PERSI
Public Employee Retirement System of Idaho

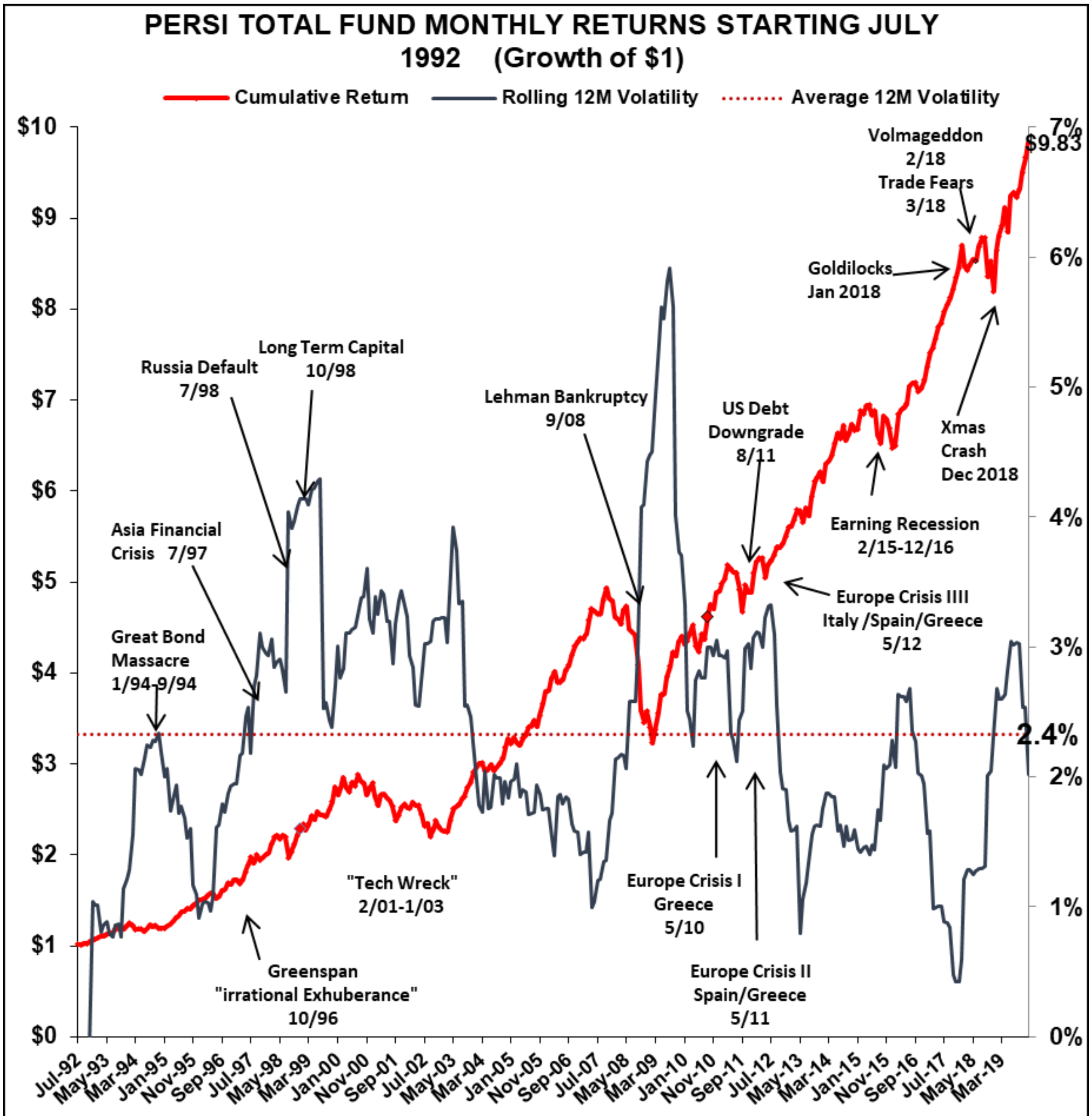
Economic Outlook and Revenue Assessment Committee

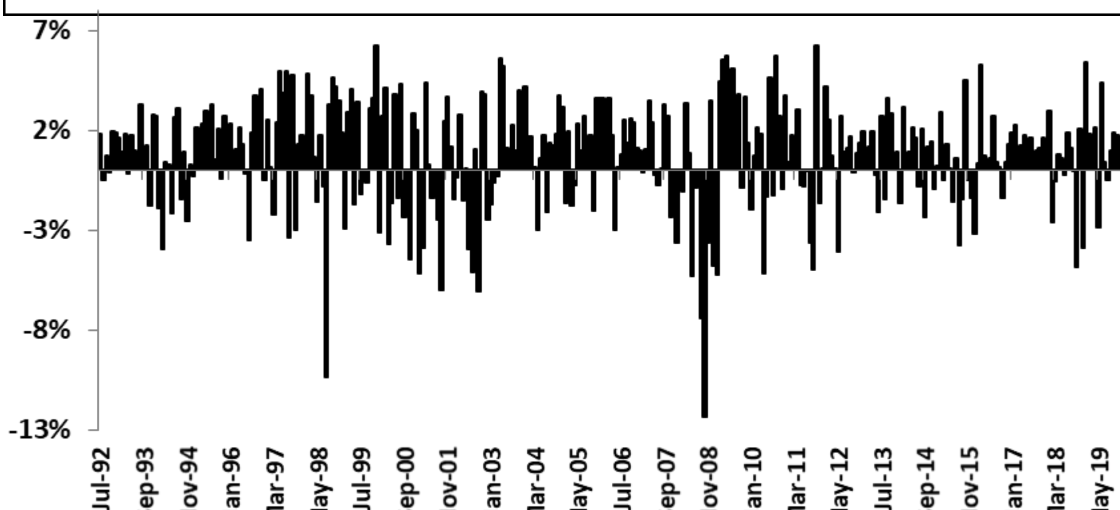
CAPITAL MARKET OUTLOOK

Robert Maynard
Chief Investment Officer

January 3, 2020

WILL THE GOOD TIMES CONTINUE?





MODERATE CAPITAL MARKETS EXPECTED FOR NEXT FEW YEARS

- **IN LINE WITH BORING ECONOMIC OUTLOOK**
  - **2% OR LESS REAL GDP IN US**
  - **OVERSEAS DEVELOPED SLIGHTLY LESS**
  - **EMERGING MARKETS SLIGHTLY HIGHER**
  - **NO RECESSION IN SIGHT**

- **US PROSPECTS SUBDUED**
  - **BONDS 1-2%**
  - **S&P 500 6%-10%**
  - **SMALL AND MID CAP TO OUTPERFORM**
  - **COMMODITIES FLAT**
  - **VALUE POISED FOR A COMBACK**

- **INTERNATIONAL BETTER FOR STOCKS**
  - **WORSE FOR BONDS**

- **EMERGING MARKETS BEST**

- **REAL ESTATE SOLID**
  - **IDAHO COMMERCIAL AS STRONG AS IT HAS BEEN**

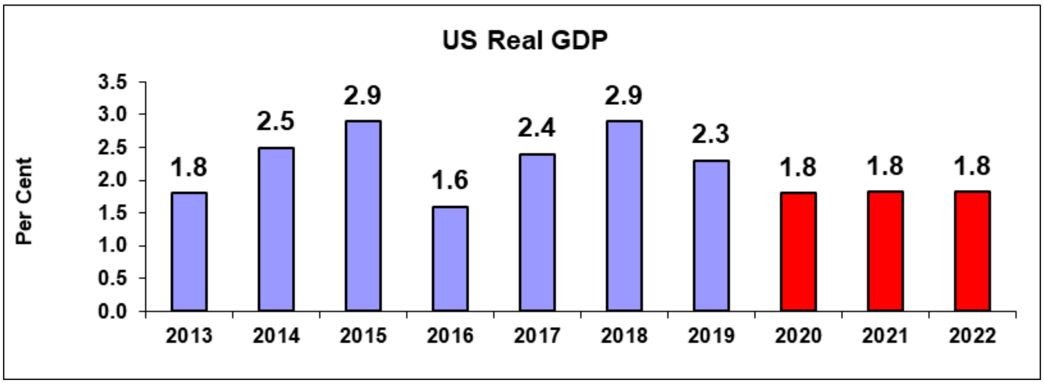
- **DOLLAR FAIRLY VALUED**

- **NO BUBBLES APPARENT**
  - **TECH MIGHT BE AN EXCEPTION**

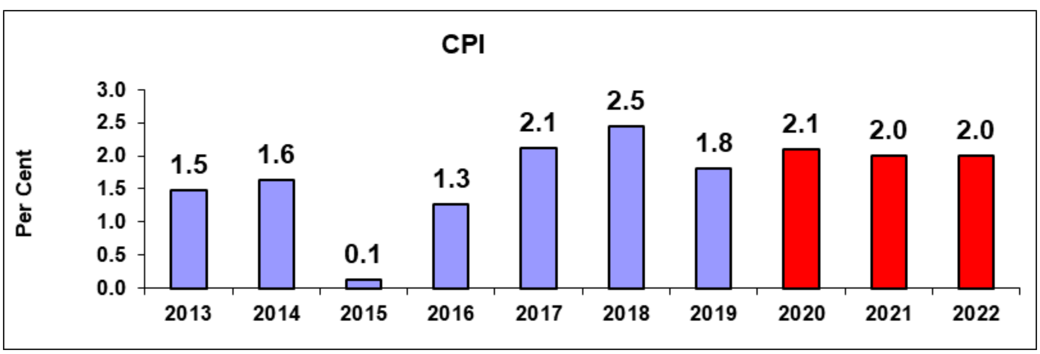
- **MARKET ABSORBING POTENTIALLY TROUBLING ISSUES**
  - **NOT A GOLDILOCKS ENVIRONMENT**
  - **BIGGEST FACTOR LOW AND NEGATIVE INTEREST RATES**
  - **TWO OTHER MAJOR ISSUES:**
    - **TRADE WARS AND MANUFACTUJRING RECESSION SPREADING**
    - **ZOMBIE COMPANIES AND CREDIT COLLAPSE**

STABLE BUT BORING ECONOMIC ENVIRONMENT EXPECTED (Bloomberg Consensus Estimates)

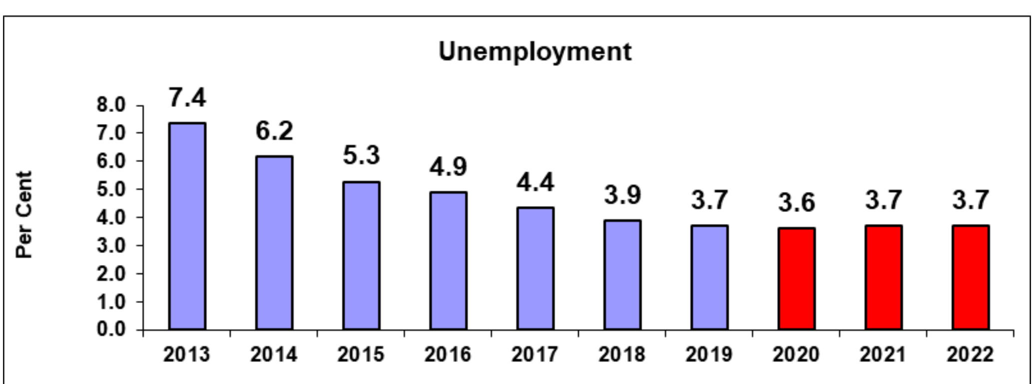
HUMDRUM GROWTH



LOW AND CONSISTENT INFLATION

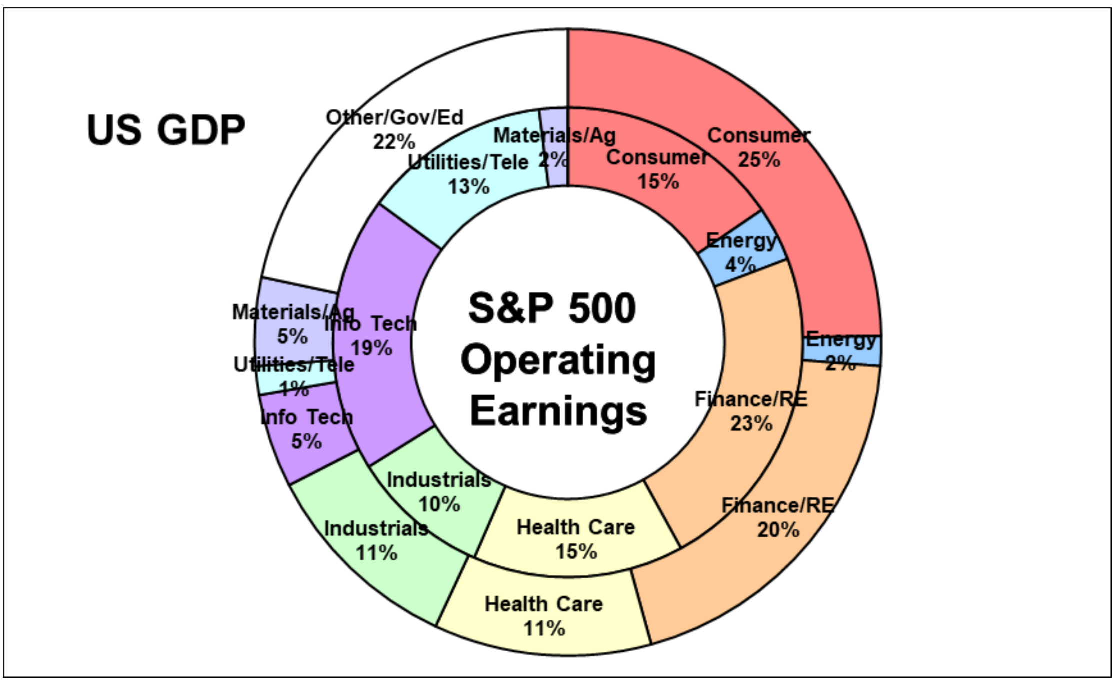


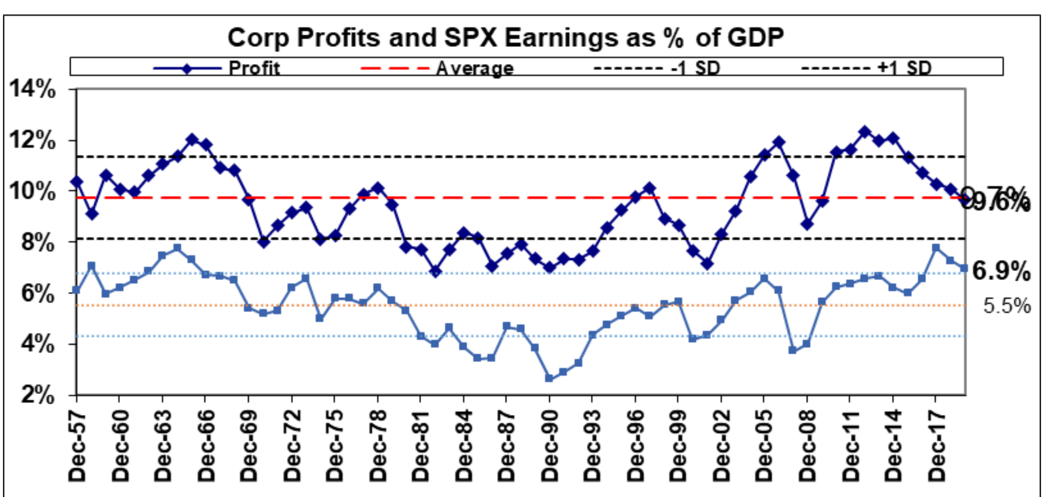
EMPLOYMENT STRONG AND STABLE



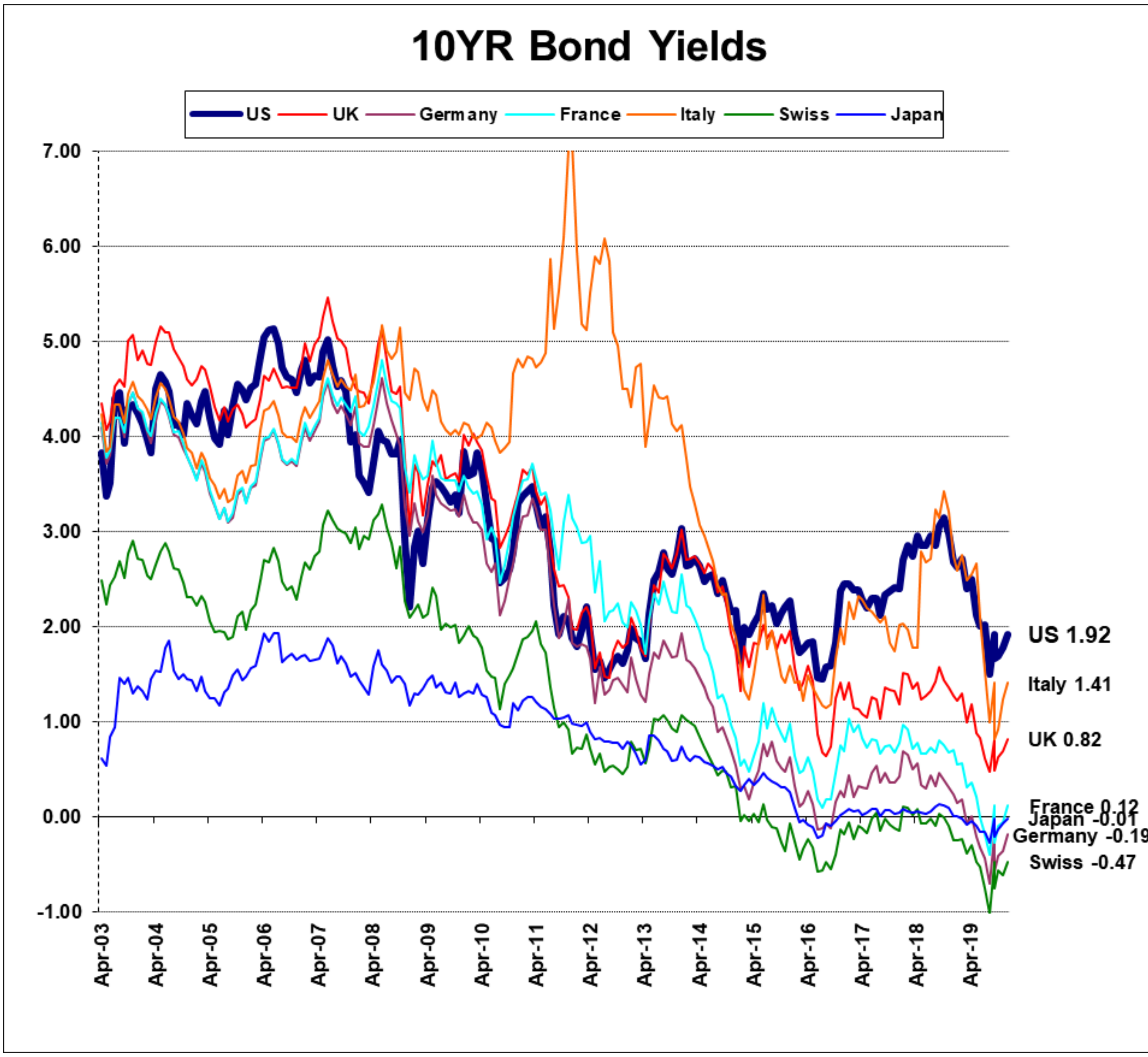
BASIC CAPITAL MARKET CONCEPTS

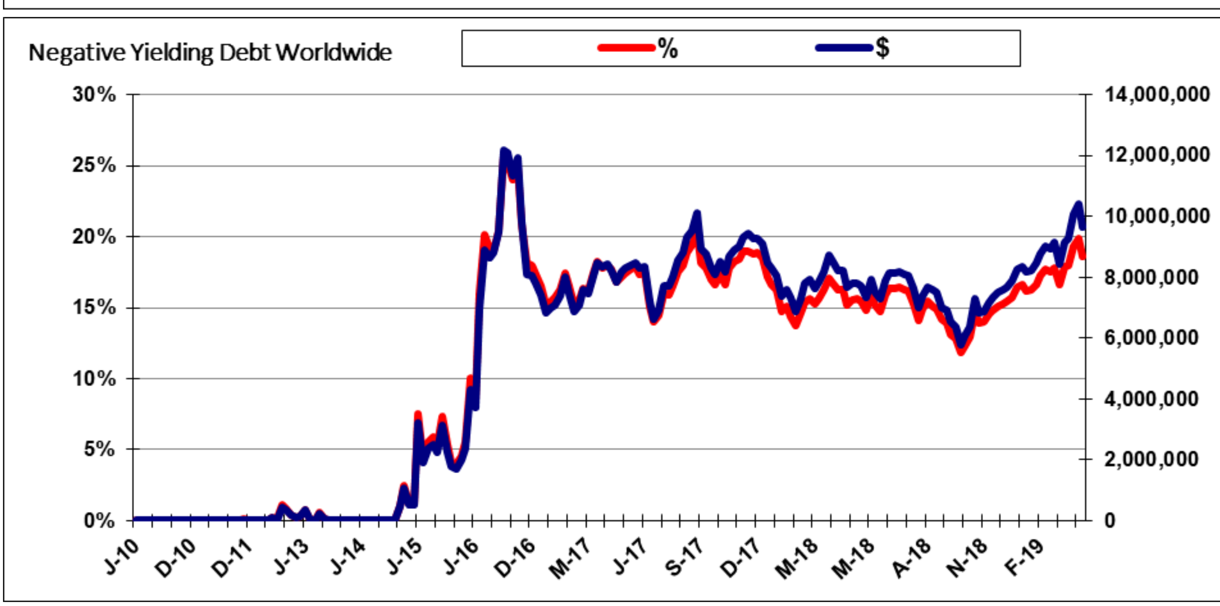
- EXPECTATIONS
  - Not Current Conditions
  - Example: Predictions of Current Bond Yields (Yield Curve), Relative P/E ratios
- RELATIVE VALUE
  - Not absolute value in itself
  - What are people willing to pay compared to other investment opportunities (comparing risk and returns)
  - Examples: Bond yield vs Earnings Yield (P/E), US Bond Yields vs International Yields
- PROFITS OR EARNINGS
  - Not general economy
  - Example: S&P 500 vs GDP, Source of Revenues





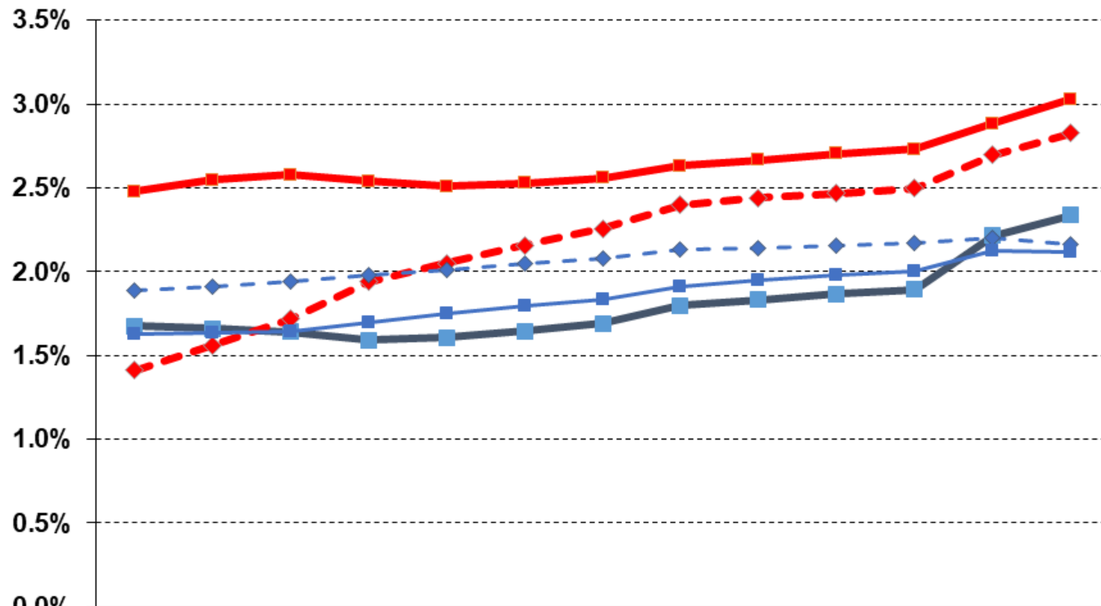
KEY ISSUE
HISTORICALLY LOW INTEREST RATES





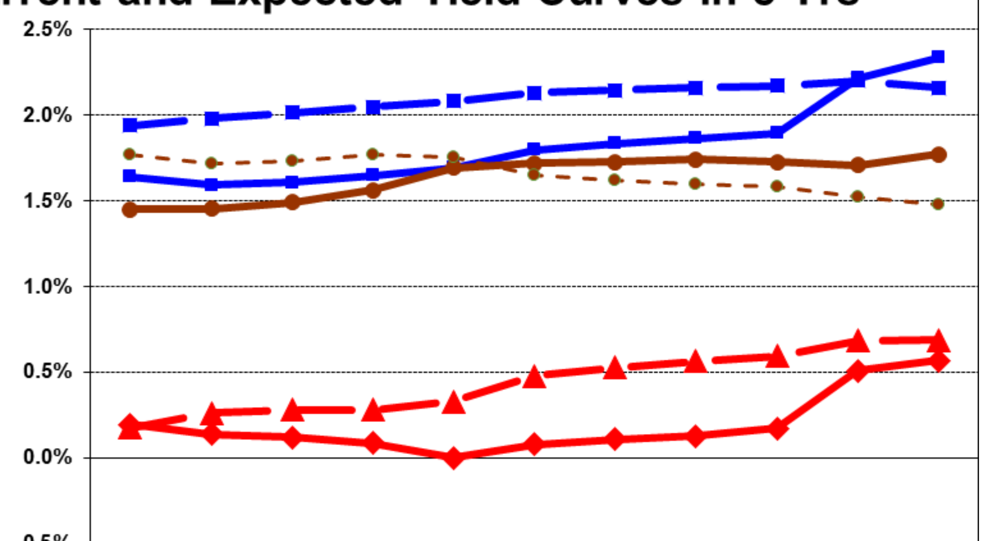
LOW INTEREST RATES EXPECTED TO BE LONG LASTING

Past, Current, and Predicted Treasury Yield Curves



	3M	6M	1Y	2Y	3Y	4Y	5Y	7Y	8Y	9Y	10Y	20Y	30Y
Current	1.7%	1.7%	1.6%	1.6%	1.6%	1.6%	1.7%	1.8%	1.8%	1.9%	1.9%	2.2%	2.3%
- 1YR	2.5%	2.5%	2.6%	2.5%	2.5%	2.5%	2.6%	2.6%	2.7%	2.7%	2.7%	2.9%	3.0%
-2 YR	1.4%	1.6%	1.7%	1.9%	2.1%	2.2%	2.3%	2.4%	2.4%	2.5%	2.5%	2.7%	2.8%
+ 5YR	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%	2.1%	2.1%	2.1%	2.2%	2.2%	2.2%	2.2%
+2YR	1.6%	1.6%	1.6%	1.7%	1.7%	1.8%	1.8%	1.9%	1.9%	2.0%	2.0%	2.1%	2.1%

Current and Expected Yield Curves in 5 Yrs



	1Y	2Y	3Y	4Y	5Y	7Y	8Y	9Y	10Y	20Y	30Y
Current TIPS	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.2%	0.5%	0.6%
Current Treasury	1.6%	1.6%	1.6%	1.6%	1.7%	1.8%	1.8%	1.9%	1.9%	2.2%	2.3%
TIPS in 5	0.2%	0.3%	0.3%	0.3%	0.3%	0.5%	0.5%	0.6%	0.6%	0.7%	0.7%
Treasury in 5	1.9%	2.0%	2.0%	2.0%	2.1%	2.1%	2.1%	2.2%	2.2%	2.2%	2.2%
Current Breakever	1.4%	1.5%	1.5%	1.6%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.8%
Breakeven in 5	1.8%	1.7%	1.7%	1.8%	1.8%	1.7%	1.6%	1.6%	1.6%	1.5%	1.5%

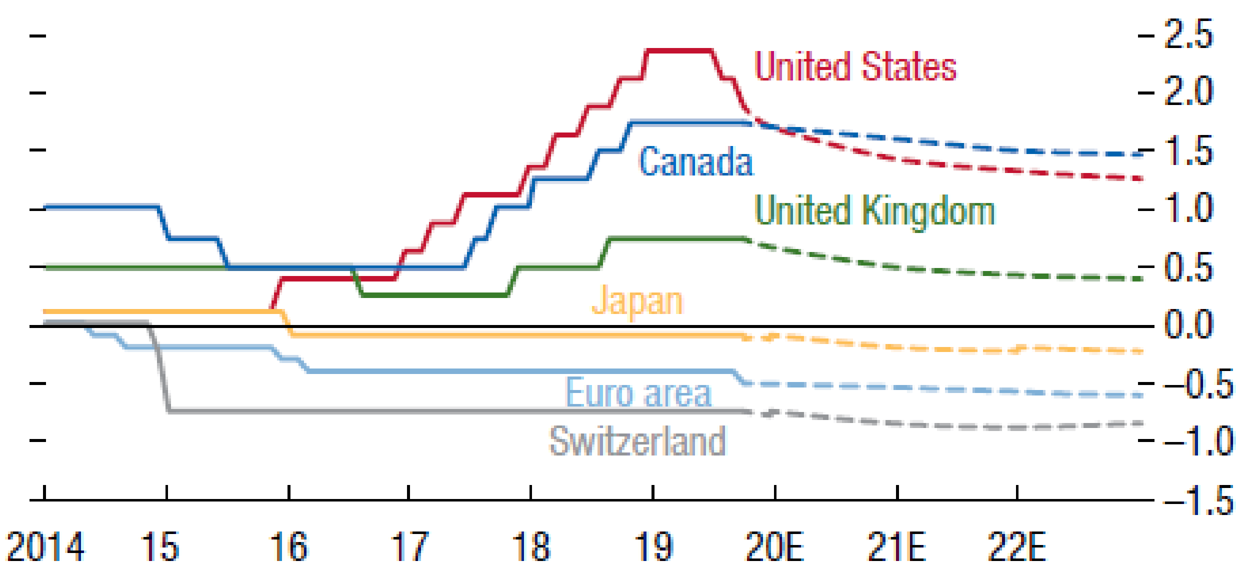
REASONS FOR EXPECTATION OF CONTINUED LOW INTEREST RATES

- **DEMOGRAPHICS – SECULAR TREND**
  - **OLDER DEVELOPED MARKET CITIZENRY NEED TO SAVE MORE FOR RETIREMENT**
    - **Also spend less**
  - **YOUNGER EMERGING MARKET POPULATION HAVE NO SAFETY NET AND NEED TO SAVE MORE**

  - **EXCESS SAVINGS DRIVE INTEREST RATES DOWN, INCREASING NEED TO SAVE MORE**
  - **SAVINGS HAVE INCREASED FROM 22% OF GLOBAL GDP IN 1980s TO 27% TODAY**

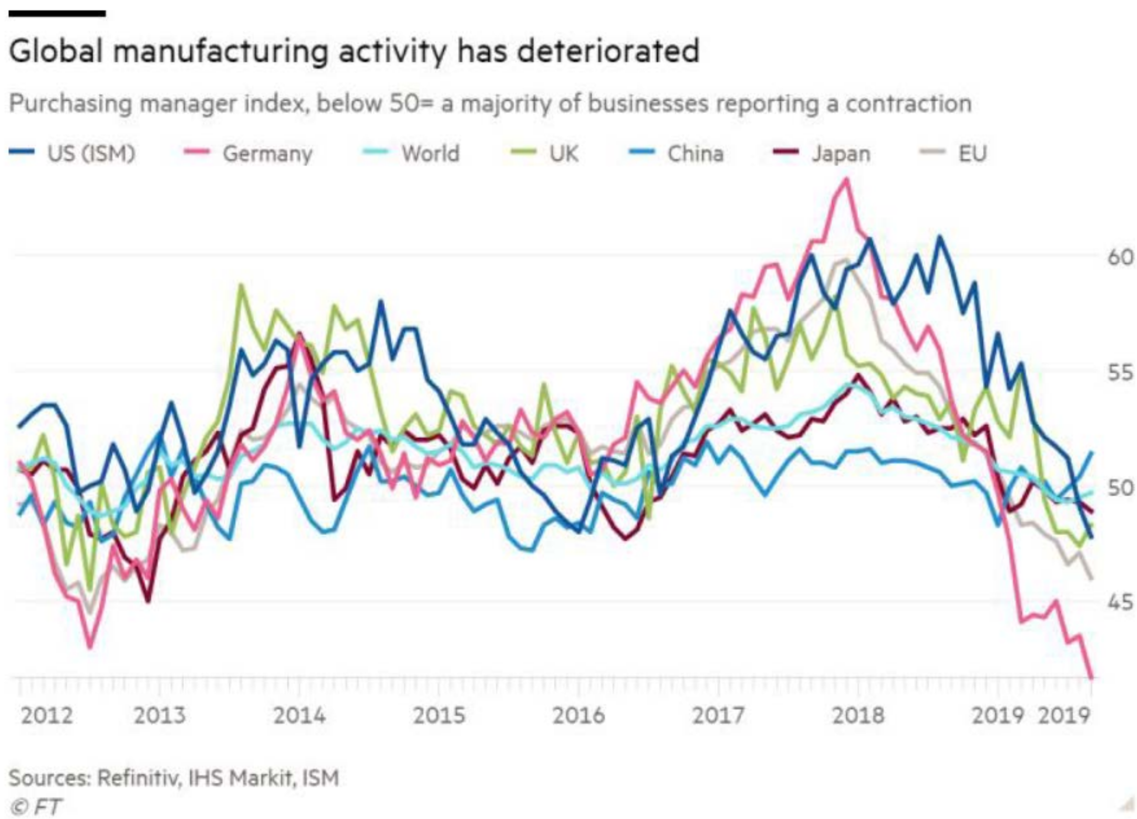
Market pricing suggests that monetary policy will be eased further.

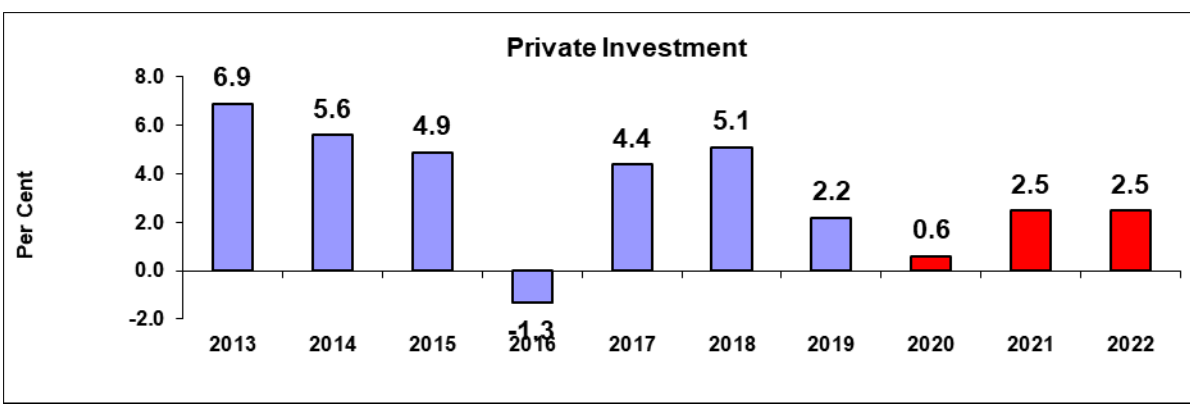
4. Actual and Expected Policy Rates
(Percent)

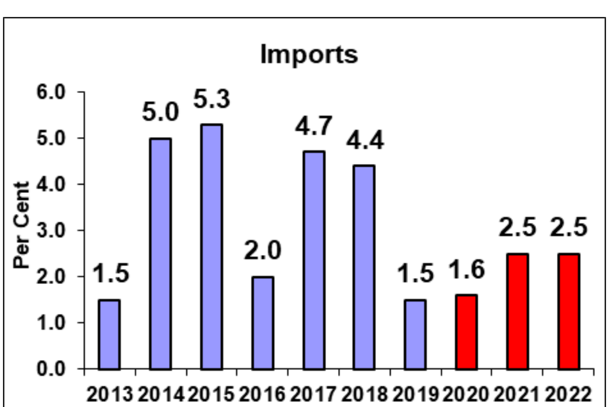


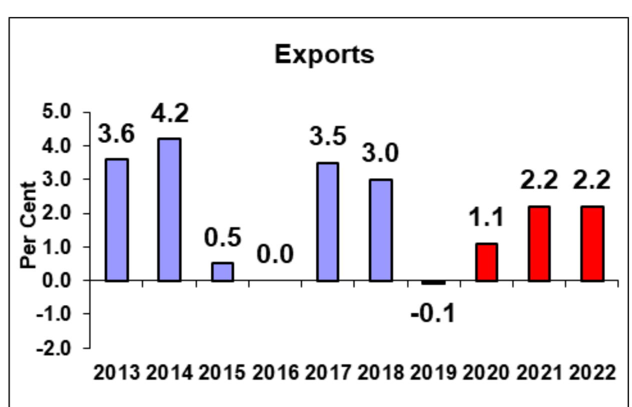
IMF GLOBAL FINANCIAL STABILITY REPORT OCT 2019 AT p. 2

CONCERN :Trade wars and Manufacturing recession spreading









CONCERN : DEBT COLLAPSE BY ZOMBIE COMPANIES

The October 2019 *Global Financial Stability Report* at a Glance

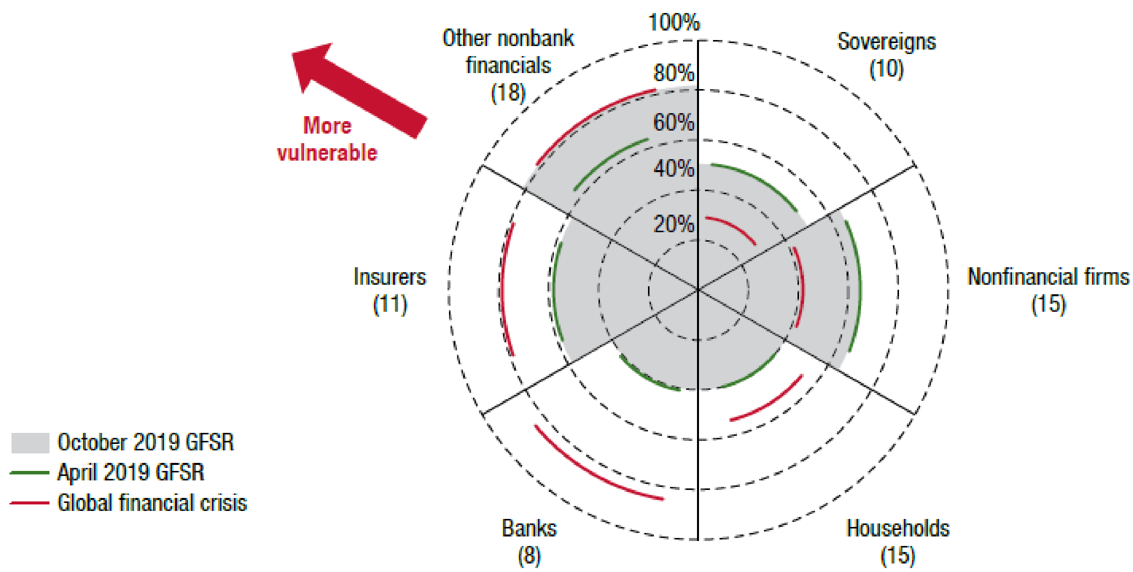
Key Vulnerabilities in the Global Financial System

- Rising corporate debt burdens
- Increasing holdings of riskier and more illiquid assets by institutional investors
- Greater reliance on external borrowing by emerging and frontier market economies

"In a material economic slowdown scenario, half as severe as the global financial crisis, corporate debt-at-risk (debt owned by firms that are unable to cover their interest expenses with their earnings) could rise to $19 trillion – or nearly 40% of total corporate debt in major economies – above crisis levels"

IMF Global Financial Stability Report – "Lower for Longer" Oct 2019 at p. ix

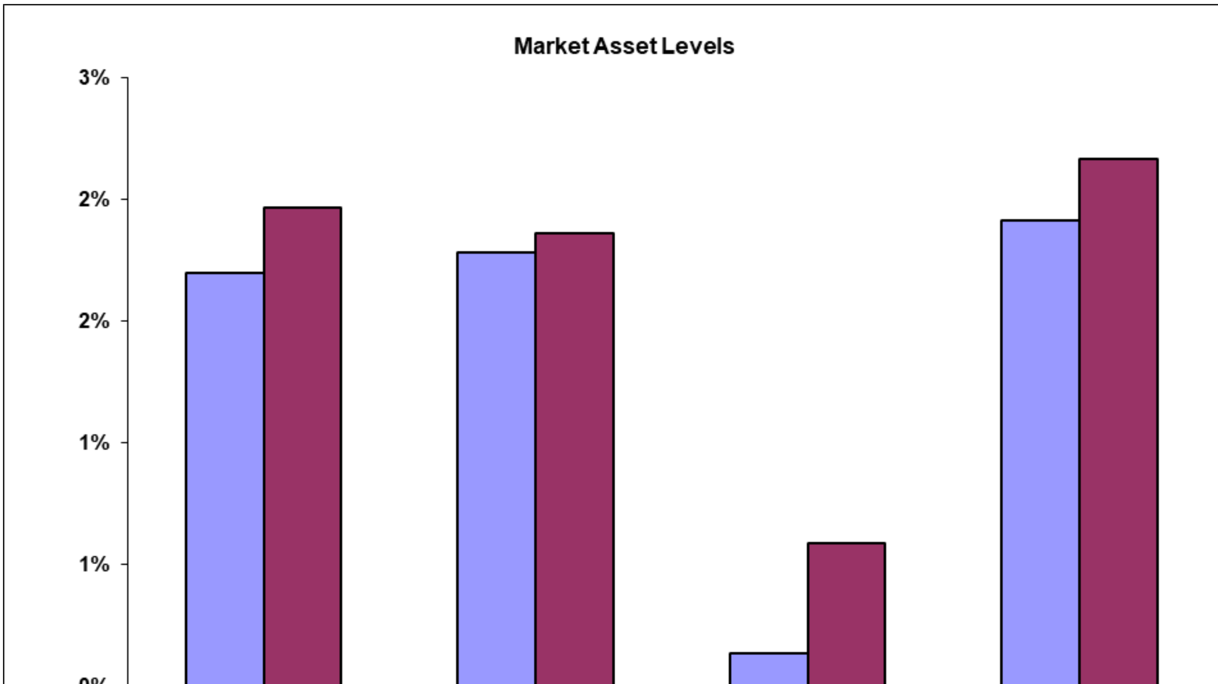
1. Proportion of Systemically Important Economies with Elevated Vulnerabilities, by Sector
(Percent of countries with high and medium-high vulnerabilities, by GDP [assets for banks]; number of countries in parentheses)



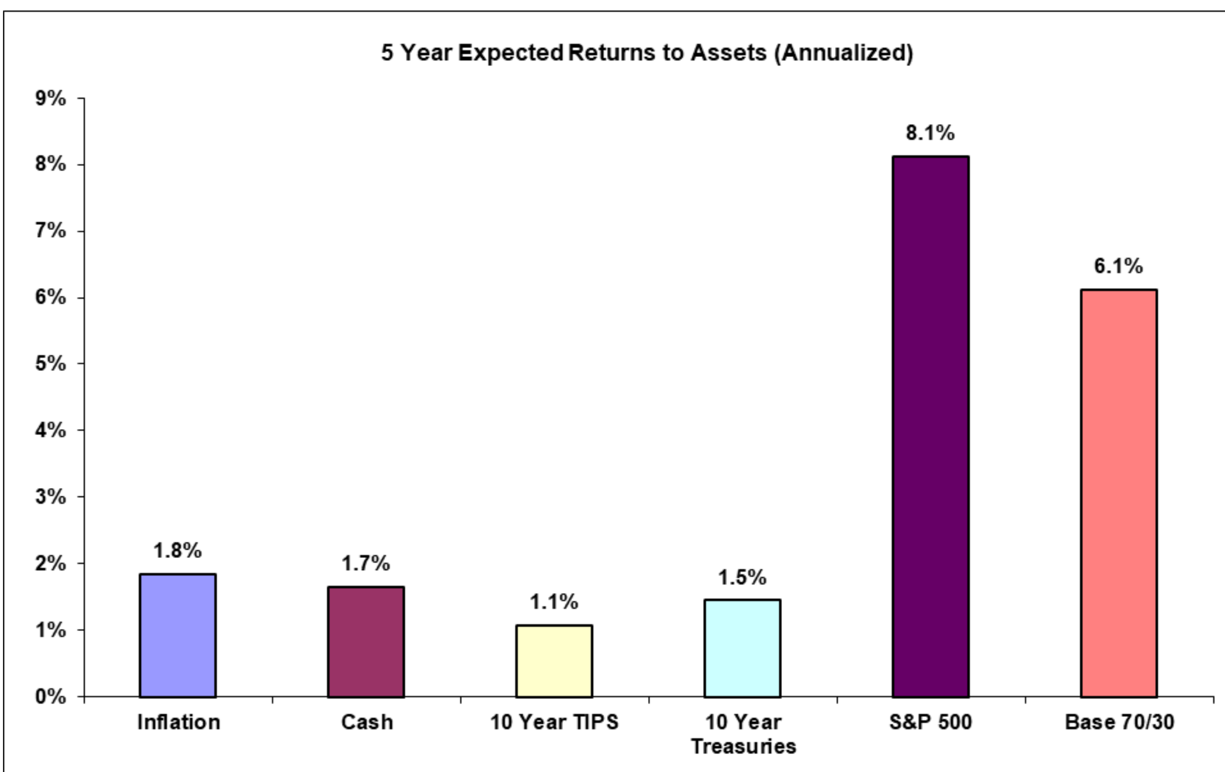
Non financial firms, other non bank financials, and sovereigns relatively more vulnerable that at the global financial crisis

Banks, Insurers, and households less vulnerable

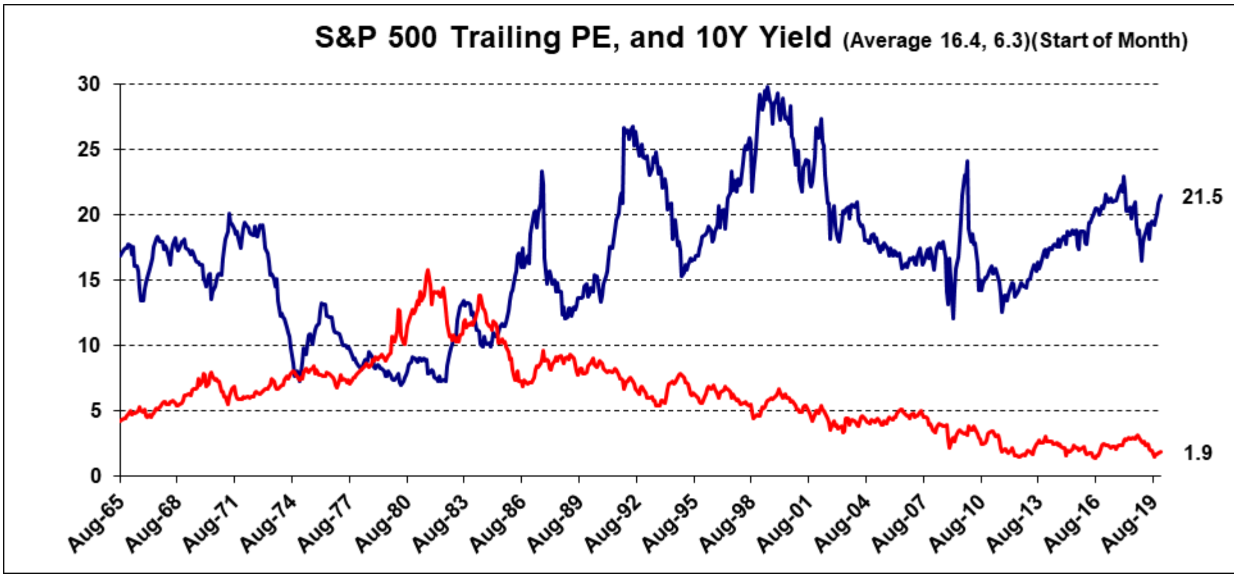
BONDS 1-2% RETURN

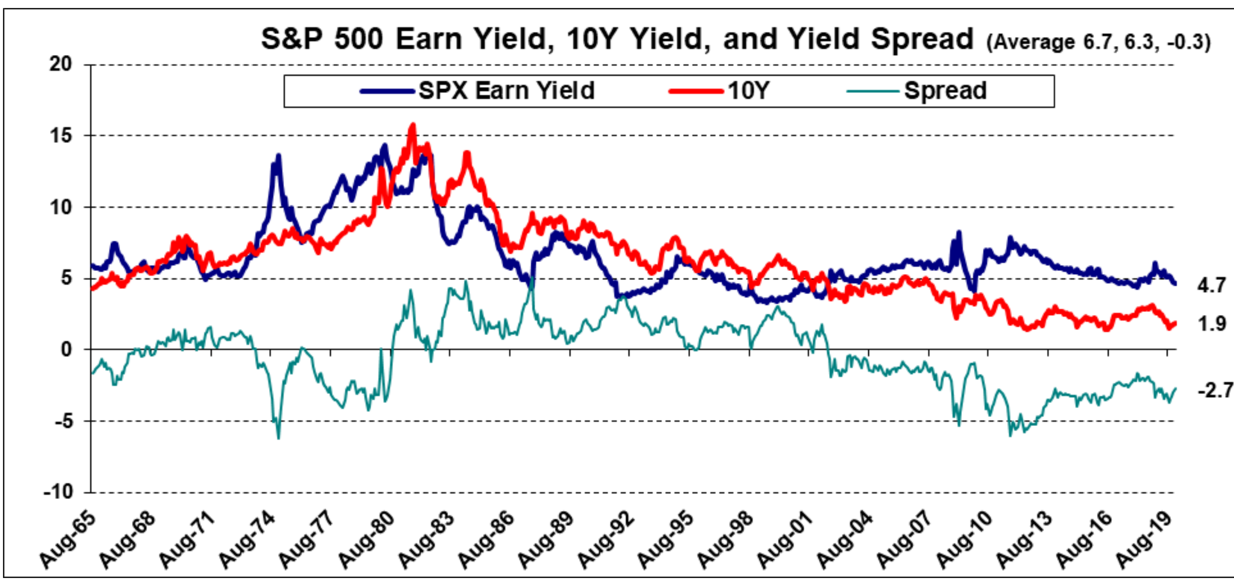


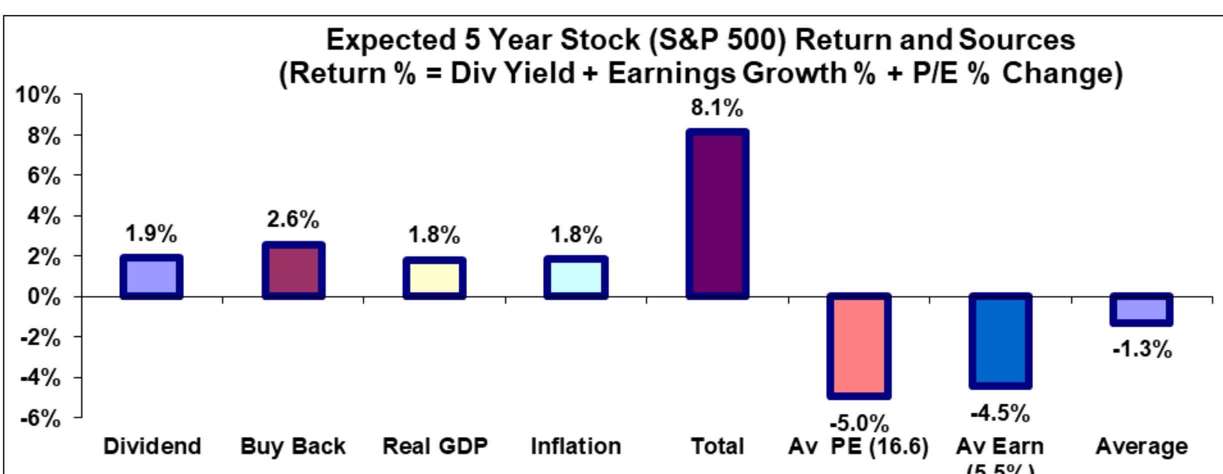
	Inflation	1M	10Y TIPS	10Y Treasury
Today	1.7%	1.8%	0.1%	1.9%
5Y	2.0%	1.9%	0.6%	2.2%



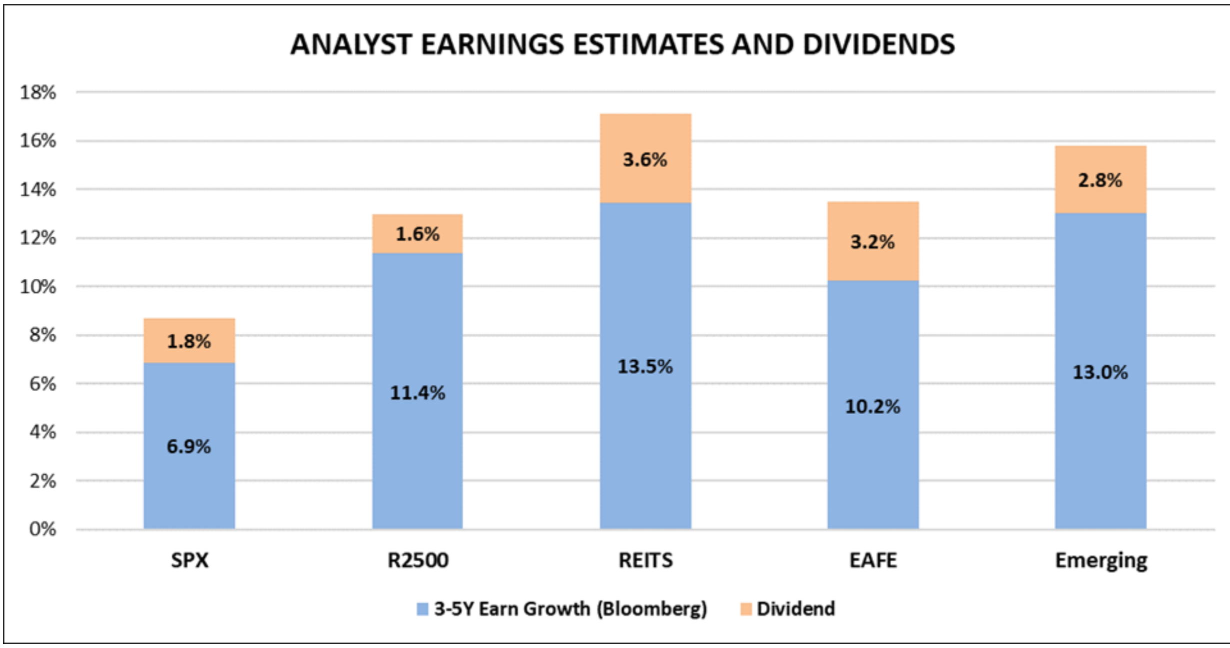
LOW INTEREST RATES SUPPORT STOCK AND OTHER VALUATIONS

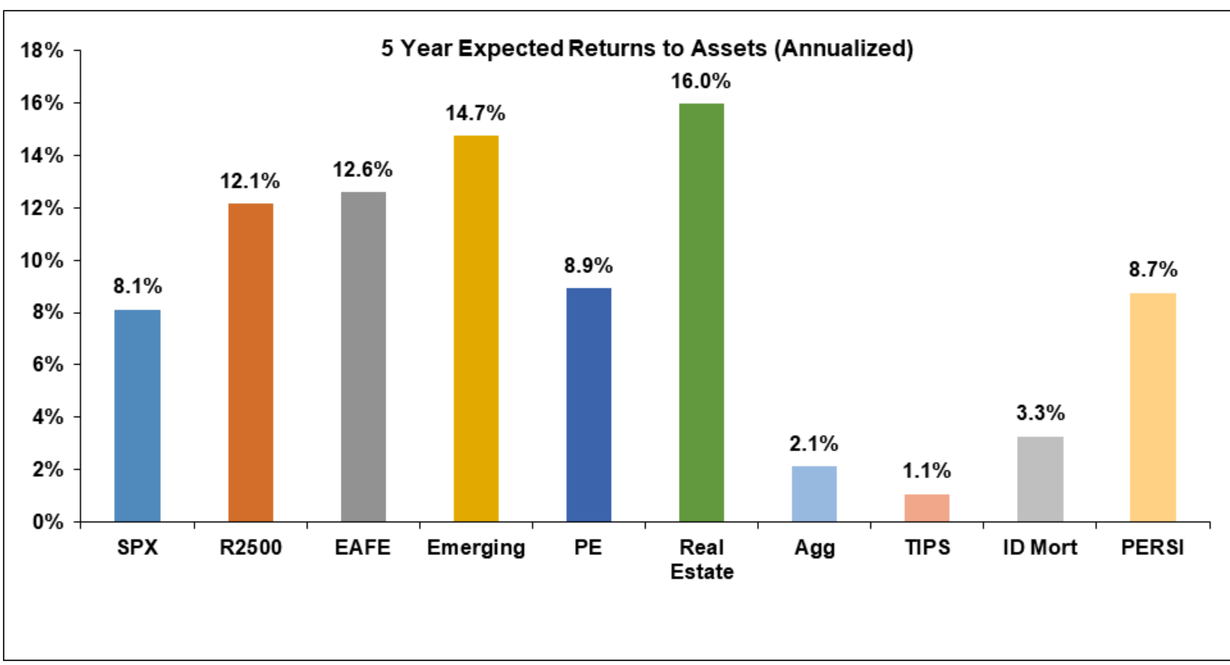




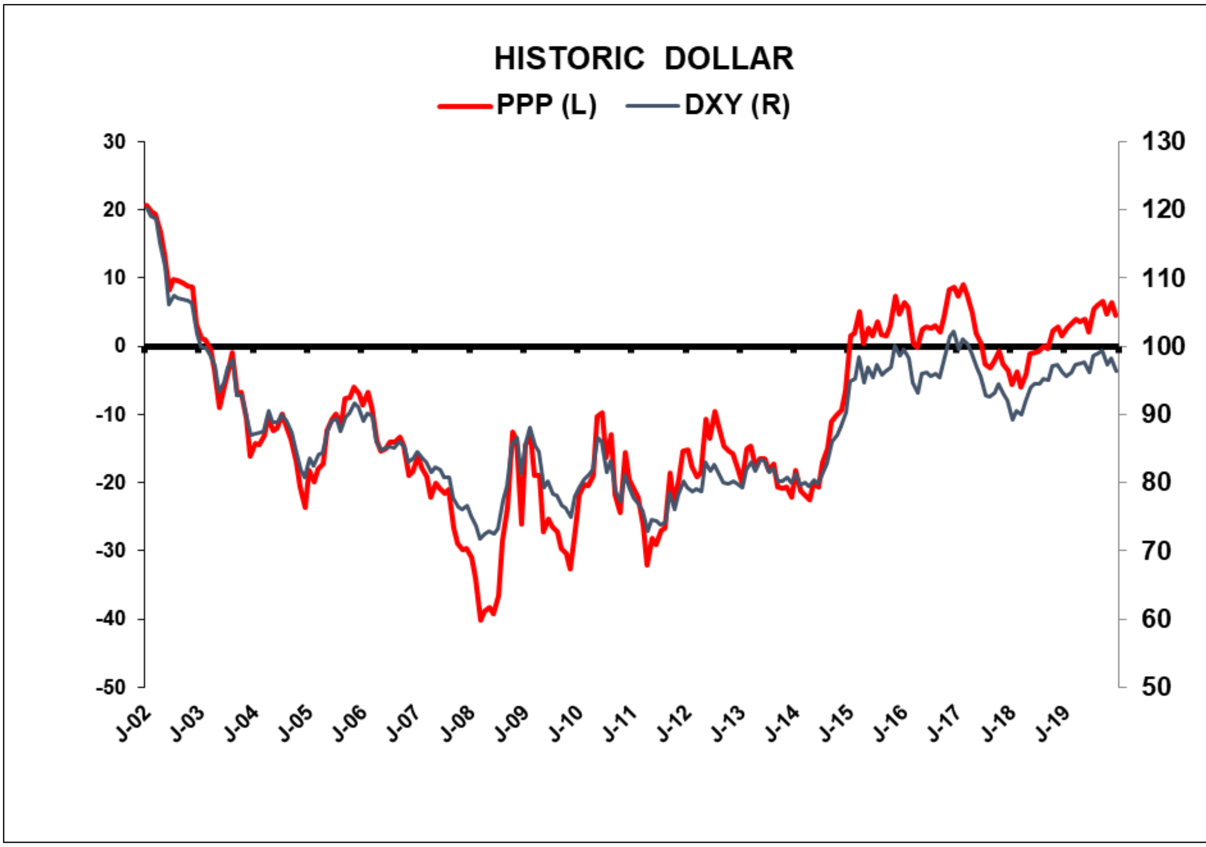


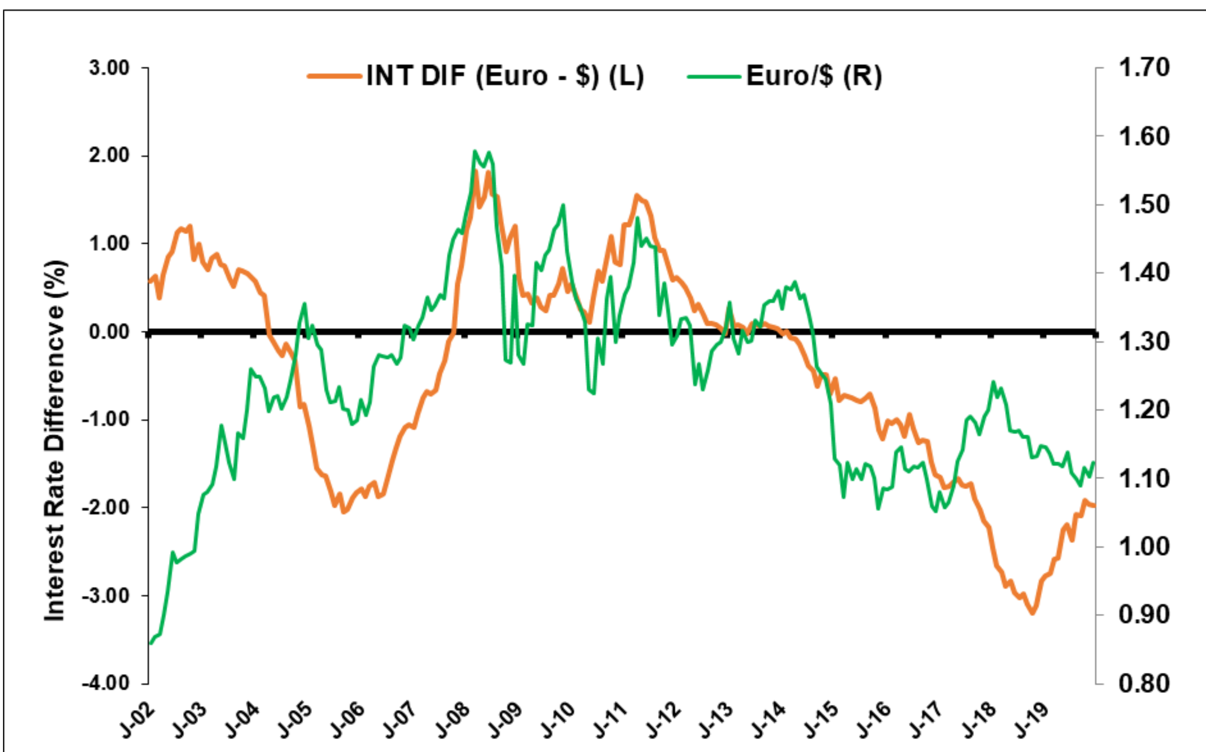
SMALL CAP, REAL ESTATE, AND INTERNATIONAL EXPECTED TO OUTPERFORM S&P 500 (US LARGE CAP)





DOLLAR AROUND FAIR VALUE





EURO / DOLLAR
Higher Interest Rate Differential Supports Higher Euro

NO APPARENT BUBBLES