 / 21.6

## Current P/E as % of 20-year avg. P/E

	Value	Blend	Growth
Large	115.2%	104.0%	90.4%
Mid	124.5%	118.5%	98.9%
Small	117.6%	110.0%	99.8%

Source: Russell Investment Group, Standard & Poor's, FactSet, J.P. Morgan Asset Management.

All calculations are cumulative total return, including dividends reinvested for the stated period. Since Market Peak represents period 10/9/07 – 4/30/15, illustrating market returns since the S&P 500 Index high on 10/9/07. Since Market Low represents period 3/9/09 – 4/30/15, illustrating market returns since the S&P 500 Index low on 3/9/09. Returns are cumulative returns, not annualized. For all time periods, total return is based on Russell-style indexes with the exception of the large blend category, which is based on the S&P 500 Index. Past performance is not indicative of future returns. P/E ratios reflect latest available data. Earnings estimates are as of March for Russell Indexes and as of April for Standard & Poor's. Data are as of April 30, 2015.



# Returns and Valuations by Sector

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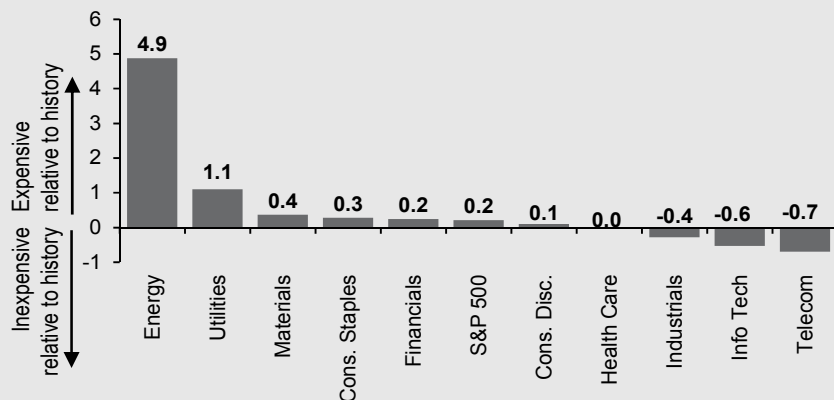
Equities												Weight
	Financials	Technology	Health Care	Industrials	Energy	Cons. Discr.	Cons. Staples	Telecom	Utilities	Materials	S&P 500 Index	
<b>S&amp;P Weight</b>	16.6%	19.7%	14.2%	10.4%	8.4%	12.1%	9.8%	2.3%	3.2%	3.2%	100.0%	
Russell Growth Weight	5.2%	28.8%	14.0%	11.5%	4.9%	18.9%	10.4%	2.2%	0.1%	4.0%	100.0%	
Russell Value Weight	29.6%	9.3%	14.4%	10.3%	11.4%	6.6%	7.1%	2.2%	6.1%	3.2%	100.0%	
<b>YTD</b>	-1.9	2.9	5.1	-0.9	3.6	4.8	0.2	7.5	-5.6	4.1	1.9	Return (%)
<b>2014</b>	15.2	20.1	25.3	9.8	-7.8	9.7	16.0	3.0	29.0	6.9	13.7	
<b>Since Market Peak</b> (October 2007)	-21.1	83.8	129.9	51.1	21.1	126.0	112.7	31.7	45.3	38.9	57.0	
<b>Since Market Low</b> (March 2009)	330.5	285.2	270.6	315.2	121.8	423.2	198.3	151.5	154.4	231.0	250.8	β
<b>Beta to S&amp;P 500</b>	1.44	1.11	0.69	1.20	0.99	1.13	0.58	0.63	0.47	1.27	1.00	
<b>Correl to Treas. Yields</b>	0.44	0.33	-0.15	0.31	0.36	0.26	-0.04	0.09	-0.57	0.28	0.26	ρ
Forward P/E Ratio	13.1x	16.0x	17.2x	16.0x	29.3x	18.8x	19.3x	13.8x	16.3x	17.2x	16.8x	
<b>15-yr avg.</b>	12.6x	20.1x	17.1x	16.9x	13.7x	18.3x	18.4x	16.5x	14.1x	16.0x	15.9x	P/E
Trailing P/E Ratio	15.9x	18.5x	22.5x	20.9x	15.2x	20.2x	22.3x	25.6x	18.3x	21.0x	19.0x	
<b>20-yr avg.</b>	16.7x	26.2x	24.1x	20.4x	16.9x	19.3x	21.3x	20.1x	15.1x	19.6x	19.6x	Div
Dividend Yield	1.9%	1.6%	1.5%	2.2%	3.0%	1.5%	2.7%	5.0%	3.7%	2.2%	1.9%	
<b>20-yr avg.</b>	2.1%	0.7%	1.3%	1.7%	1.8%	0.9%	2.1%	4.2%	4.2%	2.1%	1.6%	

Source: Standard & Poor's, Russell Investment Group, FactSet, J.P. Morgan Asset Management.

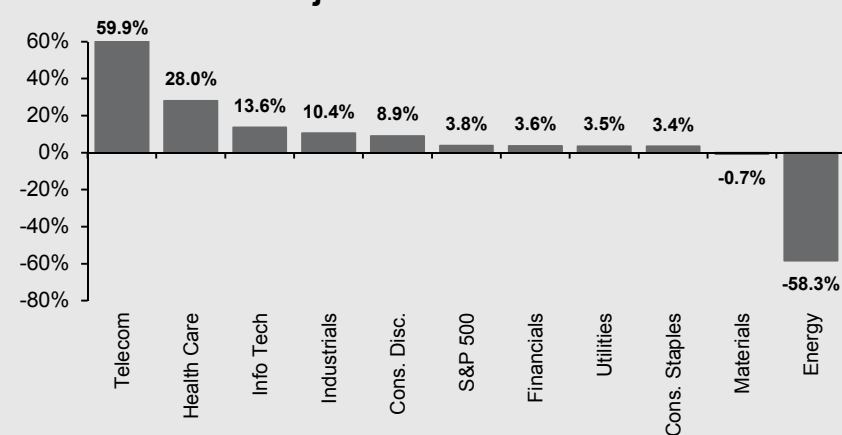
All calculations are cumulative total return, not annualized, including dividends for the stated period. Since Market Peak represents period 10/9/07 – 4/30/15. Since Market Low represents period 3/9/09 – 4/30/15. Correlation to Treasury yields are trailing 2-year monthly correlations between S&P 500 sector price returns and 10-year Treasury yield movements. Forward P/E Ratio is a bottom-up calculation based on the most recent S&P 500 Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Trailing P/E ratios are bottom-up values defined as month-end price divided by the last 12 months of available reported earnings. Historical data can change as new information becomes available. Note that P/E ratios for the S&P 500 may differ from estimates elsewhere in this book due to the use of a bottom-up calculation of constituent earnings (as described) rather than a top-down calculation. This methodology is used to allow proper comparison of sector level data to broad index level data. Dividend yields are bottom-up values defined as the annualized value of the most recent cash dividend as a percent of month-end price. Beta calculations are based on 10 years of monthly price returns for the S&P 500 and its sub-indices. Beta's are calculated on a monthly frequency over the past 10-years. Past performance is not indicative of future returns. Data are as of April 30, 2015.

## S&P 500 Sector P/E's Relative to History

15 year NTMA P/E, standard deviations above/below average

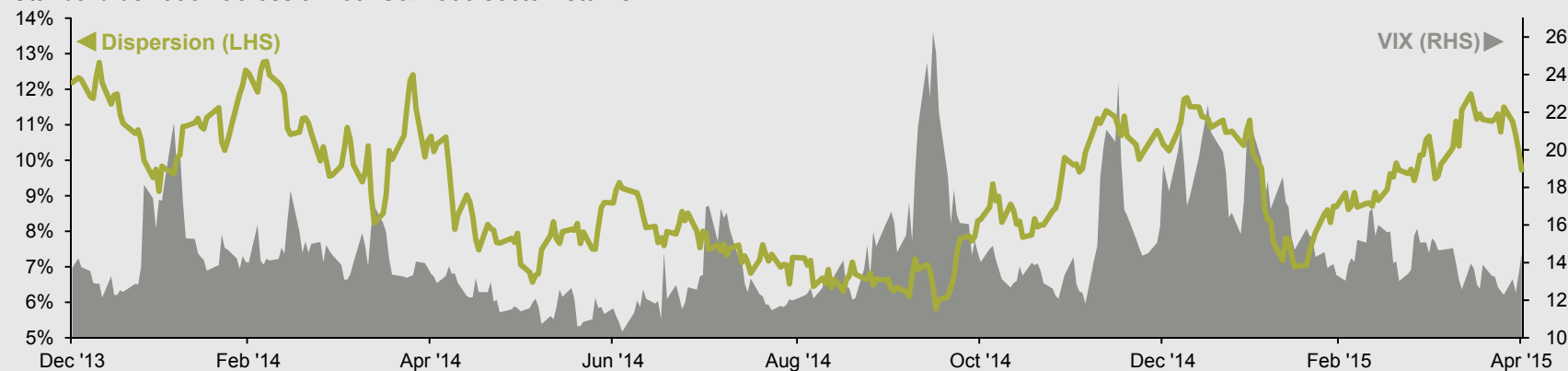


## S&P 500 Sector Projected 2015 Annual EPS Growth\*



## Sector Dispersion

Standard deviation across annual S&P 500 sector returns



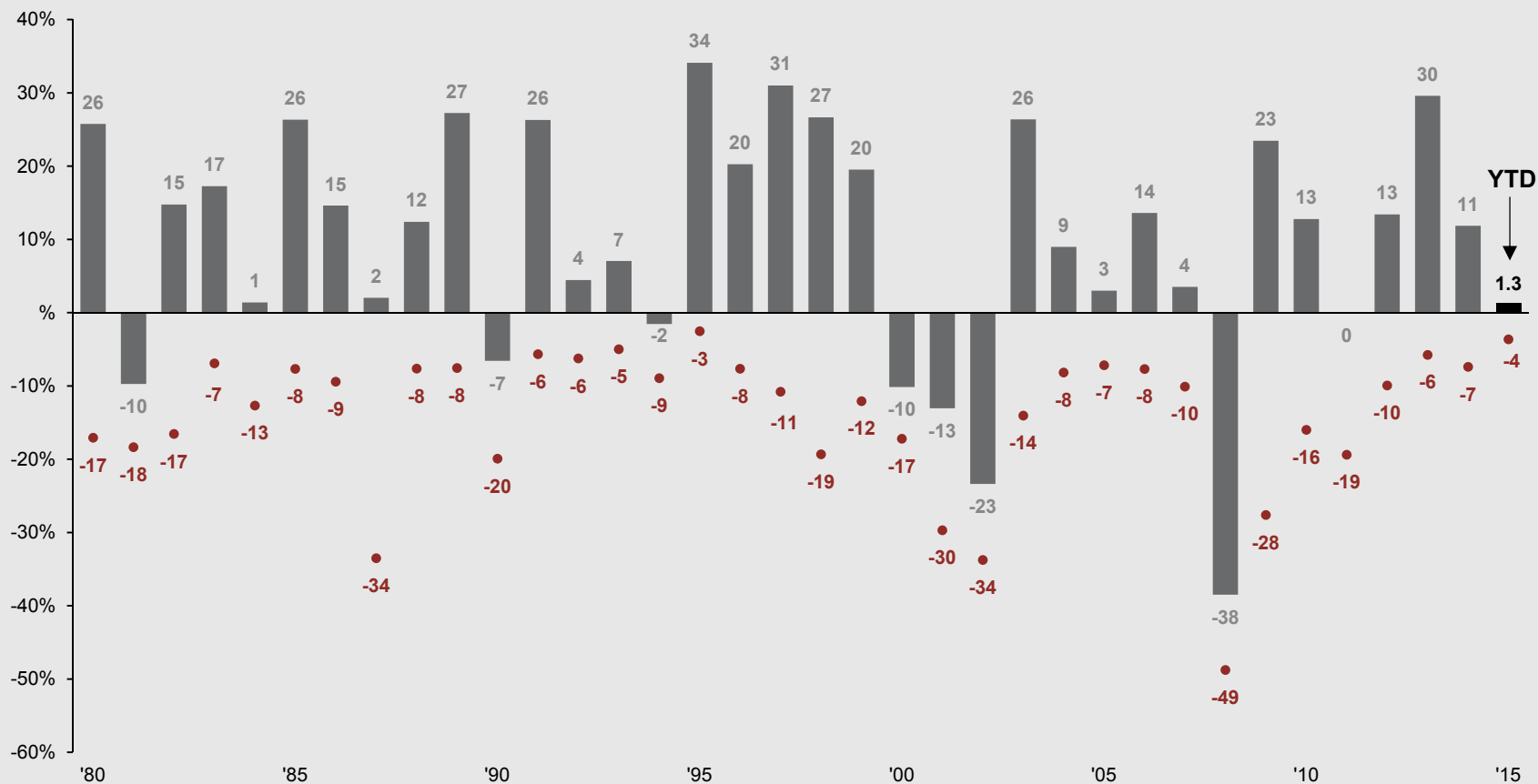
Source: Standard & Poor's, CBOE, FactSet, J.P. Morgan Asset Management.

\*EPS growth projections are Standard and Poor's estimates for full year 2015. Telecom earnings growth is due to the accounting for pension charges for the two largest names in the sector in 4Q14 which lowered the base for growth in 2015.

Data are as of April 30, 2015.

## S&P 500 Intra-year Declines vs. Calendar Year Returns

Despite average intra-year drops of 14.2%, annual returns positive in 27 of 35 years\*



Source: Standard & Poor's, FactSet, J.P. Morgan Asset Management.

Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. \*Returns shown are calendar year returns from 1980 to 2014 excluding 2015 which is year-to-date. Data are as of April 30, 2015.

## Correlations Between Weekly Stock Returns and Interest Rate Movements

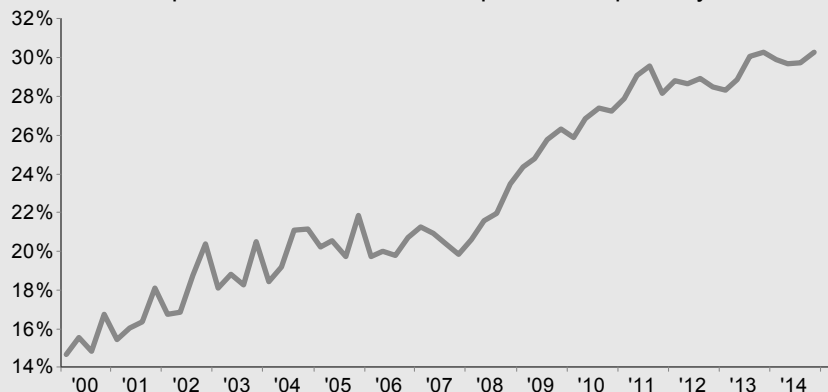
Weekly S&P 500 returns, 10-year Treasury yield, rolling 2-year correlation, May 1963 – Apr. 2015



Source: Standard & Poor's, U.S. Treasury, FactSet, J.P. Morgan Asset Management.  
Returns are based on price index only and do not include dividends. Markers represent monthly 2-year correlations only.  
Data are as of April 30, 2015.

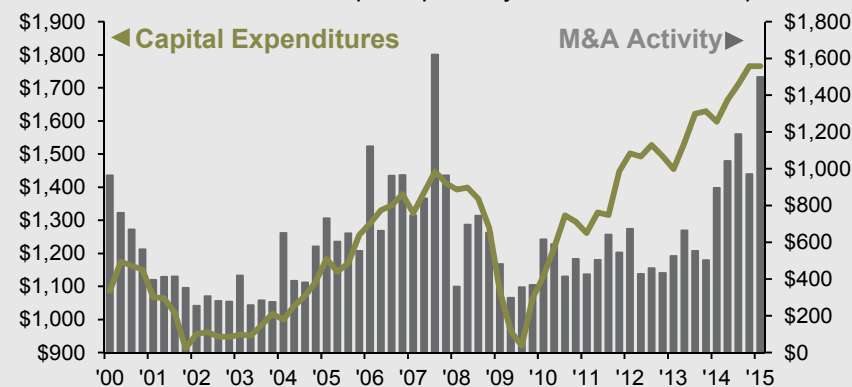
## Corporate Cash as a % of Current Assets

S&P 500 companies – cash and cash equivalents, quarterly



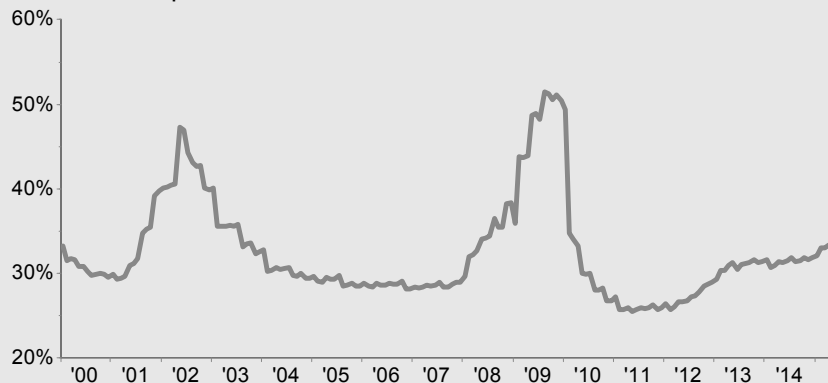
## Corporate Growth

\$bn, nonfarm nonfinancial capex, quarterly value of deals completed



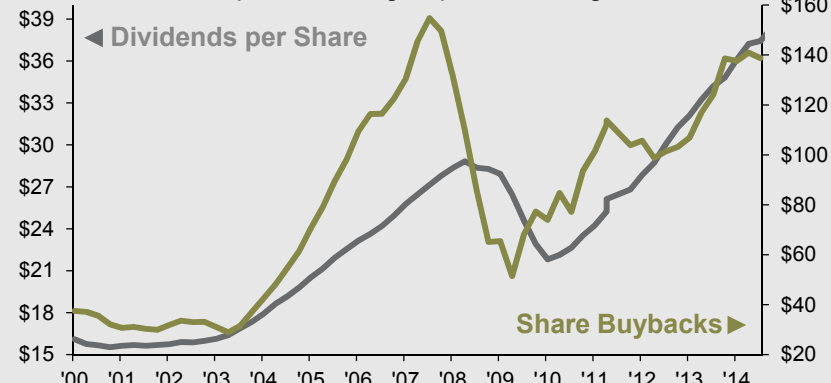
## Dividend Payout Ratio

S&P 500 companies, Last twelve months



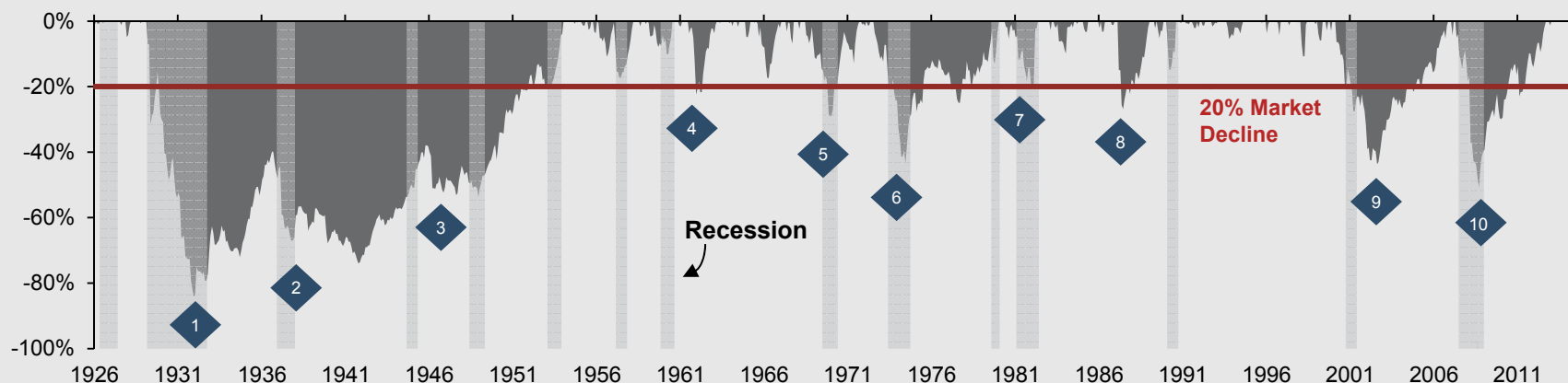
## Cash Returned to Shareholders

\$bn, S&P 500 companies, rolling 4-quarter averages



Source: Standard & Poor's, FRB, Bloomberg, Compustat, FactSet, J.P. Morgan Securities, J.P. Morgan Asset Management.  
M&A activity is the quarterly value of officially agreed transactions and capital expenditures are for nonfarm nonfinancial corporate business.  
Data are as of April 30, 2015.

## S&P 500 Composite Declines from All-Time Highs



## Characteristics of Past Bear Markets

	Market Corrections	Cycle Peak	Bull Market Duration (Months)	Decline from All-time High	Recession	Commodity Shock	Fed Tightening	Extreme Valuations	Commentary
1	Crash of 1929	Aug 1929	37	-84%	◆			◆	Excessive leverage, irrational exuberance
2	1937 Fed Tightening	Feb 1937	22	-74%	◆		◆		Premature monetary tightening
3	Post WWII Crash	May 1946	48	-54%	◆			◆	Post-war demobilization, recession fears
4	Flash Crash of 1962	Dec 1961	14	-22%				◆	Flash crash, Cuban Missile Crisis
5	Tech Crash of 1970	Dec 1968	73	-29%	◆	◆	◆		Economic overheating, civil unrest
6	Stagflation	Dec 1972	29	-43%	◆	◆			OPEC oil embargo
7	Volcker Tightening	Nov 1980	31	-19%	◆	◆	◆		Extremely high rates to rein in inflation
8	1987 Crash	Aug 1987	59	-27%					Program trading, overheated market
9	Tech Bubble	Aug 2000	118	-42%	◆			◆	Extreme valuations, mostly in tech stocks
10	Global Financial Crisis	Oct 2007	55	-51%	◆	◆	◆		Leverage, housing, Lehman collapse

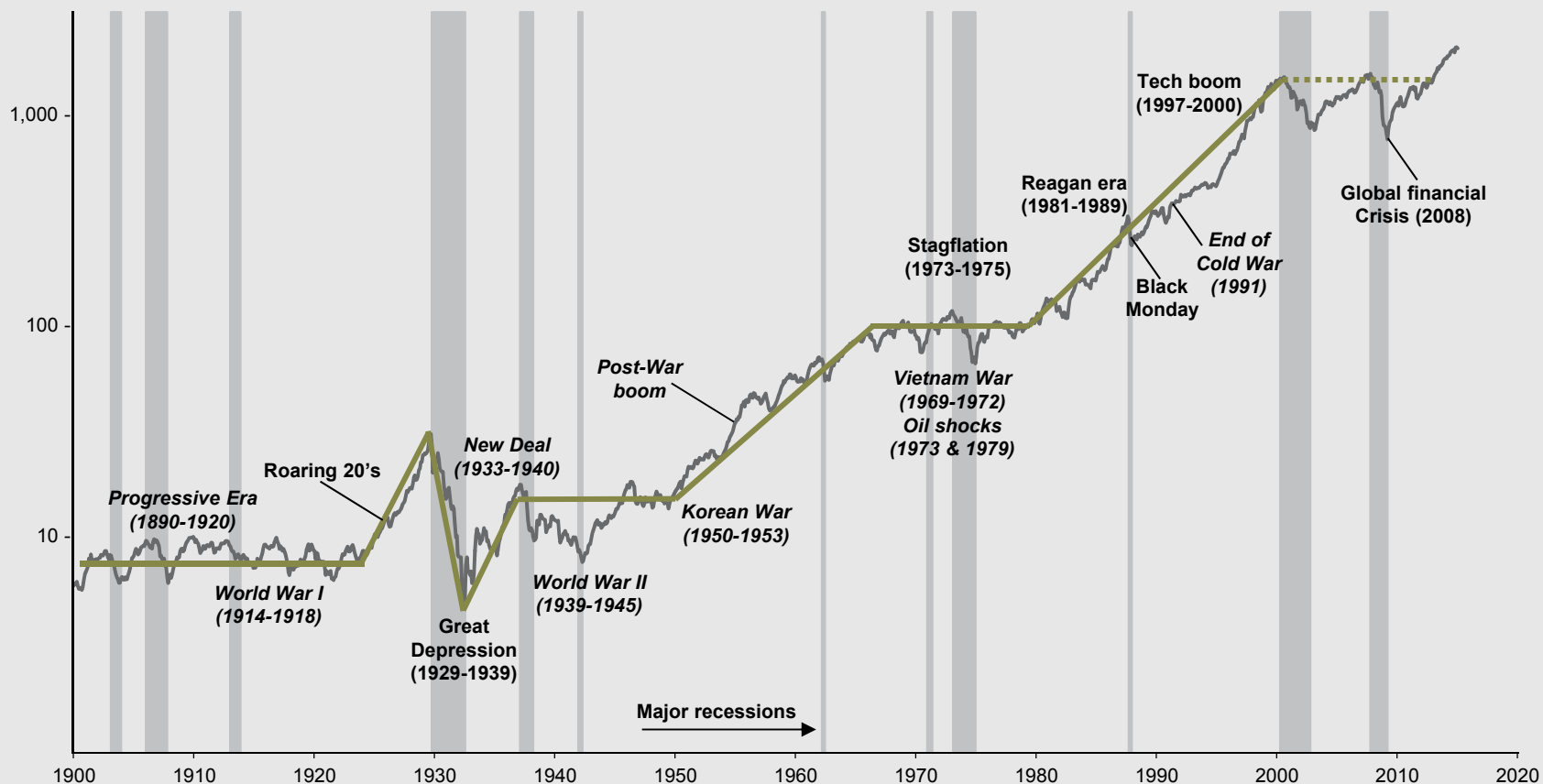
Source: Standard & Poor's, NBER, FactSet, Robert Shiller, J.P. Morgan Asset Management.

\*A bear market represents a 20% or more decline from the previous market high.

Data are as of April 30, 2015.

## S&P Composite Index

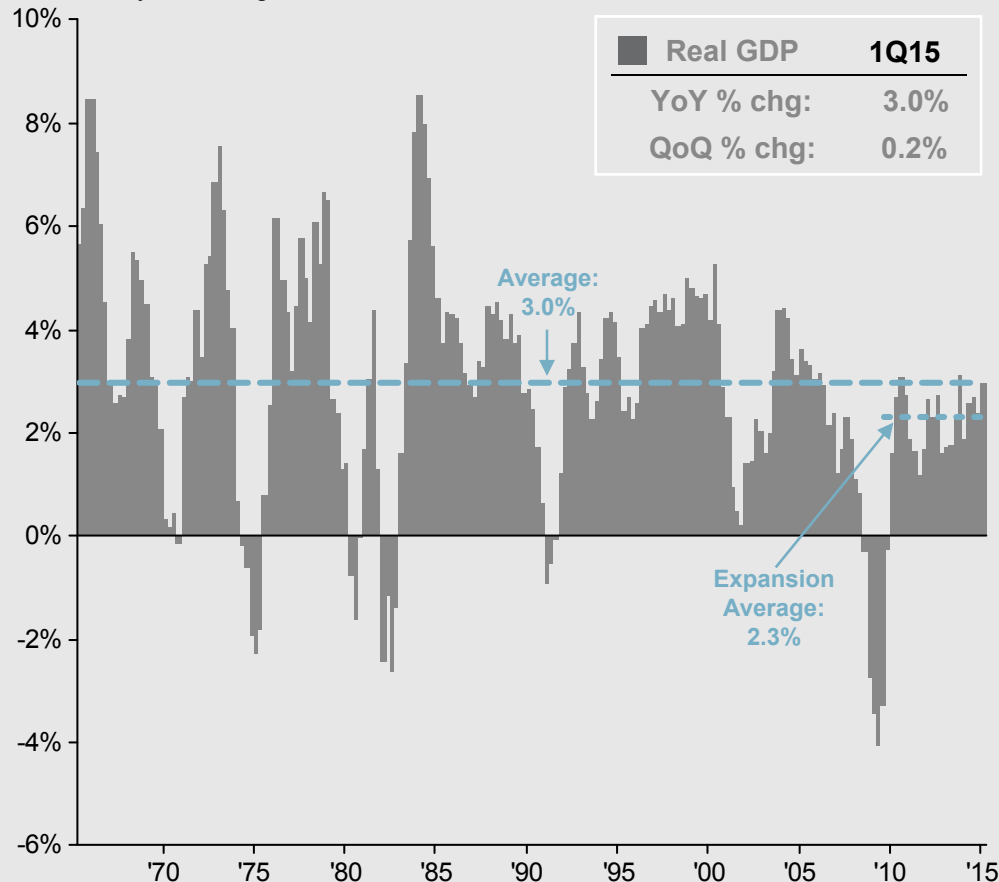
Log scale, annual



Source: Robert Shiller, FactSet, J.P. Morgan Asset Management.  
 Data shown in log scale to best illustrate long-term index patterns.  
 Past performance is not indicative of future returns. Chart is for illustrative purposes only.  
 Data are as of April 30, 2015.

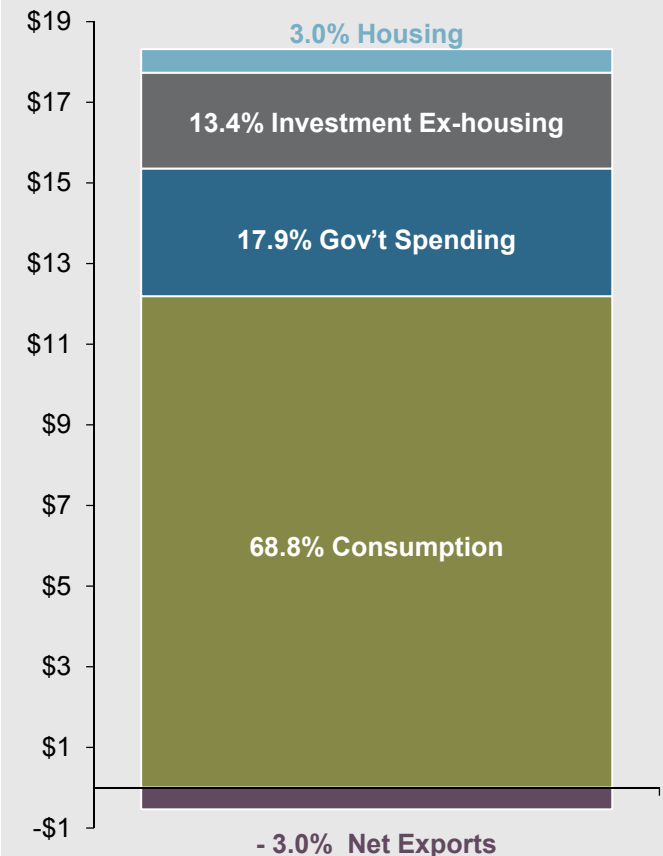
## Real GDP

Year-over-year % chg



## Components of GDP

1Q15 nominal GDP, trillions USD



Source: BEA, FactSet, J.P. Morgan Asset Management.

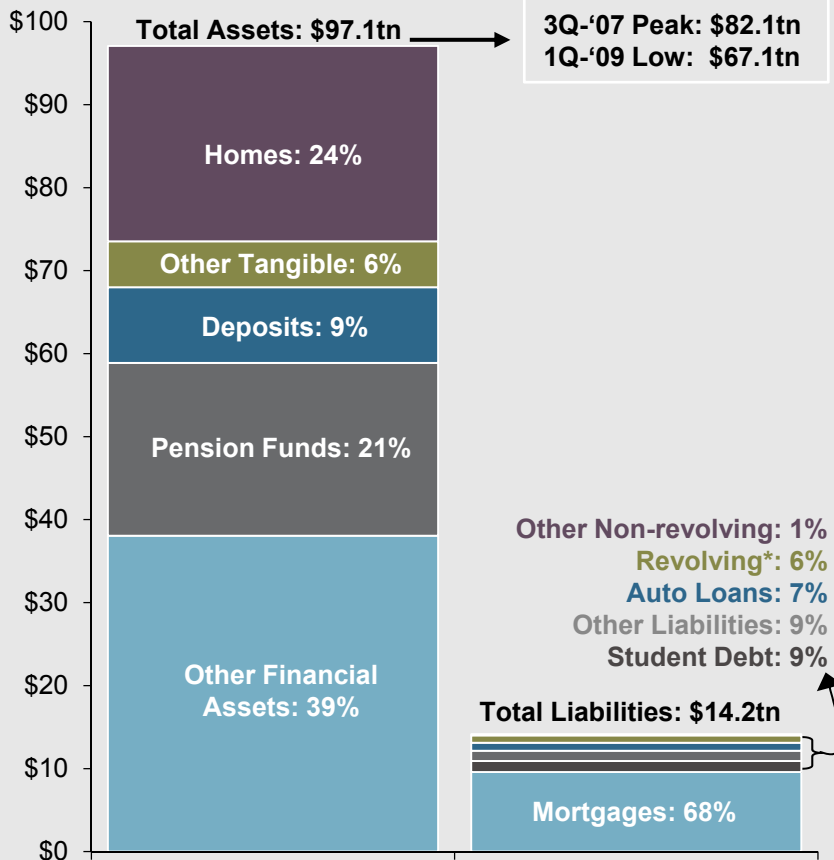
Values may not sum to 100% due to rounding. Quarter over quarter percent changes are at an annualized rate. Average represents the annualized growth rate for the full period. Expansion average refers to the period starting in the second quarter of 2009.

Data are as of April 30, 2015.



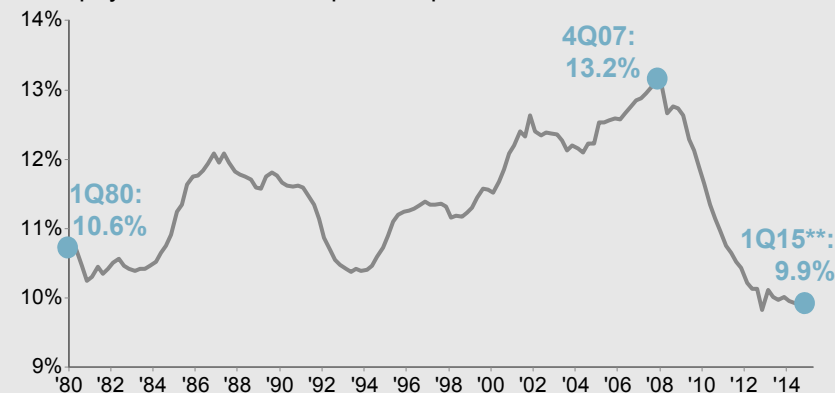
## Consumer Balance Sheet

4Q14, Trillions of dollars outstanding, not seasonally adjusted



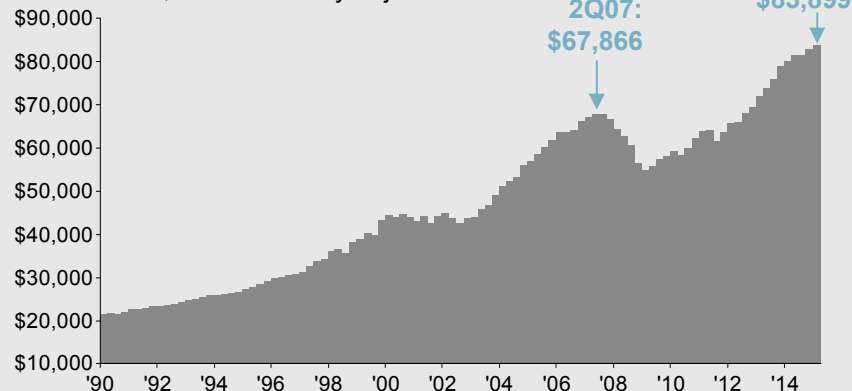
## Household Debt Service Ratio

Debt payments as % of disposable personal income, SA



## Household Net Worth

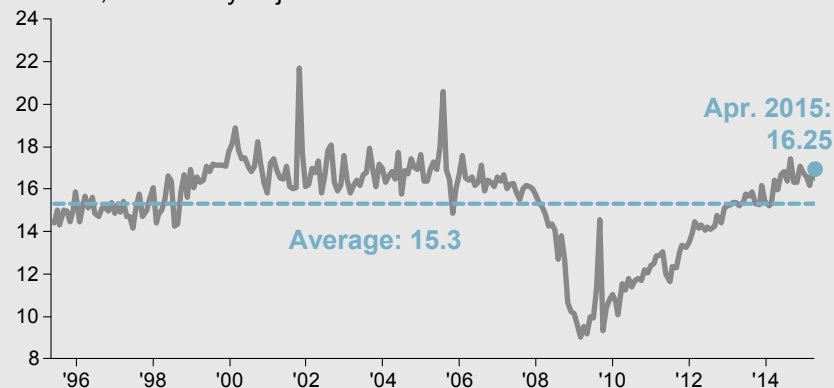
Billions USD, not seasonally adjusted



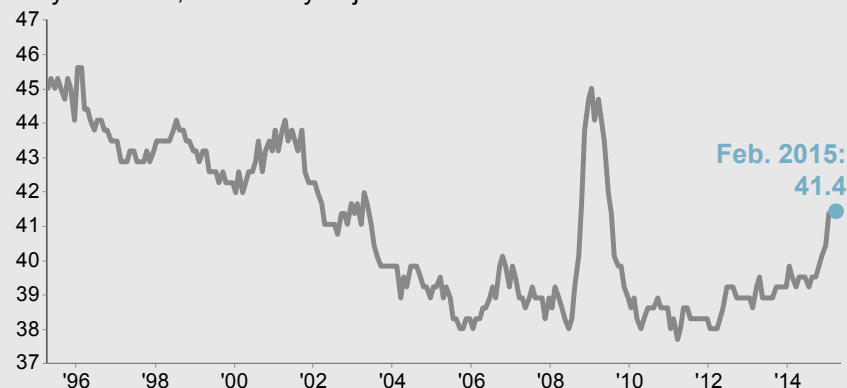
Source: (Left) FRB, J.P. Morgan Asset Management. Data include households and nonprofit organizations. (Right) BEA, FRB, FactSet, J.P. Morgan Asset Management. SA – seasonally adjusted. \*Revolving includes credit cards. \*\*1Q15 household debt service ratio and 1Q15 household net worth are J.P. Morgan Asset Management estimates. Values may not sum to 100% due to rounding. Data are as of April 30, 2015.

**Light Vehicle Sales**

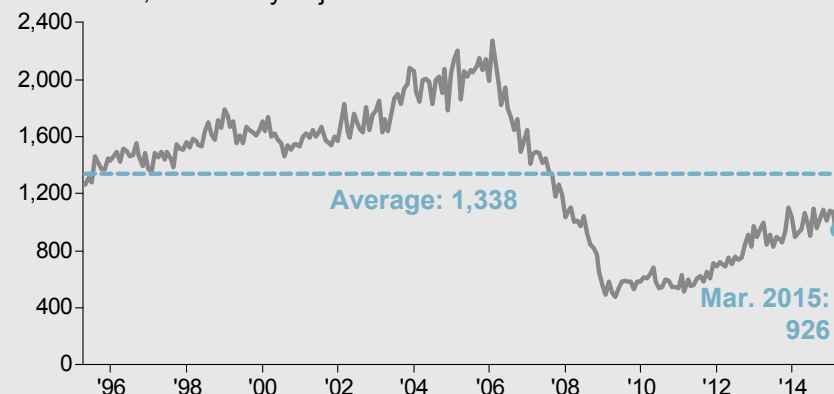
Millions, seasonally adjusted annual rate

**Manufacturing and Trade Inventories**

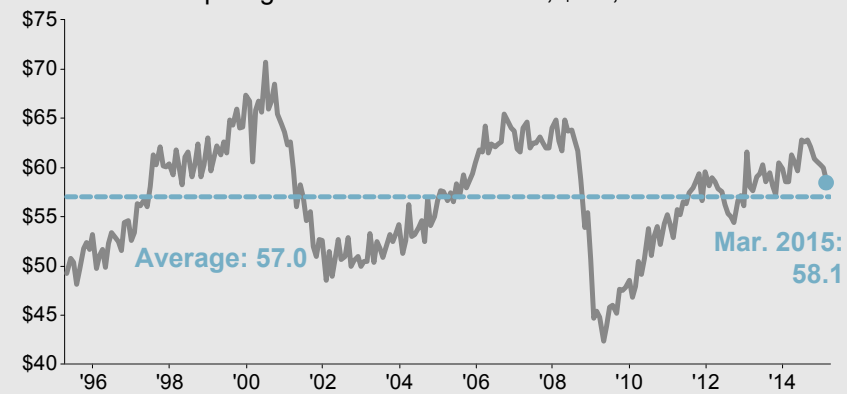
Days of sales, seasonally adjusted

**Housing Starts**

Thousands, seasonally adjusted annual rate

**Real Capital Goods Orders**

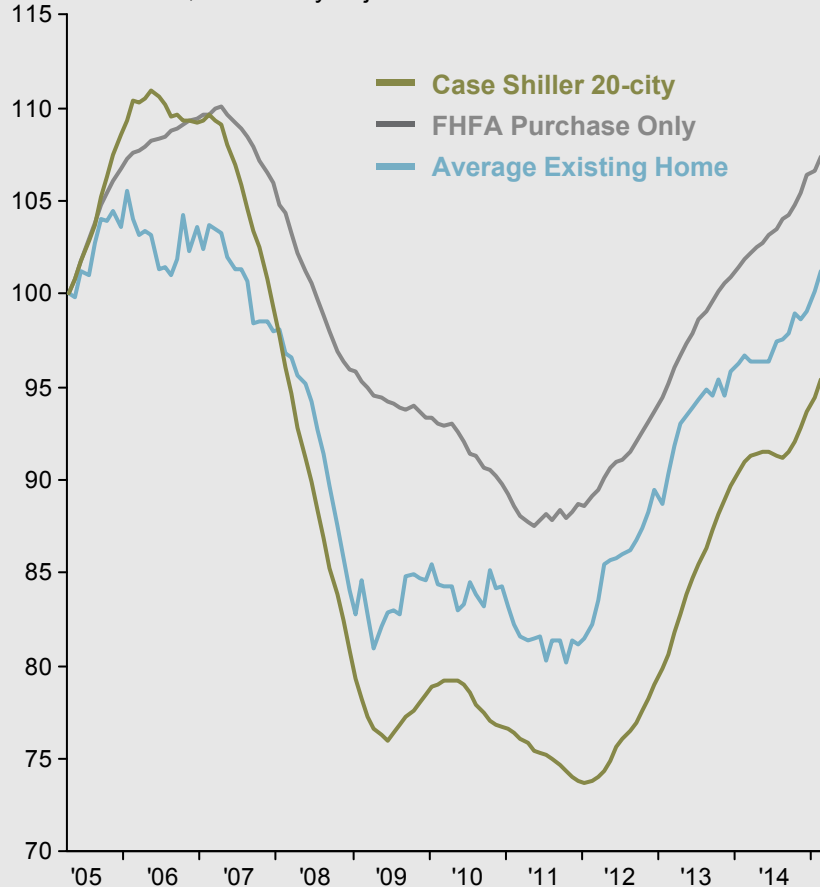
Non-defense capital goods orders ex. aircraft, \$ bn, SA



Source: (Top left) BEA, FactSet, J.P. Morgan Asset Management. (Top right) Census Bureau, FactSet, J.P. Morgan Asset Management. (Bottom left) Census Bureau, FactSet, J.P. Morgan Asset Management. (Bottom right) Census Bureau, FactSet, J.P. Morgan Asset Management. SA – seasonally adjusted. Capital goods orders deflated using the producer price index for capital goods with a base year of 2004. Data are as of April 30, 2015.

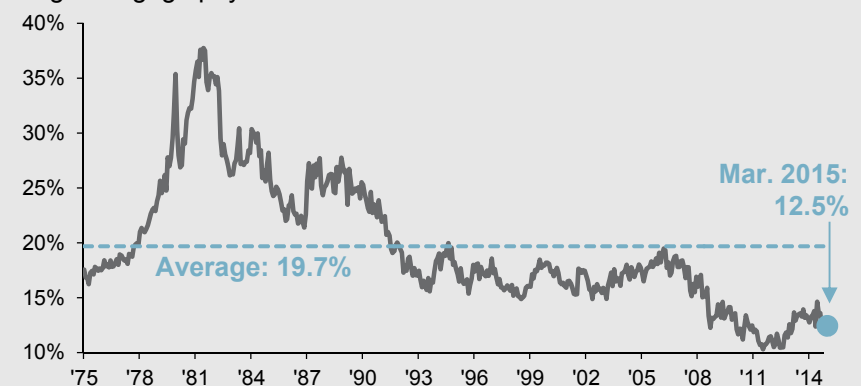
## Home Prices

Indexed to 100, seasonally adjusted



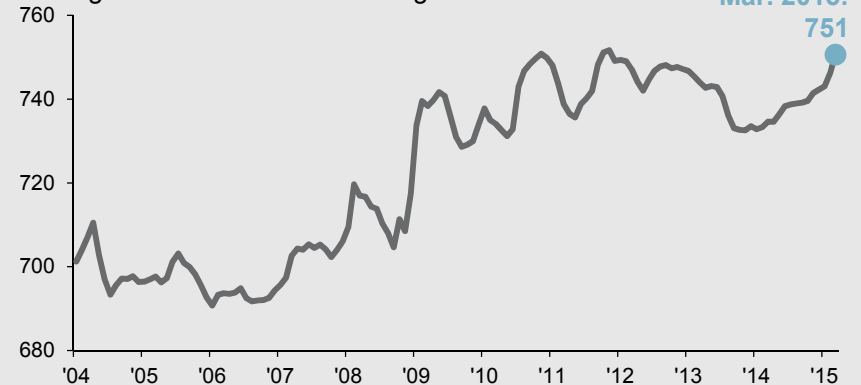
## Housing Affordability Index

Avg. mortgage payment as a % of household income



## Lending Standards for Approved Mortgage Loans

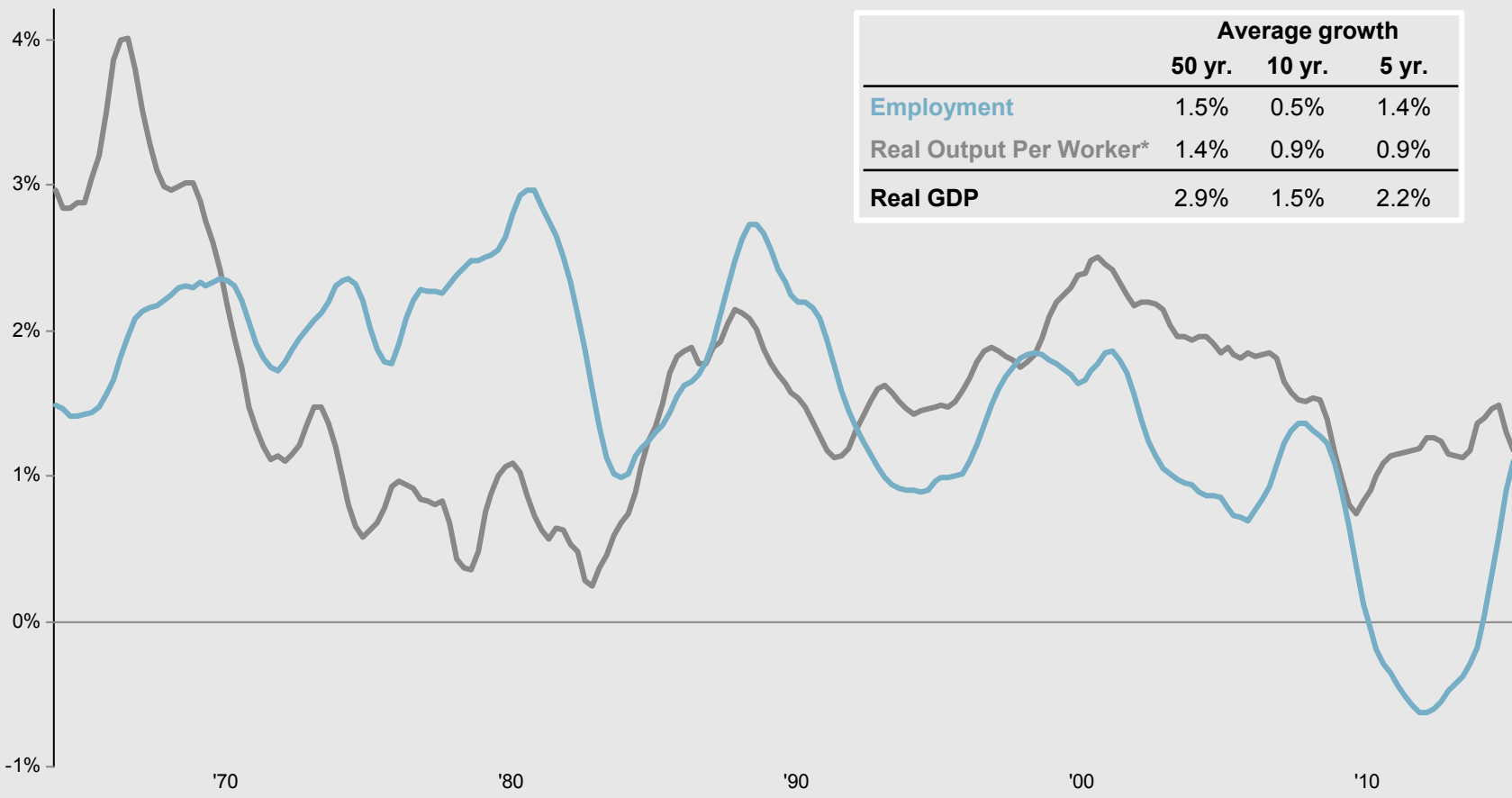
Average FICO score based on origination date



Sources: (Left) National Association of Realtors, Standard & Poor's, FHFA, FactSet, J.P. Morgan Asset Management. (Top right) Census Bureau, J.P. Morgan Asset Management. Monthly mortgage payment assumes the prevailing 30-year fixed-rate mortgage rates and average new home prices excluding a 20% down payment. (Bottom Right) McDash, J.P. Morgan Securitized Product Research, J.P. Morgan Asset Management. Data are as of April 30, 2015.

## Growth in Employment and Real Output Per Worker, 4Q1964 to 1Q2015

Five year moving average of year-over-year % change



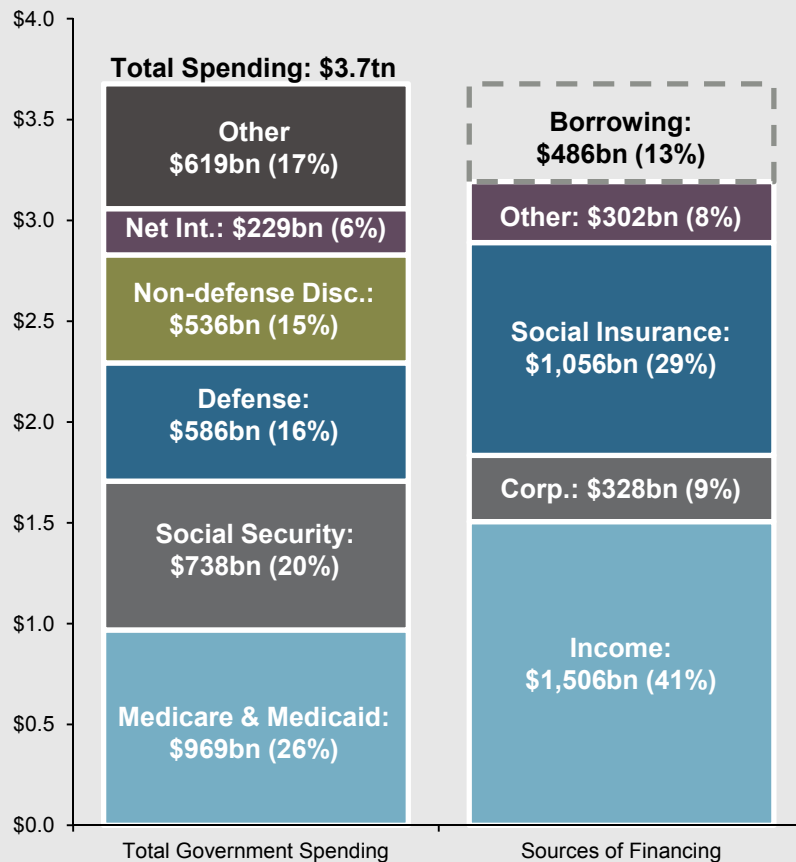
Source: BEA, BLS, FactSet, J.P. Morgan Asset Management.

\*Real Output Per Worker is calculated as real GDP growth minus civilian employment growth. Averages are calculated as the annualized growth rate.

Data are as of April 30, 2015.

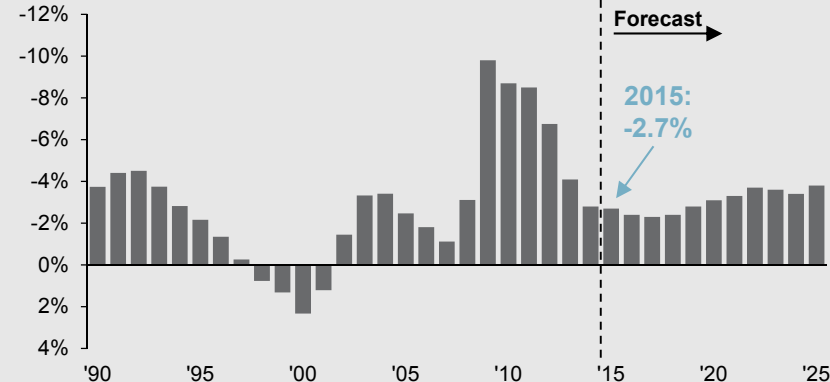
## The 2015 Federal Budget

CBO Baseline forecast, trillions USD



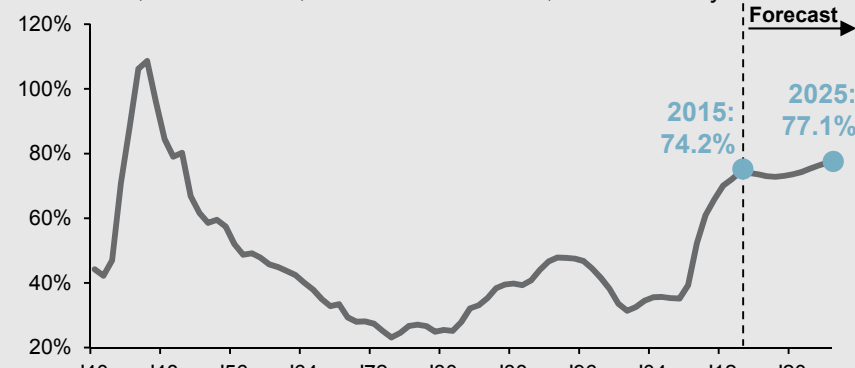
## Federal Budget Surplus/Deficit

% of GDP, 1990 – 2025, 2015 CBO Baseline



## Federal Net Debt (Accumulated Deficits)

% of GDP, 1940 – 2025, 2015 CBO Baseline, end of fiscal year



Source: U.S. Treasury, BEA, CBO, St. Louis Fed, J.P. Morgan Asset Management.

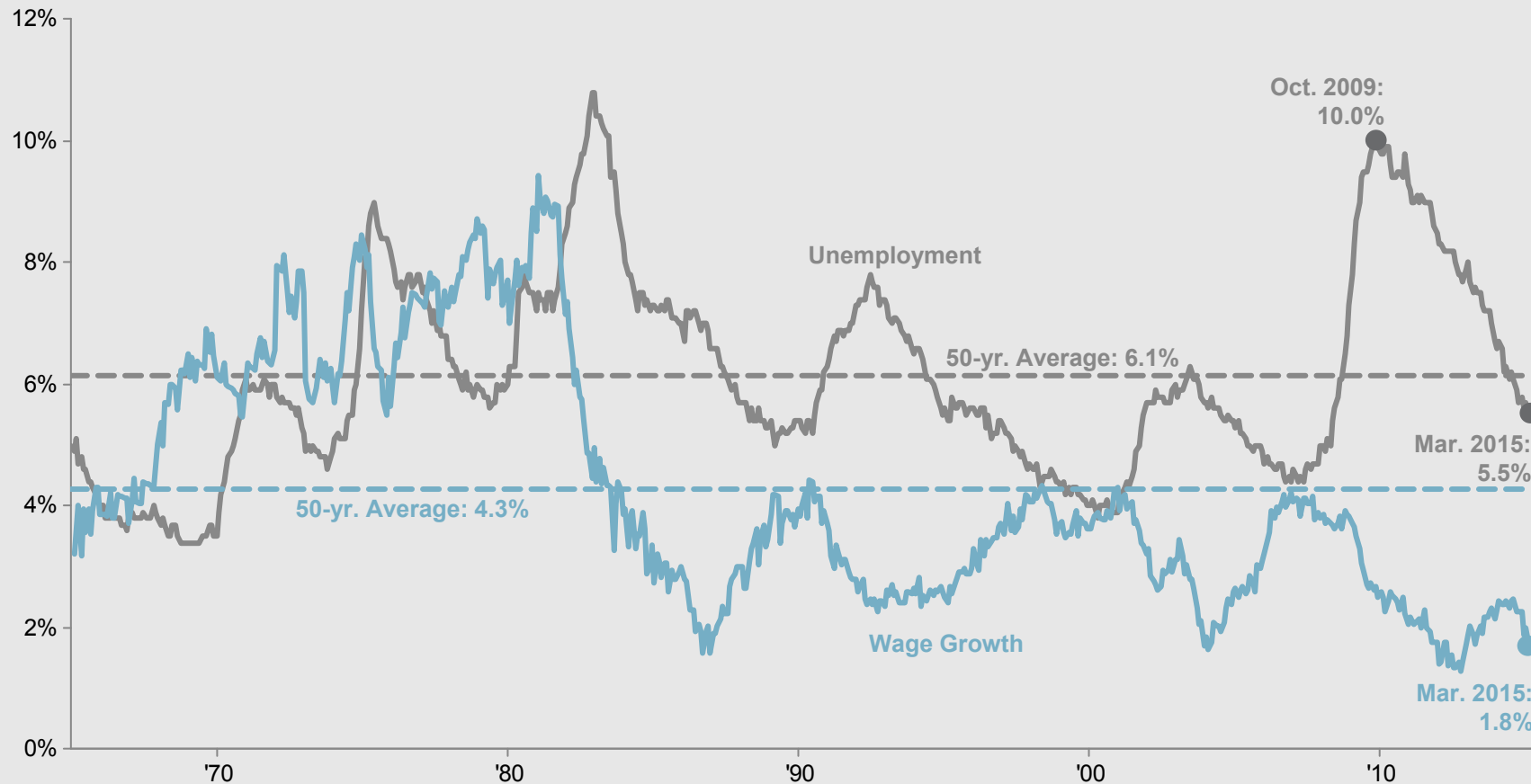
2015 Federal Budget is based on the CBO's March 2015 Baseline Budget Forecast. Other spending includes, but is not limited to, health insurance subsidies, income security, and federal civilian and military retirement.

Note: Years shown are fiscal years (Oct. 1 through Sep. 30). 2015 numbers are CBO estimates as of March 2015.

Data are as of April 30, 2015.

## Civilian Unemployment Rate and Year-over-Year Growth in Wages of Production and Non-Supervisory Workers

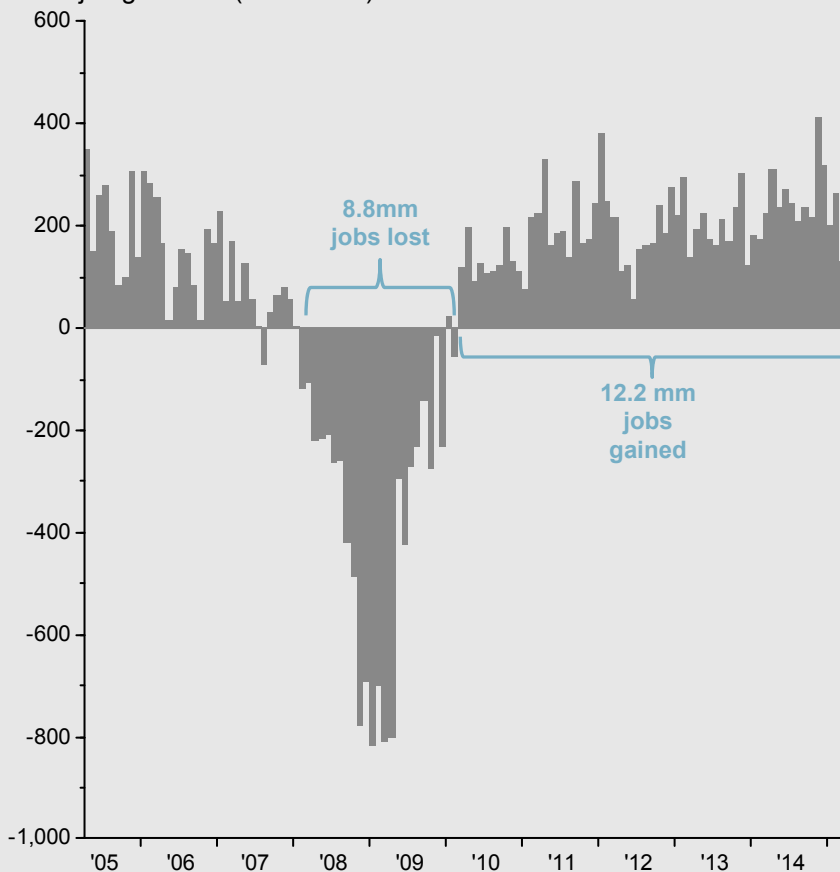
Seasonally adjusted, percent



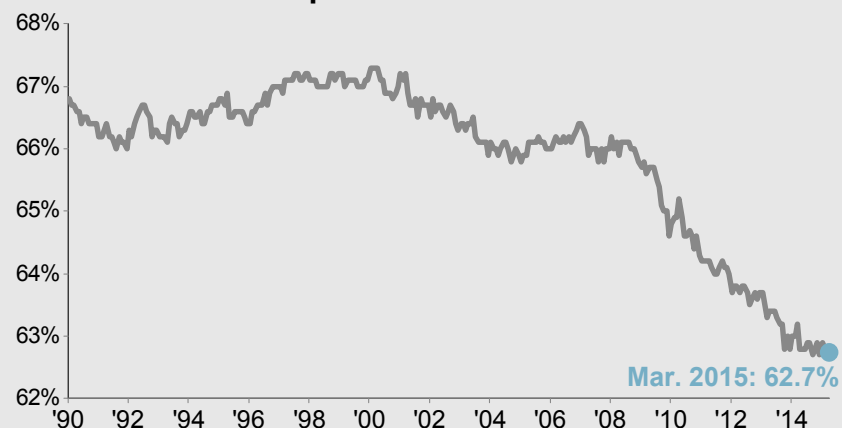
Source: BLS, FactSet, J.P. Morgan Asset Management.  
Data are as of April 30, 2015.

## Employment – Total Private Payroll

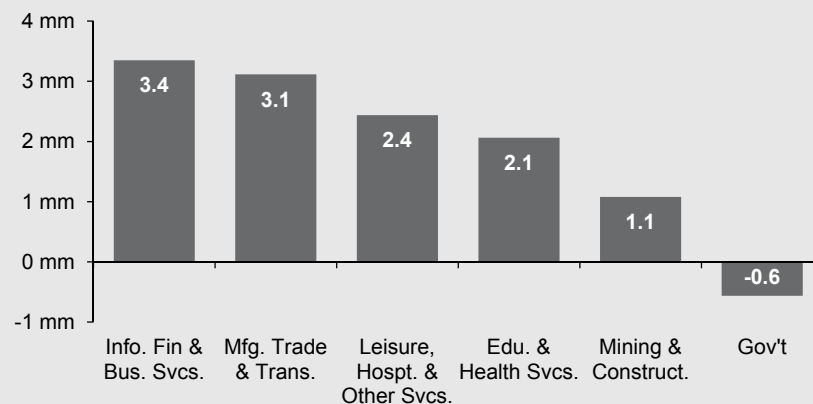
Total job gain/loss (thousands)



## Labor Force Participation Rate

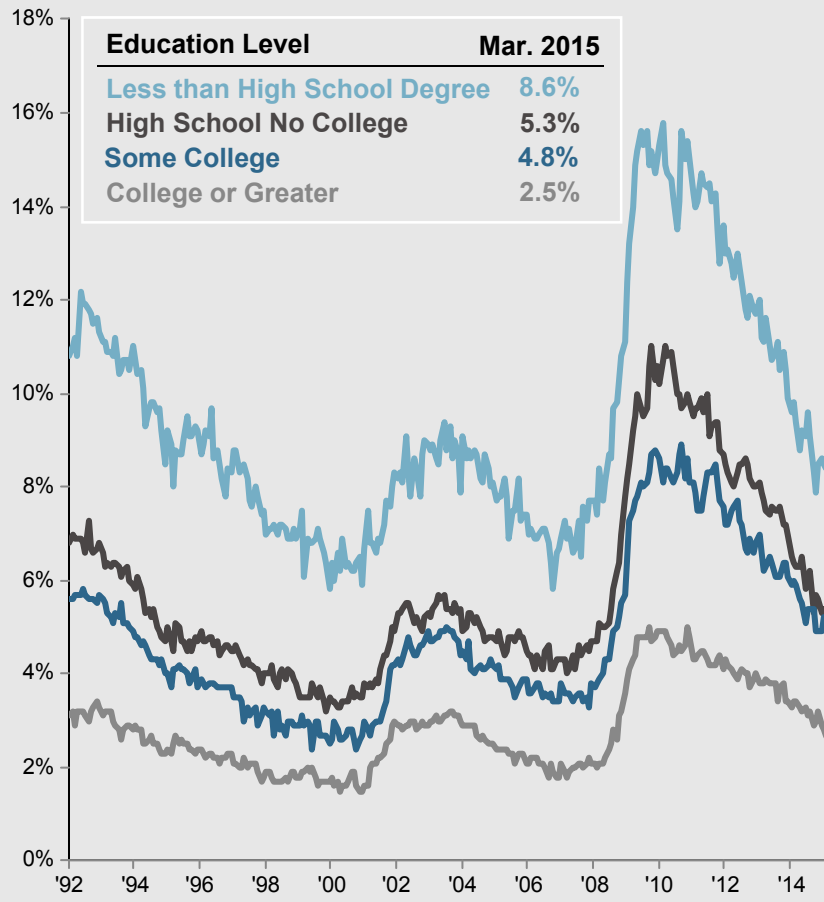


## Net Job Creation Since Feb. 2010 – Millions of Jobs



Source: BLS, FactSet, J.P. Morgan Asset Management.  
Data are as of April 30, 2015.

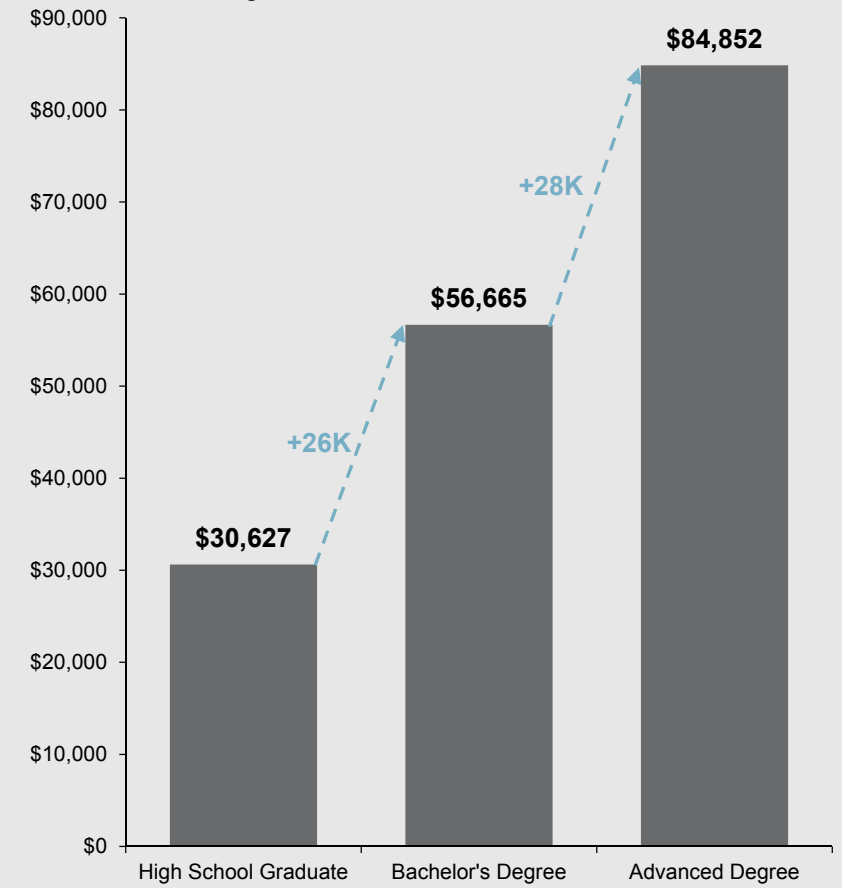
## Unemployment Rate by Education Level



Source: BLS, Census Bureau, FactSet, J.P. Morgan Asset Management.  
Unemployment rates shown are for civilians aged 25 and older.  
Data are as of April 30, 2015.

## Average Annual Earnings by Highest Degree Earned

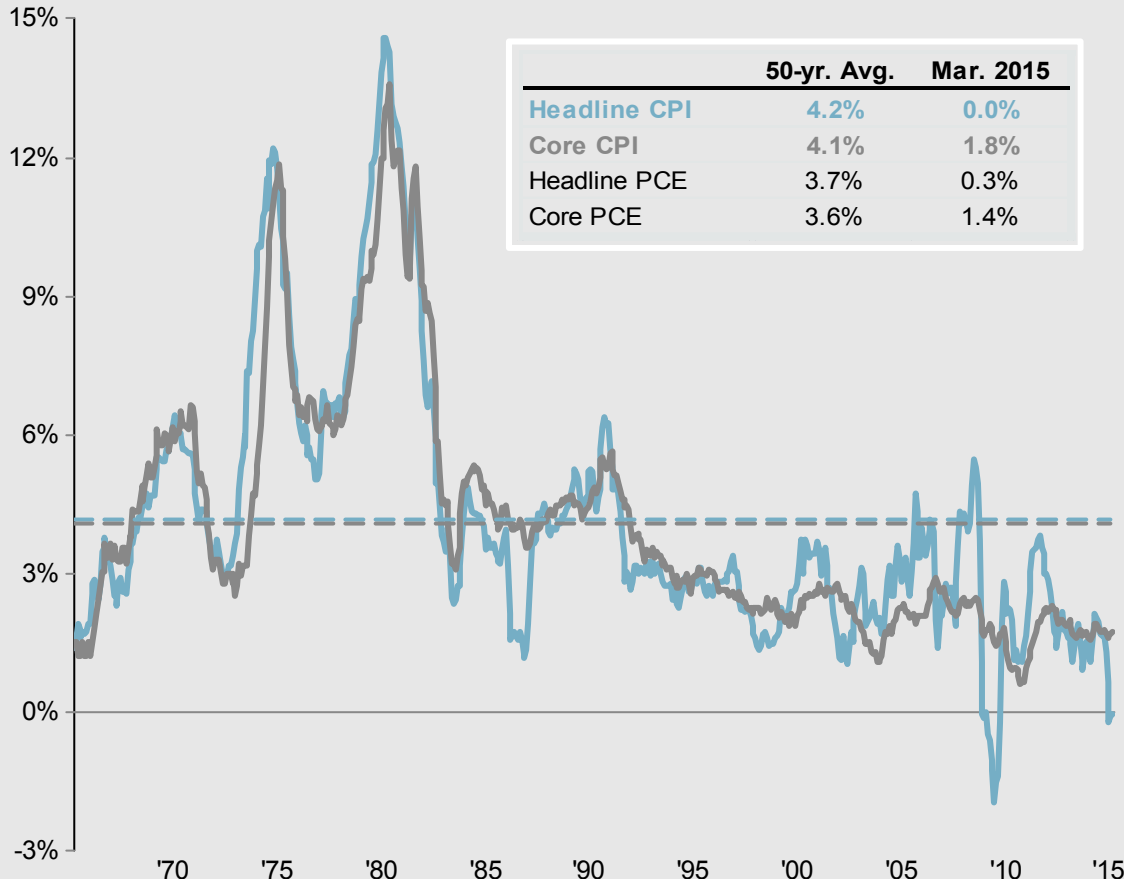
Full-time workers aged 18 and older, 2012, USD





## CPI and Core CPI

% change vs. prior year, seasonally adjusted



CPI Components	Weight in CPI	12-month Change
Food & Bev.	14.3%	2.3%
Housing	33.0%	3.0%
Apparel	3.4%	-0.5%
Transportation	5.7%	-8.5%
Medical Care	6.0%	2.5%
Recreation	3.8%	0.1%
Edu. & Comm.	6.5%	0.3%
Other	1.8%	1.4%
<b>Headline CPI</b>	<b>100.0%</b>	<b>0.0%</b>
Less:		
Energy	7.5%	-18.0%
Food	14.3%	2.3%
<b>Core CPI</b>	<b>78.2%</b>	<b>1.8%</b>

Source: BLS, FactSet, J.P. Morgan Asset Management.

CPI used is CPI-U and values shown are % change vs. one year ago and reflect March 2015 CPI data. CPI component weights are as of February 2015. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed weight basket used in CPI calculations.

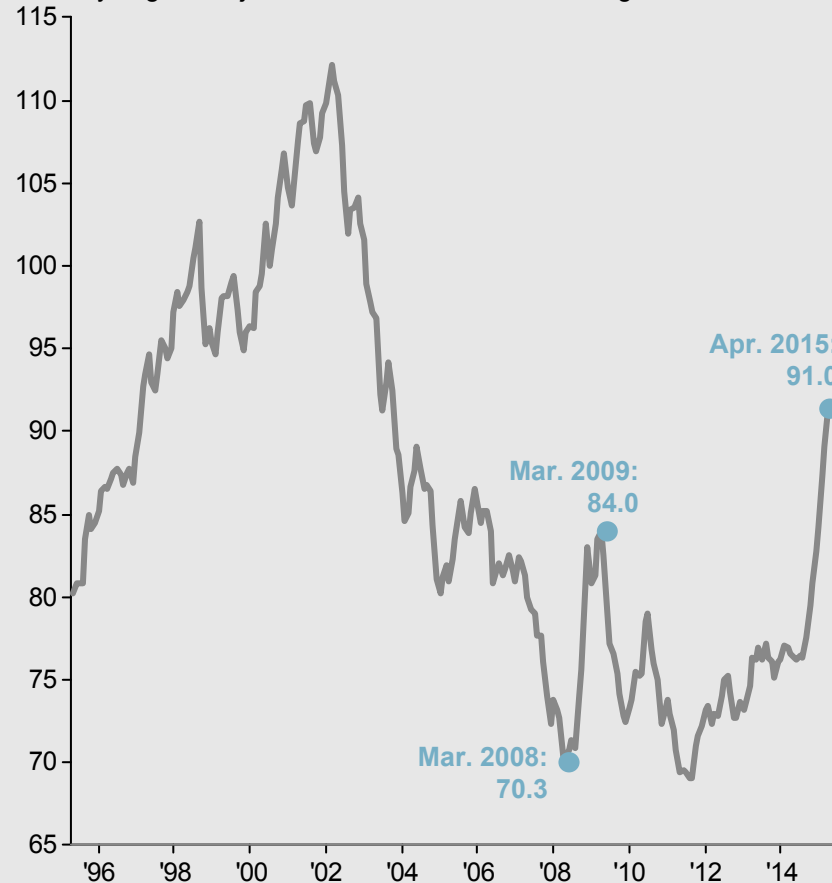
Data are as of April 30, 2015.

## Current Account Balance, % of GDP



## U.S. Dollar Index

Monthly avg. of major currencies nominal trade-weighted index



Source: BEA, Federal Reserve, FactSet, J.P. Morgan Asset Management. Currencies in the Trade Weighted U.S. Dollar Major Currencies Index are: British Pound, Euro, Swedish Kroner, Australian Dollar, Canadian Dollar, and Swiss Franc. Data are as of April 30, 2015.

## Change in Production and Consumption of Oil

Production, consumption and inventories, million barrels per day

	2013	2014	2015*	Growth since 2013
<b>Production</b>				
U.S.	12.4	14.0	14.8	19.6%
OPEC	36.5	36.4	36.8	0.7%
Other	42.1	42.7	42.6	1.2%
Global	91.0	93.1	94.2	3.5%
<b>Consumption</b>				
U.S.	19.0	19.0	19.4	2.1%
Europe	14.3	14.1	14.1	-1.7%
Japan	4.5	4.3	4.1	-8.6%
China	10.3	10.7	11.0	6.8%
Other	43.1	43.9	44.5	3.3%
Global	91.2	92.1	93.1	2.1%
<b>Inventory Change</b>	-0.2	1.0	1.1	

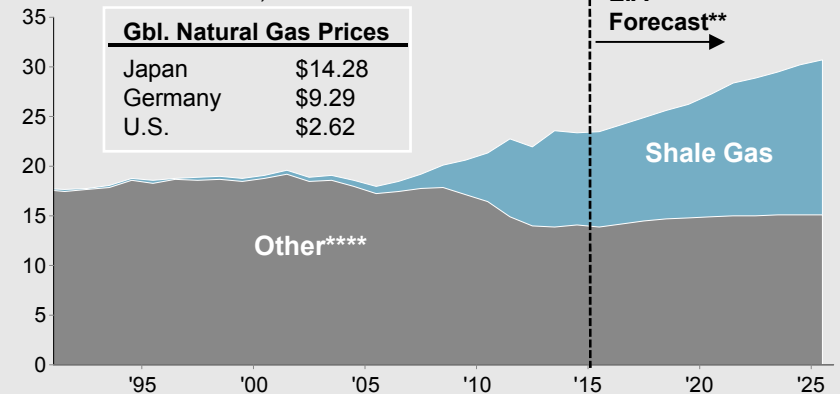
## Price of Oil

Brent crude, nominal prices, USD/barrel



## U.S. Natural Gas Production\*\*\*

Trillions of cubic feet, USD



Source: EIA, IMF, FactSet, J.P. Morgan Asset Management.

Brent crude and natural gas prices are monthly averages in USD. Natural gas prices are \$/mmbtu and are as of March 2015.

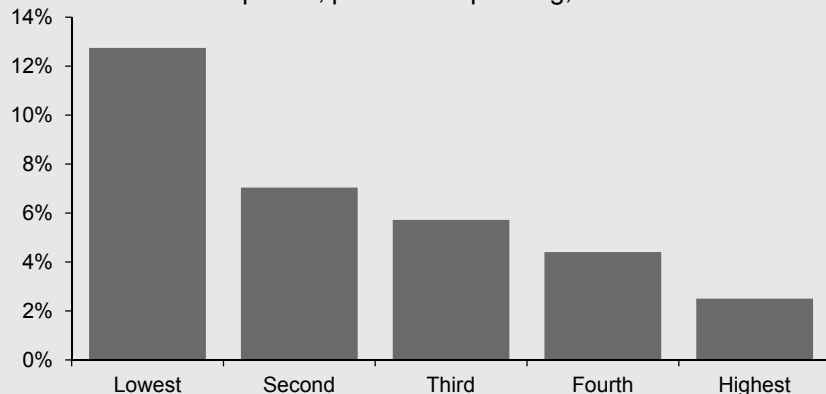
\*Forecasts are from the EIA Short-Term Energy Outlook and start in 2015. \*\*Forecasts are from EIA Annual Energy Outlook and start in 2014.

\*\*\*Production numbers as of 2015. \*\*\*\*Other includes conventional on and offshore natural gas drilling, tight gas, and coalbed methane.

Data are as of April 30, 2015.

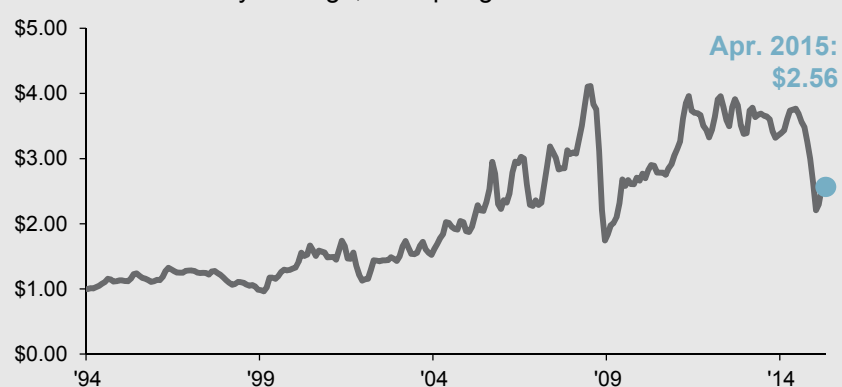
## Percent of Income Spent on Gasoline and Motor Oil

Before-tax income quintile, percent of spending, 2013



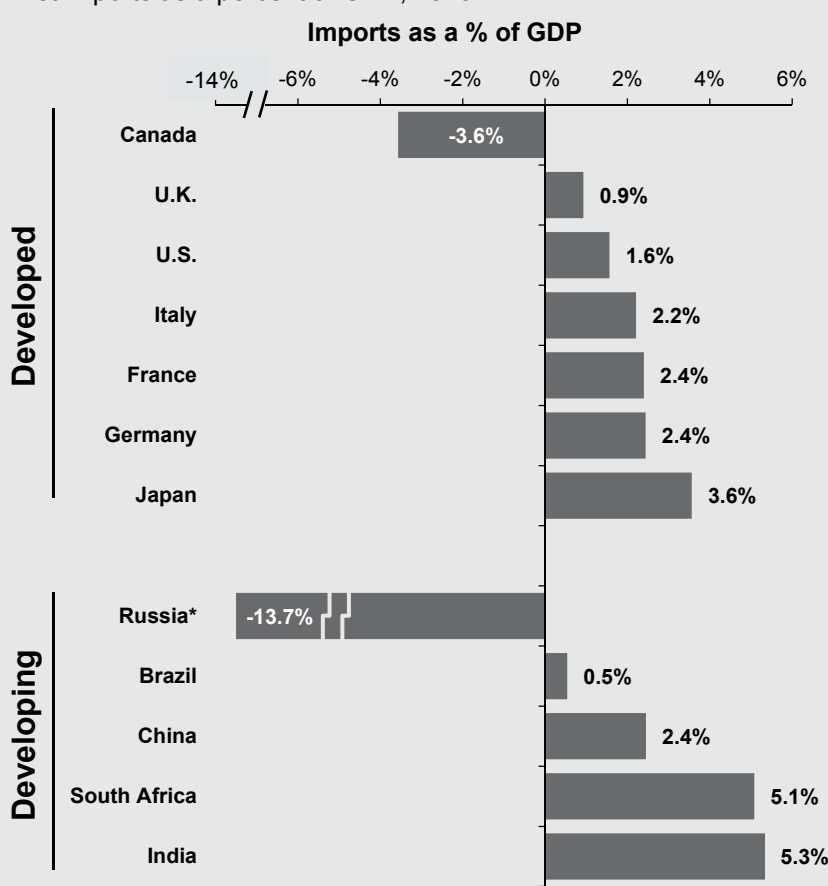
## Gasoline Prices

United States all city average, USD per gallon



## Oil Importers and Exporters

Net imports as a percent of GDP, 2013

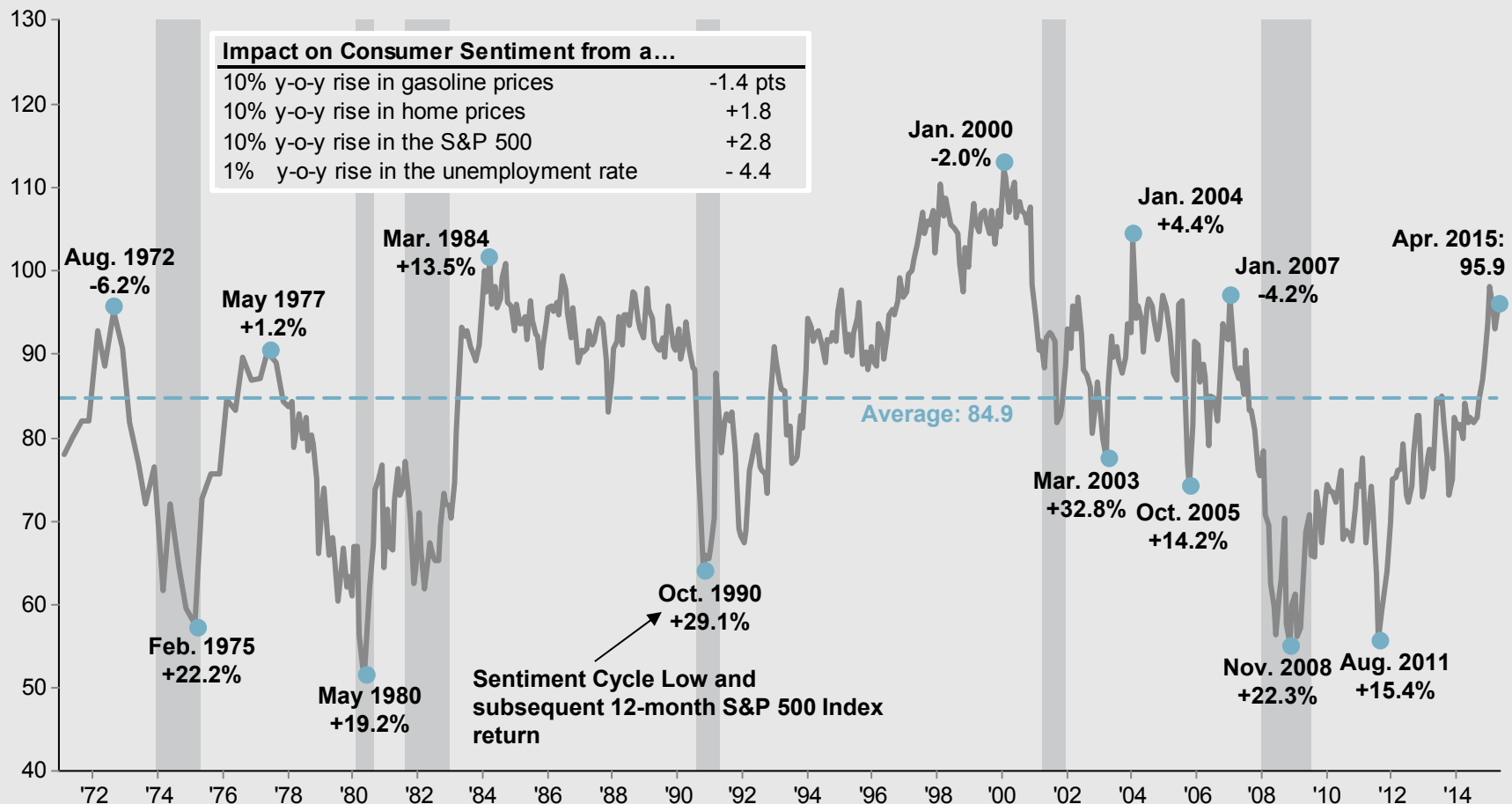


Source: (Top left) BEA, (Bottom Left) Department of Labor, FactSet, (Right) EIA, IMF, J.P. Morgan Asset Management.

\*Russia imports as a percent of GDP was -13.7% in 2013 and is adjusted on the chart.

Data are as of April 30, 2015.

## Consumer Sentiment Index – University of Michigan

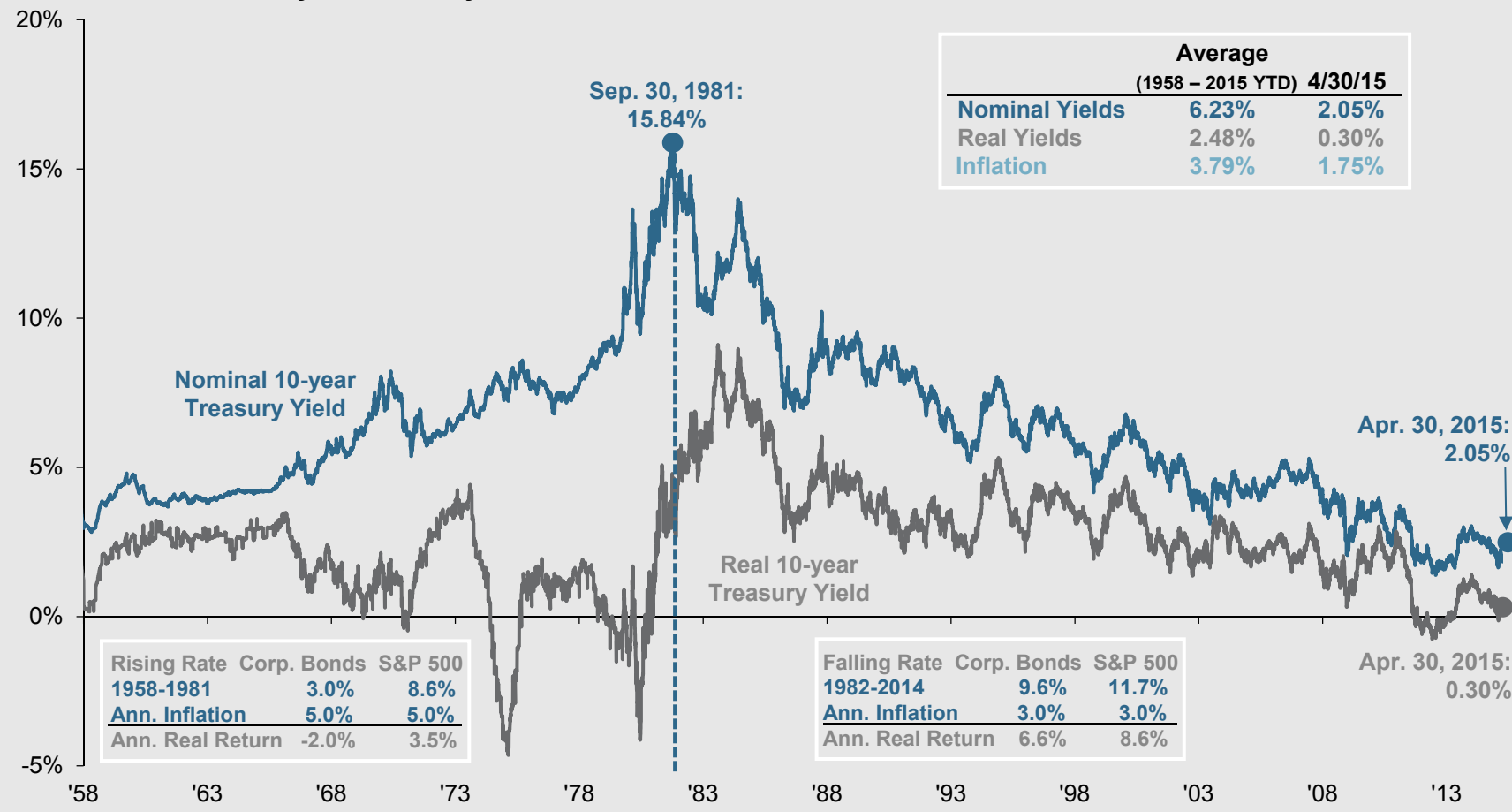


Source: Standard & Poor's, University of Michigan, FactSet, J.P. Morgan Asset Management.

Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs. Subsequent 12-month S&P 500 returns are price returns only, which excludes dividends. Impact on consumer sentiment is based on a multivariate monthly regression between 1/31/2000 – 3/31/2015.

Data are as of April 30, 2015.

## Nominal and Real 10-year Treasury Yields

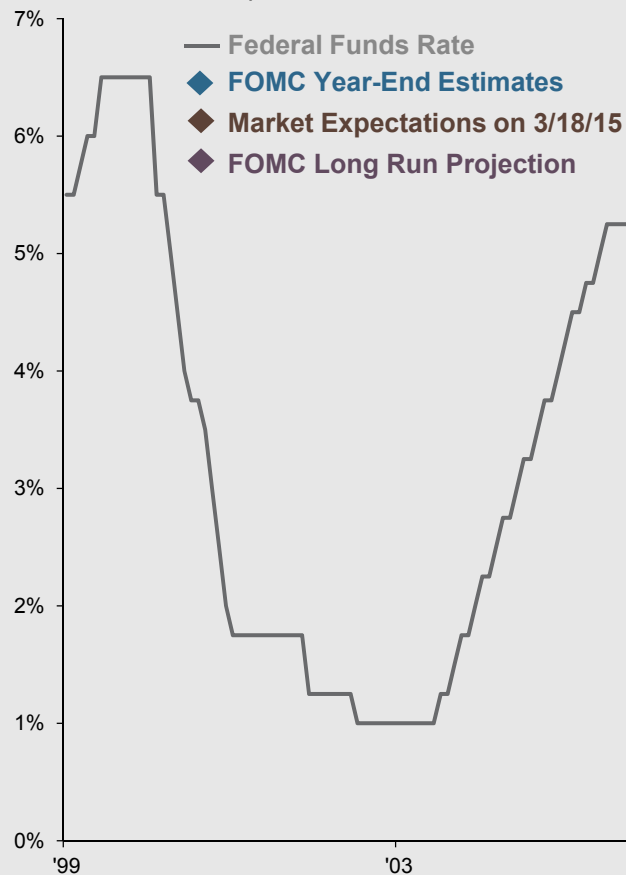


Source: Federal Reserve, BLS, J.P. Morgan Asset Management.

Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month except for April 2015, where real yields are calculated by subtracting out March 2015 year-over-year core inflation. All returns above reflect annualized total returns, which include reinvestment of dividends. Corporate bond returns are based on a composite index of investment grade bond performance. Data are as of April 30, 2015.

## Federal Funds Rate Expectations

FOMC and market expectations for the Fed Funds rate



## FOMC March 2015 Forecasts\*

Percent

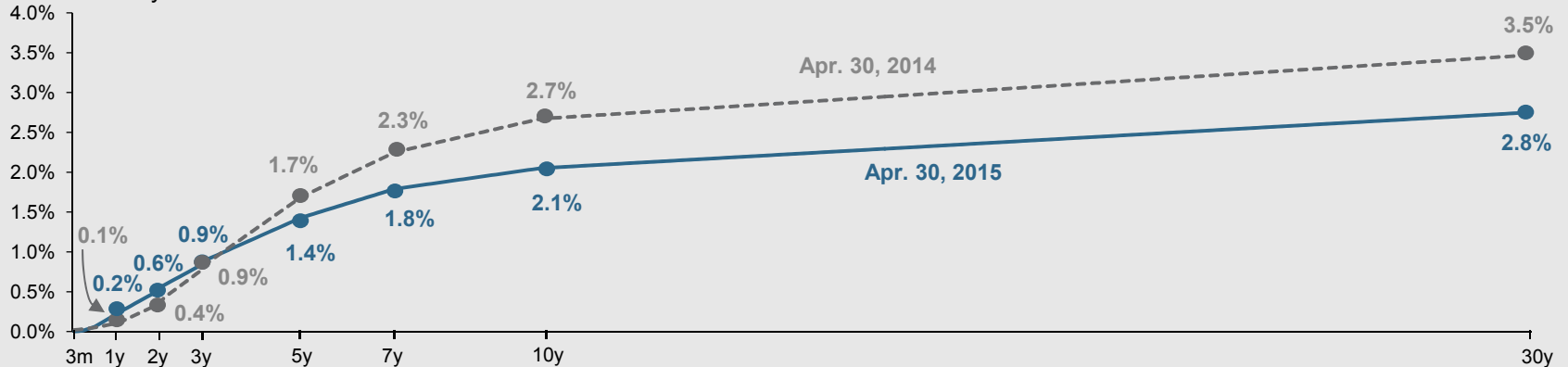
	2015	2016	2017	Long Run
Change in real GDP, Q4 to Q4	2.5	2.5	2.2	2.2
Unemployment Rate, Q4	5.1	5.0	5.0	5.1
PCE Inflation, Q4 to Q4	0.7	1.8	2.0	2.0

Source: Federal Reserve, FactSet, J.P. Morgan Asset Management.

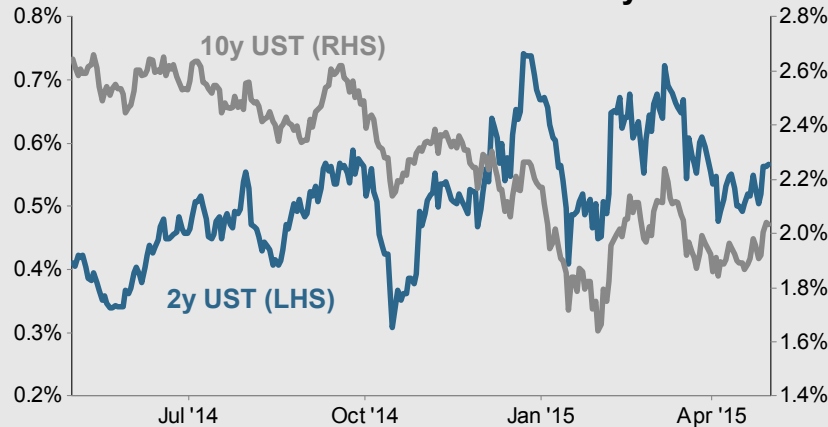
Market expectations are the federal funds rates priced into the fed futures market as of the date of the March 2015 FOMC meeting. \*Forecasts of 17 Federal Open Market Committee (FOMC) participants, midpoints of central tendency except for federal funds rate which is a median estimate. Data are as of April 30, 2015.

## Yield Curve

U.S. Treasury Yield Curve



## Nominal 2 Year and 10 Year U.S. Treasury Yields



## Correlation of Government Bonds

Correlation\* between U.S. Treasury and German Bund Yields



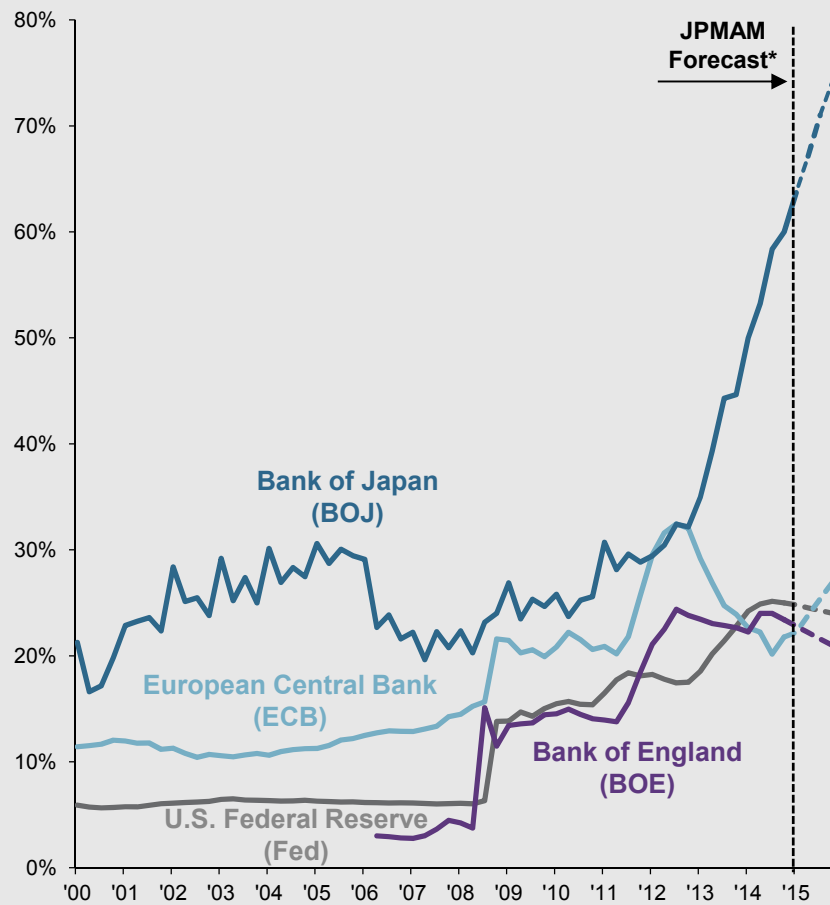
Source: Federal Reserve, FactSet, J.P. Morgan Asset Management.

\*Rolling six month correlation of weekly change in yield.

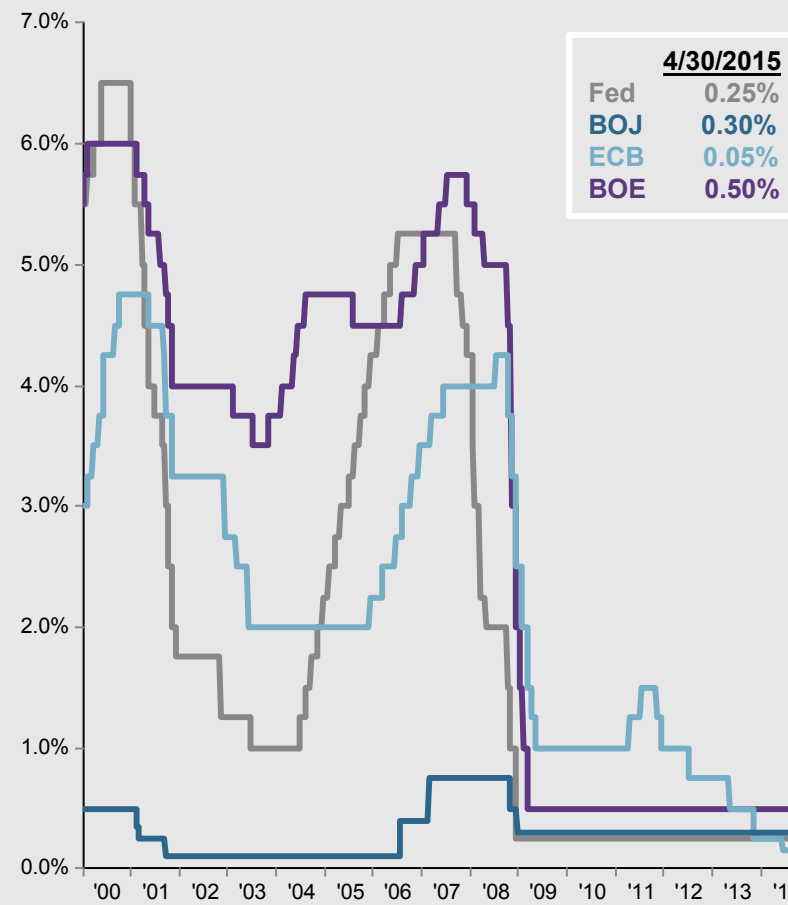
Data are as of April 30, 2015.



## Central Bank Assets – Percent of Nominal GDP



## Central Bank Key Policy Rates



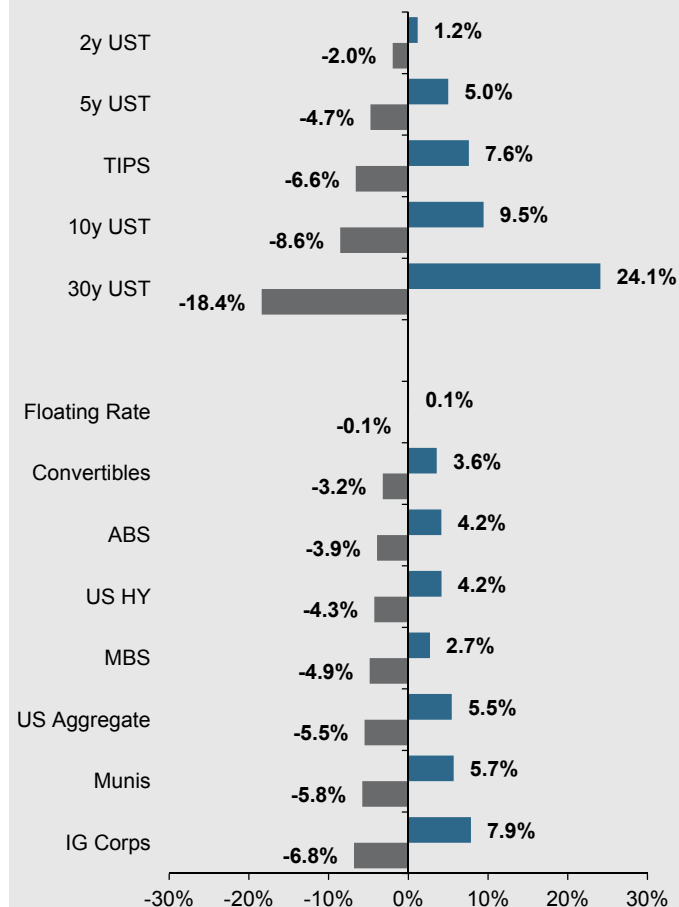
Source: J.P. Morgan Global Economics Research, FactSet, J.P. Morgan Asset Management.

\*Central bank assets as percent of nominal GDP is forecasted through 2015 using J.P. Morgan Global Economics Research nominal GDP forecasts and assumptions for central bank balance sheet size based on statements released by each respective central bank and its governors.

Data are as of April 30, 2015.

U.S. Treasuries	# of issues	Correlation to 10-year	Avg. Maturity	Yield		Return	
				4/30/2015	3/31/2015	YTD	2014
2-Year	96	0.63	2 years	0.58%	0.56%	0.54%	0.66%
5-Year	97	0.91	5	1.43%	1.37%	1.55%	2.89%
10-Year	18	1.00	10	2.05%	1.94%	1.76%	10.74%
30-Year	20	0.92	30	2.75%	2.54%	0.84%	29.38%
TIPS	36	0.59	10	0.11%	0.18%	2.17%	3.64%
Sector							
Broad Market	9,290	0.86	7.7 years	2.13%	2.06%	1.24%	5.97%
MBS	387	0.80	6.3	2.46%	2.40%	1.10%	6.08%
Municipals	9,049	0.46	9.9	2.10%	1.95%	0.65%	8.72%
Corporates	5,332	0.46	10.8	2.99%	2.91%	1.60%	7.46%
High Yield	2,271	-0.24	6.5	5.95%	6.18%	3.76%	2.45%
Floating Rate	57	-0.21	2.4	1.42%	1.62%	0.77%	0.08%
Convertibles	512	-0.30	--	1.12%	1.11%	4.60%	7.79%
ABS	1,823	-0.04	4.5	2.02%	1.98%	1.54%	3.44%

Price Impact of a 1% Rise/Fall in Interest Rates\*

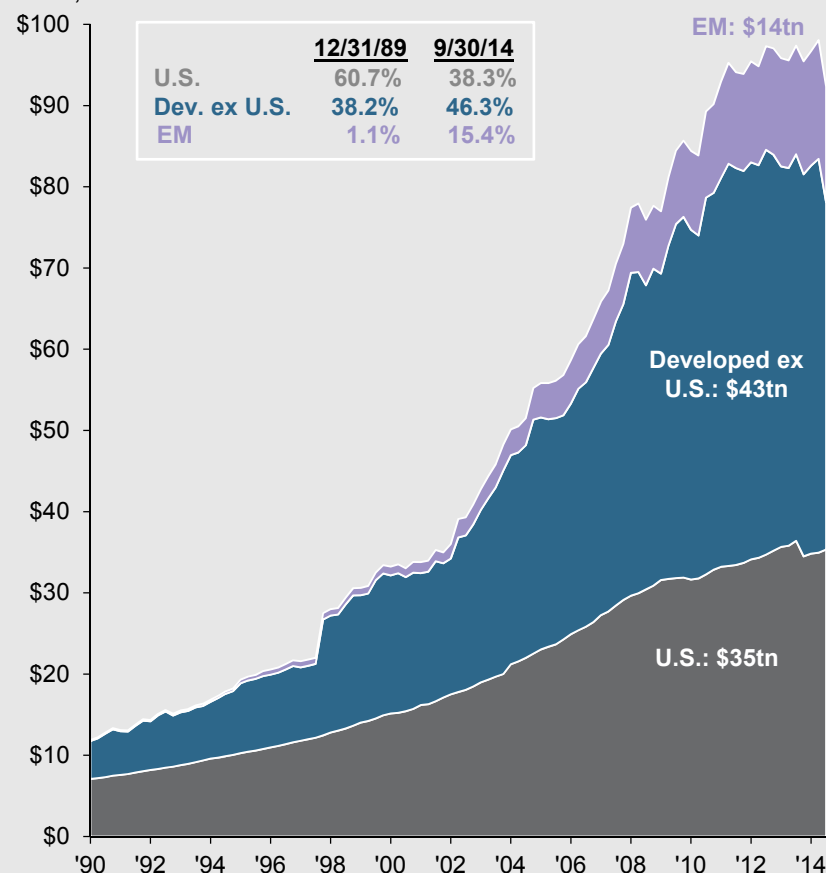


Source: U.S. Treasury, Barclays Capital, FactSet, J.P. Morgan Asset Management. Sectors shown above are provided by Barclays Capital and are represented by – Broad Market: U.S. Aggregate; MBS: U.S. Aggregate Securitized – MBS; Corporate: U.S. Corporates; Municipals: Muni Bond 10-year; High Yield: Corporate High Yield; TIPS: Treasury Inflation Protection Securities (TIPS). Floating Rate: FRN (BBB); Convertibles: U.S. Convertibles Composite; ABS: ABS + CMBS. Treasury securities data for # of issues based on U.S. Treasury benchmarks from Barclays Capital. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield to worst, while Treasury yields are yield to maturity. Correlations are based on 10-years of monthly returns for all sectors. Change in bond price is calculated using both duration and convexity according to the following formula:  $\text{New Price} = (\text{Price} + (\text{Price} * \text{-Duration} * \text{Change in Interest Rates})) + (0.5 * \text{Price} * \text{Convexity} * (\text{Change in Interest Rates})^2)$ . \*Calculation assumes 2-year Treasury interest rate falls 0.58% to 0.00%, as interest rates can only fall to 0.00%. Chart is for illustrative purposes only. Past performance is not indicative of future results. Data are as of April 30, 2015.

Aggregates	Correl. to 10-year	Duration	Yield		YTD Return	
			4/30/2015	3/31/2015	Local	USD
U.S.	0.84	5.5 Yrs	2.13%	2.06%	1.24%	1.24%
Gbl. ex. U.S.	0.31	7.2	1.17%	1.09%		-2.02%
Japan	0.47	8.3	0.40%	0.44%	-0.14%	0.05%
Germany	0.17	6.2	0.50%	0.39%	2.60%	-4.99%
U.K.	0.17	9.4	1.95%	1.78%	0.03%	-1.41%
Italy	0.01	6.8	1.13%	0.97%	3.81%	-3.87%
Spain	0.03	6.3	0.98%	0.83%	2.20%	-5.35%
<b>Sector</b>						
Euro Corp.	0.12	5.2	1.02%	0.92%	0.86%	-6.60%
Euro HY.	-0.35	4.2	4.21%	4.24%	4.94%	-2.82%
EMD (\$)	0.20	7.0	5.39%	5.56%		3.68%
EMD (LCL)	0.08	4.9	6.44%	6.34%	2.68%	-1.16%
EM Corp.	-0.27	5.6	5.24%	5.41%		4.11%

## Global Bond Market

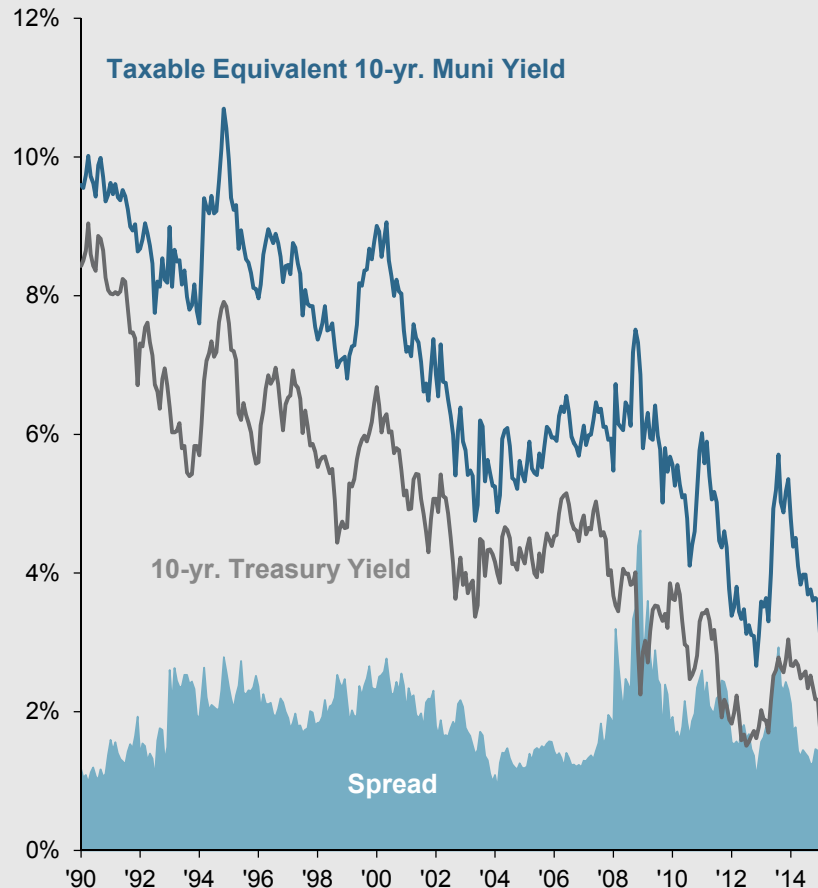
USD, trillions



Source: Barclays Capital, BIS, FactSet, J.P. Morgan Asset Management. All returns are in USD. Fixed income sectors shown above are provided by Barclays Capital and are represented by the global aggregate for each country except where noted. EMD sectors are represented by the J.P. Morgan EMBIG Diversified Index (USD), the J.P. Morgan GBI EM Global Diversified Index (LCL), and the J.P. Morgan CEMBI Broad Diversified Index (Corp). European Corporates are represented by the Barclays Euro Aggregate Corporate Index and the Barclays Pan-European High Yield index. Sector yields reflect yield to worst. Duration is modified duration. Correlations are based on 7 years of monthly returns for all sectors. Past performance is not indicative of future results. Data are as of April 30, 2015.

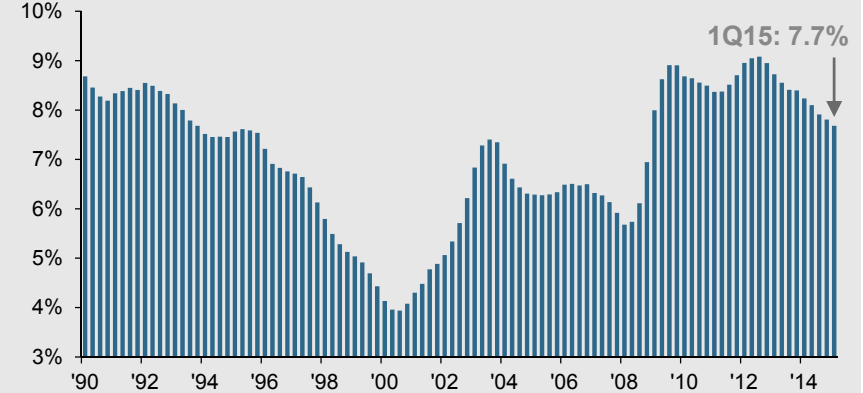
### 10-Year Muni Taxable Equivalent Yield

Taxable equivalent Muni and Treasury yields



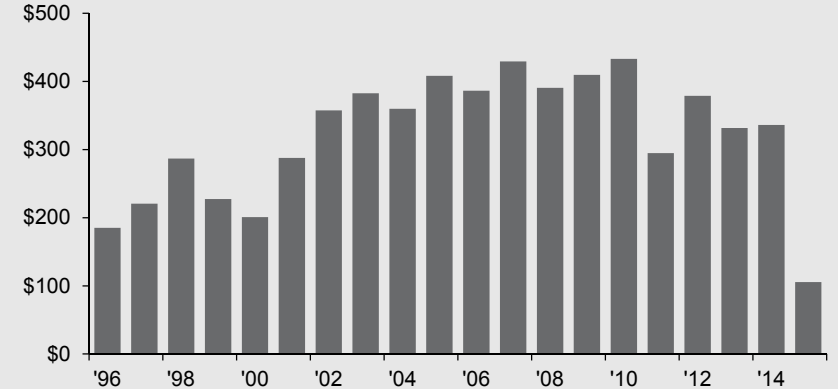
### State & Local Government Debt Service

% of current expenditures



### Municipal Bond Issuance\*

Billions USD, revenue and GO issues



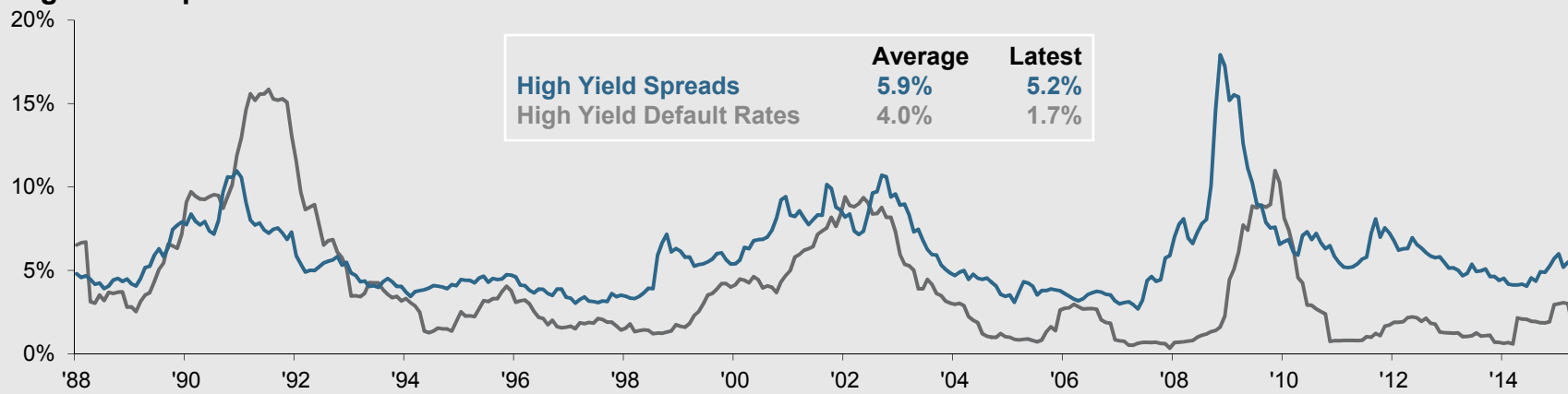
Source (Left chart): Barclays Capital, U.S. Treasury, FactSet, J.P. Morgan Asset Management. (Top right) BEA, J.P. Morgan Asset Management. (Bottom right) SIFMA, J.P. Morgan Asset Management.

Taxable equivalent yields are calculated for the highest federal marginal tax bracket. 2015 tax rate includes the net investment income tax of 3.8%.

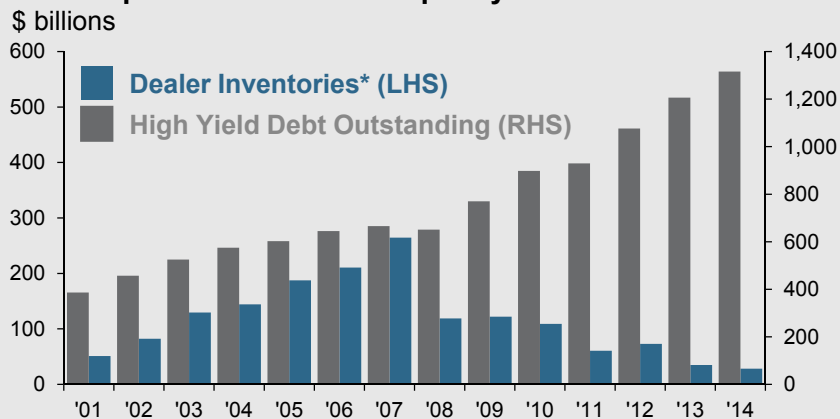
\*Excludes maturities of 13 months or less and private placements. Interest payments include interest accrued on defined benefit liabilities.

Data are as of April 30, 2015.

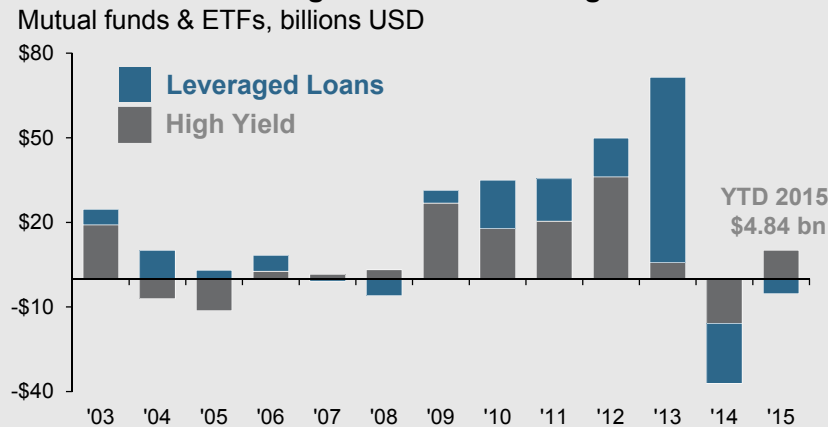
## High Yield Spreads and Defaults



## U.S. corporate debt market liquidity

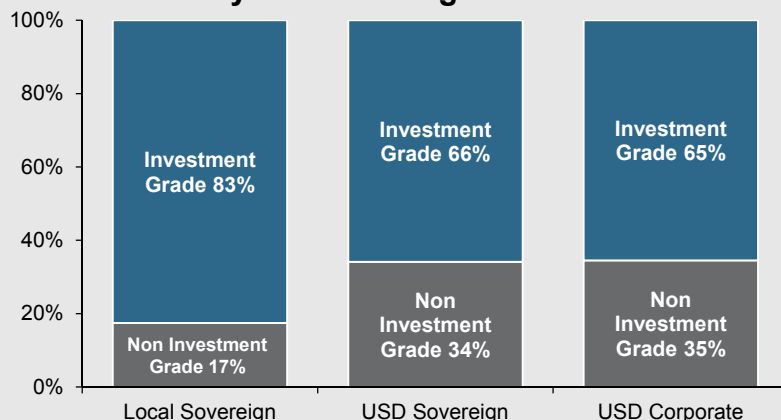


## Annual Flows into High Yield and Leveraged Loan Funds

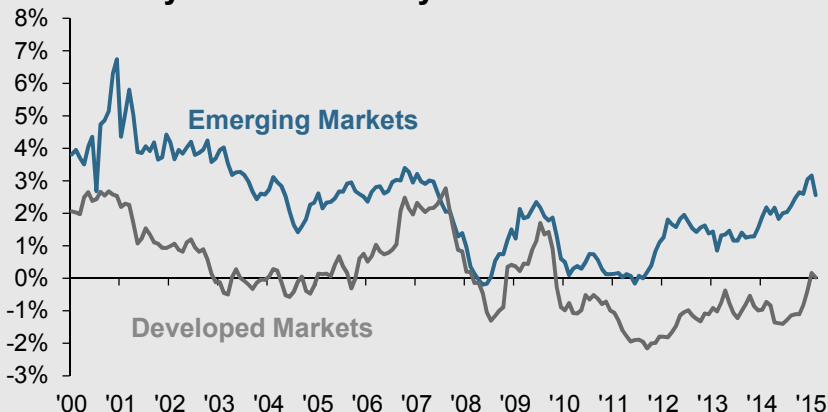


Source (Top chart): U.S. Treasury, J.P. Morgan, J.P. Morgan Asset Management. Default rates are defined as the par value percentage of the total market trading at or below 50% of par value and include any Chapter 11 filing, prepackaged filing or missed interest payments. Spreads indicated are benchmark yield to worst less comparable maturity Treasury yields. Yield to worst is defined as the lowest potential yield that can be received on a bond without the issuer actually defaulting and reflects the possibility of the bond being called at an unfavorable time for the holder. (Bottom left): Federal Reserve, Barclays Capital, J.P. Morgan Asset Management. (Bottom right): Strategic Insight, J.P. Morgan Asset Management. \*Dealer Inventories for all corporate securities including: Investment grade, below investment grade, and commercial paper. Flows include ETFs and are as of March 2015. Past performance is not indicative of comparable future results. Data are as of April 30, 2015.

## EMD Indices by Credit Ratings

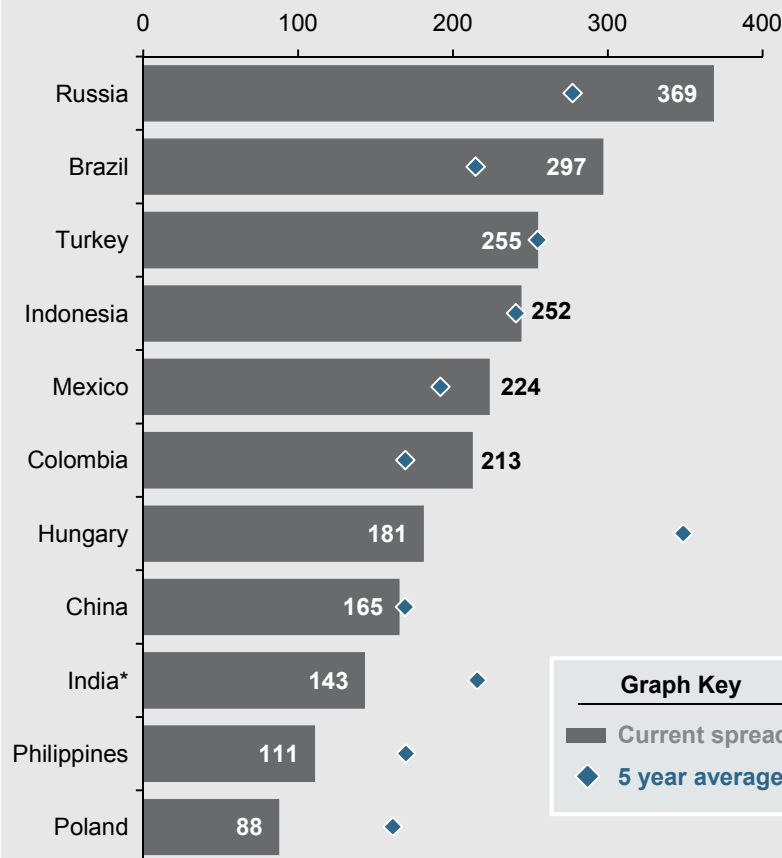


## Real Policy Rates – Monthly



## EMD Sovereign Spreads by Country

USD denominated sovereign debt spread, basis points



### Graph Key

- Current spread
- 5 year average

Source: J.P. Morgan Global Economic Research, FactSet, J.P. Morgan Asset Management.

(Top Left) Local Sovereign: J.P. Morgan Government Bond Index – EM (GBI-EM) is a local currency denominated index tracking bonds issued by EM sovereigns; USD Sovereign: J.P. Morgan EMBI Global (EMBIG) Index is a USD-denominated external debt index tracking bonds issued by EM sovereigns and quasi-sovereigns; USD Corporate: J.P. Morgan Corporate Emerging Bond Index Broad (CEMBI) is a USD-denominated external debt index tracking bonds issued by corporations in developing nations. (Bottom Left) Real policy rates represent GDP-weighted aggregates estimated by J.P. Morgan Global Economics Research. Real policy rates are short-term target interest rates set by central banks minus year-over-year inflation. (Right) Sovereign spread is the composite stripped spread for the country sub-indices of the EMBIG, calculated using cash flows of individual bonds rather than a single maturity. The stripped spread is the spread over treasury after adjusting for collateralized cash flows. \*India average since 10/31/12. Data are as of April 30, 2015.

# Fixed Income Sector Returns

GTM - U.S. | 39

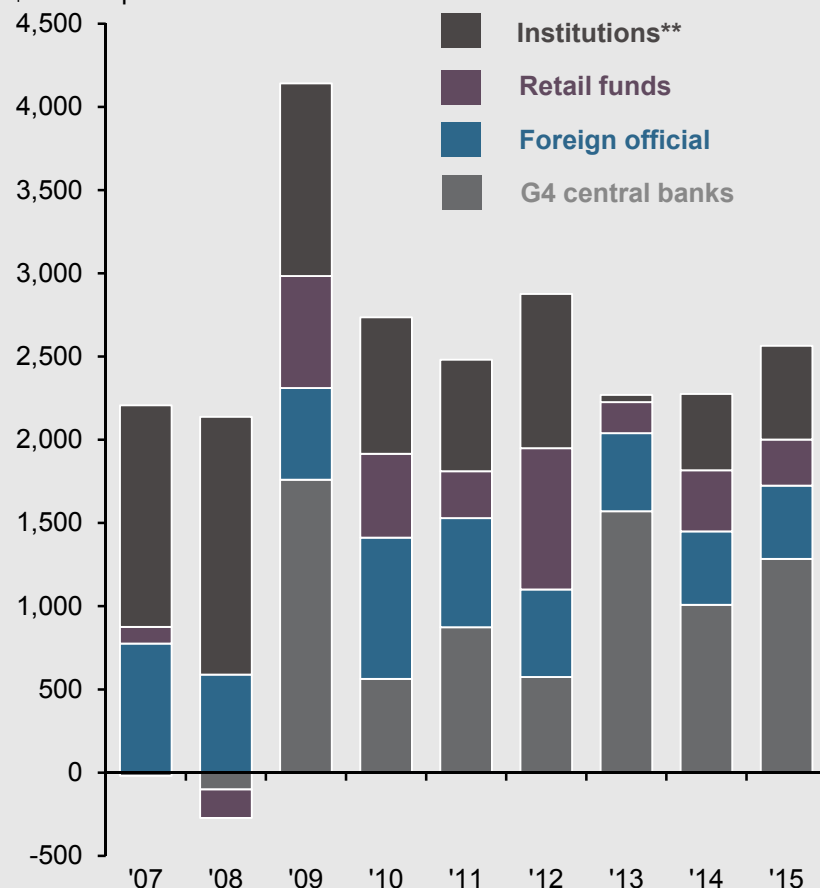
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	YTD	10-yrs. '05 - '14 Cum.	'05 - '14 Ann.
EMD USD	10.2%	EMD LCL.	EMD LCL.	Treas.	High Yield	EMD LCL.	TIPS	EMD USD	High Yield	Muni	High Yield	EMD USD	EMD USD
	10.2%	15.2%	18.1%	13.7%	58.2%	15.7%	13.6%	17.4%	7.4%	8.7%	3.8%	111.5%	7.8%
EMD LCL.	6.3%	High Yield	TIPS	MBS	EMD USD	High Yield	Muni	EMD LCL.	MBS	Corp.	EMD USD	High Yield	High Yield
	6.3%	11.8%	11.6%	8.3%	29.8%	15.1%	12.3%	16.8%	-1.4%	7.5%	3.7%	110.7%	7.7%
Asset Alloc.	3.1%	EMD USD	Treas.	Barclays Agg	EMD LCL.	EMD USD	Treas.	High Yield	Corp.	EMD USD	TIPS	EMD LCL.	EMD LCL.
	3.1%	9.9%	9.0%	5.2%	22.0%	12.2%	9.8%	15.8%	-1.5%	7.4%	2.2%	90.4%	6.7%
TIPS	2.8%	Asset Alloc.	Barclays Agg	Muni	Corp.	Corp.	Corp.	Corp.	Asset Alloc.	MBS	Corp.	Corp.	Corp.
	2.8%	5.7%	7.0%	1.5%	18.7%	9.0%	8.1%	9.8%	-1.9%	6.1%	1.6%	71.4%	5.5%
Treas.	2.8%	MBS	MBS	Asset Alloc.	Asset Alloc.	Asset Alloc.	Asset Alloc.	Asset Alloc.	Barclays Agg	Barclays Agg	Asset Alloc.	Asset Alloc.	Asset Alloc.
	2.8%	5.2%	6.9%	0.1%	14.7%	7.9%	8.1%	7.4%	-2.0%	6.0%	1.5%	70.3%	5.5%
Muni	2.7%	Muni	Asset Alloc.	TIPS	TIPS	Barclays Agg	Barclays Agg	TIPS	Muni	Asset Alloc.	Barclays Agg	Muni	Muni
	2.7%	4.7%	6.7%	-2.4%	11.4%	6.5%	7.8%	7.0%	-2.2%	5.5%	1.2%	64.4%	5.1%
High Yield	2.7%	Barclays Agg	EMD USD	Corp.	Muni	TIPS	EMD USD	Muni	Treas.	Treas.	Treas.	MBS	MBS
	2.7%	4.3%	6.2%	-4.9%	9.9%	6.3%	7.3%	5.7%	-2.7%	5.1%	1.1%	59.0%	4.7%
MBS	2.6%	Corp.	Corp.	EMD LCL.	Barclays Agg	Treas.	MBS	Barclays Agg	EMD USD	TIPS	MBS	Barclays Agg	Barclays Agg
	2.6%	4.3%	4.6%	-5.2%	5.9%	5.9%	6.2%	4.2%	-5.3%	3.6%	1.1%	58.4%	4.7%
Barclays Agg	2.4%	Treas.	Muni	EMD USD	MBS	MBS	High Yield	MBS	TIPS	High Yield	Muni	Treas.	Treas.
	2.4%	3.1%	4.3%	-12.0%	5.9%	5.4%	5.0%	2.6%	-8.6%	2.5%	0.7%	53.5%	4.4%
Corp.	1.7%	TIPS	High Yield	High Yield	Treas.	Muni	EMD LCL.	Treas.	EMD LCL.	EMD LCL.	EMD LCL.	TIPS	TIPS
	1.7%	0.4%	1.9%	-26.2%	-3.6%	4.0%	-1.8%	2.0%	-9.0%	-5.7%	-1.2%	53.4%	4.4%

Source: Barclays Capital, FactSet, J.P. Morgan Asset Management. Past performance is not indicative of future returns. Fixed income sectors shown above are provided by Barclays Capital unless otherwise noted and are represented by Broad Market: Barclays Capital U.S. Aggregate Index; MBS: Fixed Rate MBS Index; Corporate: U.S. Corporates; Municipals: Muni Bond 10-Year Index; High Yield: U.S. Corporate High Yield Index; Treasuries: Global U.S. Treasury; TIPS: Global Inflation-Linked - U.S. Tips; Emerging Debt USD: J.P. Morgan EMBIG Diversified Index; Emerging Debt LCL: J.P. Morgan EM Global Index. The "Asset Allocation" portfolio assumes the following weights: 20% in MBS, 20% in Corporate, 15% in Municipals, 5% in Emerging Debt USD, 5% in Emerging Debt LCL, 10% in High Yield, 20% in Treasuries, 5% in TIPS. Asset allocation portfolio assumes annual rebalancing.

Data are as of April 30, 2015.

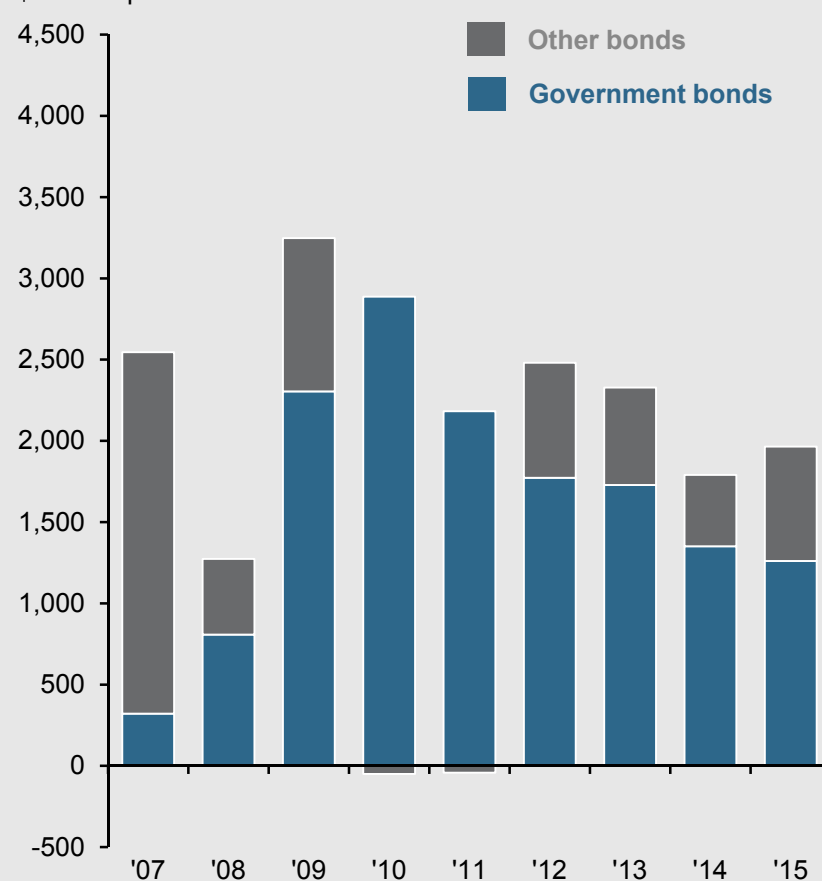
## Estimated notional global bond demand\*

\$ billions per annum



## Estimated notional global bond supply\*

\$ billions per annum



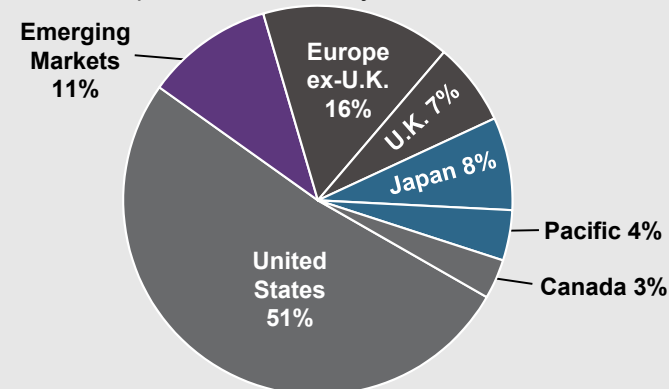
Source: (Both charts) Central bank sources, ICI, Bloomberg, IMF, J.P. Morgan Securities, J.P. Morgan Asset Management.\*The gap between bond demand and supply should be equal to zero at all times. The gap shown here is in notional amounts rather than market values, and is a reflection of 1) noise resulting from mismeasurement of either demand or supply and 2) A genuine gap between the notional amounts of bond supply and demand, which in the case of excess supply will have to close by a rise in bond yields so that the value of the stock of bonds falls to the same demand level. \*\*Institutions includes banks, pension funds and insurance companies. Data are as of April 30, 2015.



Country / Region	YTD		2014	
	Local	USD	Local	USD
<b>Regions / Broad Indexes</b>				
U.S. (S&P 500)	-	1.9	-	13.7
EAFE	12.3	9.4	6.4	-4.5
Europe ex-U.K.	14.6	9.3	7.4	-5.8
Pacific ex-Japan	9.6	7.2	5.8	-0.3
Emerging Markets	10.9	10.2	5.6	-1.8
<b>MSCI: Selected Countries</b>				
United Kingdom	7.5	5.9	0.5	-5.4
France	19.0	10.2	3.6	-9.0
Germany	16.9	8.2	2.8	-9.8
Japan	14.0	14.3	9.8	-3.7
China	26.1	26.1	8.3	8.3
India	-0.9	-1.5	26.4	23.9
Brazil	12.6	-0.2	-2.8	-13.7
Russia	23.4	39.2	-12.1	-45.9

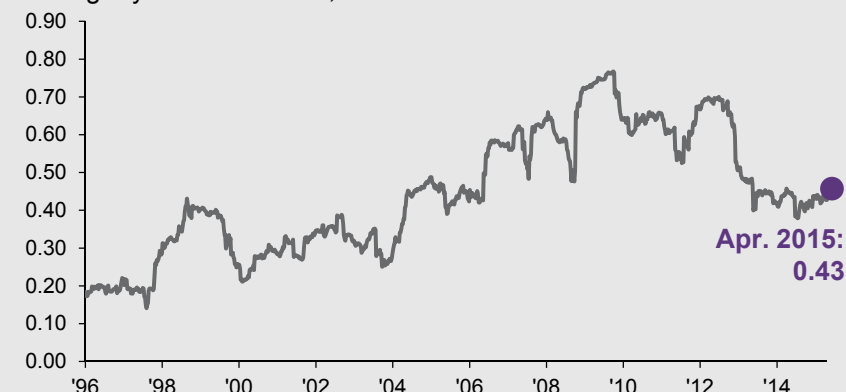
## Weights in MSCI All Country World Index

% global market capitalization, float adjusted



## Global Equity Market Correlations

Rolling 1-year correlations, 30 countries

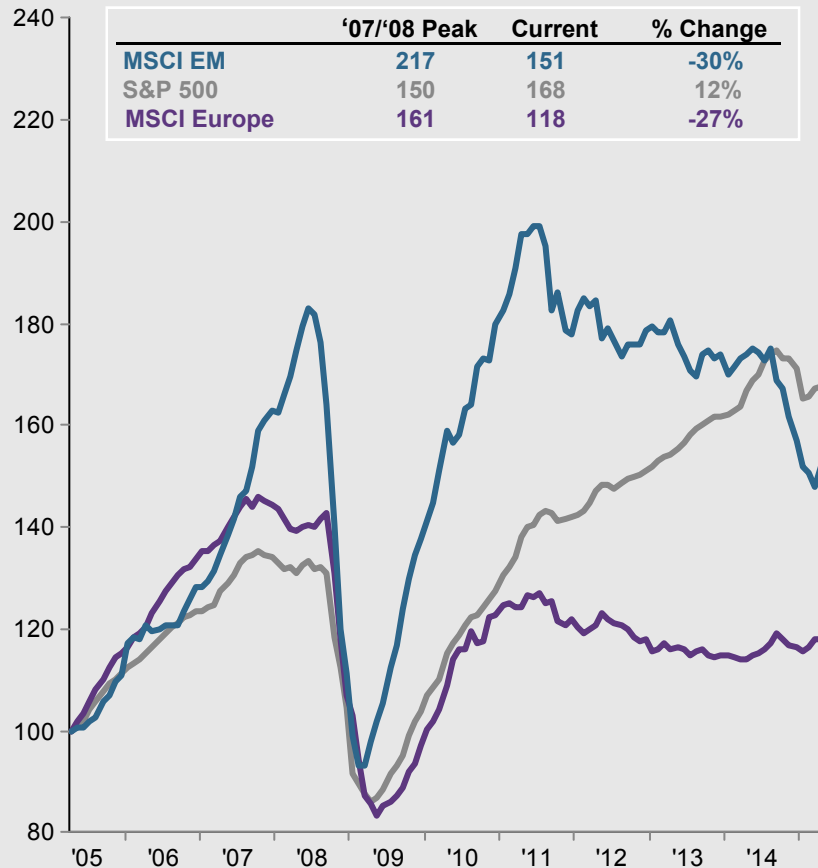


Source: Standard & Poor's, MSCI, FactSet, J.P. Morgan Asset Management.

All return values are MSCI Gross Index (official) data. Chart is for illustrative purposes only. Past performance is not indicative of future results. Please see disclosure page for index definitions. Countries included in global correlations include Argentina, South Africa, Japan, UK, Canada, France, Germany, Italy, Australia, Austria, Brazil, China, Colombia, Denmark, Finland, Hong Kong, India, Malaysia, Mexico, Netherlands, New Zealand, Peru, Philippines, Portugal, Korea, Spain, Taiwan, Thailand, Turkey, United States. Data are as of April 30, 2015.

## Earnings per Share

EPS for next 12-month consensus, local currency, rebased to 100



## Forward Price to Earnings

P/E ratios for next 12-month consensus EPS



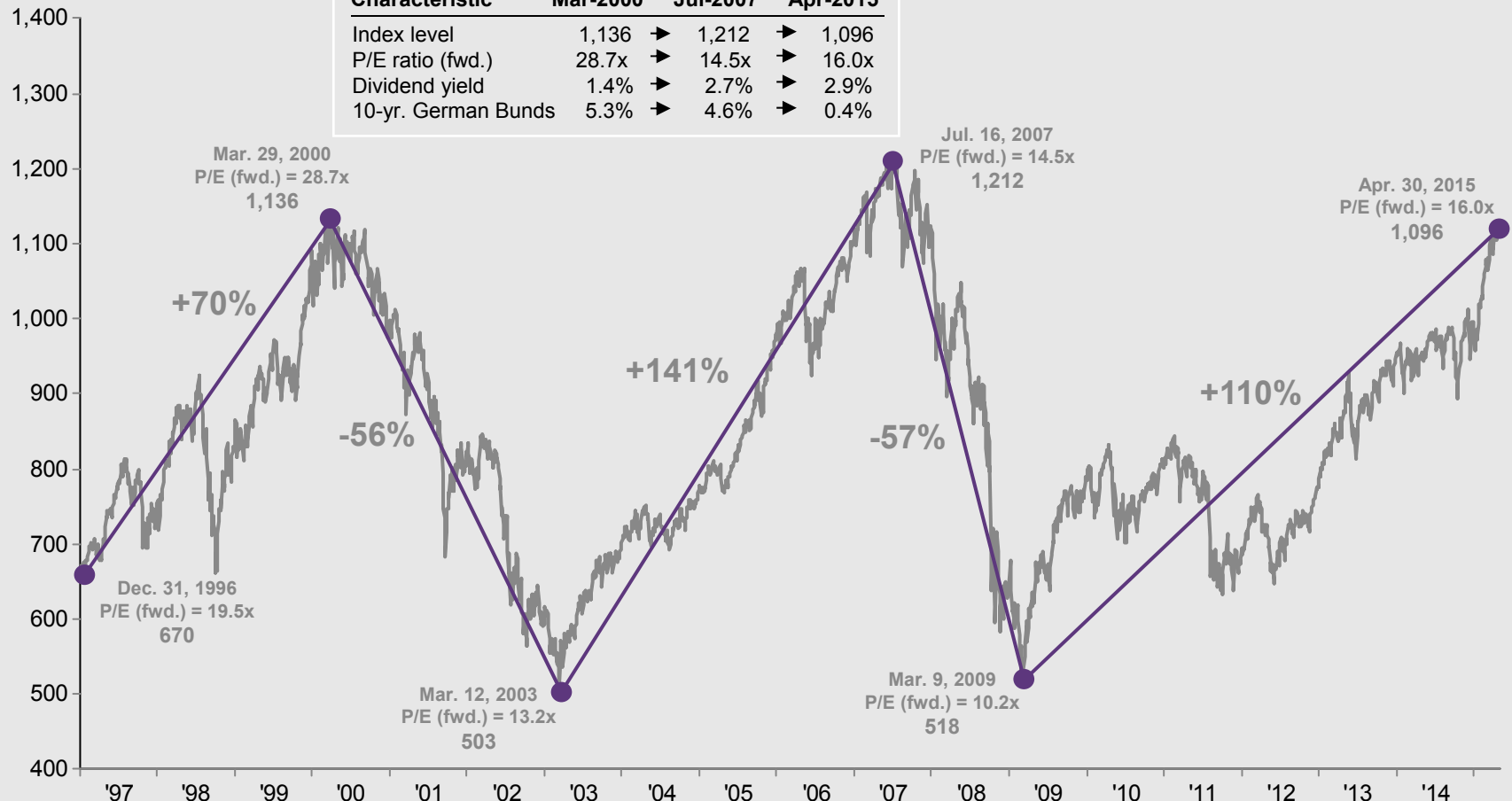
Source: MSCI, FactSet, J.P. Morgan Asset Management.

Forward Price to Earnings Ratio is based on each index price, divided by consensus estimates for earnings per share (EPS) in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Past performance is not indicative of future returns.

Data are as of April 30, 2015.

## MSCI EAFE Index

Characteristic	Mar-2000	Jul-2007	Apr-2015
Index level	1,136	1,212	1,096
P/E ratio (fwd.)	28.7x	14.5x	16.0x
Dividend yield	1.4%	2.7%	2.9%
10-yr. German Bunds	5.3%	4.6%	0.4%



Source: MSCI, FactSet, J.P. Morgan Asset Management.

Index levels are in local currency. Dividend yield is calculated as the annualized dividend rate divided by price, as provided by MSCI. Forward price to earnings ratio is a bottom-up calculation based on the most recent MSCI EAFE Index price, divided by consensus estimates for earnings in the next 12 months (NTM), and is provided by FactSet Market Aggregates. Returns are cumulative and based on MSCI EAFE Index price movement only, and do not include the reinvestment of dividends.

Past performance is not indicative of future returns.

Data are as of April 30, 2015.

## Global Purchasing Managers' Index for Manufacturing

	May'13	Jun'13	Jul'13	Aug'13	Sep'13	Oct'13	Nov'13	Dec'13	Jan'14	Feb'14	Mar'14	Apr'14	May'14	Jun'14	Jul'14	Aug'14	Sep'14	Oct'14	Nov'14	Dec'14	Jan'15	Feb'15	Mar'15	Apr'15
Global	50.4	50.3	50.6	51.5	51.6	51.9	52.8	52.9	52.9	53.2	52.4	51.9	52.2	52.6	52.4	52.5	52.2	52.2	51.8	51.5	51.7	51.9	51.7	51.0
U.S.	52.3	51.9	53.7	53.1	52.8	51.8	54.7	55.0	53.7	57.1	55.5	55.4	56.4	57.3	55.8	57.9	57.5	55.9	54.8	53.9	53.9	55.1	55.7	54.1
Canada	53.2	52.4	52.0	52.1	54.2	55.6	55.3	53.5	51.7	52.9	53.3	52.9	52.2	53.5	54.3	54.8	53.5	55.3	55.3	53.9	51.0	48.7	48.9	49.0
U.K.	51.9	52.5	54.5	58.4	56.9	56.4	57.8	57.3	56.7	56.1	55.4	56.9	56.5	56.7	54.9	52.9	51.4	53.3	53.4	52.8	53.0	54.0	54.0	51.9
Euro Area	48.3	48.8	50.3	51.4	51.1	51.3	51.6	52.7	54.0	53.2	53.0	53.4	52.2	51.8	51.8	50.7	50.3	50.6	50.1	50.6	51.0	51.0	52.2	52.0
Germany	49.4	48.6	50.7	51.8	51.1	51.7	52.7	54.3	56.5	54.8	53.7	54.1	52.3	52.0	52.4	51.4	49.9	51.4	49.5	51.2	50.9	51.1	52.8	52.1
France	46.4	48.4	49.7	49.7	49.8	49.1	48.4	47.0	49.3	49.7	52.1	51.2	49.6	48.2	47.8	46.9	48.8	48.5	48.4	47.5	49.2	47.6	48.8	48.0
Italy	47.3	49.1	50.4	51.3	50.8	50.7	51.4	53.3	53.1	52.3	52.4	54.0	53.2	52.6	51.9	49.8	50.7	49.0	49.0	48.4	49.9	51.9	53.3	53.8
Spain	48.1	50.0	49.8	51.1	50.7	50.9	48.6	50.8	52.2	52.5	52.8	52.7	52.9	54.6	53.9	52.8	52.6	52.6	54.7	53.8	54.7	54.2	54.3	54.2
Greece	45.3	45.4	47.0	48.7	47.5	47.3	49.2	49.6	51.2	51.3	49.7	51.1	51.0	49.4	48.7	50.1	48.4	48.8	49.1	49.4	48.3	48.4	48.9	46.5
Ireland	49.7	50.3	51.0	52.0	52.7	54.9	52.4	53.5	52.8	52.9	55.5	56.1	55.0	55.3	55.4	57.3	55.7	56.6	56.2	56.9	55.1	57.5	56.8	55.8
Australia	43.8	49.6	42.0	46.4	51.7	53.2	47.7	47.6	46.7	48.6	47.9	44.8	49.2	48.9	50.7	47.3	46.5	49.4	50.1	46.9	49.0	45.4	46.2	48.0
Japan	51.5	52.3	50.7	52.2	52.5	54.2	55.1	55.2	56.6	55.5	53.9	49.4	49.9	51.5	50.5	52.2	51.7	52.4	52.0	52.0	52.2	51.6	50.3	49.9
China	49.2	48.2	47.7	50.1	50.2	50.9	50.8	50.5	49.5	48.5	48.0	48.1	49.4	50.7	51.7	50.2	50.2	50.4	50.0	49.6	49.7	50.7	49.6	48.9
Indonesia	51.6	51.0	50.7	48.5	50.2	50.9	50.3	50.9	51.0	50.5	50.1	51.1	52.4	52.7	52.7	49.5	50.7	49.2	48.0	47.6	48.5	47.5	46.4	46.7
Korea	51.1	49.4	47.2	47.5	49.7	50.2	50.4	50.8	50.9	49.8	50.4	50.2	49.5	48.4	49.3	50.3	48.8	48.7	49.0	49.9	51.1	51.1	49.2	48.8
Taiwan	47.1	49.5	48.6	50.0	52.0	53.0	53.4	55.2	55.5	54.7	52.7	52.3	52.4	54.0	55.8	56.1	53.3	52.0	51.4	50.0	51.7	52.1	51.0	49.2
India	50.1	50.3	50.1	48.5	49.6	49.6	51.3	50.7	51.4	52.5	51.3	51.3	51.4	51.5	53.0	52.4	51.0	51.6	53.3	54.5	52.9	51.2	52.1	51.3
Brazil	50.4	50.4	48.5	49.4	49.9	50.2	49.7	50.5	50.8	50.4	50.6	49.3	48.8	48.7	49.1	50.2	49.3	49.1	48.7	50.2	50.7	49.6	46.2	46.0
Mexico	51.7	51.3	49.7	50.8	50.0	50.2	51.9	52.6	54.0	52.0	51.7	51.8	51.9	51.8	51.5	52.1	52.6	53.3	54.3	55.3	56.6	54.4	53.8	53.8
Russia	50.4	51.7	49.2	49.4	49.4	51.8	49.4	48.8	48.0	48.5	48.3	48.5	48.9	49.1	51.0	51.0	50.4	50.3	51.7	48.9	47.6	49.7	48.1	48.9

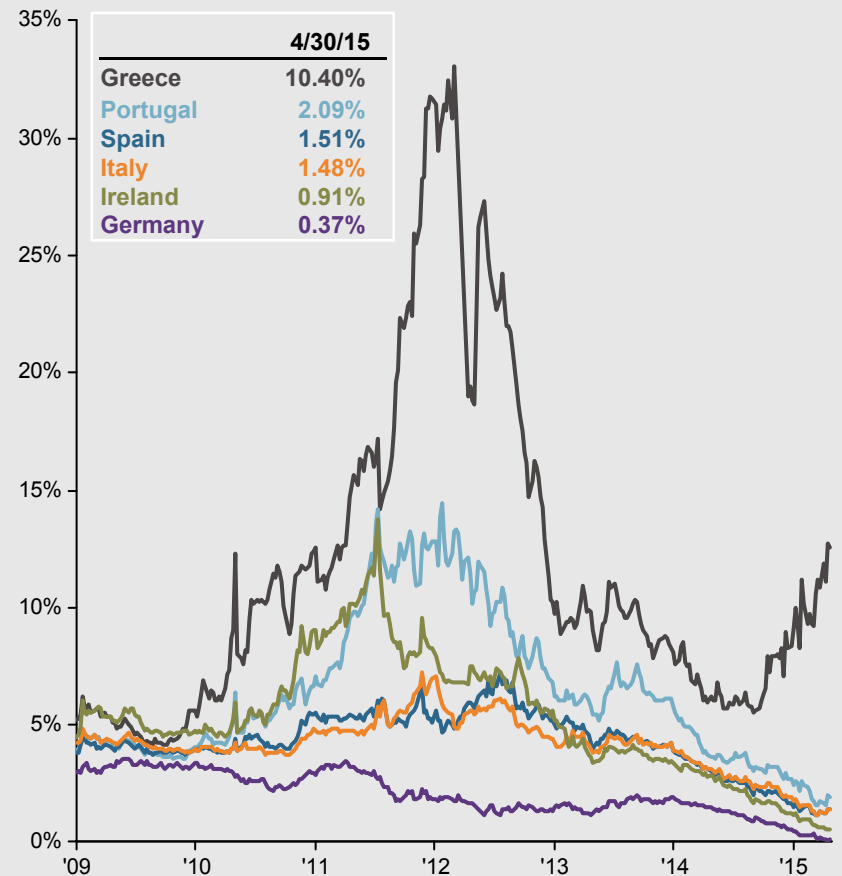
Source: Markit, J.P. Morgan Asset Management.

Heatmap colors are based on PMI relative to the 50 level, which indicates acceleration or deceleration of the sector, for the time period shown.

Data are as of April 30, 2015.

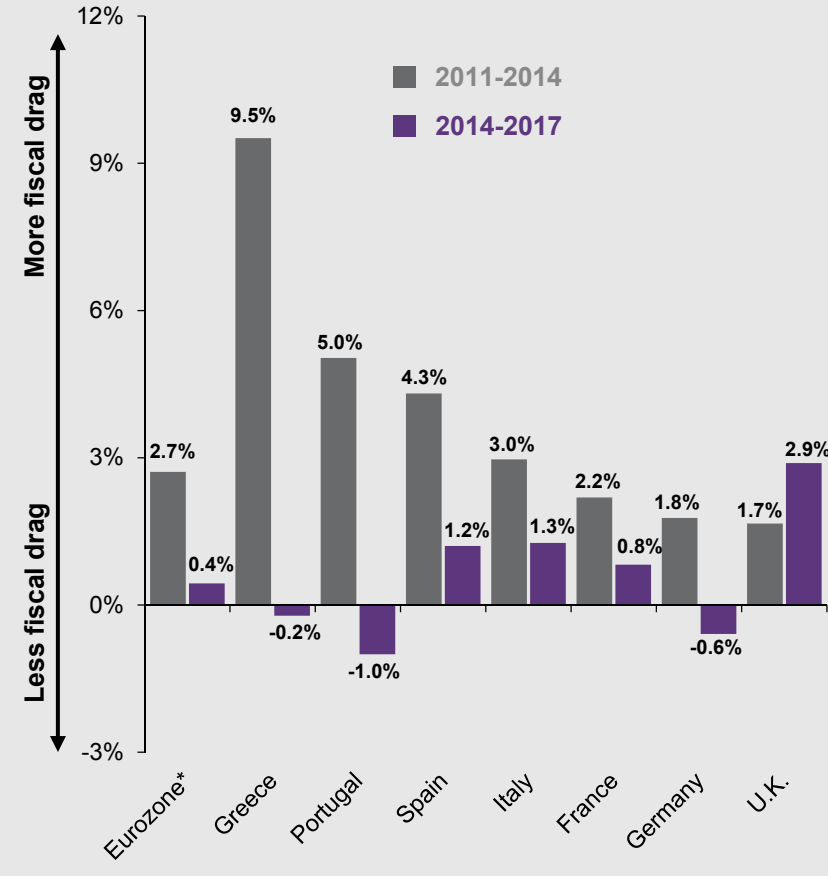
## European Sovereign Funding Costs

10-year benchmark bond yield



## Government Fiscal Drag

% of potential GDP, reduction in structural deficits

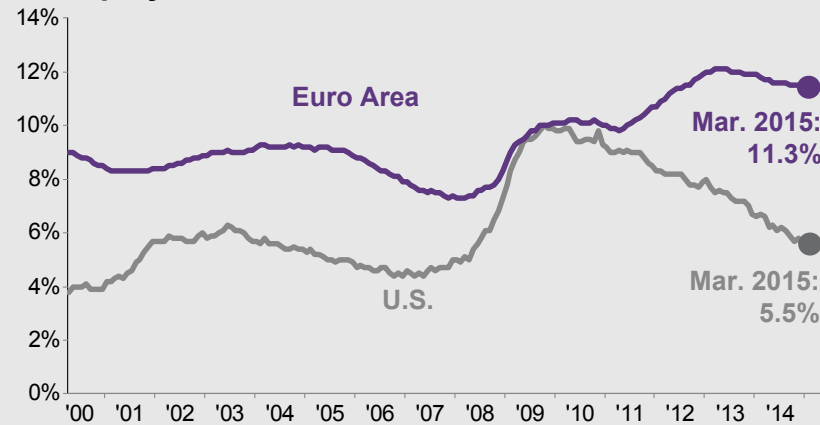


Source: Tullett Prebon, FactSet, IMF, J.P. Morgan Asset Management. Data are based on the April 2015 World Economic Outlook. Government deficits are calculated by the IMF as the general government structural balance. The structural balance excludes the normal impact of the business cycle, providing a clearer measure of the independent impact of changes in government spending and taxation on demand in the economy.

\*Eurozone includes a J.P. Morgan Asset Management estimate for the 2017 structural deficit as a % of GDP.

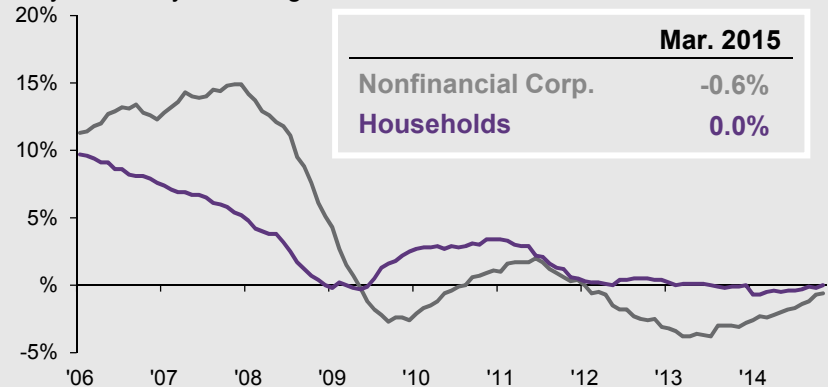
Data are as of April 30, 2015.

## Unemployment Rates



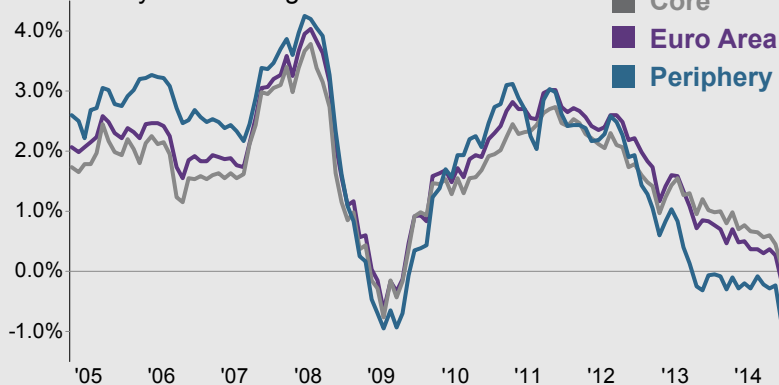
## Euro Area Credit Growth

% year-over-year loan growth



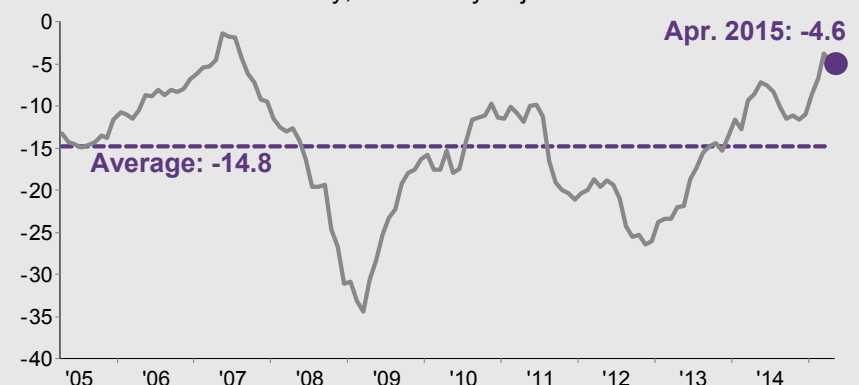
## Europe Inflation

Year-over-year % change



## Consumer Confidence

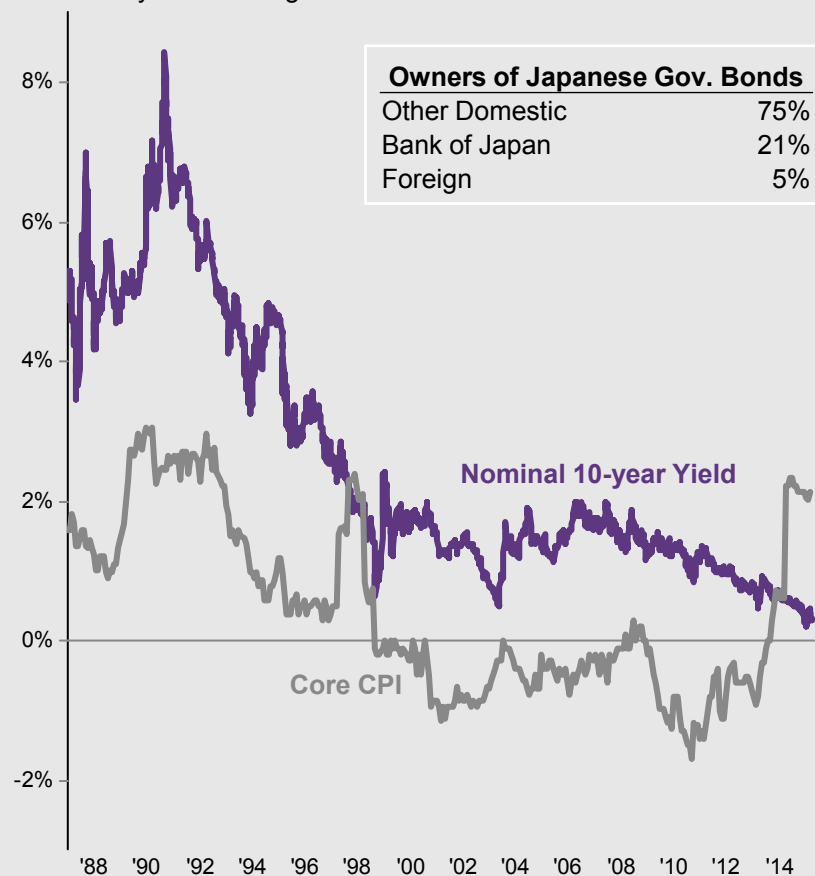
Euro area consumer survey, seasonally adjusted



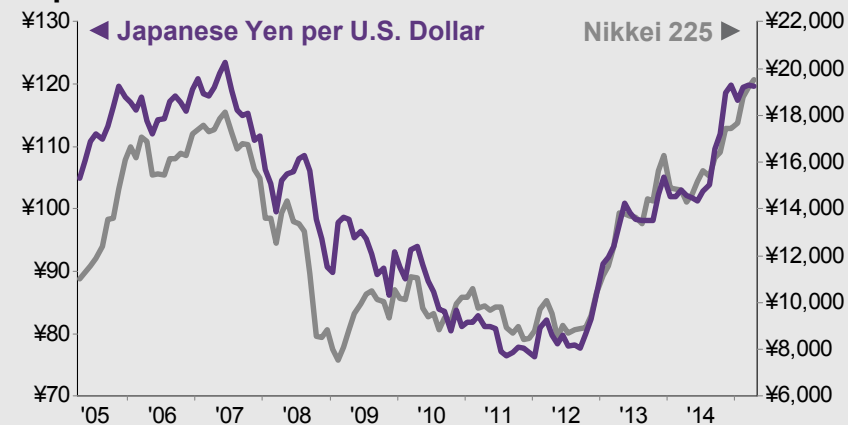
Source: Eurostat, BLS, SIFMA, ECBC, FactSet, IMF, J.P. Morgan Asset Management.  
(Top left) Unemployment rate levels for the U.S. and Euro Area are not directly comparable due to calculation differences. European Consumer Confidence Index is a harmonized index of surveys for consumers in the European Union and applicant countries. The surveys are harmonized as a weighted balance of the responses, therefore a negative number does not necessarily imply an overall negative outlook. The magnitude and direction of the overall number should be used as the gauge of sentiment.  
Data are as of April 30, 2015.

## Inflation and Japanese Government Bond Yields

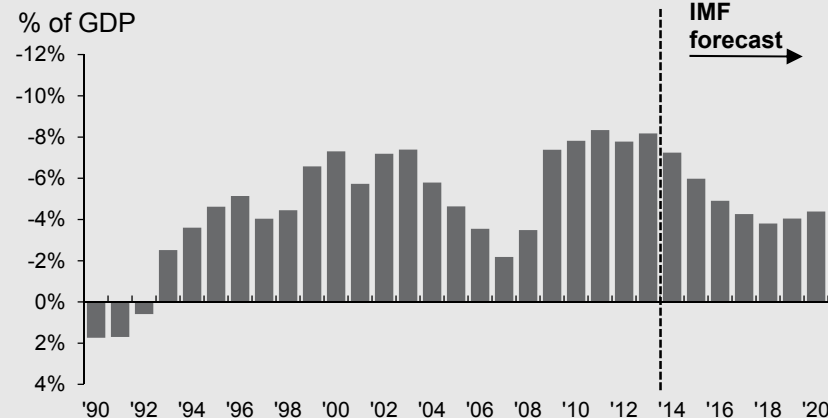
Year-over-year % change for inflation



## Japanese Yen and the Stock Market



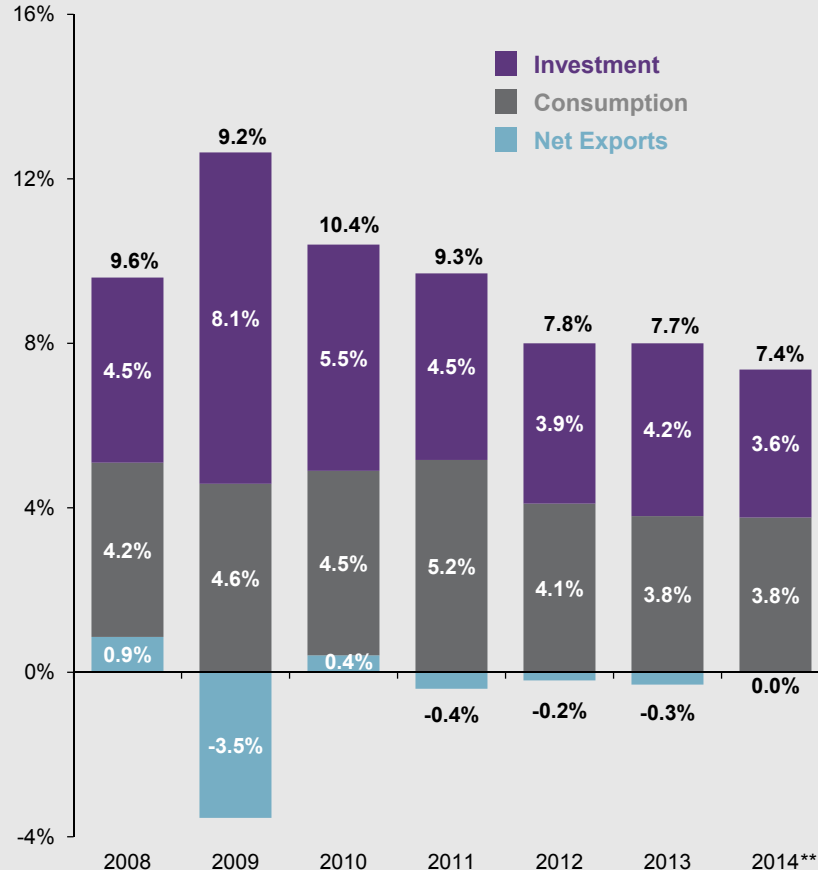
## Government Fiscal Balance



Source: (Left) Bank of Japan, OECD, IMF, FactSet, J.P. Morgan Asset Management. (Right) Nikkei, FactSet, J.P. Morgan Asset Management. Core CPI is defined as CPI excluding fresh food. Other Domestic includes banks, insurance and pensions, public pensions, and households. Values may not sum to 100% due to rounding. Government bond data is calculated from the Bank of Japan's March 31, 2015 flow of funds. Data are as of April 30, 2015.

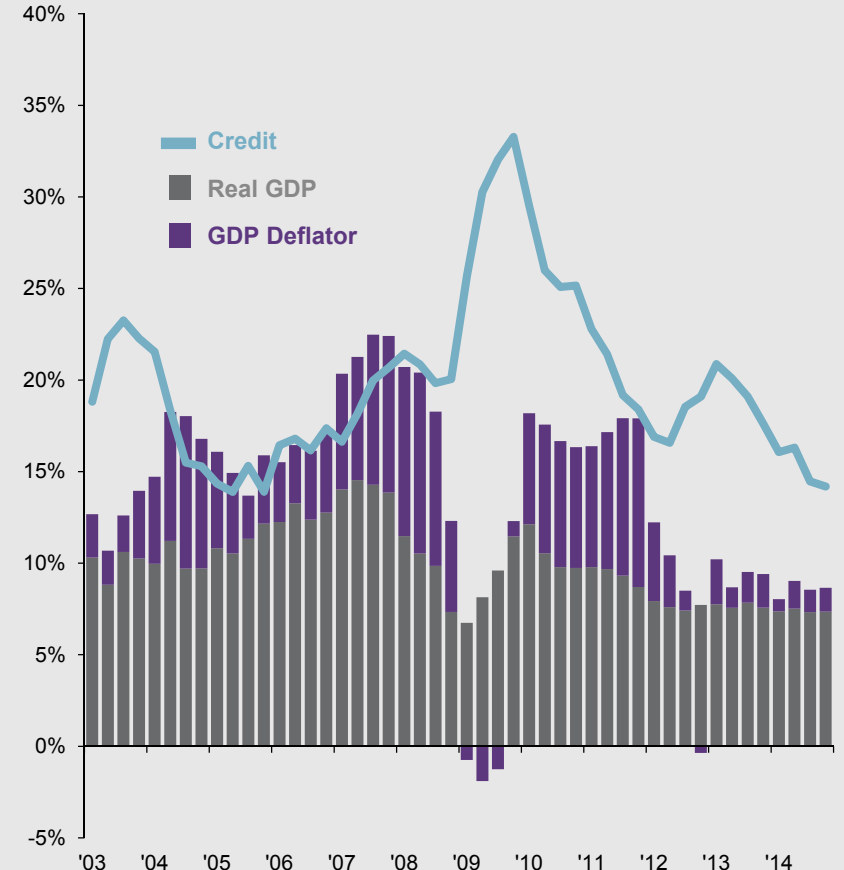
## China Real GDP Contribution

Year-over-year % change



## Credit\* vs. GDP Growth

Year-over-year % change, 3-month moving average for credit

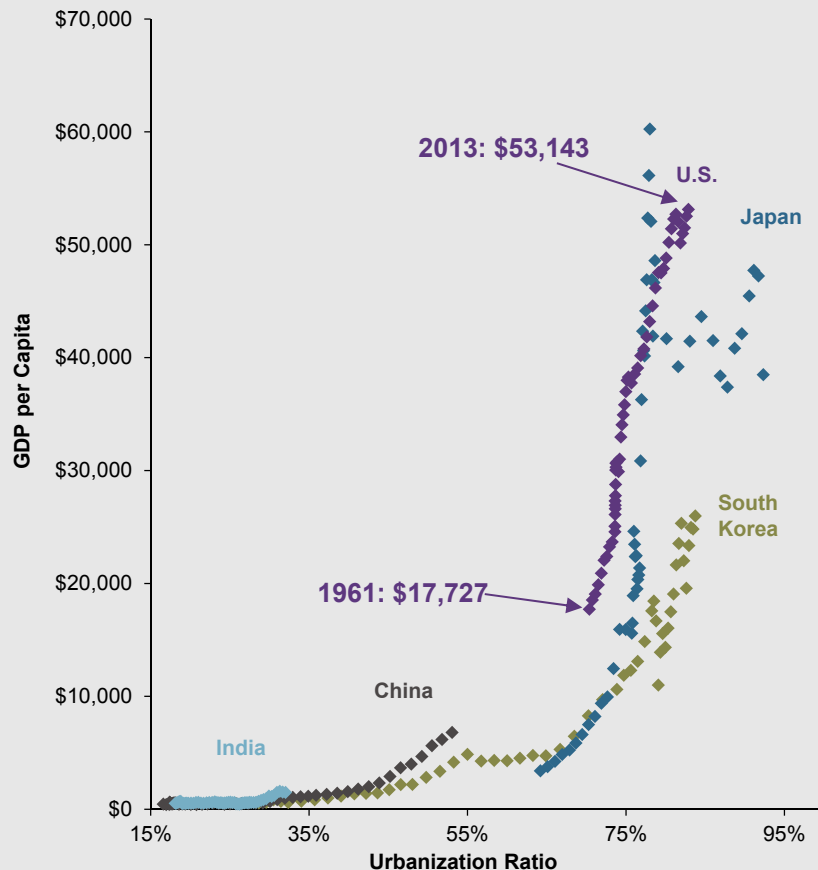


Source: National Bureau of Statistics of China, The People's Bank of China, EM Advisors Group, FactSet, CEIC, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. \*As defined by Total Social Financing: RMB bank loans, bankers acceptance bills, trust loans, entrusted loans, corporate bond financing, foreign currency loans, and non-financial equity financing. TSF data uses an assumption of outstanding credit in Dec. 2001. \*\*2014 GDP numbers are preliminary. Data are as of April 30, 2015.



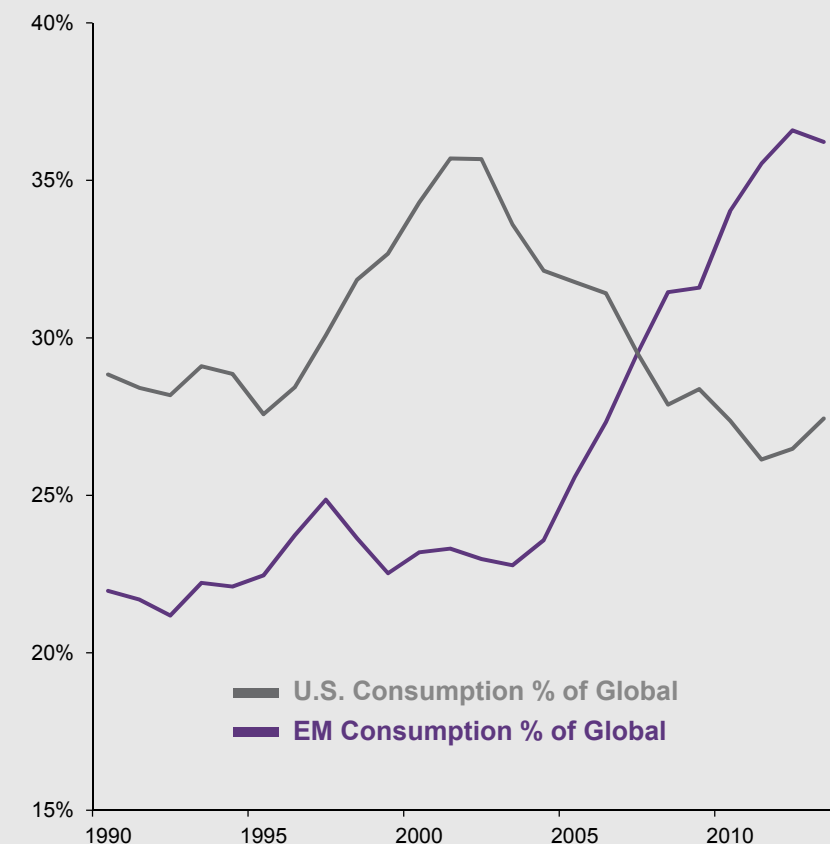
## The Impact of Urbanization

Urbanization ratios and GDP per capita (2013 USD), 1961 – 2013



## Share of Global Nominal Consumption

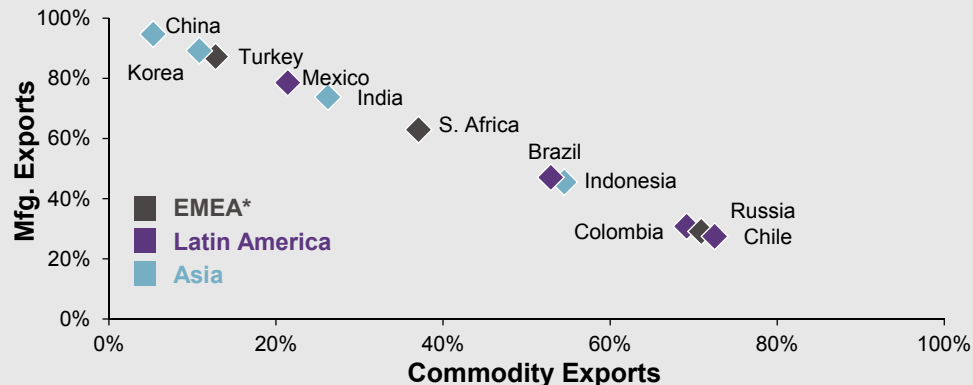
Current dollar household expenditures, 1990 – 2013\*



Source: FactSet, World Bank, United Nations, J.P. Morgan Global Economics Research, J.P. Morgan Asset Management.  
Real GDP per Capita numbers are current U.S. dollar GDP per capita figures from the World Bank, adjusted by the 2013 U.S. dollar GDP deflator.  
\*2013 consumption numbers are preliminary.  
Data are as of April 30, 2015.

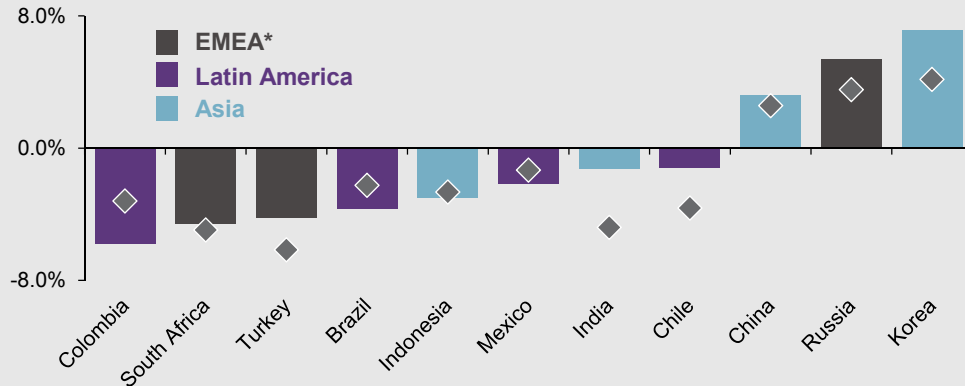
## Commodity vs. Manufacturing Countries

% of total exports, 2012



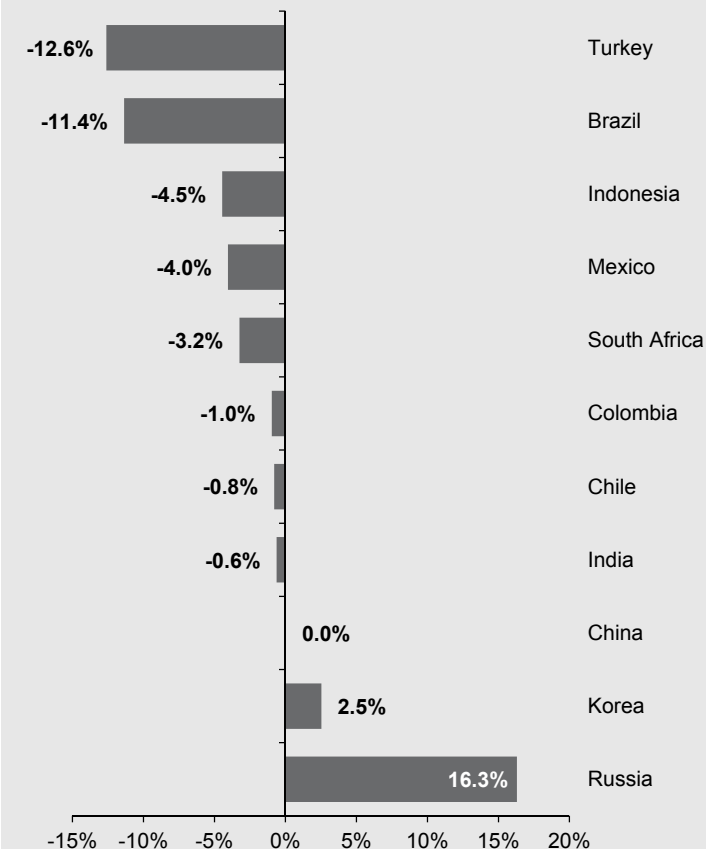
## Current Account Deficit vs. Surplus Countries

% of GDP, bars = 2015 vs. diamonds = 2012



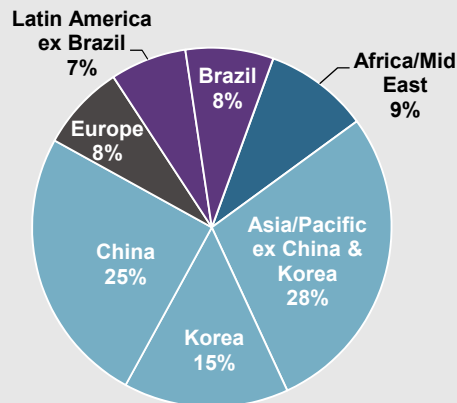
## YTD Currency Performance

Performance of foreign currency versus USD



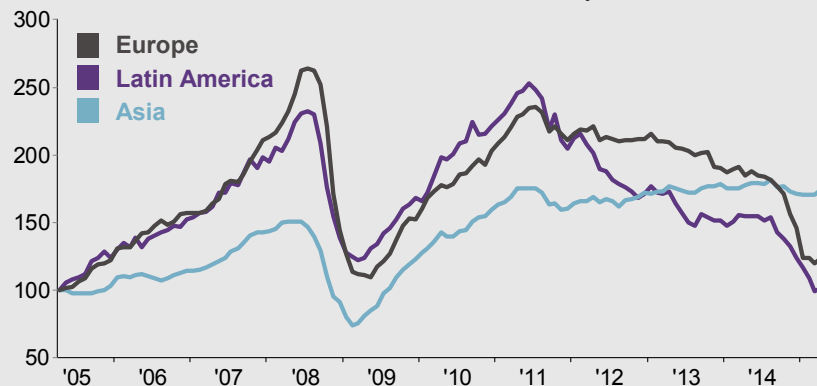
Source: (Top left) World Bank, U.N. Commodity Trade Statistics Database, J.P. Morgan Asset Management. (Bottom left) IMF April 2015 World Economic Outlook, J.P. Morgan Asset Management. (Right) FactSet, J.P. Morgan Asset Management. \*EMEA is the geographic area including Europe, the Middle East and Africa. Commodities defined by SITC codes 0-4. Data are as of April 30, 2015.

## MSCI EM Index by Region

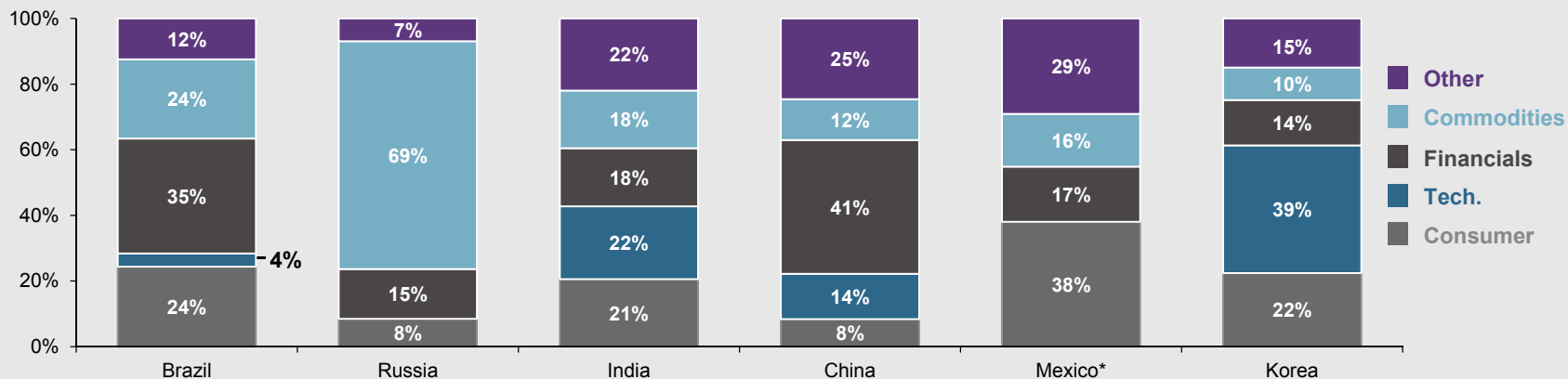


## EM Earnings by Region

EPS for next 12-month consensus, local currency, rebased to 100

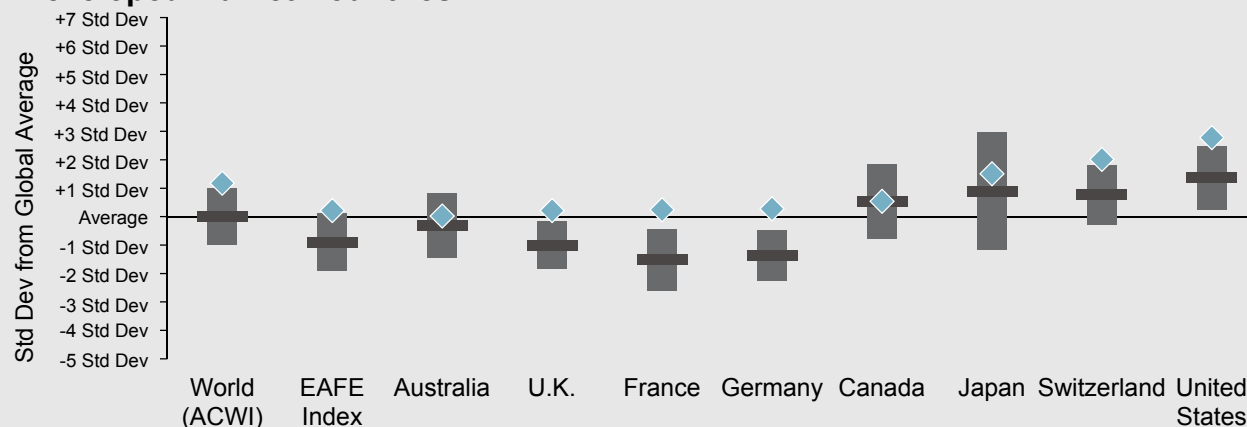


## MSCI EM Country Index by Sector

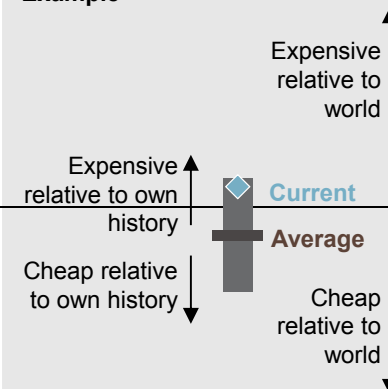


Source: MSCI, FactSet, J.P. Morgan Asset Management. "Other" is comprised of Health Care, Industrials, Telecom, and Utilities sectors. \*Mexico Telecom. sector accounts for 20% of the country's market capitalization. Values may not sum to 100% due to rounding. Data are as of April 30, 2015.

## Developed Market Countries



### Example



	Current Composite Index	Current				10-year avg.			
		Fwd. P/E	P/B	P/CF	Div. Yld.	Fwd. P/E	P/B	P/CF	Div. Yld.
World (ACWI)	1.17	16.2	2.2	9.1	2.4%	13.1	2.0	7.5	2.5%
EAFE Index	0.22	16.0	1.8	8.1	3.0%	12.8	1.7	6.7	3.2%
Australia	0.02	16.3	2.0	8.8	4.5%	13.5	2.2	9.1	4.4%
U.K.	0.21	16.0	1.9	9.2	3.7%	11.5	2.0	7.4	3.7%
France	0.24	16.3	1.7	8.2	2.9%	11.6	1.6	5.9	3.5%
Germany	0.27	14.7	1.9	8.1	2.6%	11.6	1.6	5.9	3.1%
Canada	0.54	17.3	2.0	7.1	2.7%	13.8	2.1	8.4	2.4%
Japan	1.50	15.7	1.5	9.2	1.7%	16.1	1.4	6.5	1.7%
Switzerland	2.01	17.6	2.6	12.4	3.1%	13.7	2.5	10.0	2.8%
United States	2.78	17.2	2.8	10.9	1.9%	14.0	2.4	8.8	2.0%

Source: MSCI, FactSet, J.P. Morgan Asset Management.

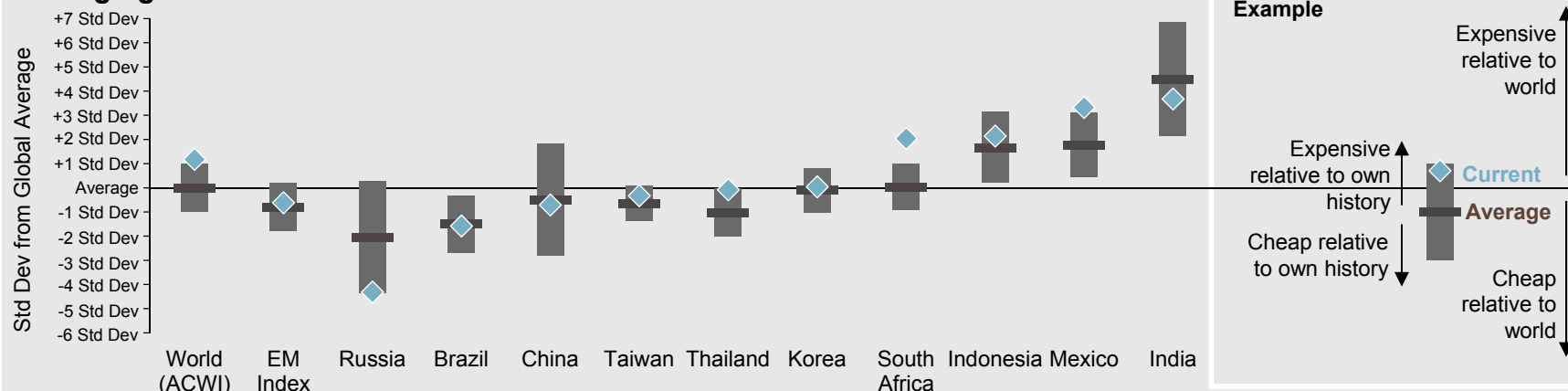
Note: Each valuation index shows an equally weighted composite of four metrics: price to forward earnings (Fwd. P/E), price to current book (P/B), price to last 12 months' cash flow (P/CF) and price to last 12 months' dividends (Div. Yld.). Results are then normalized using means and average variability over the last 10 years.

The grey bars represent one standard deviation in variability relative to that of the MSCI All Country World Index (ACWI).

See disclosures page at the end for metric definitions.

Data are as of April 30, 2015.

## Emerging Market Countries



	Current Composite Index	Current				10-year avg.			
		Fwd. P/E	P/B	P/CF	Div. Yld.	Fwd. P/E	P/B	P/CF	Div. Yld.
<b>World (ACWI)</b>	<b>1.17</b>	16.2	2.2	9.1	2.4%	13.1	2.0	7.5	2.5%
<b>EM Index</b>	<b>-0.62</b>	12.6	1.6	6.7	2.5%	11.2	1.9	6.4	2.7%
<b>Russia</b>	<b>-4.32</b>	6.1	0.5	3.2	4.6%	7.4	1.3	4.4	2.3%
<b>Brazil</b>	<b>-1.58</b>	14.0	1.3	5.3	3.9%	10.2	1.8	5.8	3.2%
<b>China</b>	<b>-0.71</b>	12.3	1.8	5.6	2.5%	11.7	2.1	6.7	2.7%
<b>Taiwan</b>	<b>-0.33</b>	12.9	1.9	8.2	3.0%	14.3	1.9	6.7	3.5%
<b>Thailand</b>	<b>-0.08</b>	13.8	2.1	7.2	2.9%	11.0	2.0	7.2	3.5%
<b>Korea</b>	<b>0.04</b>	10.0	1.1	5.9	1.4%	9.7	1.4	5.2	1.5%
<b>South Africa</b>	<b>2.04</b>	17.5	2.7	11.2	2.7%	11.9	2.5	9.0	3.2%
<b>Indonesia</b>	<b>2.13</b>	14.2	3.0	12.6	2.5%	13.0	3.5	10.4	2.7%
<b>Mexico</b>	<b>3.32</b>	19.3	2.6	7.8	1.4%	14.9	2.8	7.3	1.8%
<b>India</b>	<b>3.67</b>	16.9	2.9	12.0	1.5%	15.8	3.2	12.8	1.3%

Source: MSCI, FactSet, J.P. Morgan Asset Management.

Note: Each valuation index shows an equally weighted composite of four metrics: price to forward earnings (Fwd. P/E), price to current book (P/B), price to last 12 months' cash flow (P/CF) and price to last 12 months' dividends (Div. Yld.). Results are then normalized using means and average variability over the last 10 years. The grey bars represent one standard deviation in variability relative to that of the MSCI All Country World Index (ACWI). See disclosures page at the end for metric definitions. See disclosures page at the end for metric definitions.

Data are as of April 30, 2015.

Asset Class	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	YTD	15-ys '00 - '14	
																	Ann.	Vol.
Comdty.	REITs	Comdty.	EM Equity	REITs	EM Equity	REITs	EM Equity	Fixed Income	EM Equity	REITs	REITs	REITs	REITs	Small Cap	REITs	EM Equity	REITs	REITs
31.8%	13.9%	25.9%	56.3%	31.6%	34.5%	35.1%	39.8%	5.2%	79.0%	27.9%	8.3%	19.7%	19.7%	38.8%	28.0%	10.2%	12.7%	22.0%
REITs	Fixed Income	Fixed Income	Small Cap	EM Equity	Comdty.	EM Equity	Comdty.	Cash	High Yield	Small Cap	Fixed Income	High Yield	High Yield	Large Cap	Large Cap	DM Equity	High Yield	Small Cap
26.4%	8.4%	10.3%	47.3%	26.0%	21.4%	32.6%	16.2%	1.8%	59.4%	26.9%	7.8%	19.6%	19.6%	32.4%	13.7%	9.4%	8.7%	21.6%
Fixed Income	Cash	High Yield	DM Equity	DM Equity	DM Equity	DM Equity	DM Equity	Asset Alloc.	DM Equity	EM Equity	High Yield	EM Equity	EM Equity	DM Equity	Fixed Income	High Yield	Small Cap	EM Equity
11.6%	4.1%	4.1%	39.2%	20.7%	14.0%	26.9%	11.6%	25.4%	32.5%	19.2%	3.1%	18.6%	18.6%	23.3%	6.0%	3.1%	7.4%	21.3%
Cash	Small Cap	REITs	REITs	Small Cap	REITs	Small Cap	Small Cap	Asset Alloc.	High Yield	REITs	Comdty.	Large Cap	DM Equity	Asset Alloc.	Asset Alloc.	Asset Alloc.	EM Equity	Comdty.
6.1%	2.5%	3.8%	37.1%	18.3%	12.2%	18.4%	7.1%	-26.9%	28.0%	16.8%	2.1%	17.9%	17.9%	14.9%	5.2%	2.9%	7.4%	19.2%
High Yield	High Yield	Cash	High Yield	High Yield	Asset Alloc.	Large Cap	Fixed Income	Small Cap	Small Cap	Large Cap	Cash	Small Cap	Small Cap	High Yield	Small Cap	Large Cap	Fixed Income	DM Equity
1.0%	2.3%	1.7%	32.4%	13.2%	8.1%	15.8%	7.0%	-33.8%	27.2%	15.1%	0.1%	16.3%	16.3%	7.3%	4.9%	1.9%	5.7%	17.5%
Asset Alloc.	EM Equity	Asset Alloc.	Large Cap	Asset Alloc.	Large Cap	Asset Alloc.	Large Cap	Comdty.	Large Cap	High Yield	Asset Alloc.	Asset Alloc.	Large Cap	REITs	Cash	Small Cap	Asset Alloc.	Large Cap
0.0%	-2.4%	-5.9%	28.7%	12.8%	4.9%	15.3%	5.5%	-35.6%	26.5%	14.8%	-0.7%	16.0%	16.0%	2.9%	0.0%	1.7%	5.3%	17.3%
Small Cap	Asset Alloc.	EM Equity	Asset Alloc.	Large Cap	Small Cap	High Yield	Cash	Large Cap	Asset Alloc.	Asset Alloc.	Small Cap	Asset Alloc.	Cash	High Yield	Fixed Income	Large Cap	Asset Alloc.	Asset Alloc.
-3.0%	-3.9%	-6.0%	26.3%	10.9%	4.6%	13.7%	4.8%	-37.0%	25.0%	13.3%	-4.2%	12.2%	0.0%	0.0%	1.2%	4.2%	13.7%	13.7%
Large Cap	Large Cap	DM Equity	Comdty.	Comdty.	High Yield	Cash	High Yield	REITs	Comdty.	DM Equity	DM Equity	Fixed Income	Fixed Income	EM Equity	Cash	DM Equity	High Yield	High Yield
-9.1%	-11.9%	-15.7%	23.9%	9.1%	3.6%	4.8%	3.2%	-37.7%	18.9%	8.2%	-11.7%	4.2%	-2.0%	-1.8%	0.0%	3.0%	11.7%	11.7%
DM Equity	Comdty.	Small Cap	Fixed Income	Fixed Income	Cash	Fixed Income	Small Cap	DM Equity	Fixed Income	Fixed Income	Comdty.	Cash	EM Equity	DM Equity	Comdty.	Comdty.	Fixed Income	Fixed Income
-14.0%	-19.5%	-20.5%	4.1%	4.3%	3.0%	4.3%	-1.6%	-43.1%	5.9%	6.5%	-13.3%	0.1%	-2.3%	-4.5%	-0.5%	2.7%	3.5%	3.5%
EM Equity	DM Equity	Large Cap	Cash	Cash	Fixed Income	Comdty.	REITs	EM Equity	Cash	Cash	EM Equity	Comdty.	Comdty.	Comdty.	REITs	Cash	Cash	Cash
-30.6%	-21.2%	-22.1%	1.0%	1.2%	2.4%	2.1%	-15.7%	-53.2%	0.1%	0.1%	-18.2%	-1.1%	-9.5%	-17.0%	-1.2%	1.9%	1.0%	1.0%

Source: Russell, MSCI, Bloomberg, Standard & Poor's, Barclays Capital, NAREIT, FactSet, J.P. Morgan Asset Management. Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Barclays HY Index, Fixed Income: Barclays Capital Aggregate, REITs: NAREIT Equity REIT Index. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Barclays Capital Aggregate, 5% in the Barclays 1-3m Treasury, 5% in the Barclays Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. All data represents total return for stated period. Past performance is not indicative of future returns. Data are as of 4/30/15. "15-ys" returns represent period of 12/31/99 - 12/31/14 showing both cumulative (Cum.) and annualized (Ann.) over the period. Please see disclosure page at end for index definitions. Data are as of April 30, 2015.

# Correlations and Volatility

GTM - U.S. | 55

Asset Class	U.S. Large Cap	EAFE	EME	Bonds	Corp. HY	Munis	Currency.	EMD	Cmdty.	REITs	Hedge Funds	Eq Market Neutral*	Ann. Volatility
U.S. Large Cap	1.00	0.88	0.78	-0.28	0.76	-0.10	-0.48	0.61	0.52	0.78	0.81	0.60	16%
EAFE		1.00	0.91	-0.17	0.79	-0.03	-0.67	0.70	0.64	0.68	0.87	0.71	20%
EME			1.00	-0.12	0.82	0.04	-0.64	0.80	0.68	0.58	0.89	0.57	25%
Bonds				1.00	-0.08	0.81	-0.04	0.25	-0.21	-0.03	-0.28	-0.18	3%
Corp. HY					1.00	0.15	-0.50	0.86	0.60	0.69	0.78	0.41	12%
Munis						1.00	-0.06	0.47	-0.14	0.04	-0.07	-0.10	4%
Currencies							1.00	-0.50	-0.69	-0.37	-0.55	-0.73	8%
EMD								1.00	0.52	0.61	0.66	0.34	8%
Commodities									1.00	0.39	0.74	0.47	20%
REITs										1.00	0.54	0.42	26%
Hedge Funds											1.00	0.58	7%
Eq Market Neutral*												1.00	5%

Source: Standard & Poor's, FRB, Barclays Capital Inc., MSCI Inc., Credit Suisse/Tremont, NCREIF, Bloomberg, J.P. Morgan Asset Management. Indexes used – Large Cap: S&P 500 Index; Currencies: Federal Reserve Trade Weighted Dollar; EAFE: MSCI EAFE; EME: MSCI Emerging Markets; Bonds: Barclays Capital Aggregate; Corp HY: Barclays Capital Corporate High Yield; EMD: Barclays Capital Emerging Market; Cmdty.: Bloomberg Commodity Index; Real Estate: NAREIT Equity REIT Index; Hedge Funds: CS/Tremont Multi-Strategy Index; Equity Market Neutral: CS/Tremont Equity Market Neutral Index. \*Market Neutral returns include estimates found in disclosures. All correlation coefficients and annualized volatility calculated based on quarterly total return data for period 3/31/05 to 3/31/15. This chart is for illustrative purposes only. Data are as of April 30, 2015.

# Alternative Asset Class Returns

GTM - U.S. | 56

											10-ysrs '05 - '14	
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	YTD	Ann. Return	Ann. Vol.
Private Equity 28.4%	Private Equity 28.7%	Private Equity 19.5%	Gbl. Macro 4.7%	MLPs 76.4%	MLPs 35.9%	Real Estate 16.0%	Global Equity 16.5%	MLPs 27.6%	Real Estate 12.5%	Global Equity 6.7%	MLPs 13.8%	MLPs 18.8%
Real Estate 21.4%	MLPs 26.1%	Real Estate 16.0%	Eq. Mkt. Ntrl. -3.0%	Global Equity 30.0%	Private Equity 20.4%	MLPs 13.9%	Real Estate 10.9%	Global Equity 26.2%	Private Equity 11.4%	Gbl. Macro 3.5%	Private Equity 12.5%	Private Equity 10.1%
Global Equity 17.4%	Global Equity 17.0%	MLPs 12.7%	Mrgr. Arb. -6.7%	Rel. Val. 23.0%	Real Estate 16.4%	Private Equity 11.0%	Rel. Val. 9.7%	Private Equity 20.8%	Global Equity 9.9%	Mrgr. Arb. 2.8%	Real Estate 8.0%	Global Equity 9.3%
Distrsd. 10.4%	Real Estate 16.3%	Gbl. Macro 11.4%	Real Estate -10.0%	Distrsd. 20.2%	Rel. Val. 12.5%	Mrgr. Arb. 2.3%	Distrsd. 8.5%	Distrsd. 15.1%	Gbl. Macro 5.8%	HF Agg. 2.0%	Global Equity 7.0%	Distrsd. 9.2%
HF Agg. 9.1%	Distrsd. 15.3%	HF Agg. 11.0%	Rel. Val. -17.3%	HF Agg. 18.6%	Distrsd. 12.2%	Rel. Val. 0.8%	MLPs 4.8%	Real Estate 13.9%	Rel. Val. 5.2%	Eq. Mkt. Ntrl. 1.6%	Rel. Val. 6.4%	Real Estate 9.0%
MLPs 6.3%	Mrgr. Arb. 14.6%	Rel. Val. 10.0%	HF Agg. -18.7%	Private Equity 13.4%	Global Equity 11.1%	Distrsd. 0.0%	HF Agg. 4.4%	HF Agg. 9.6%	MLPs 4.8%	Rel. Val. 1.3%	Distrsd. 6.1%	HF Agg. 8.0%
Eq. Mkt. Ntrl. 6.1%	HF Agg. 13.3%	Mrgr. Arb. 8.9%	Distrsd. -22.3%	Mrgr. Arb. 11.9%	HF Agg. 8.5%	Gbl. Macro -0.7%	Private Equity 3.3%	Rel. Val. 7.5%	HF Agg. 4.3%	MLPs 0.6%	HF Agg. 5.3%	Rel. Val. 7.2%
Gbl. Macro 6.1%	Rel. Val. 12.2%	Global Equity 7.7%	Private Equity -22.3%	Gbl. Macro 6.9%	Mrgr. Arb. 4.6%	Eq. Mkt. Ntrl. -1.5%	Eq. Mkt. Ntrl. 3.1%	Eq. Mkt. Ntrl. 6.4%	Eq. Mkt. Ntrl. 3.2%	Distrsd. -0.4%	Mrgr. Arb. 4.9%	Gbl. Macro 4.6%
Mrgr. Arb. 5.5%	Gbl. Macro 8.2%	Distrsd. 6.8%	MLPs -36.9%	Eq. Mkt. Ntrl. -1.7%	Gbl. Macro 3.2%	HF Agg. -2.0%	Mrgr. Arb. 1.8%	Mrgr. Arb. 5.3%	Mrgr. Arb. 2.0%	Real Estate -	Gbl. Macro 4.4%	Mrgr. Arb. 4.0%
Rel. Val. 5.3%	Eq. Mkt. Ntrl. 7.0%	Eq. Mkt. Ntrl. 5.7%	Global Equity -39.2%	Real Estate -29.8%	Eq. Mkt. Ntrl. 2.5%	Global Equity -6.0%	Gbl. Macro -1.3%	Gbl. Macro 0.1%	Distrsd. 1.9%	Private Equity -	Eq. Mkt. Ntrl. 2.7%	Eq. Mkt. Ntrl. 3.0%

Source: Alerian, HFRI, MSCI, Cambridge Associates, NCREIF, FactSet, J.P. Morgan Asset Management.

Hedge fund indices include distressed and restructuring (Distrsd.), relative value (Rel. Val.), global macro (Gbl. Macro), merger arbitrage (Mrgr. Arb.), equity market neutral (Eq. Mkt. Ntrl.), and the aggregate (HF Agg.). Returns may fluctuate as hedge fund reporting occurs on a lag. QTD and YTD private equity data is unavailable and provided by Cambridge Associates. Real estate returns reflect the NCREIF Fund Index – Open End Diversified Core Equity Index (NFI – ODCE) index. and global equity returns reflect the MSCI AC World Index. Annualized volatility and returns are calculated from quarterly data between 12/31/04 and 12/31/14. Please see disclosure pages for index definitions. Data are as of April 30, 2015.



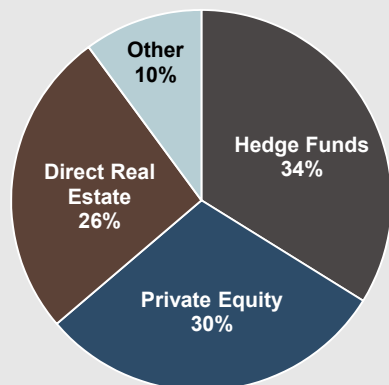
## Alternative Strategy Returns

### Alternative Strategy Returns

Hedge Funds (as of 3/31/15)	1 year	3 year	5 year
HFRI Fund Weighted Composite	4.1%	5.3%	4.5%
Equity Market Neutral	3.4%	4.1%	2.8%
Credit Arbitrage	2.0%	6.1%	6.5%
Multi-Strategy	5.9%	7.4%	5.5%
Event Driven	0.9%	6.3%	5.5%
Merger Arbitrage	3.5%	3.3%	3.2%
Macro	9.3%	2.5%	2.4%
Relative Value	3.5%	6.4%	6.2%
Private Equity (as of 9/30/14)	1 year	3 year	5 year
Private Equity	18.1%	17.0%	16.8%
Venture Capital	24.5%	15.2%	14.9%

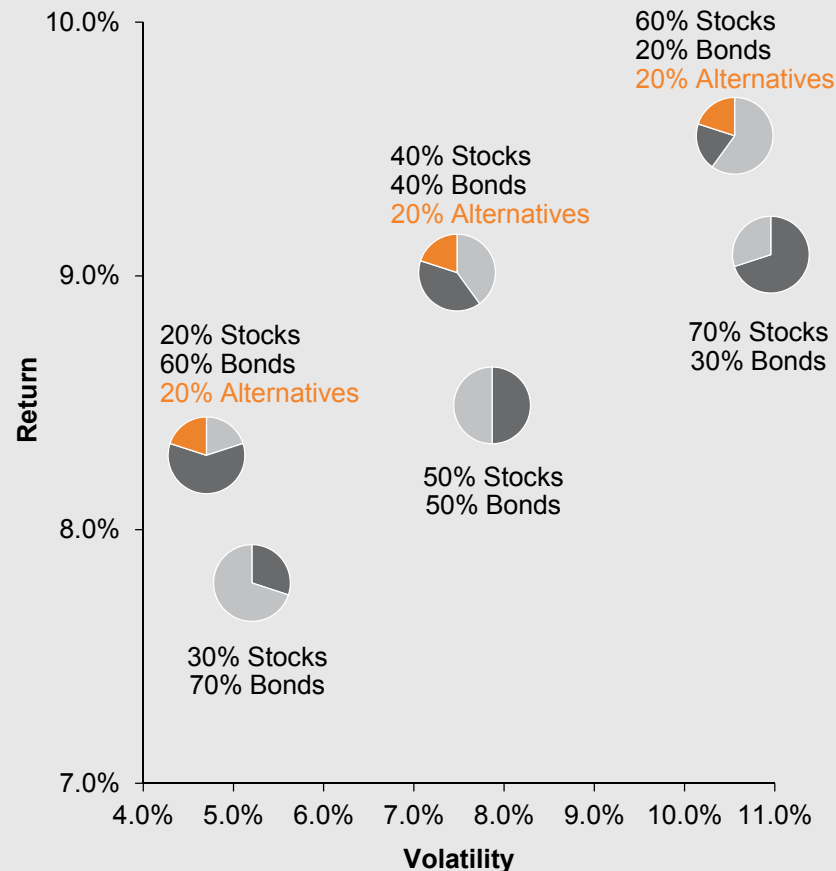
## Institutional Investor Allocation to Alternatives

Percentage of alternative AUM of survey participants\*



## Alternatives and Portfolio Risk/Return

Annualized volatility and returns, 1Q 1990 – 4Q 2014



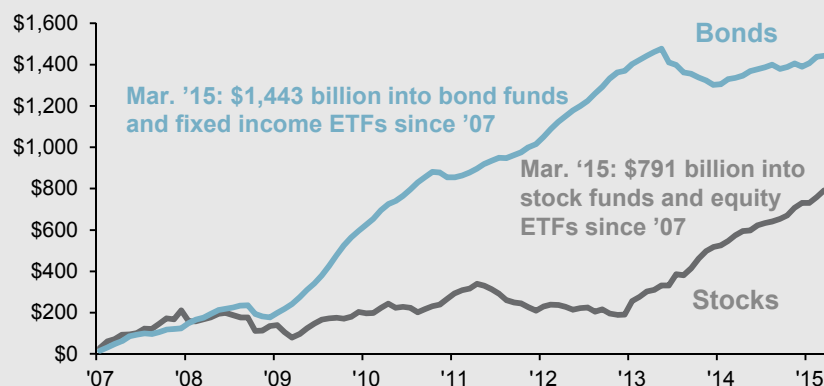
Sources: Towers Watson, HFR, Cambridge Associates, Burgiss, NCREIF, Standard & Poor's, Barclays, FactSet, J.P. Morgan Asset Management. The portfolios that do not contain alternatives are a mix of the S&P 500 and the Barclays U.S. Aggregate, in the amounts highlighted in the chart. The 20% allocation to alternatives shown in the other portfolios reflects the following: 10% in hedge funds, 5% in private equity, and 5% in private real estate. The volatility and returns are based on data from 1Q90 to 4Q14.\*The investor breakdown is based on a Towers Watson survey of 578 investors. Participants include pension funds, endowments and foundations, banks, insurance firms, funds of funds, sovereign wealth funds, and wealth managers.

Data as of April 30, 2015.

Billions, USD	AUM	Mutual Fund Flows																
		YTD 2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
<b>Domestic Equity</b>	6,387	(1)	(60)	18	(159)	(133)	(81)	(28)	(149)	(68)	(3)	17	100	120	(25)	57	258	176
<b>World Equity</b>	2,190	27	85	141	7	4	57	26	(80)	142	151	107	72	24	(4)	(23)	58	11
<b>Taxable Bond</b>	2,958	25	16	(13)	256	129	221	301	22	100	44	21	0	40	125	76	(36)	7
<b>Tax-exempt Bond</b>	580	9	28	(58)	50	(12)	12	70	8	11	15	5	(15)	(7)	17	12	(14)	(12)
<b>Hybrid</b>	1,380	9	27	71	45	40	35	20	(26)	40	20	43	53	39	8	7	(37)	(13)
<b>Money Market</b>	2,646	(80)	6	32	4	(85)	(455)	(444)	624	570	220	41	(175)	(273)	(62)	354	133	183

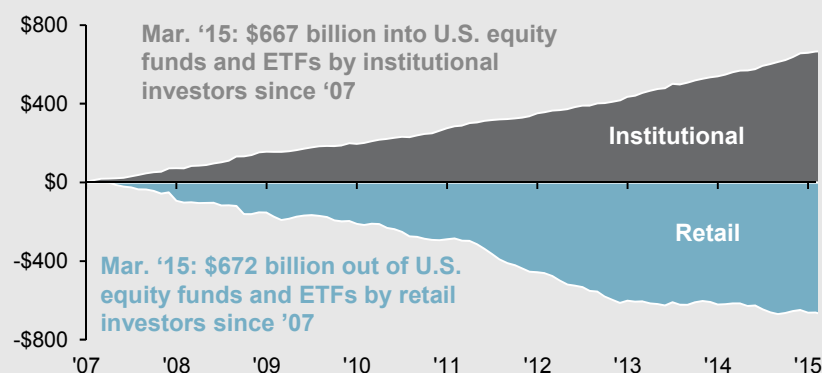
### Cumulative Flows Into Global Stock & Bond Funds

Billions, USD, includes both mutual funds and ETFs



### Cumulative Flows Into U.S. Equity Funds

Billions, USD, includes both mutual funds and ETFs



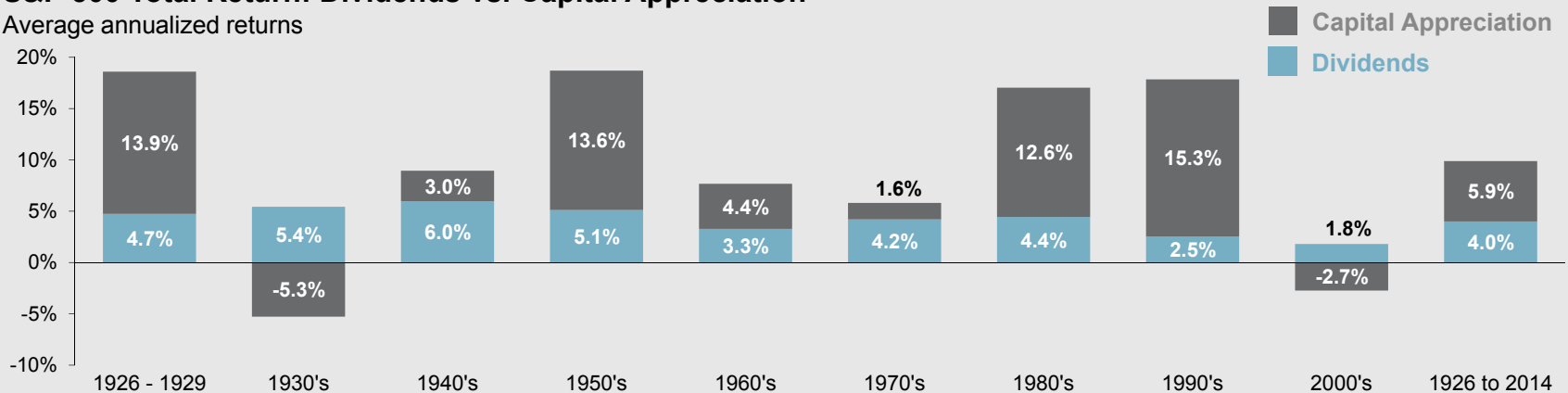
Source: Investment Company Institute, J.P. Morgan Asset Management.

TOP: Data includes flows through March 2015 and excludes ETFs. BOTTOM: Data includes flows through March 2015 and includes ETFs. ICI data are subject to periodic revisions. World equity flows are inclusive of emerging market, global equity and regional equity flows. Hybrid flows include asset allocation, balanced fund, flexible portfolio and mixed income flows.

Data are as of April 30, 2015.

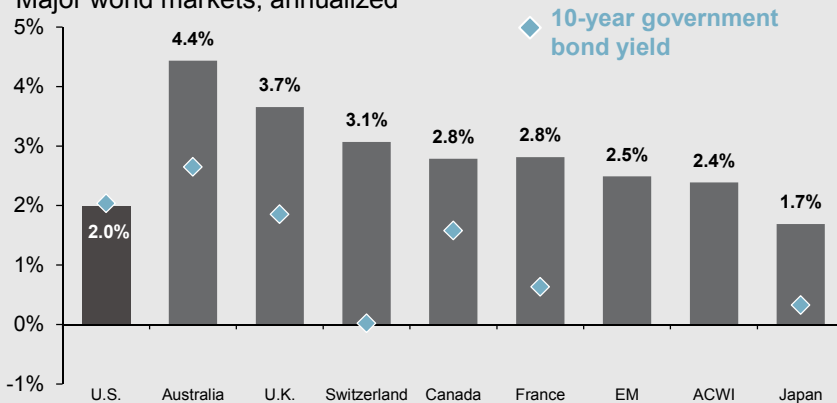
## S&P 500 Total Return: Dividends vs. Capital Appreciation

Average annualized returns



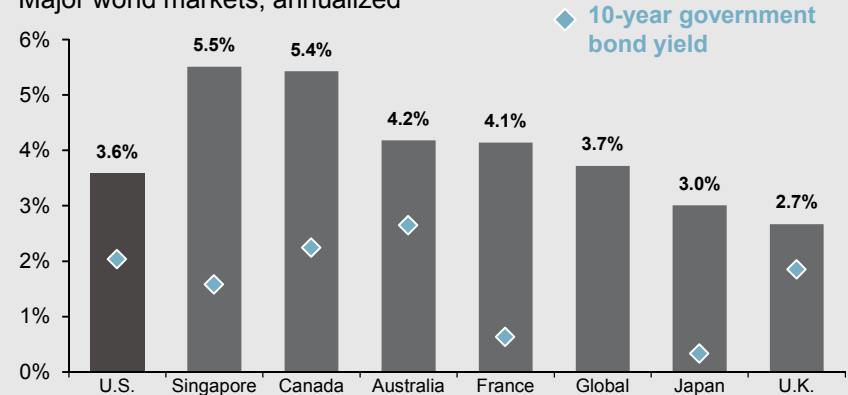
## Equity Dividend Yields

Major world markets, annualized



## REIT Yields

Major world markets, annualized

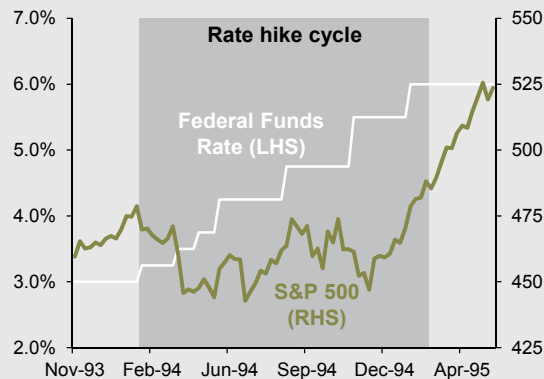


Source: (Top chart) Standard & Poor's, Ibbotson, J.P. Morgan Asset Management. (Bottom right) FactSet, NAREIT, J.P. Morgan Asset Management. Dividend vs. capital appreciation returns are through 12/31/14. Yields shown are that of the appropriate FTSE NAREIT REIT index, which excludes property development companies. (Bottom left) FactSet, MSCI, J.P. Morgan Asset Management. Yields shown are that of the appropriate MSCI index. Data are as of April 30, 2015.

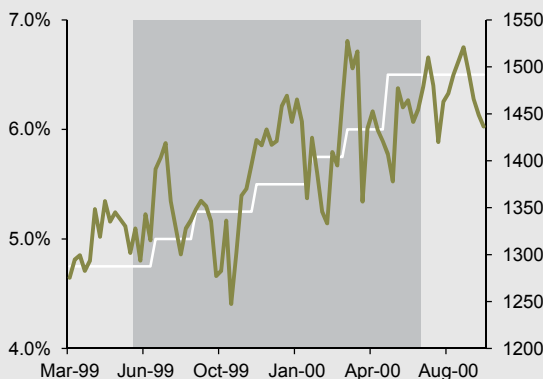
## Returns and Yield Changes During Rate Hiking Cycles

S&P 500 price index and 10-Year U.S. Treasury yield over the last three rate hiking cycles

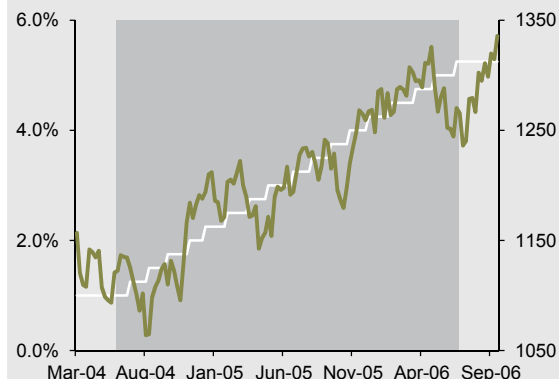
**February 1994 – March 1995**



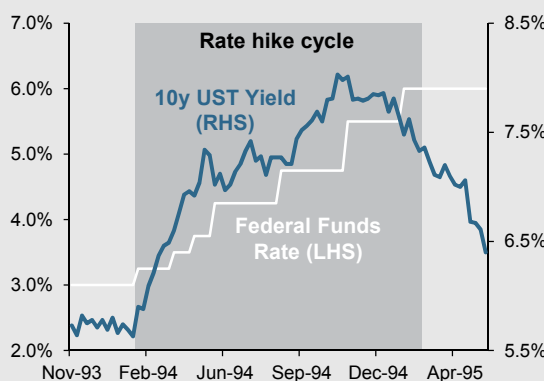
**June 1999 – June 2000**



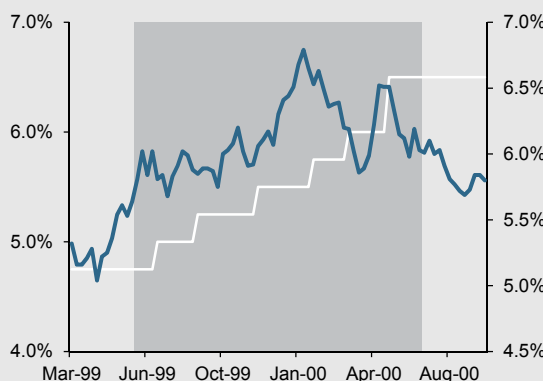
**June 2004 – July 2006**



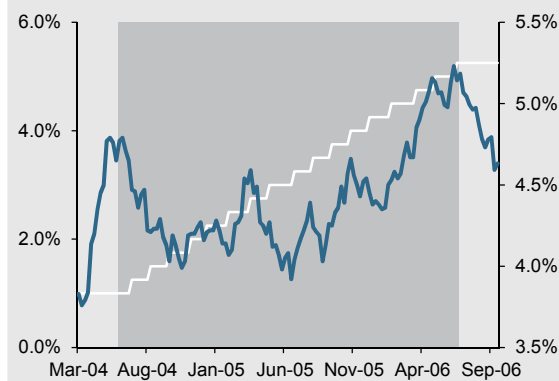
**February 1994 – March 1995**



**June 1999 – June 2000**



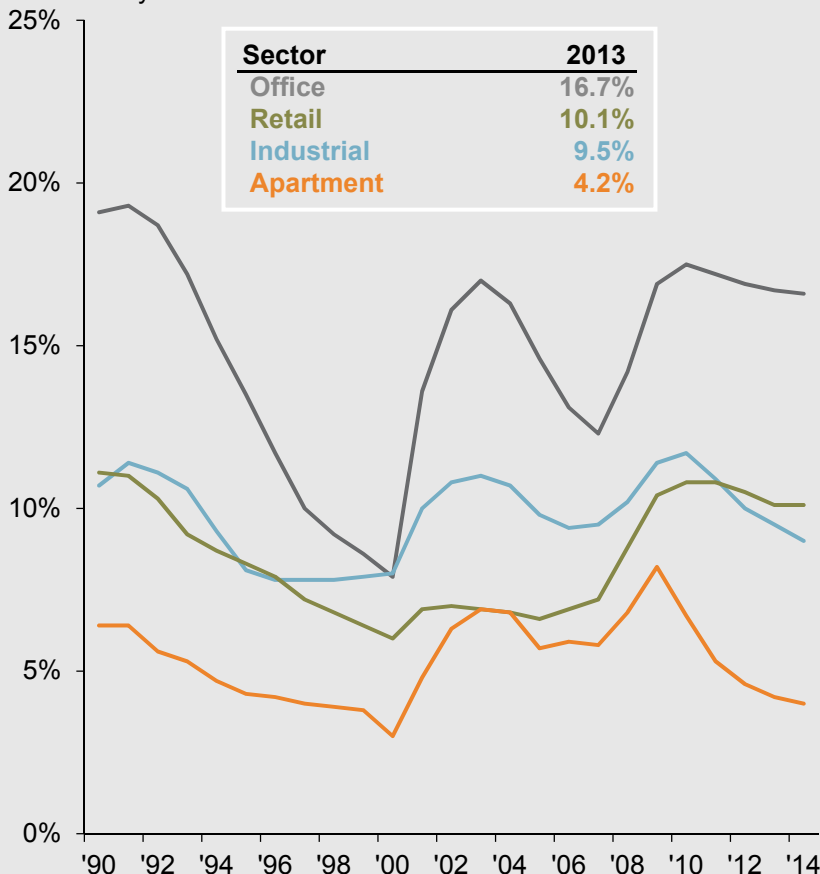
**June 2004 – July 2006**



Source: Standard & Poor's, FactSet, J.P. Morgan Asset Management.  
Data are as of April 30, 2015.

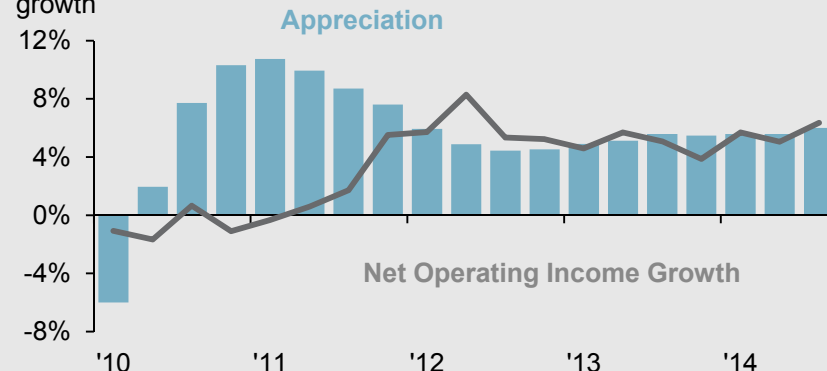
## Commercial Vacancy Rates by Sector

Percent at year end



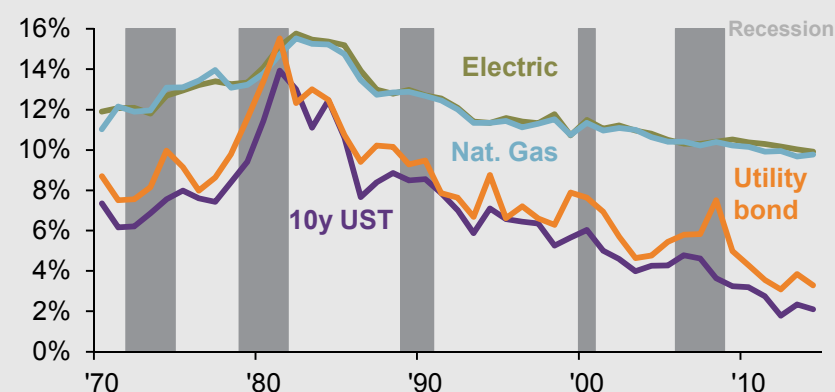
## Property Appreciation and Operating Income Growth

YoY NCREIF ODCE Index\* unlevered property appreciation and NOI growth



## Allowed Return on Equity over the Cost of Debt

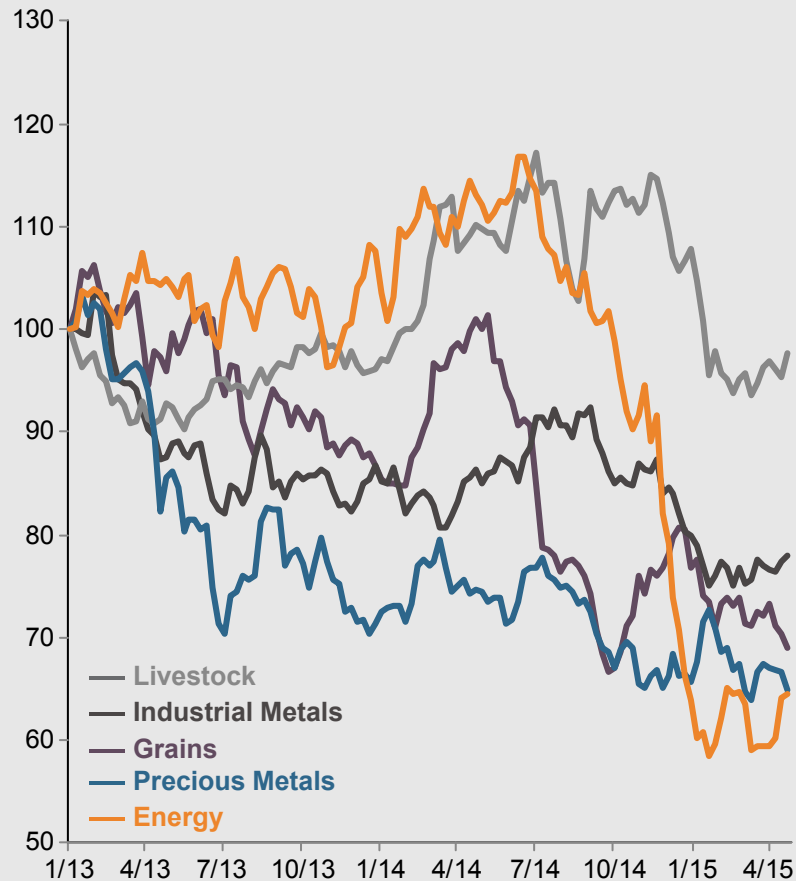
OECD Infrastructure



Source: Reis, Inc., NCREIF, Regulatory Research Associates, Barclays Capital, FactSet, J.P. Morgan Asset Management.  
Vacancy rate data provided by Reis, Inc. \*Please see disclosure pages for NCREIF Open End Diversified Core Equity Index definition.  
Data are as of April 30, 2015.

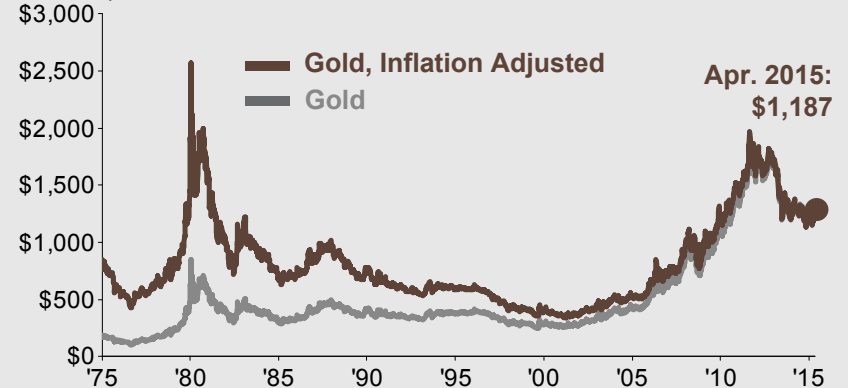
## Commodity Prices

Weekly index prices rebased to 100



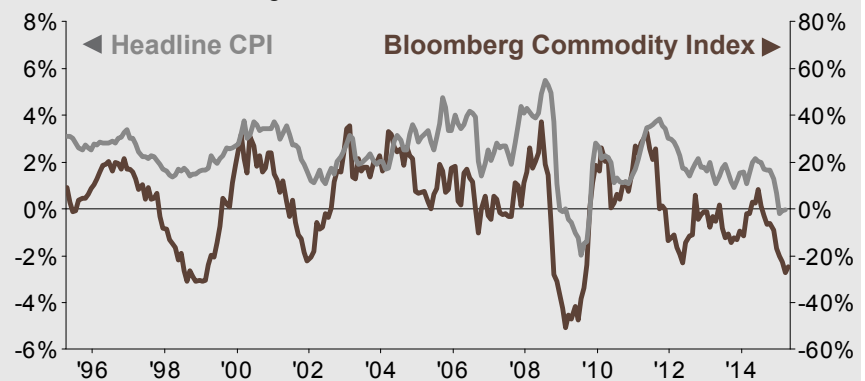
## Gold Prices

Dollars per ounce



## Commodity Prices and Inflation

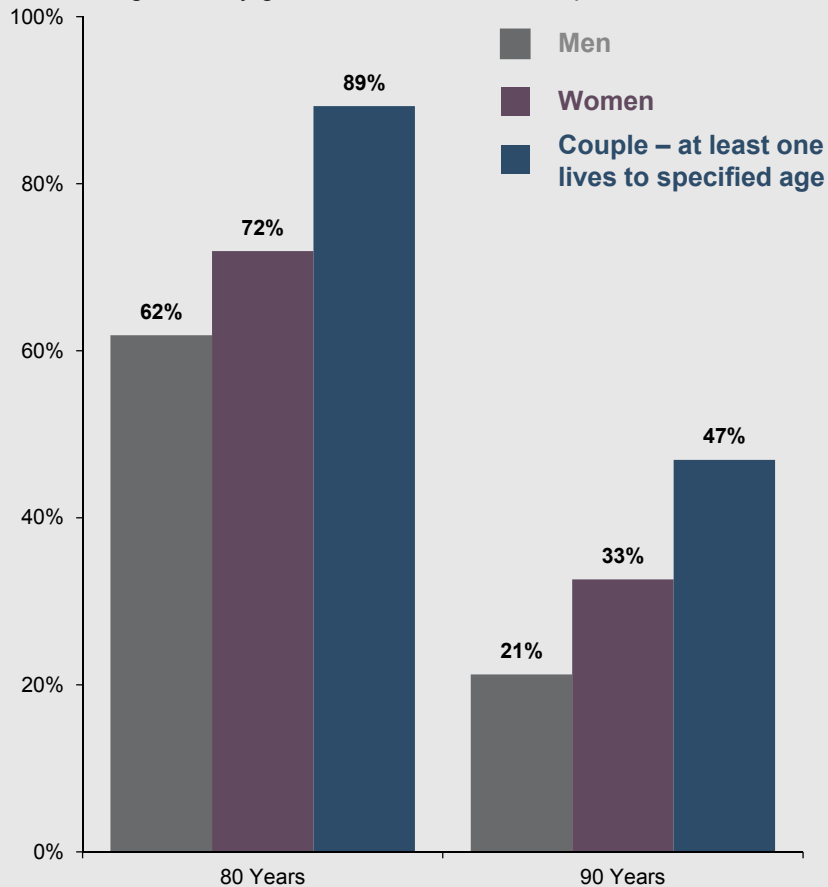
Year-over-Year % chg.



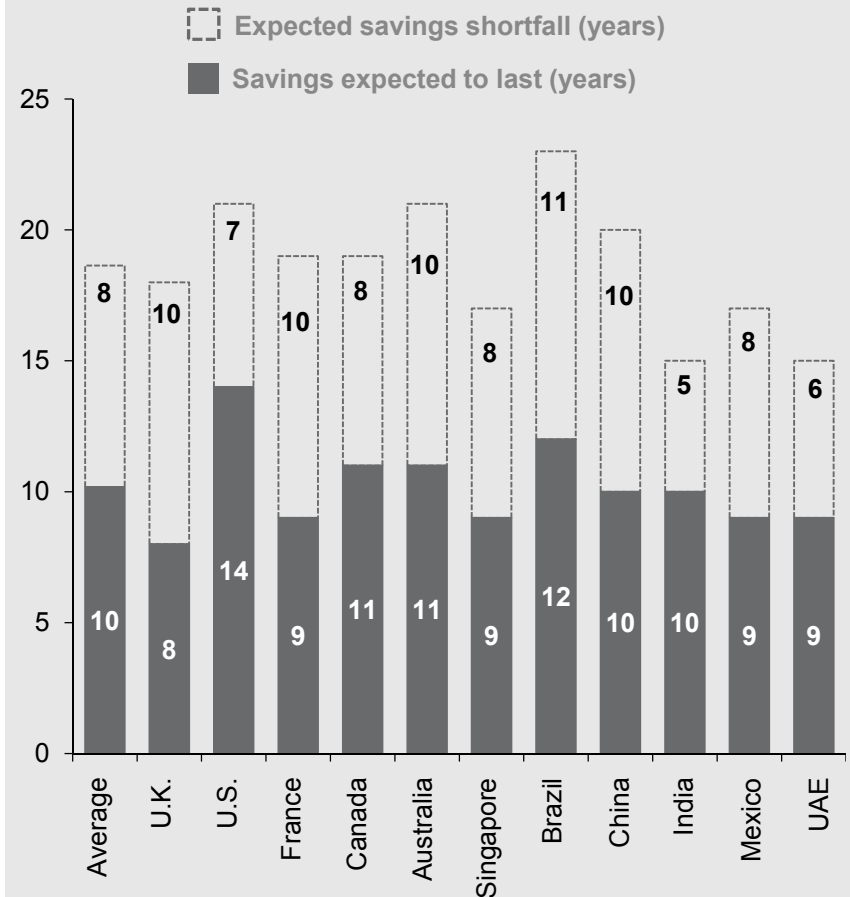
Source: Bloomberg, EcoWin, BLS, U.S. Department of Energy, FactSet, J.P. Morgan Asset Management. CPI adjusted gold values are calculated using monthly averages of gold spot prices divided by the CPI value for that month. CPI is rebased to 100 at the end of the chart. Returns based on nominal prices. Commodity prices represented by the appropriate Bloomberg Commodity sub-index. Data are as of April 30, 2015.

## Probability of Reaching Ages 80 and 90

Persons aged 65, by gender, and combined couple



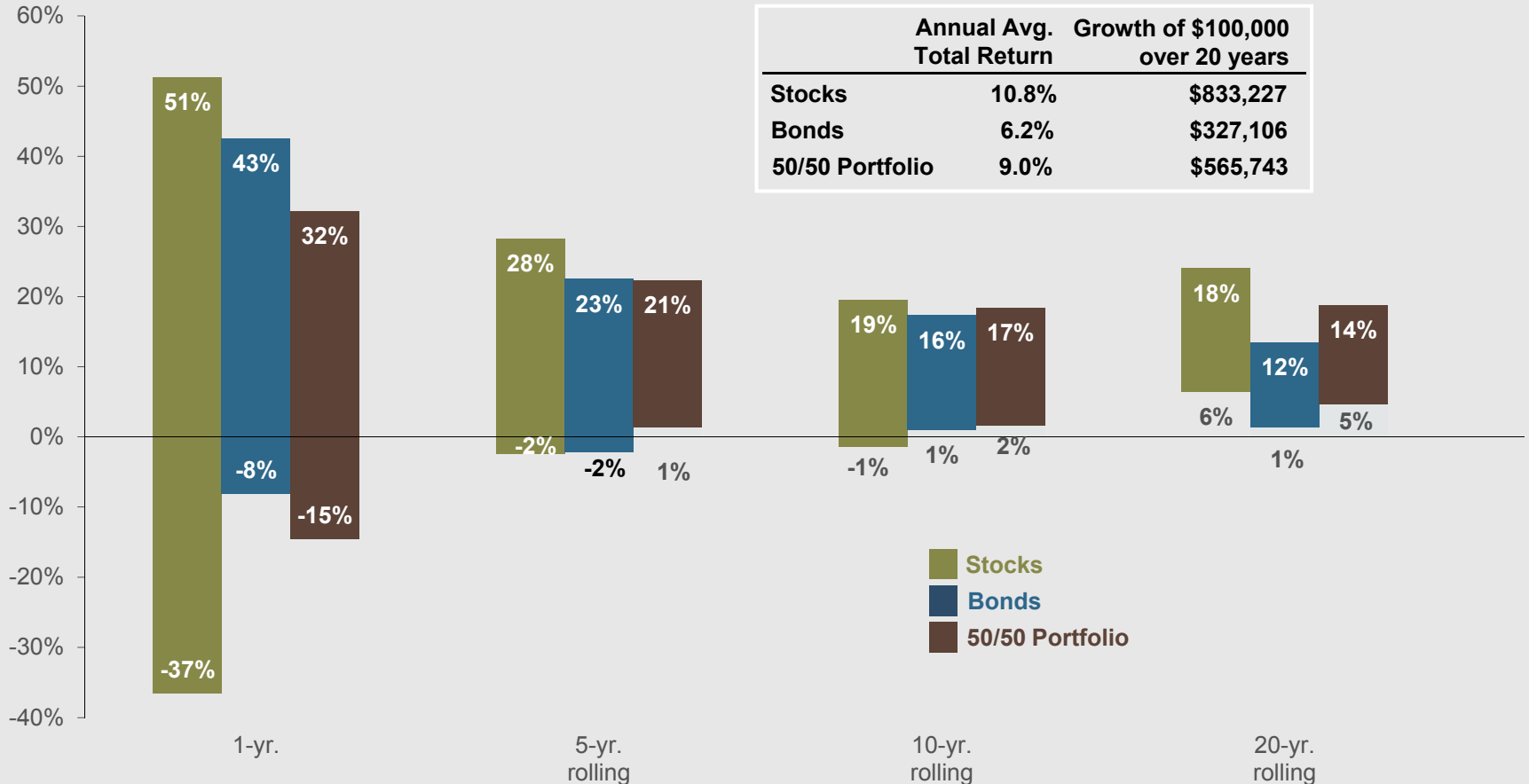
## Perceived retirement shortfall by country



Source: (Left) SSA 2010 Life Tables, J.P. Morgan Asset Management. (Right) "The Future of Retirement: A new reality" study by HSBC, J.P. Morgan Asset Management. Figures represent the expected portion of retirement that will not be covered by retirement savings based on survey data. Data are as of April 30, 2015.

## Range of Stock, Bond and Blended Total Returns

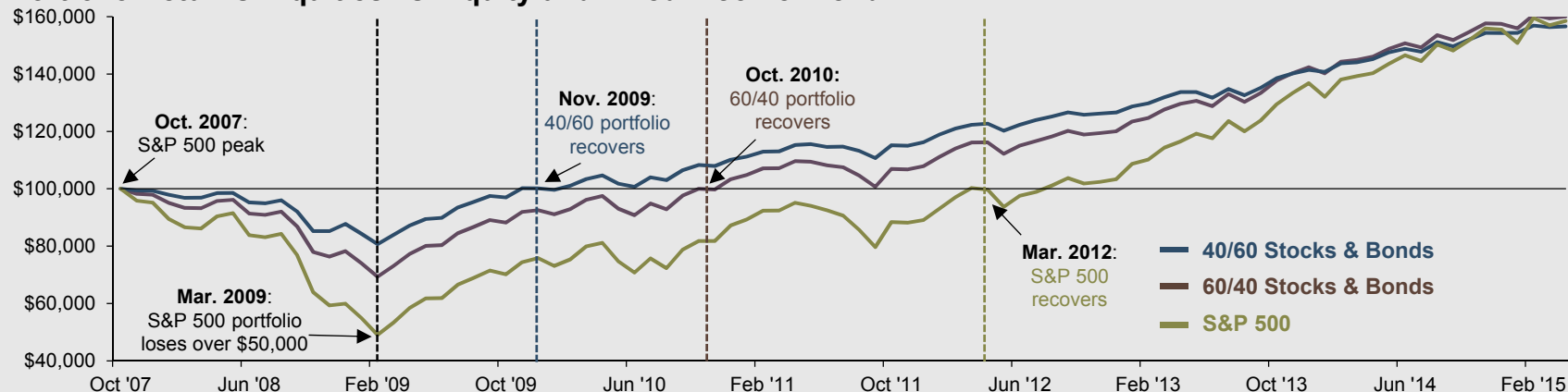
Annual total returns, 1950 – 2014



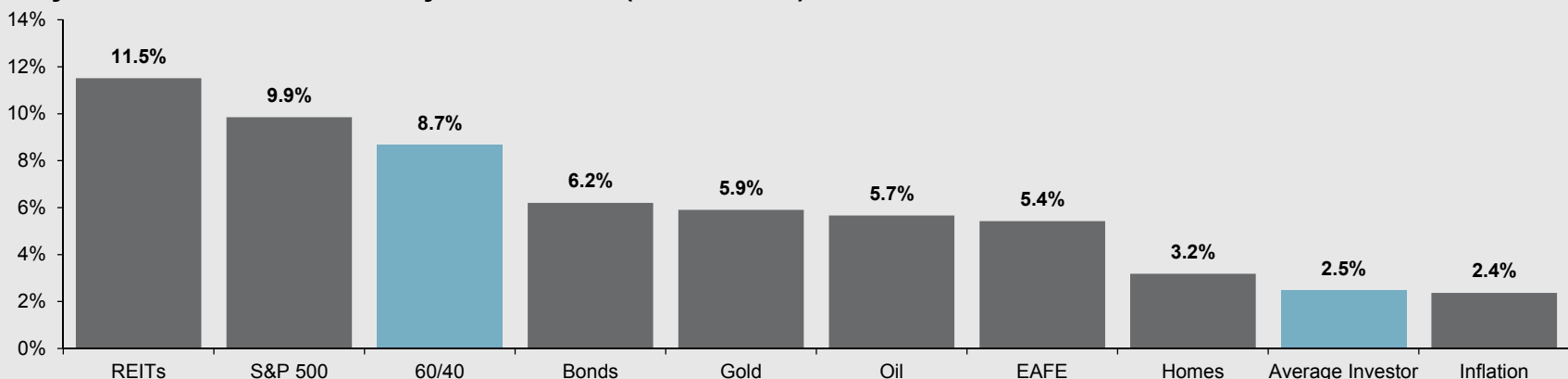
Sources: Barclays Capital, FactSet, Robert Shiller, Strategas/Ibbotson, Federal Reserve, J.P. Morgan Asset Management. Returns shown are based on calendar year returns from 1950 to 2014. Growth of \$100,000 is based on annual average total returns from 1950-2014. Data are as of April 30, 2015.



## Portfolio Returns: Equities vs. Equity and Fixed Income Blend



## 20-year Annualized Returns by Asset Class (1995 – 2014)



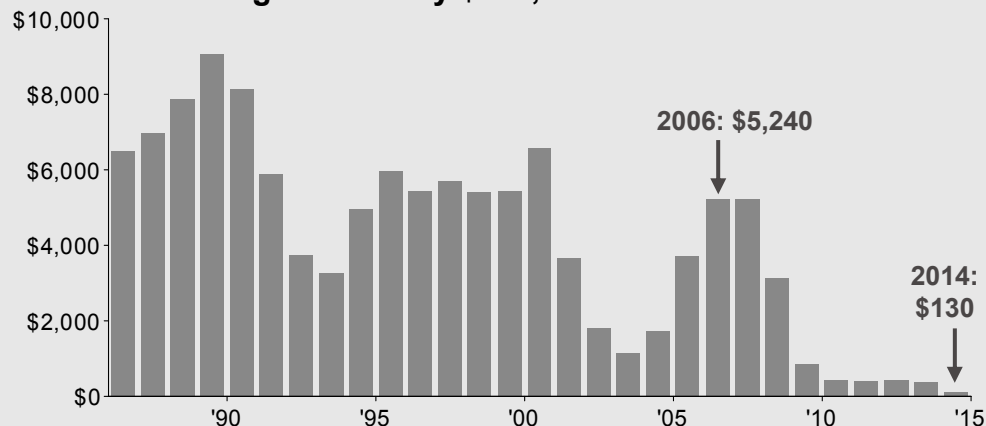
Source: Morningstar Direct, Dalbar Inc., J.P. Morgan Asset Management.

(Bottom) Indexes used are as follows: REITs: NAREIT Equity REIT Index, EAFE: MSCI EAFE, Oil: WTI Index, Bonds: Barclays Capital U.S. Aggregate Index, Homes: median sale price of existing single-family homes, Gold: USD/troy oz, Inflation: CPI. 60/40: A balanced portfolio with 60% invested in S&P 500 Index and 40% invested high quality U.S. fixed income, represented by the Barclays U.S. Aggregate Index. The portfolio is rebalanced annually.

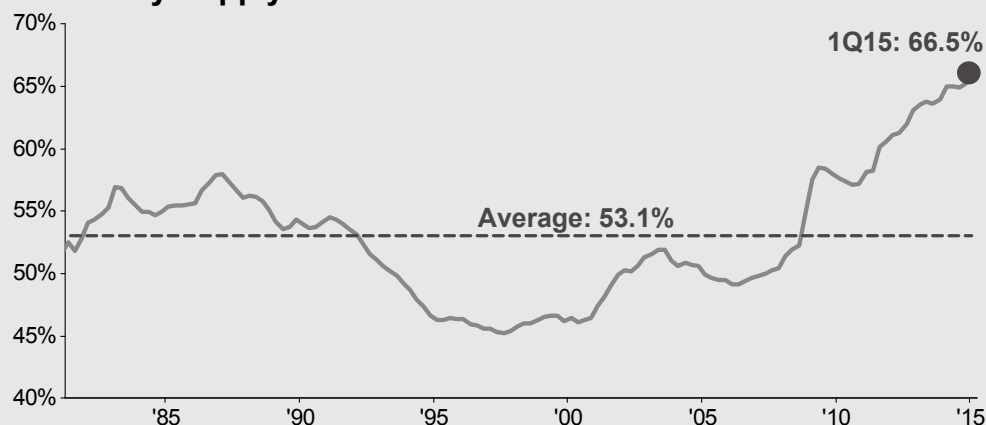
Average asset allocation investor return is based on an analysis by Dalbar Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Returns are annualized (and total return where applicable) and represent the 20-year period ending 12/31/14 to match Dalbar's most recent analysis.

Data are as of April 30, 2015.

**Annual income generated by \$100,000 investment in a 6-mo. CD**



**M2 Money Supply as a % of Nominal GDP**



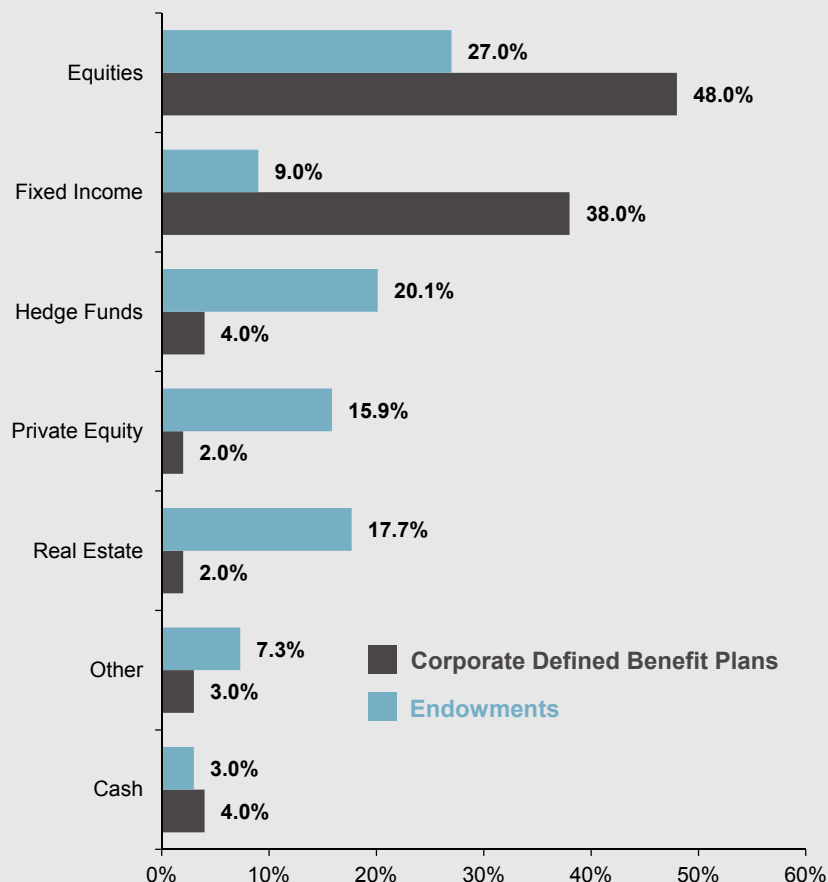
Money Supply Component	\$ Billions	Weight in Money Supply
<b>M2-M1</b>	<b>\$8,858</b>	<b>78.2%</b>
Retail MMMFs	\$620	5.5%
Savings deposits	\$7,748	68.4%
Small time deposits	\$490	4.3%
<b>Institutional MMMFs</b>	<b>\$1,808</b>	<b>16.0%</b>
Cash in IRA & Keogh accounts	\$661	5.8%
<b>Total</b>	<b>\$11,327</b>	<b>100.0%</b>

Source: Federal Reserve, St. Louis Fed, Bankrate.com, J.P. Morgan Asset Management.

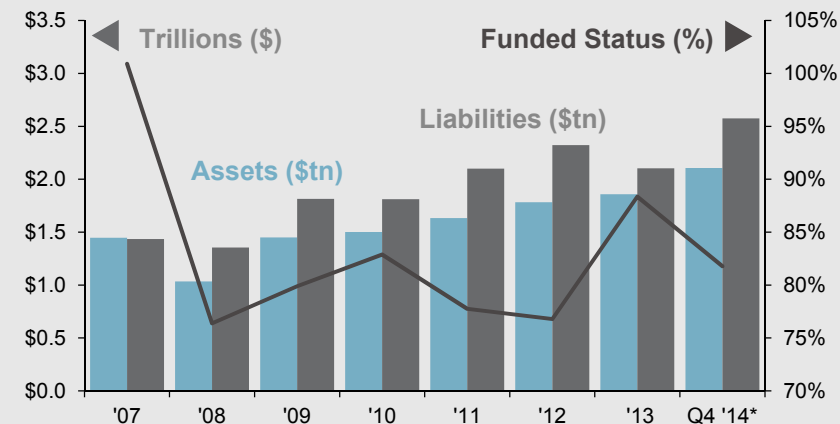
All cash measures obtained from the Federal Reserve are seasonally adjusted monthly numbers. All numbers are in billions of U.S. dollars. Small-denomination time deposits are those issued in amounts of less than \$100,000. All IRA and Keogh account balances at commercial banks and thrift institutions are subtracted from small time deposits. Annual income is for illustrative purposes and is calculated based on the 6-month CD yield on average during each year and \$100,000 invested. IRA and Keogh account balances at money market mutual funds are subtracted from retail money funds. Past performance is not indicative of comparable future results.

Data are as of April 30, 2015.

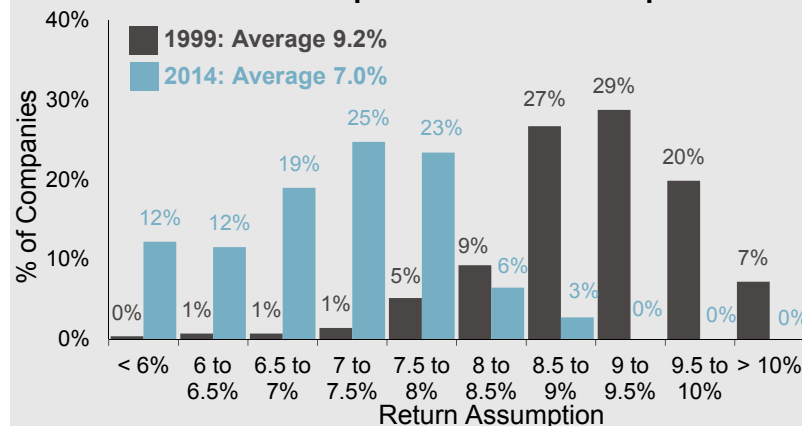
## Asset Allocation: Corporate DB Plans vs. Endowments



## Defined Benefit Plans: Russell 3000 Companies



## Pension Return Assumptions: S&P 500 companies



Source: NACUBO (National Association of College and University Business Officers), Towers Watson, Compustat/FactSet, J.P. Morgan Asset Management. Asset allocation as of 2012. \*Funded status for 4Q14 estimated using market returns. Endowments represents dollar-weighted average data of 842 colleges and universities. Pension Return Assumptions based on all available and reported data from S&P 500 Index companies. Pension Assets, Liabilities and Funded Status based on Russell 3000 companies reporting pension data. Return assumption bands are inclusive of upper range. All information is shown for illustrative purposes only. Data are as of April 30, 2015.

**All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.**

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. This world-renowned index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. Although the S&P 500 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. An investor cannot invest directly in an index.

The **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.

The **Russell 3000 Index**® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell 1000 Index**® measures the performance of the 1,000 largest companies in the Russell 3000.

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

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

The **Russell Midcap Index**® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index**® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index**® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

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

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

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

The **Russell Top 200 Index**® measures the performance of the largest cap segment of the U.S. equity universe. It includes approximately 200 of the largest securities based on a combination of their market cap and current index membership and represents approximately 68% of the U.S. market.

The **MSCI® EAFE** (Europe, Australia, Far East) Net Index is recognized as the pre-eminent benchmark in the United States to measure international equity performance. It comprises 21 MSCI country indexes, representing the developed markets outside of North America.

The **MSCI Emerging Markets Index**SM is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. As of June 2007, the MSCI Emerging Markets Index consisted of the following 25 emerging market country indices: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Jordan, Korea, Malaysia, Mexico, Morocco, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Taiwan, Thailand, and Turkey.

The **MSCI ACWI (All Country World Index) Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. As of June 2009 the **MSCI ACWI** consisted of 45 country indices comprising 23 developed and 22 emerging market country indices.

The **MSCI Small Cap Indices**SM target 40% of the eligible Small Cap universe within each industry group, within each country. MSCI defines the Small Cap universe as all listed securities that have a market capitalization in the range of USD200-1,500 million.

The **MSCI Value and Growth Indices**SM cover the full range of developed, emerging and All Country MSCI Equity indexes. As of the close of May 30, 2003, MSCI implemented an enhanced methodology for the MSCI Global Value and Growth Indices, adopting a two dimensional framework for style segmentation in which value and growth securities are categorized using different attributes - three for value and five for growth including forward-looking variables. The objective of the index design is to divide constituents of an underlying MSCI Standard Country Index into a value index and a growth index, each targeting 50% of the free-float adjusted market capitalization of the underlying country index. Country Value/Growth indices are then aggregated into regional Value/Growth indices. Prior to May 30, 2003, the indices used Price/Book Value (P/BV) ratios to divide the standard MSCI country indices into value and growth indices. All securities were classified as either "value" securities (low P/BV securities) or "growth" securities (high P/BV securities), relative to each MSCI country index.

The following **MSCI Total Return Indices**SM are calculated with gross dividends:

This series approximates the maximum possible dividend reinvestment. The amount reinvested is the dividend distributed to individuals resident in the country of the company, but does not include tax credits.

The **MSCI Europe Index**SM is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe. As of June 2007, the MSCI Europe Index consisted of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The **MSCI Pacific Index**SM is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region. As of June 2007, the MSCI Pacific Index consisted of the following 5 Developed Market countries: Australia, Hong Kong, Japan, New Zealand, and Singapore.

**Credit Suisse/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **NFI-ODCE**, short for NCREIF Fund Index - Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **Dow Jones Industrial Average** measures the stock performance of 30 leading blue-chip U.S. companies.

The **Bloomberg Commodity Index** is composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

**All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.**

The **S&P GSCI Index** is a composite index of commodity sector returns representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. The returns are calculated on a fully collateralized basis with full reinvestment. Individual components qualify for inclusion in the index on the basis of liquidity and are weighted by their respective world production quantities.

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

This **U.S. Treasury Index** is a component of the U.S. Government index.

**West Texas Intermediate (WTI)** is the underlying commodity for the New York Mercantile Exchange's oil futures contracts.

The **Barclays Capital High Yield Index** covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, and 144-As are also included.

The **Barclays Capital 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Barclays Capital General Obligation Bond Index** is a component of the **Barclays Capital Municipal Bond Index**. To be included in the index, bonds must be general obligation bonds rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only one of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment-grade. They must have an outstanding par value of at least \$7 million and be issued as part of a transaction of at least \$75 million. The bonds must be fixed rate, have a dated-date after December 31, 1990, and must be at least one year from their maturity date. Remarketed issues, taxable municipal bonds, bonds with floating rates, and derivatives, are excluded from the benchmark.

The **Barclays Capital Revenue Bond Index** is a component of the **Barclays Capital Municipal Bond Index**. To be included in the index, bonds must be revenue bonds rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment-grade. They must have an outstanding par value of at least \$7 million and be issued as part of a transaction of at least \$75 million. The bonds must be fixed rate, have a dated-date after December 31, 1990, and must be at least one year from their maturity date. Remarketed issues, taxable municipal bonds, bonds with floating rates, and derivatives, are excluded from the benchmark.

The **Barclays High Yield Municipal Index** includes bonds rated Ba1 or lower or non-rated bonds using the middle rating of Moody's, S&P and Fitch.

The **Barclays Capital Taxable Municipal Bond Index** is a rules-based, market-value weighted index engineered for the long-term taxable bond market. To be included in the index, bonds must be rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies if all three rate the bond: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment-grade. They must have an outstanding par value of at least \$7 million and be issued as part of a transaction of at least \$75 million. The bonds must be fixed rate and must be at least one year from their maturity date. Remarketed issues (unless converted to fixed rate), bonds with floating rates, and derivatives, are excluded from the benchmark.

**Municipal Bond Index:** To be included in the index, bonds must be rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment-grade. They must have an outstanding par value of at least \$7 million and be issued as part of a transaction of at least \$75 million. The bonds must be fixed rate, have a dated-date after December 31, 1990, and must be at least one year from their maturity date. Remarketed issues, taxable municipal bonds, bonds with floating rates, and derivatives are excluded from the benchmark.

The **Barclays Capital Emerging Markets Index** includes USD-denominated debt from emerging markets in the following regions: Americas, Europe, Middle East, Africa, and Asia. As with other fixed income benchmarks provided by Barclays Capital, the index is rules-based, which allows for an unbiased view of the marketplace and easy replicability.

The **Barclays Capital MBS Index** covers the mortgage-backed pass-through securities of Ginnie Mae, Fannie Mae, and Freddie Mac. Aggregate components must have a weighted average maturity of at least one year, must have \$250 million par amount outstanding, and must be fixed rate mortgages.

The **Barclays Capital Corporate Bond Index** is the Corporate component of the U.S. Credit index.

The **Barclays Capital TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan EMBI Global Index** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **CS/Tremont Equity Market Neutral Index** takes both long and short positions in stocks with the aim of minimizing exposure to the systematic risk of the market (i.e., a beta of zero).

The **CS/Tremont Multi-Strategy Index** consists of funds that allocate capital based on perceived opportunities among several hedge fund strategies. Strategies adopted in a multi-strategy fund may include, but are not limited to, convertible bond arbitrage, equity long/short, statistical arbitrage and merger arbitrage.

The **Barclays U.S. Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

\*Market Neutral returns for November 2008 are estimates by J.P. Morgan Funds Market Strategy, and are based on a December 8, 2008 published estimate for November returns by CS/Tremont in which the Market Neutral returns were estimated to be +0.85% (with 69% of all CS/Tremont constituents having reported return data). Presumed to be excluded from the November return are three funds, which were later marked to \$0 by CS/Tremont in connection with the Bernard Madoff scandal. J.P. Morgan Funds believes this distortion is not an accurate representation of returns in the category. CS/Tremont later published a finalized November return of -40.56% for the month, reflecting this mark-down. CS/Tremont assumes no responsibility for these estimates.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**International** investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Also, some overseas markets may not be as politically and economically stable as the United States and other nations.

Investments in **emerging markets** can be more volatile. As mentioned above, the normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple substrategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

**Equity Market Neutral Strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

**Merger Arbitrage Strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Global Macro Strategies** trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

The **Cambridge Associates LLC U.S. Private Equity Index®** is an end-to-end calculation based on data compiled from 1,052 U.S. private equity funds (buyout, growth equity, private equity energy and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2013.

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.



**The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.**

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It shall be the recipient's sole responsibility to verify his / her eligibility and to comply with all requirements under applicable legal and regulatory regimes in receiving this communication and in making any investment. All case studies shown are for illustrative purposes only and should not be relied upon as advice or interpreted as a recommendation. Results shown are not meant to be representative of actual investment results.

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

**Diversification does not guarantee investment returns and does not eliminate the risk of loss.**

Prepared by: Andrew D. Goldberg, Anastasia V. Amoroso, James C. Liu, Gabriela D. Santos, David M. Lebovitz, Hannah J. Anderson, Abigail B. Dwyer, Ainsley E. Woolridge and David P. Kelly.

Unless otherwise stated, all data are as of April 30, 2015 or most recently available.

**Guide to the Markets – U.S.**

**JP-LITTLEBOOK**

**Brazilian recipients:**

