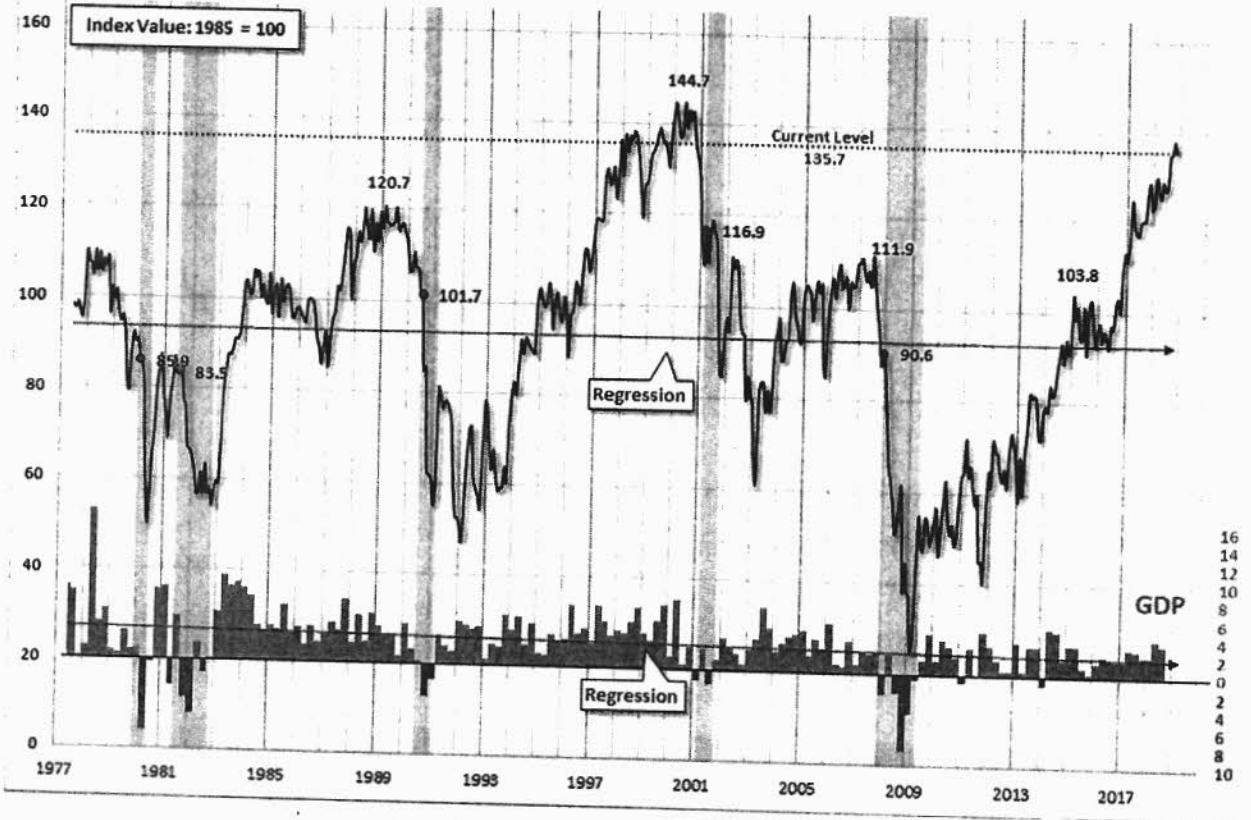
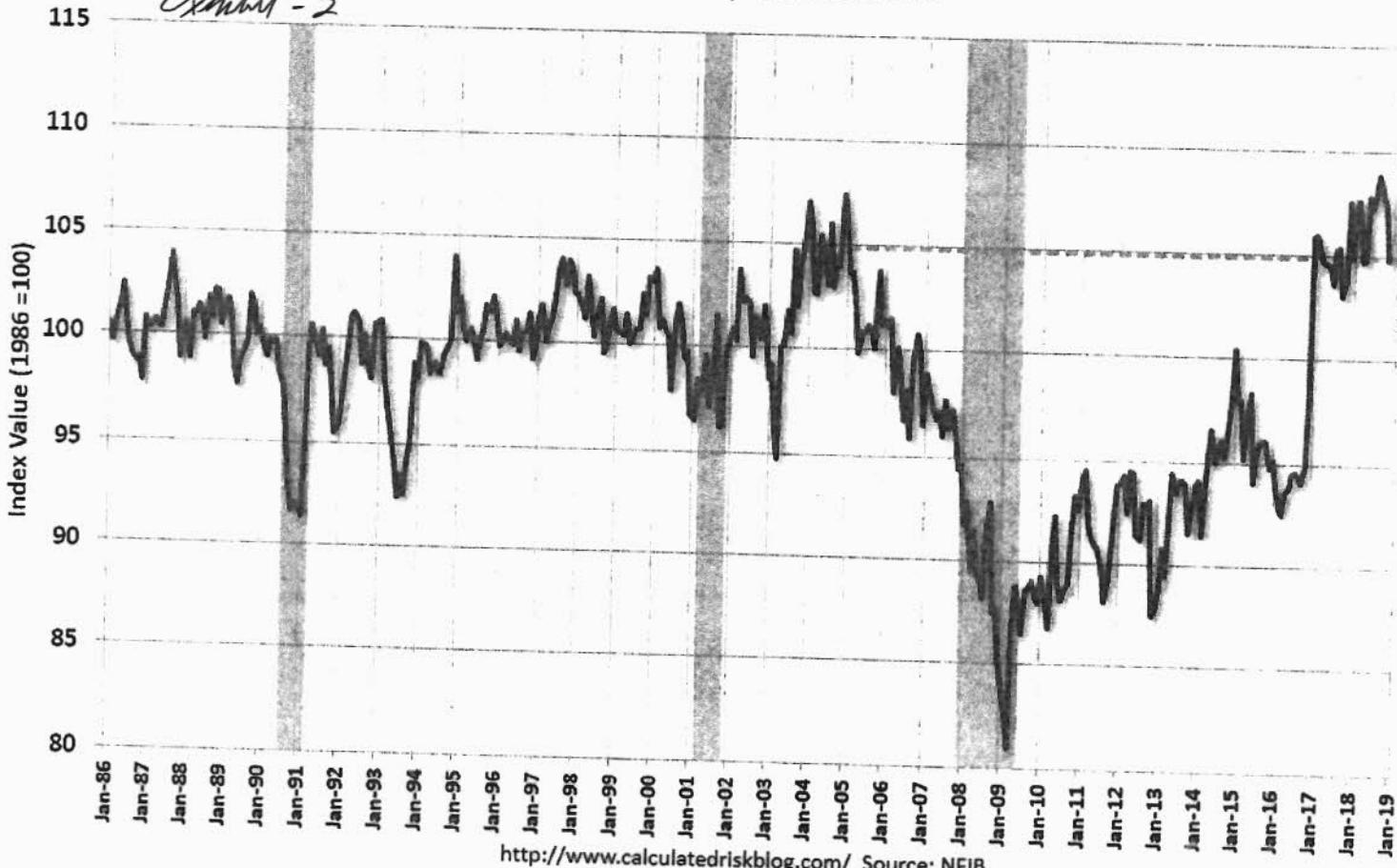


*Exhibit - 1*ADVISOR  
PERSPECTIVES

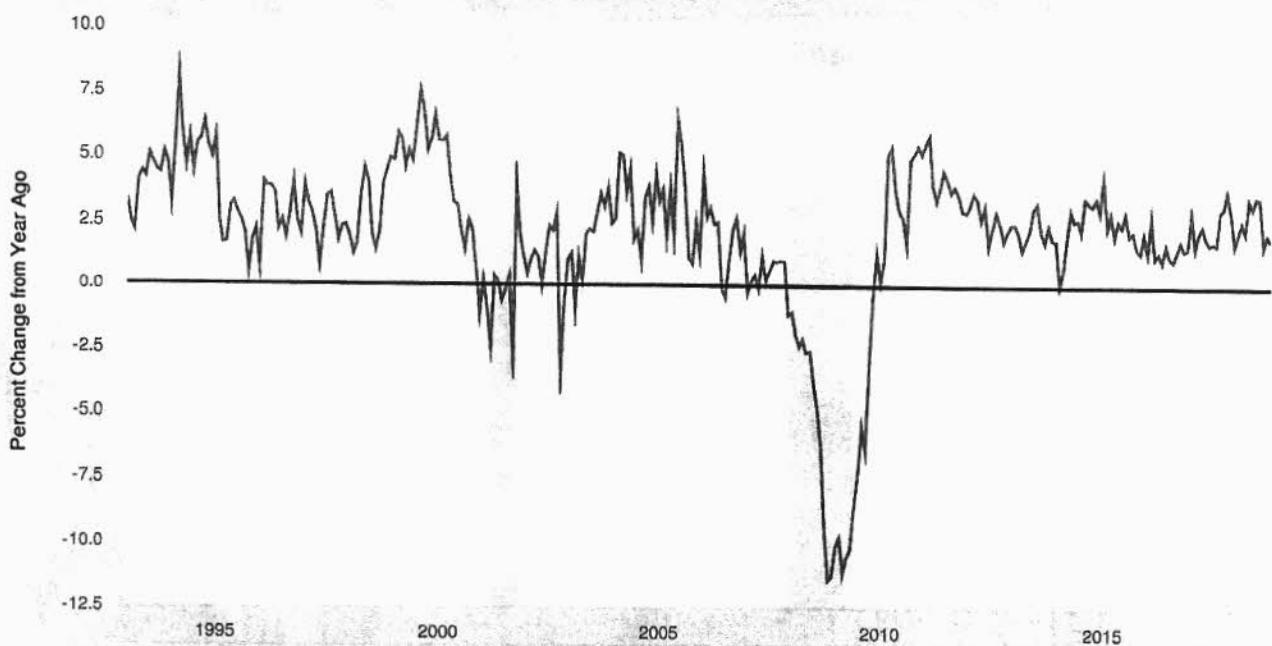
**Conference Board Consumer Confidence Index**  
**Recessions Highlighted in Gray, Real GDP Shown Below**

dshort.com  
November 2018*Exhibit - 2***Small Business: Optimism Index**

*Exhibit - 3***FRED** — Civilian Unemployment Rate

Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

[myf.red/g/mm7H](http://myf.red/g/mm7H)*Exhibit - 4***FRED** — Advance Real Retail and Food Services Sales

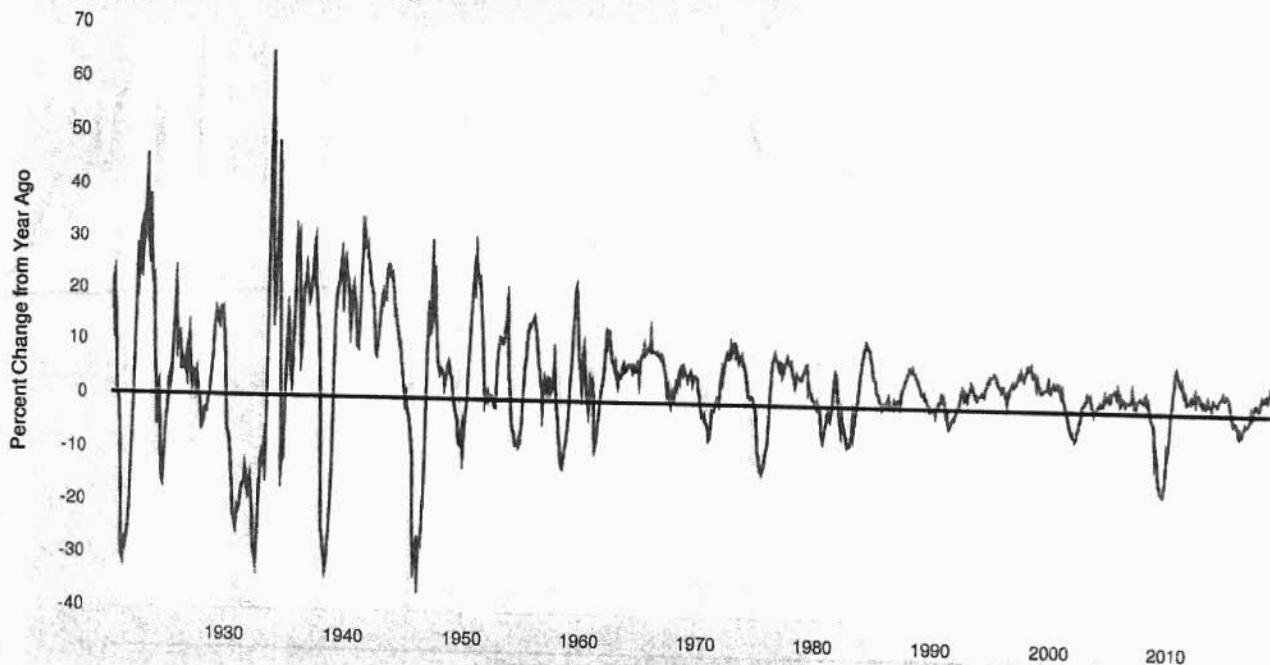
Shaded areas indicate U.S. recessions

Source: Federal Reserve Bank of St. Louis

[myf.red/g/mqik](http://myf.red/g/mqik)

*Exhibit - 5*

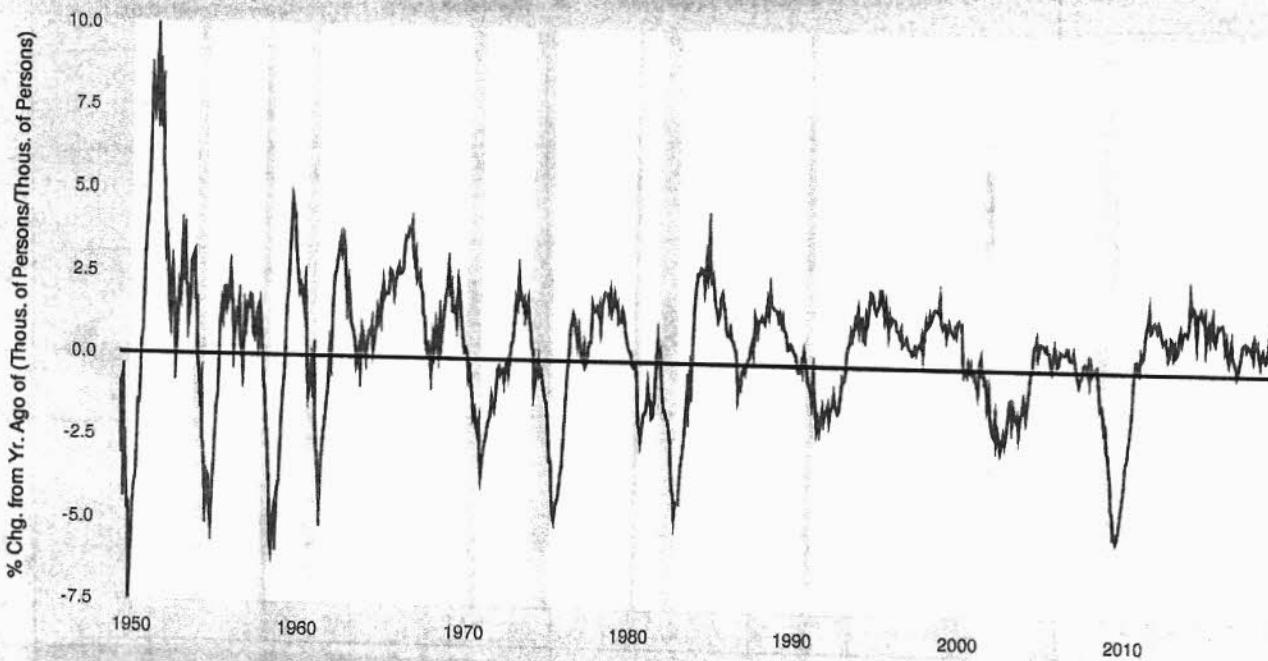
**FRED** — Industrial Production Index



Source: Board of Governors of the Federal Reserve System (US) [myf.red/g/mqim](http://myf.red/g/mqim)

*Exhibit - 6*

**FRED** — All Employees: Total Nonfarm Payrolls/Civilian Labor Force



*Shaded areas indicate U.S. recessions*

Source: U.S. Bureau of Labor Statistics

[myf.red/g/mnAy](http://myf.red/g/mnAy)

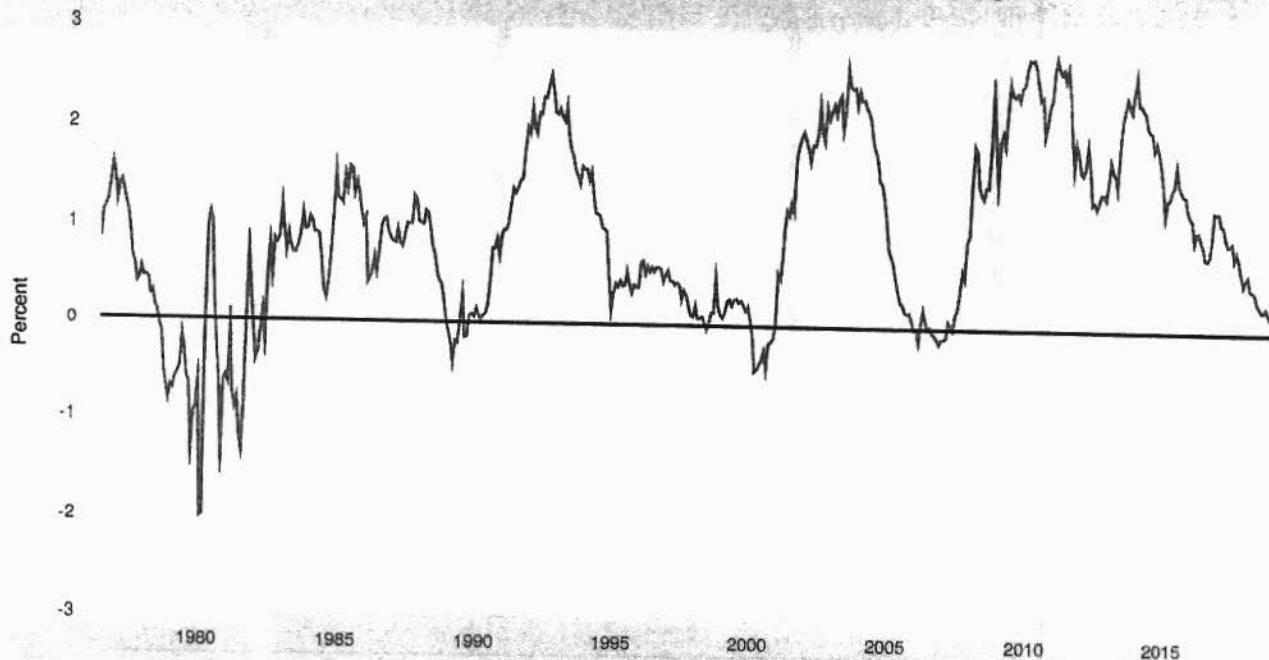
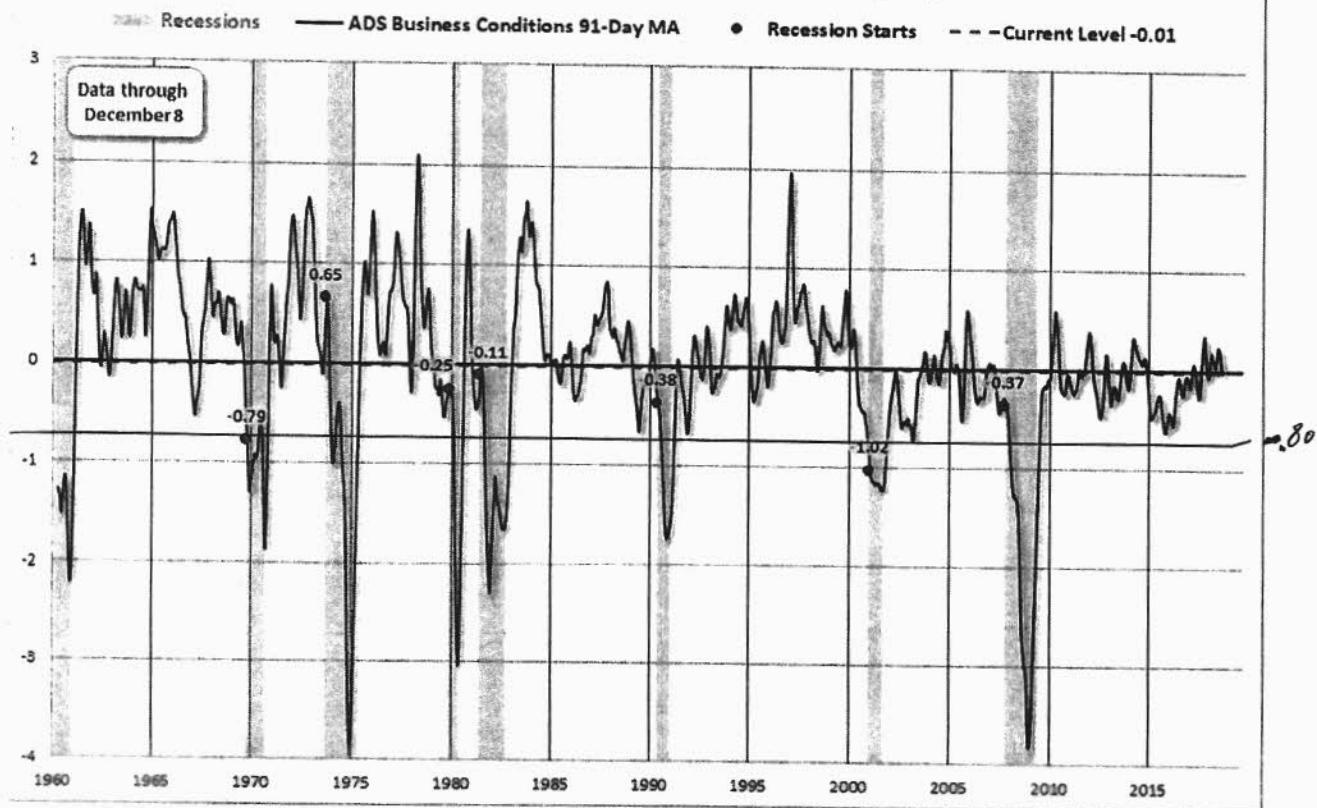


Exhibit - 8

ADVISOR PERSPECTIVES

### Aruoba-Diebold-Scotti Business Conditions Index 91-Day Moving Average With Recessions Highlighted

dshort.com  
December 2018

# Exhibit - 9

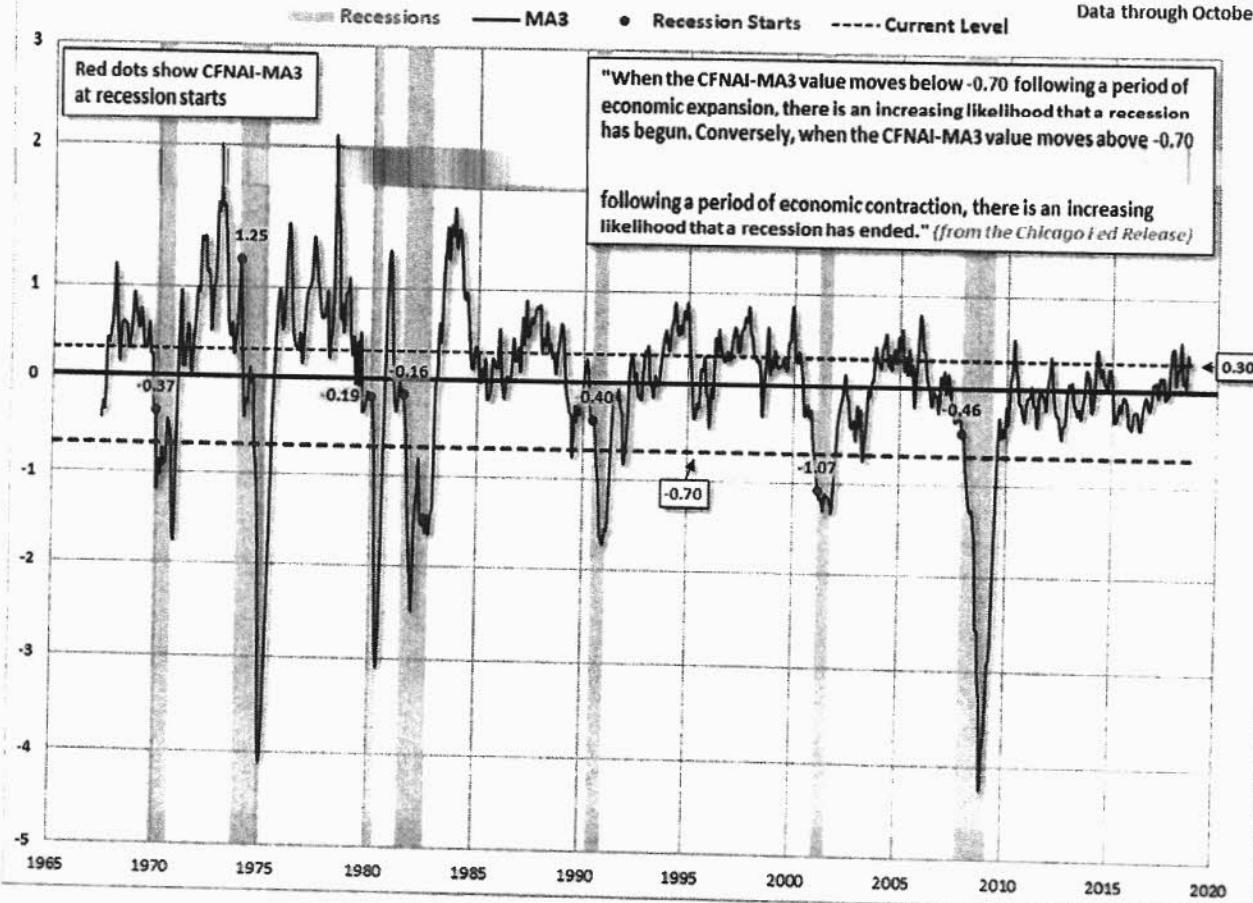
ADVISOR  
PERSPECTIVES

## Chicago Fed National Activity Index

dshort.com

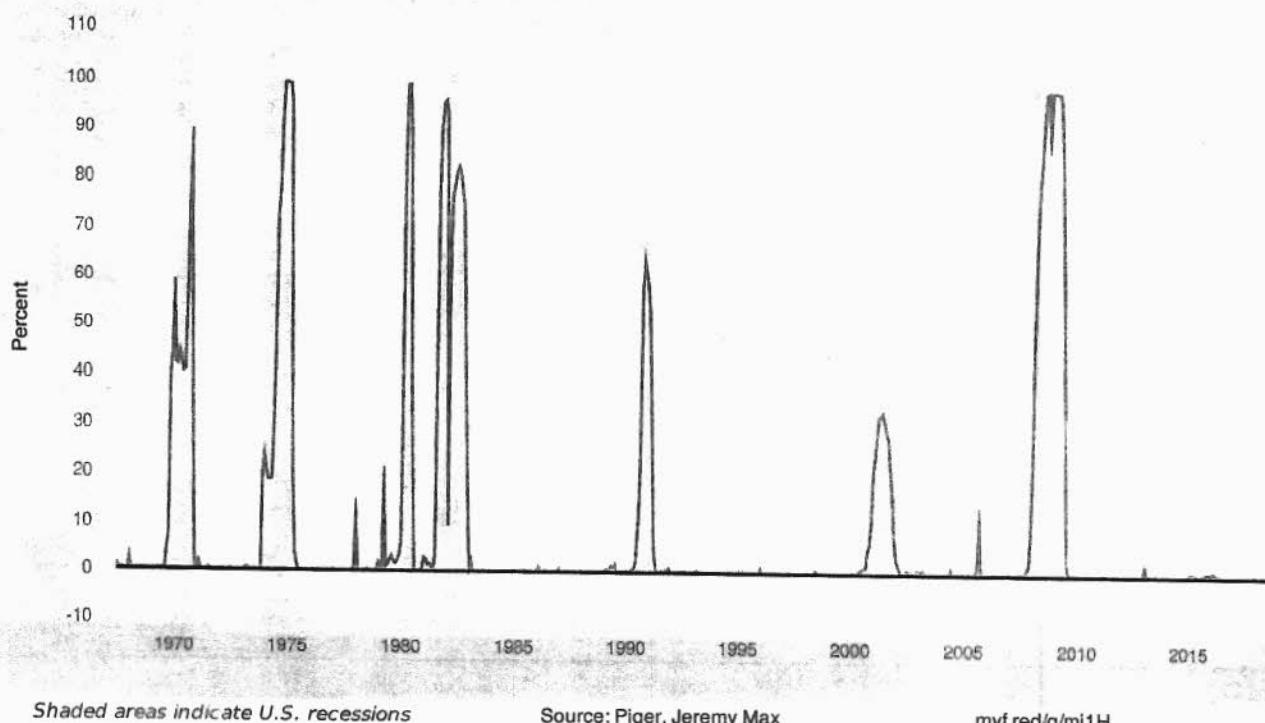
November 2018

Data through October



*Exhibit - 10A*

**FRED** — Smoothed U.S. Recession Probabilities



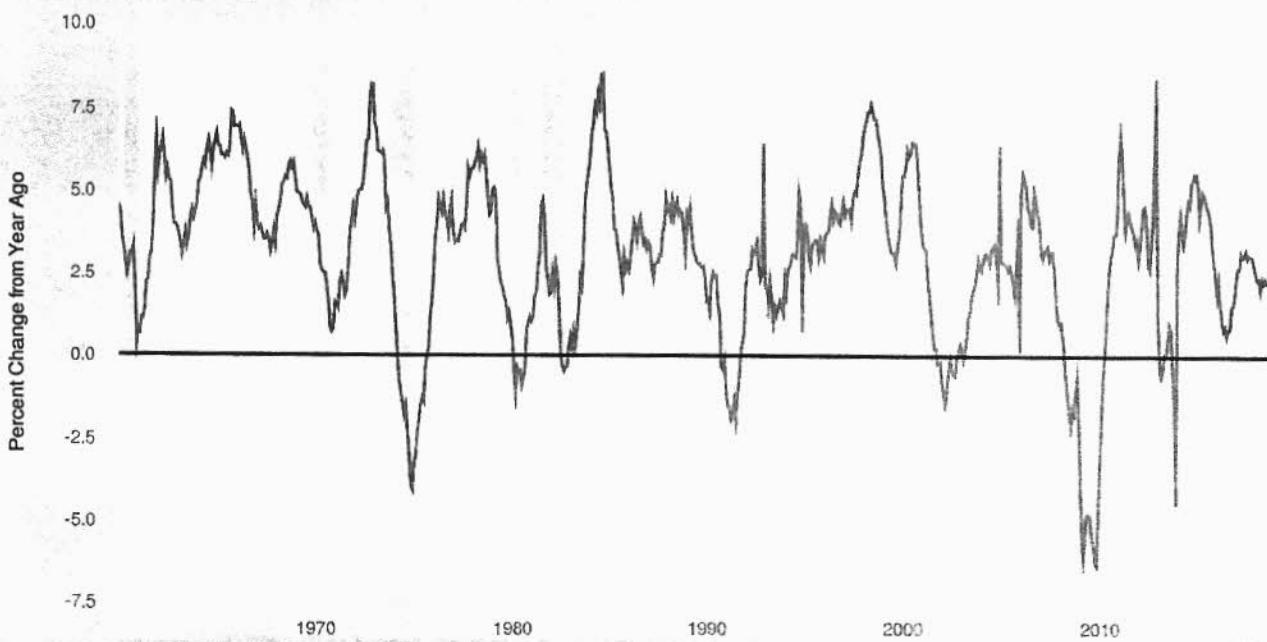
Shaded areas indicate U.S. recessions

Source: Piger, Jeremy Max

[myf.red/g/mi1H](http://myf.red/g/mi1H)

*Exhibit - 10B*

**FRED** — Real personal income excluding current transfer receipts



Shaded areas indicate U.S. recessions

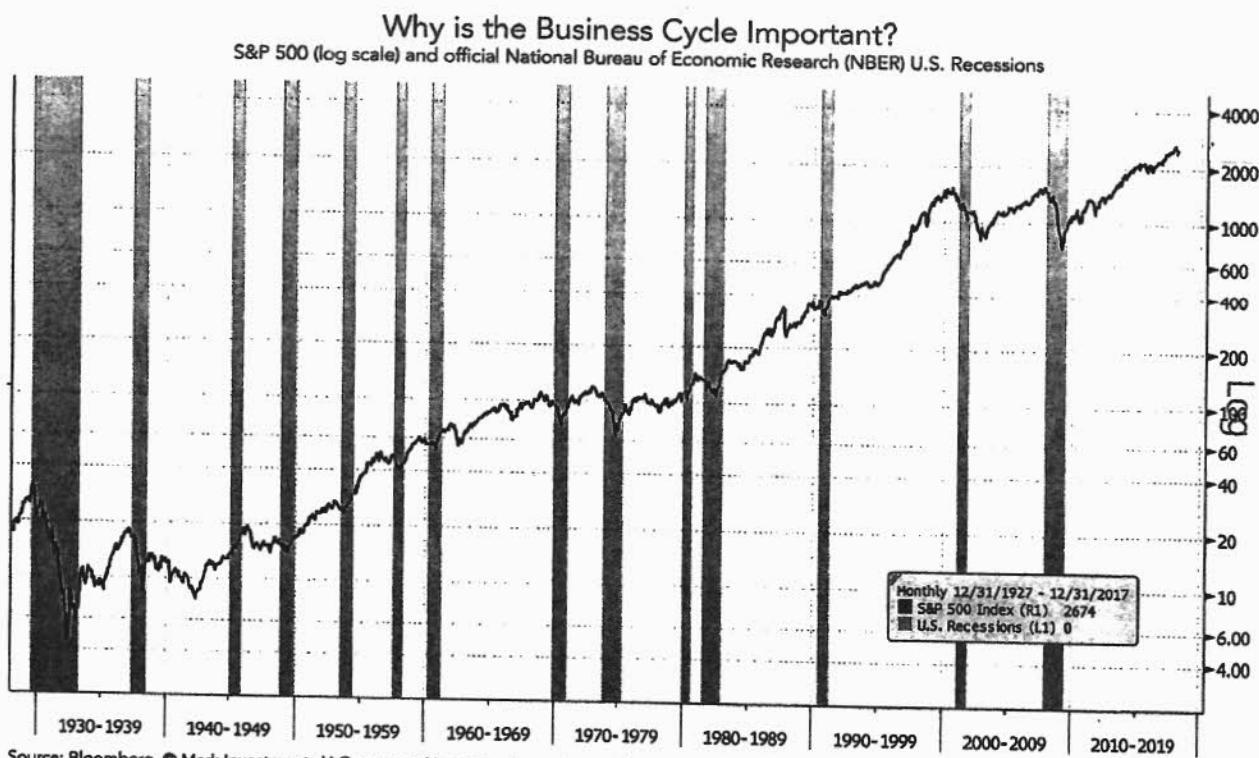
Source: U.S. Bureau of Economic Analysis

[myf.red/g/mnB4](http://myf.red/g/mnB4)

*Exhibit-11*



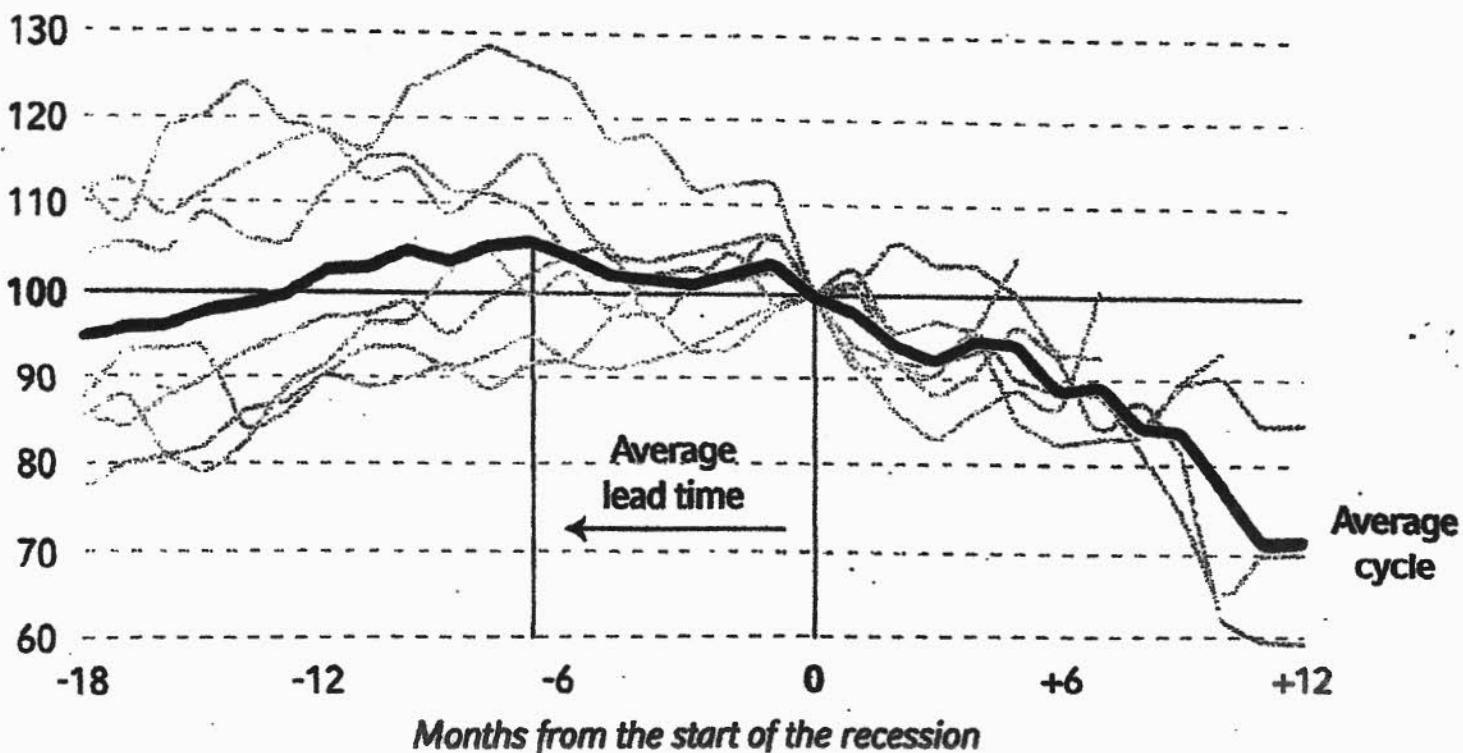
*Exhibit-12*



Analysis: Over the 90 years between 1927 and 2017, the average S&P 500 monthly return during expansions was +0.89% (889 months), compared to an average S&P 500 monthly return during recessions of -0.71% (191 months). In terms of proportions of time: expansion months account for about 80% and recession months about 20%. The business cycle also has important implications for Fed policy. \*Note that recessions are not announced by the NBER until well after their start dates\*

### Exhibit -13

**The U.S. equity market usually peaks before the recession hits**  
S&P 500 Index compared to its value at recession start dates -  
recession start = 100 for each of seven prior cycles



### Exhibit -14

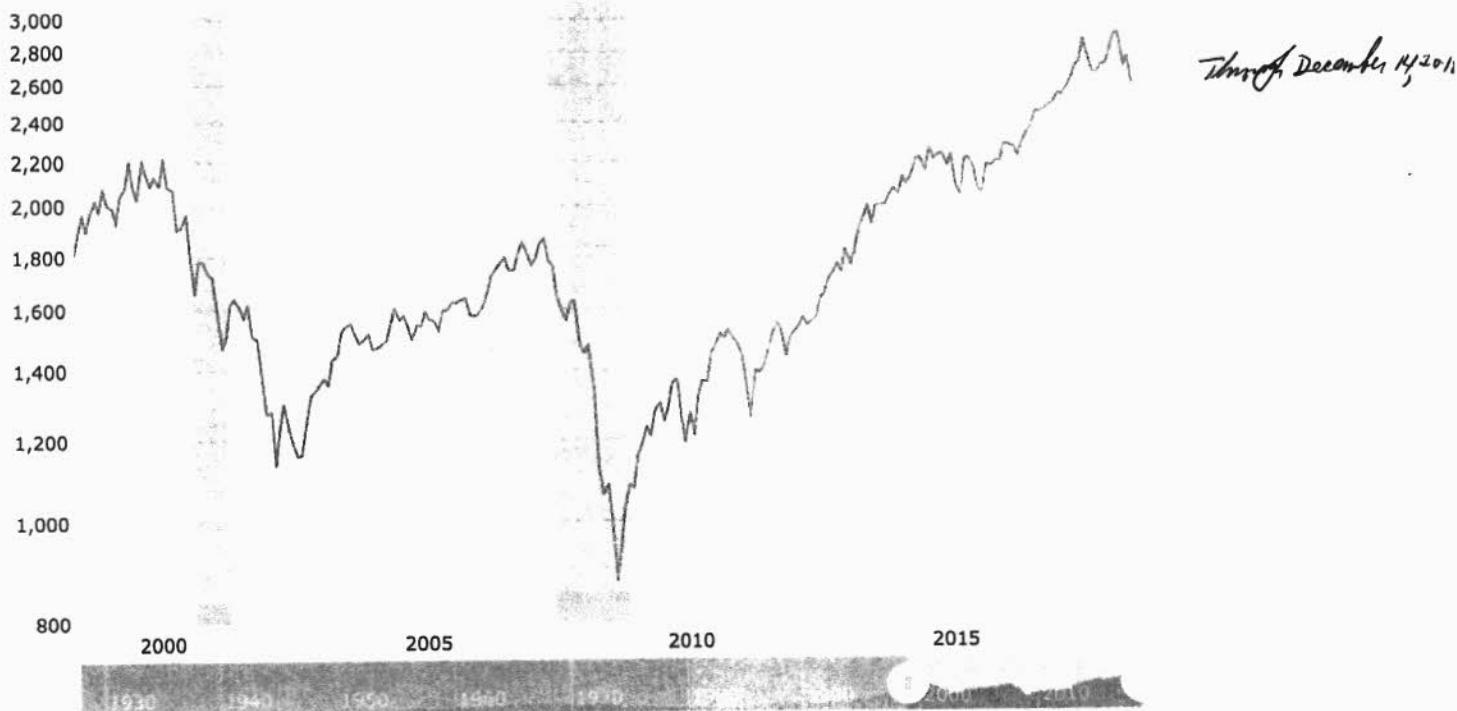
Show Recessions  Log Scale  Inflation-Adjusted

S & P 500 Index

Click and drag in the plot area or select dates: 5 Years | 10 Years | 20 Years | 30 Years | All Years

[Download Historical Data](#)

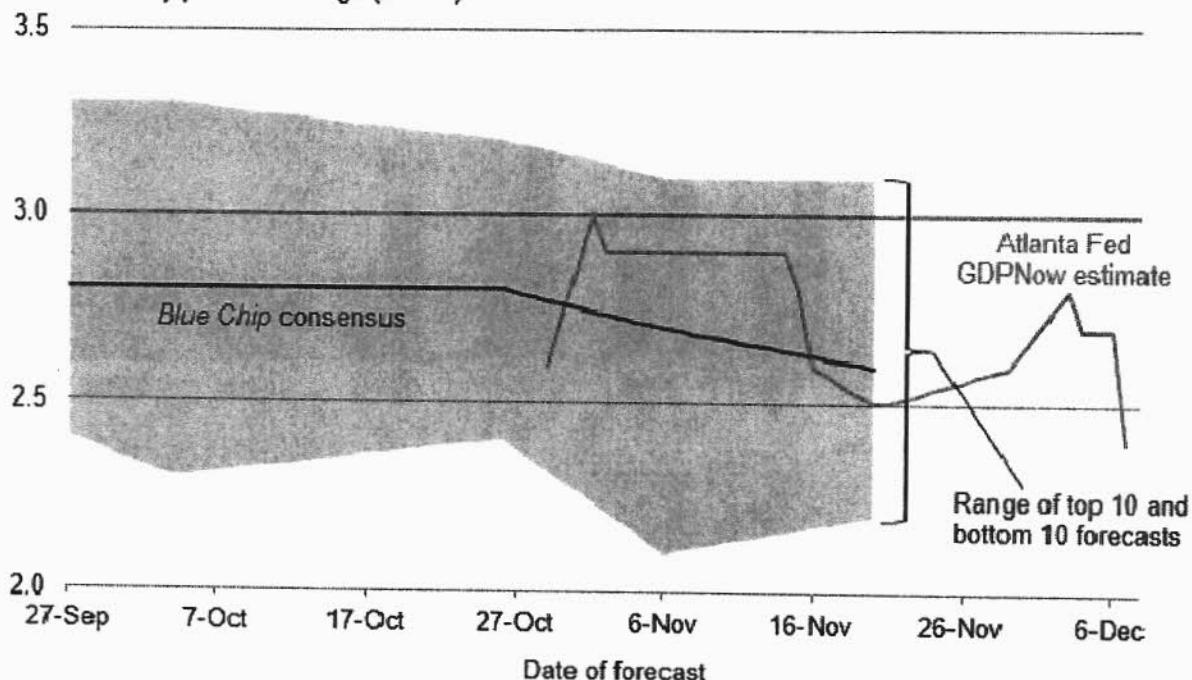
[Export Image](#)



*Chart-1*

**Evolution of Atlanta Fed GDPNow real  
GDP estimate for 2018: Q4**  
Quarterly percent change (SAAR)

**GDPNow**

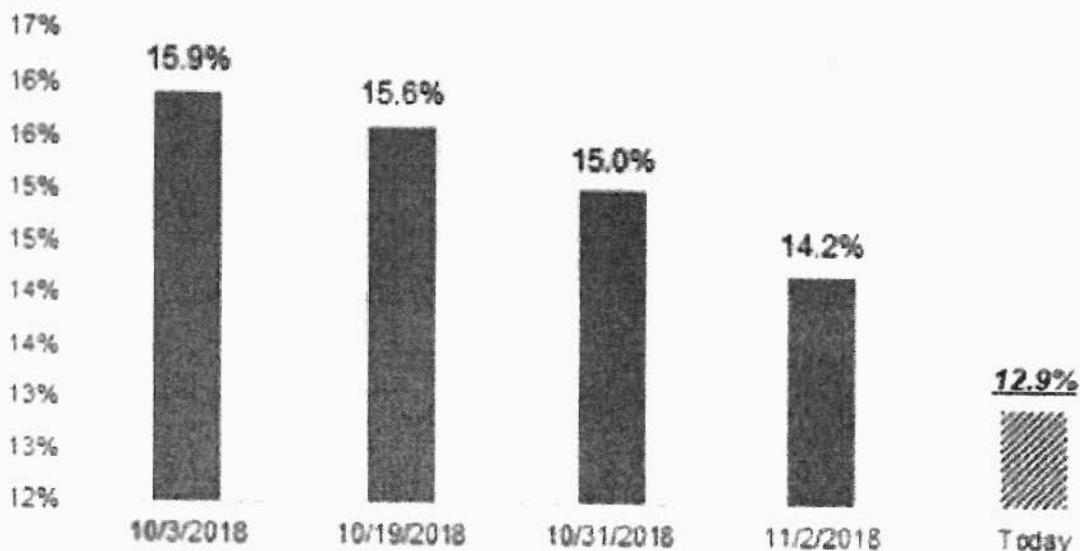


Sources: *Blue Chip Economic Indicators* and *Blue Chip Financial Forecasts*

Note: The top (bottom) 10 forecast is an average of the highest (lowest) 10 forecasts in the *Blue Chip* survey.

*Chart-2*

**Evolution of 2018 Q4 Earnings Growth Estimates**



Source: Zacks Investment Research Inc.

*Chart-3*

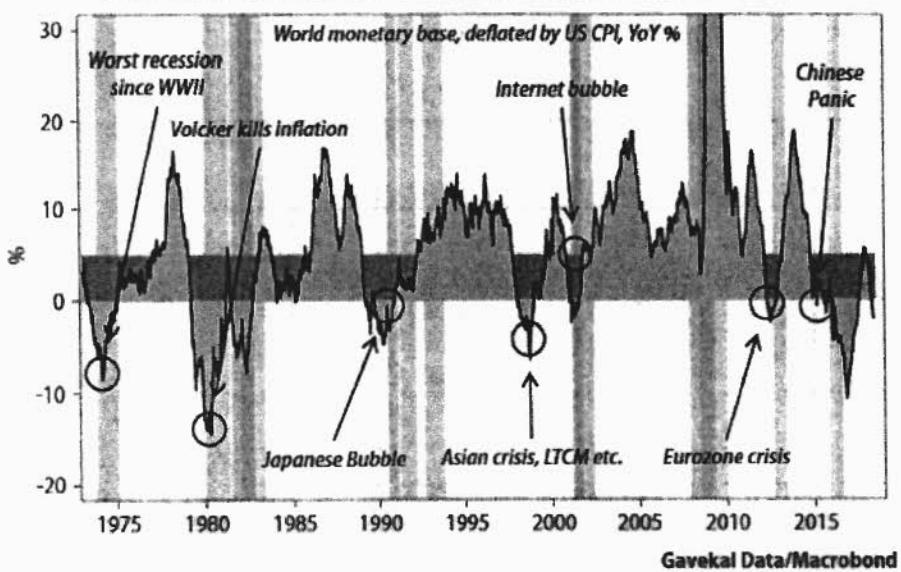


Source: Zacks Investment Research, Inc.

*Chart-4*

#### When the World Monetary Base contracts, trouble soon follows

Shaded pink: US recessions; shaded grey: OECD IP ex-construction, % YoY < 0



*Chart - 5*



*Chart - 6*  
Crude Oil

**WTI (NYMEX) Price**

End of day Commodity Futures Price Quotes for Crude Oil WTI (NYMEX)

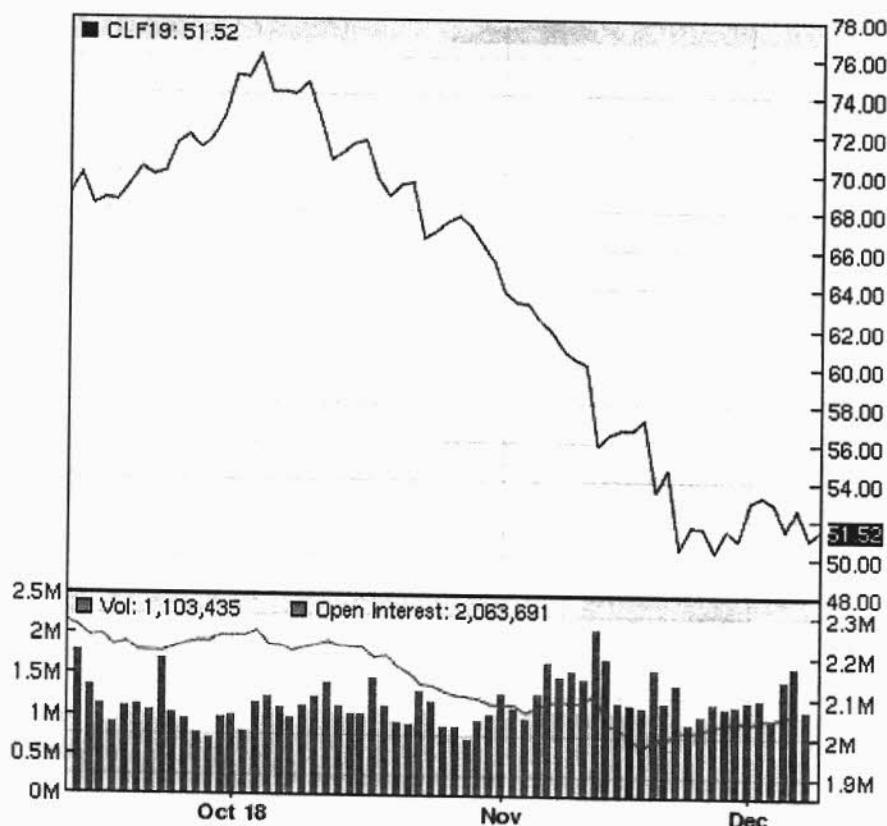
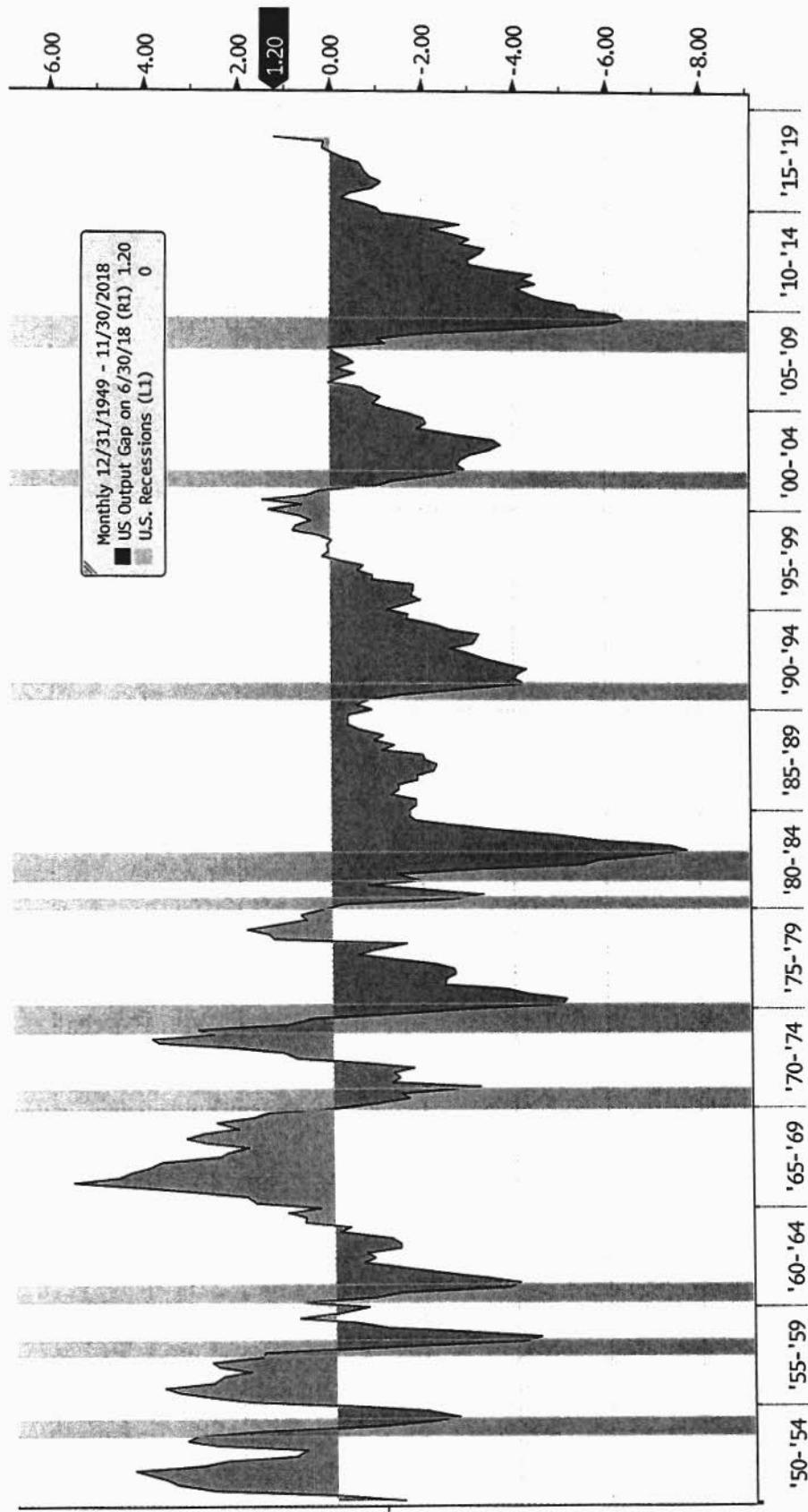


Chart 7

### U.S. GDP Output Gap

Actual GDP minus Potential GDP (CBO est.)

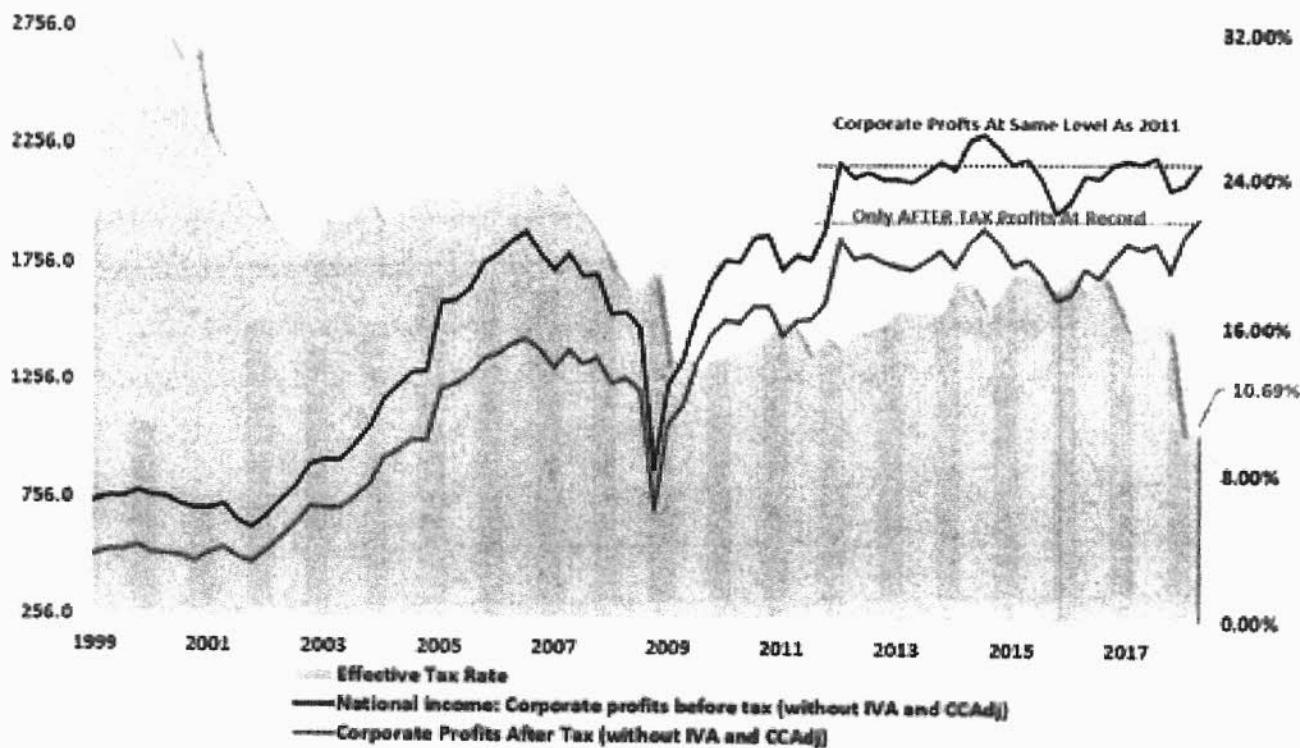


Source: Bloomberg, © Merk Investments LLC [www.merkinvestments.com/research](http://www.merkinvestments.com/research)

Analysis: Actual GDP is now more than potential GDP (as estimated by the CBO), which suggests the expansion may be entering its final stages.  
 Chart Framework: I'm currently incrementally negative on the business cycle outlook medium/longer term based on this picture. I'd get incrementally positive medium/longer term around -2.00 on the chart, which would likely only be during or after a recession.

*Chart - 8*  
**Corporate Profits Before & After Tax**

REAL INVESTMENT ADVICE



*Chart - 9*

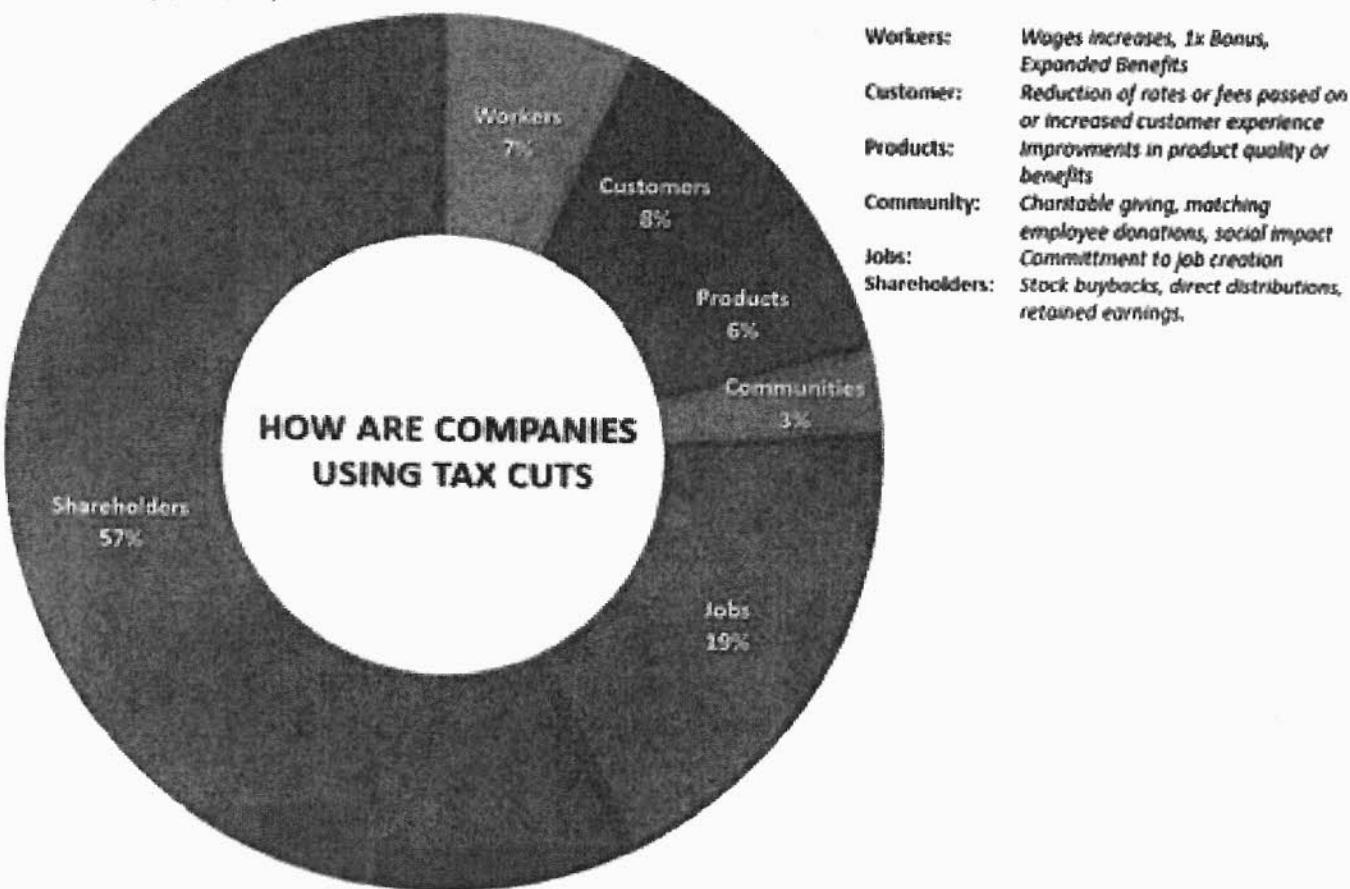


Chart - 10

**S&P 500: % of Companies Issuing Negative EPS Guidance**  
(Source: FactSet)

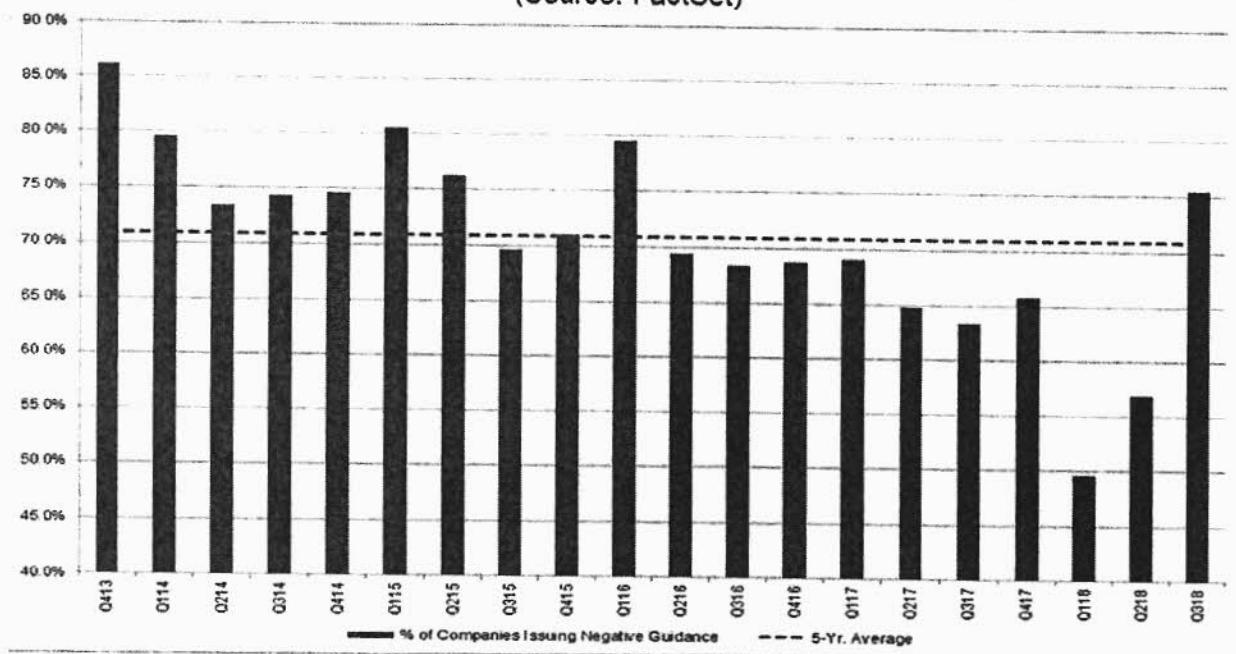
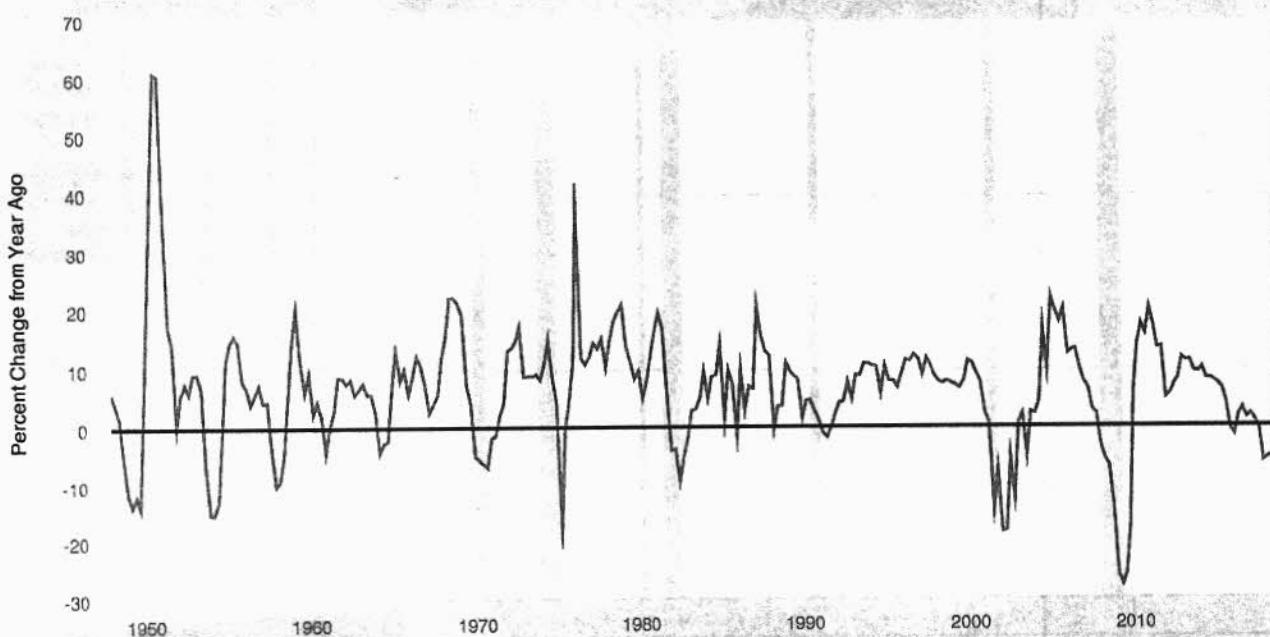


Chart - 11

**FRED** — Federal government current tax receipts



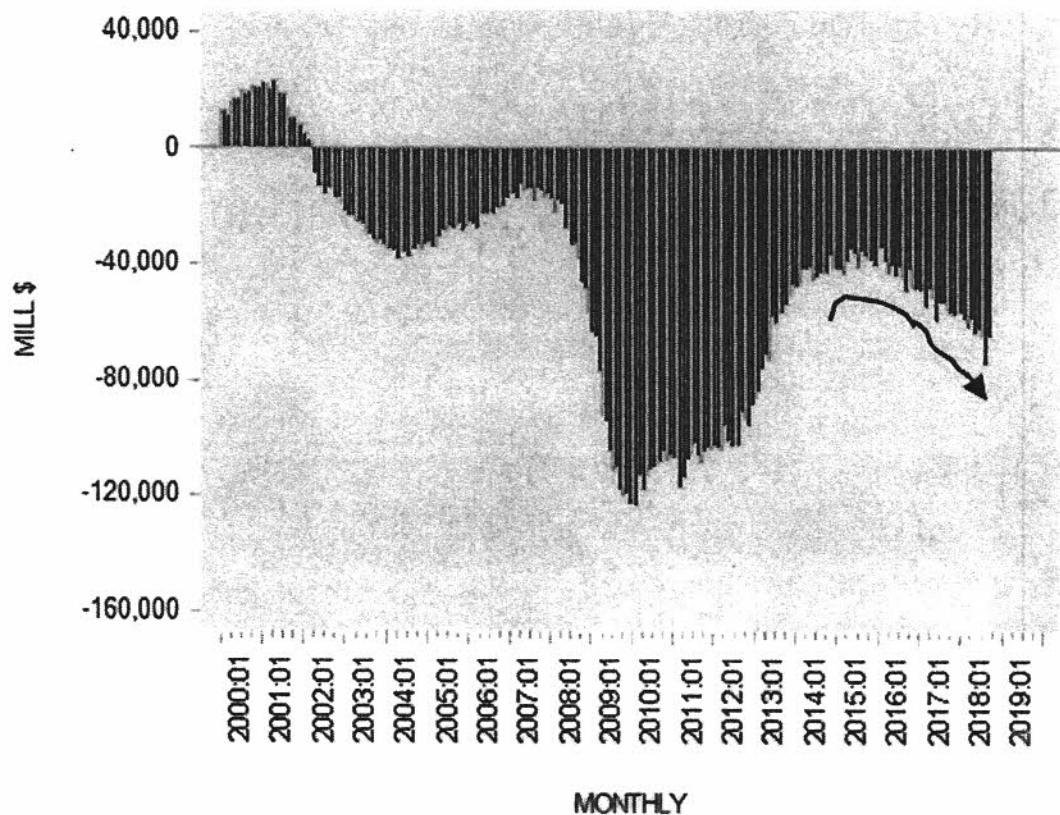
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

[myf.red/g/moGC](http://myf.red/g/moGC)

*Chart - 12*

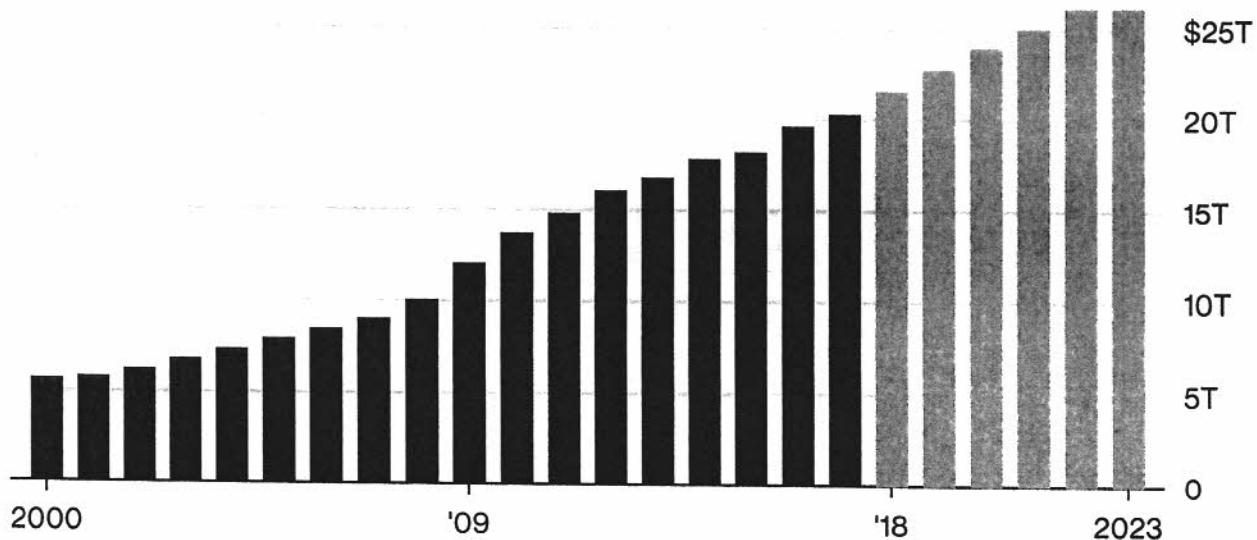
US GOVERNMENT BUDGET 12MMA



**It's Only Money**

*Chart - 13*

U.S. debt projected to jump by \$7.5 trillion from 2016 to 2023

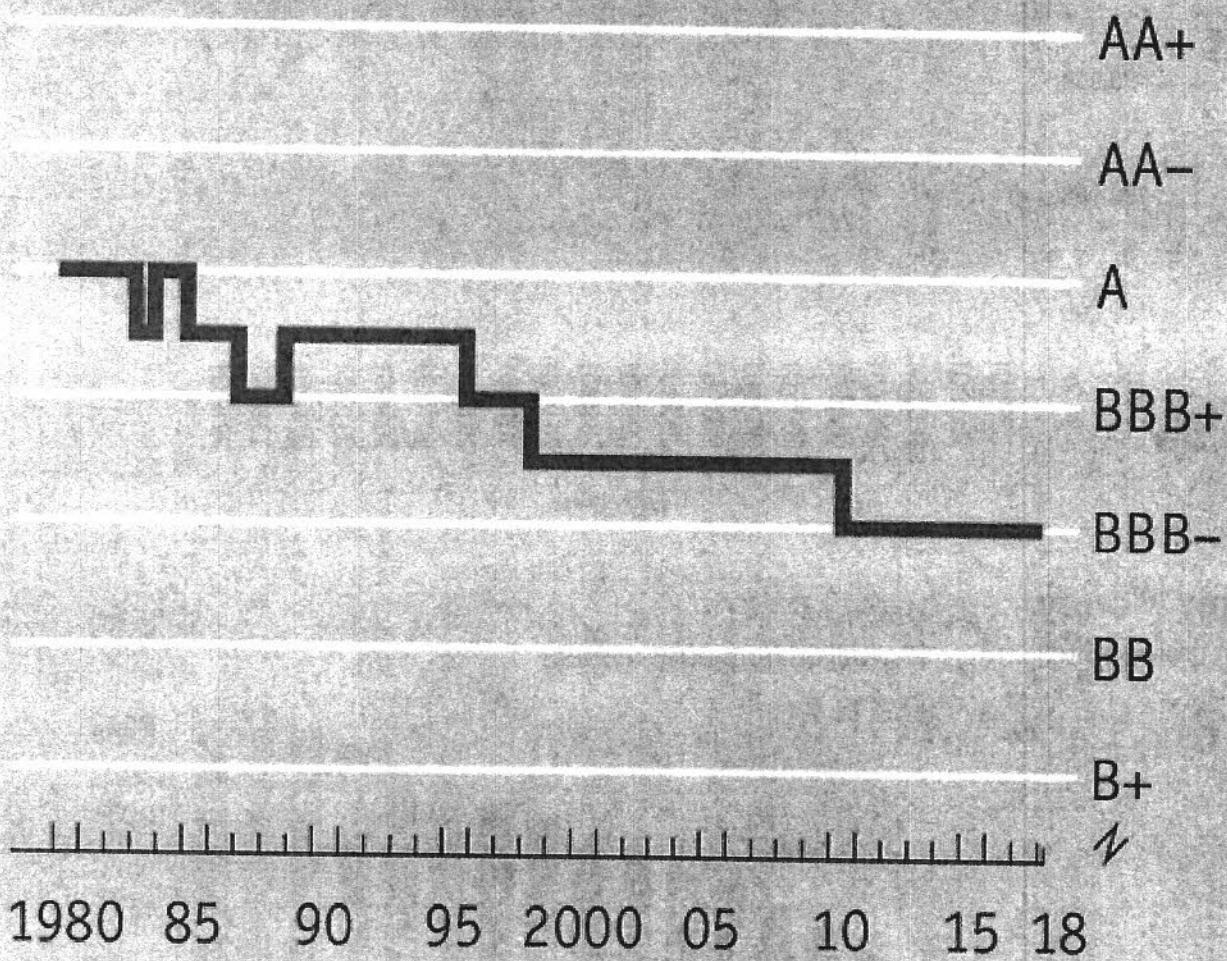


Source: OMB

*Chart - 14*

## The A to B of decline

S&P Global median corporate-credit rating

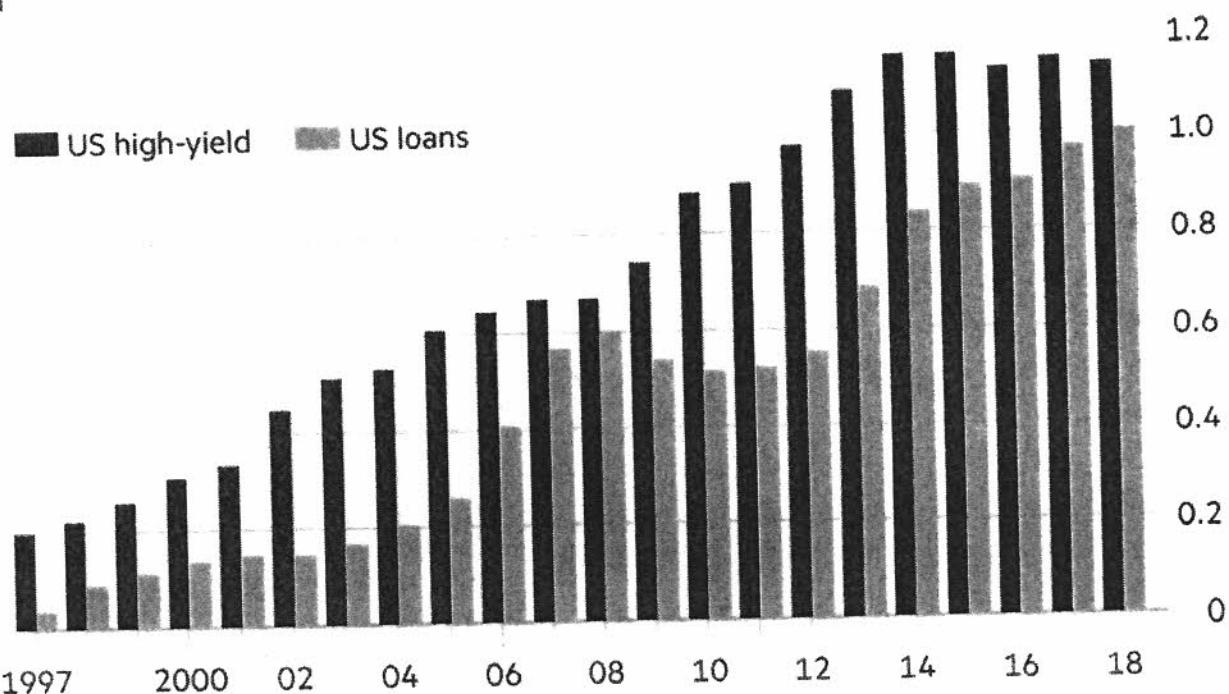


Source: S&P Global

*Chart-15*

### Loan market catching up to bonds

\$tn



Sources: BofA Merrill Lynch Global Research; LCD

*Chart-16*

### Covenant-lite share of outstanding, US leveraged loans

80%

75%

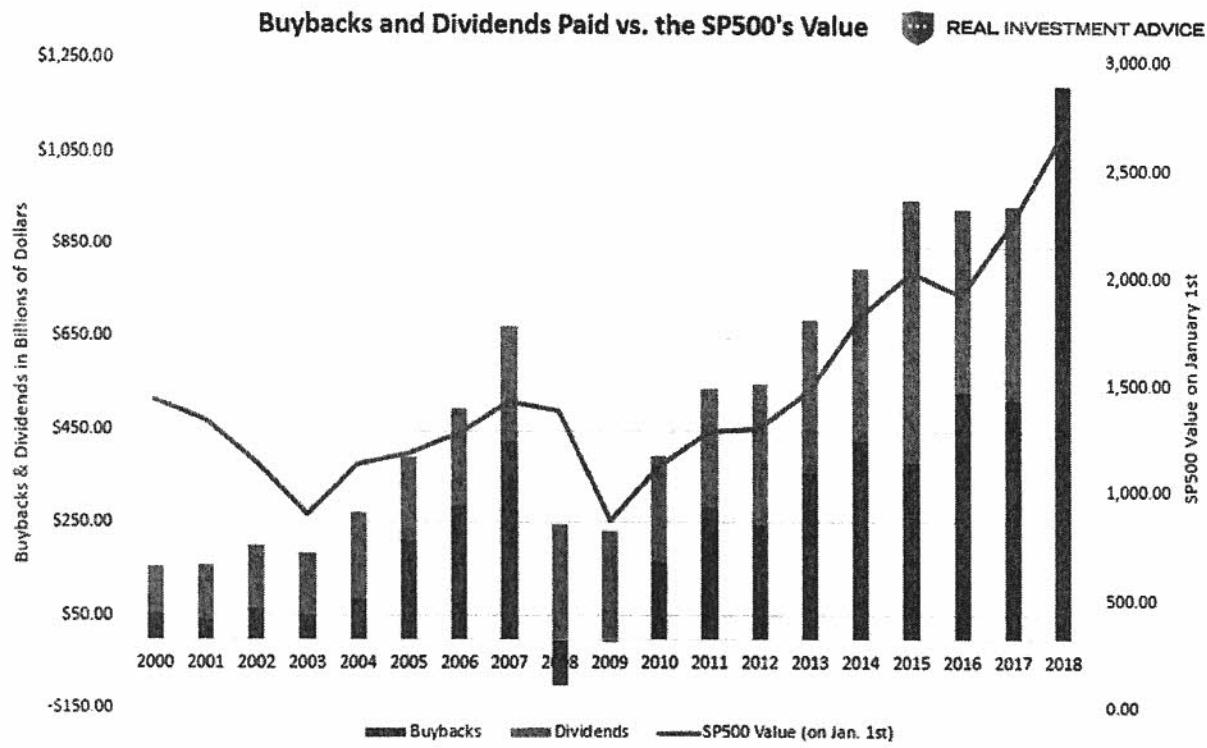
70%

65%

60%



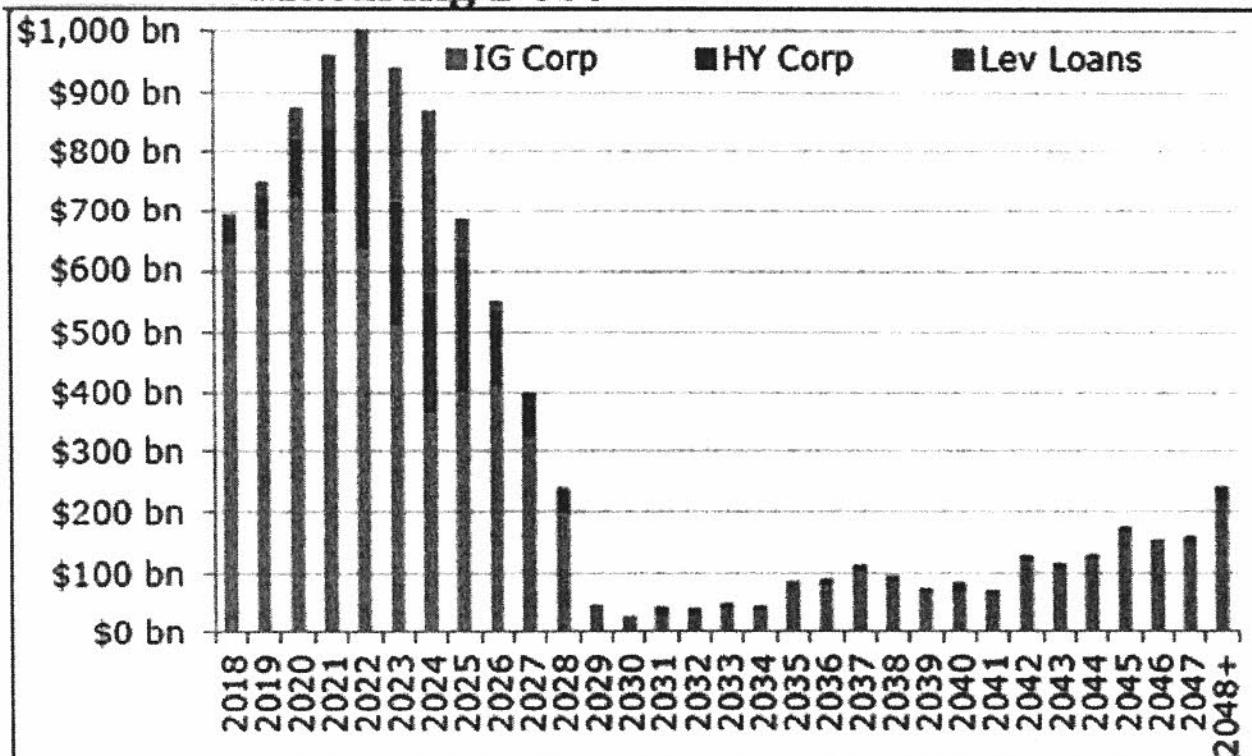
Source: LCD, an offering of S&P Global Market Intelligence

*Chart - 17*

Source: S&P Dow Jones Indices, Morgan Stanley Research, Bloomberg.  
2017 data is for the trailing 12 months ending Sept. 30.  
2018 buyback data is estimated.

*Chart - 18*

## Maturing Debt

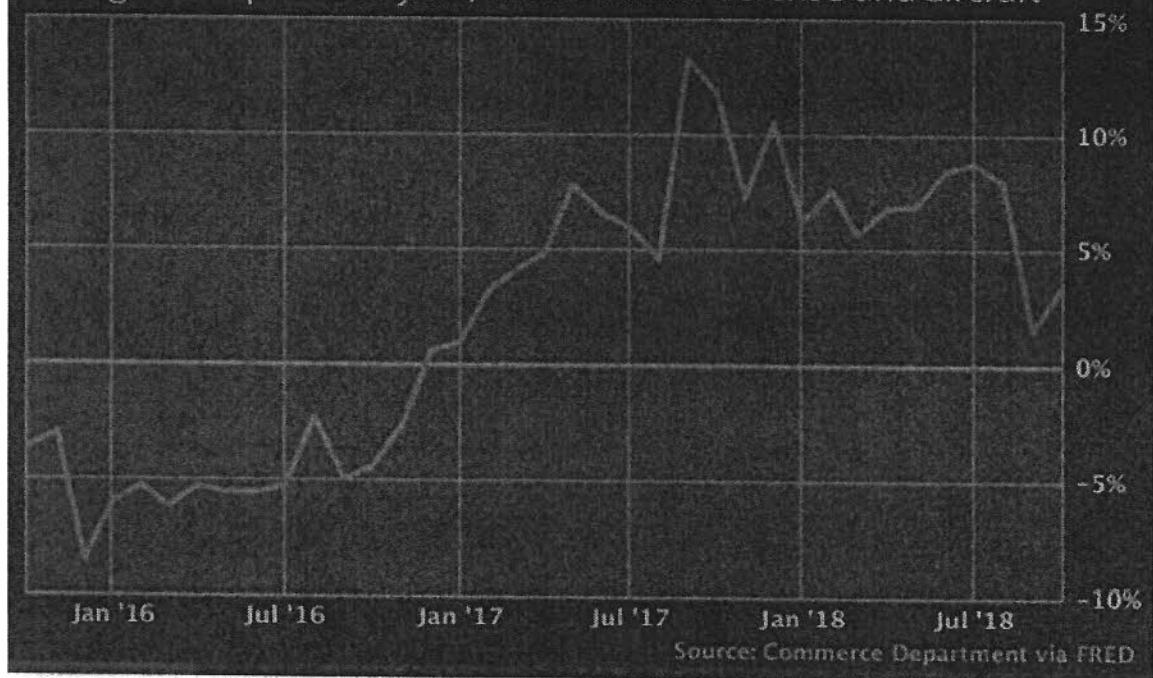


Source: Wells Fargo Securities, Bloomberg L.P.

*Chart-19*

## Core capital-goods orders

Change from previous year, orders minus defense and aircraft

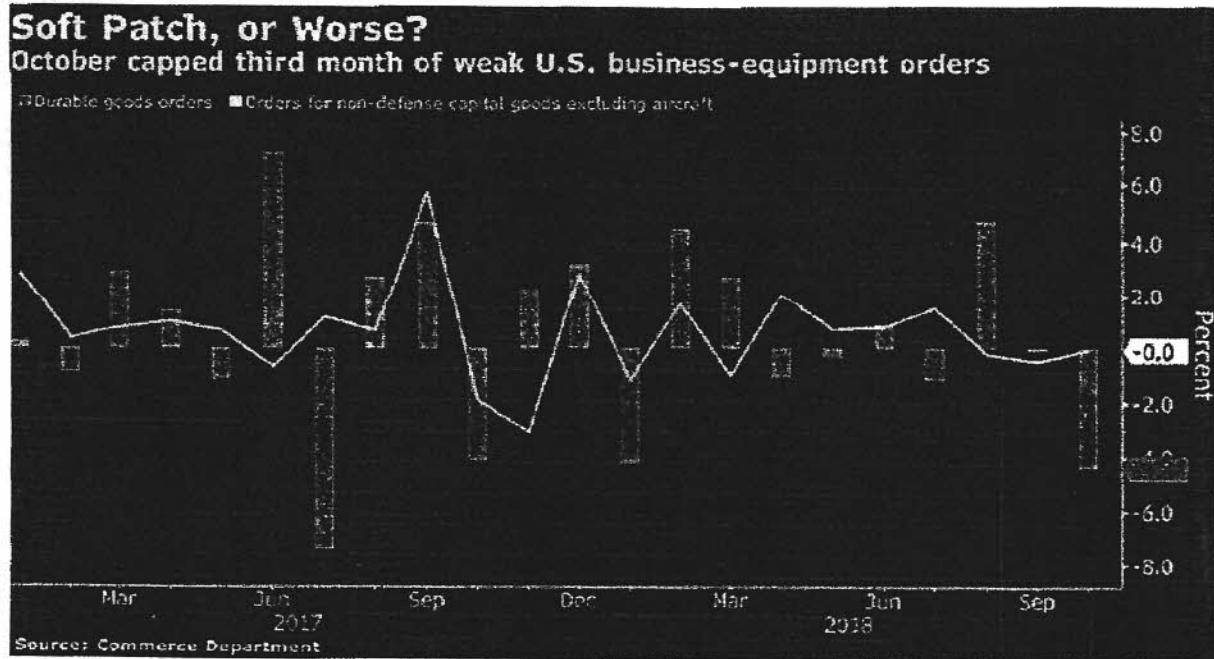


*Chart-20*

## Soft Patch, or Worse?

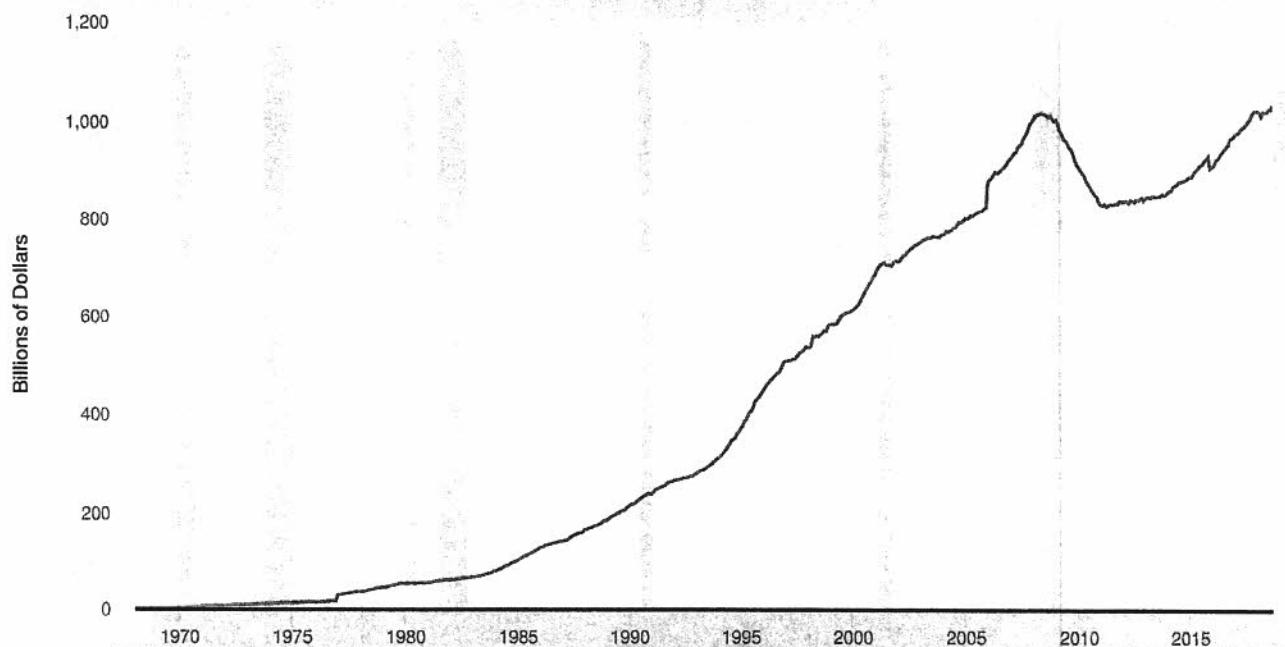
October capped third month of weak U.S. business-equipment orders

Durable goods orders ■ Orders for non-defense capital goods excluding aircraft



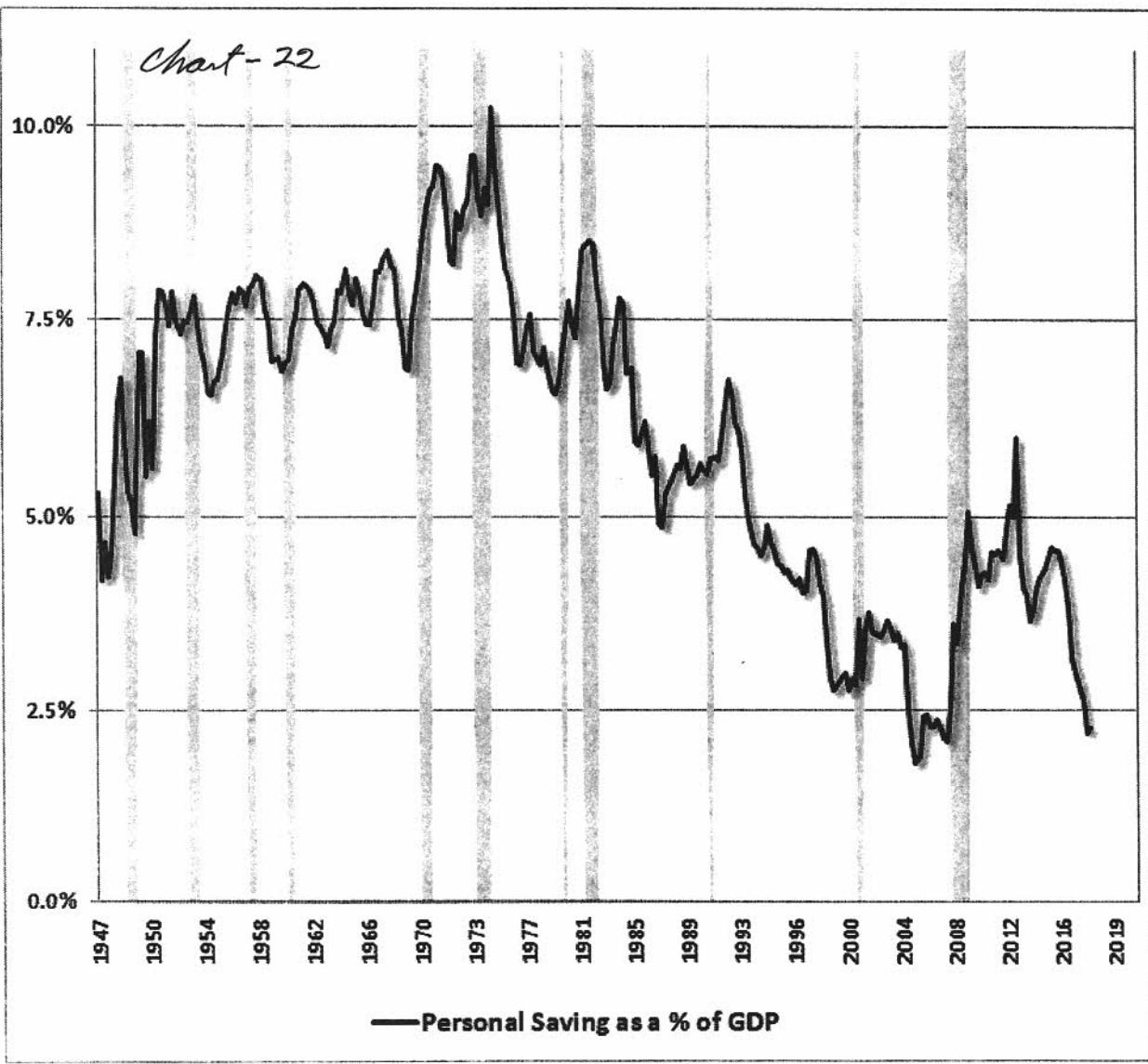
*Chart - 21*

**FRED** — Total Revolving Credit Owned and Securitized, Outstanding



Source: Board of Governors of the Federal Reserve System (US) myf.red/g/mq40

*Chart - 22*



## U.S. 10 Year Treasury Note

Chart - 23

+ WATCH

Last Updated: Dec 19, 2018 at 10:29 a.m. EST

**2.82%**

▲ 0.001

PREVIOUS CLOSE

2.819%

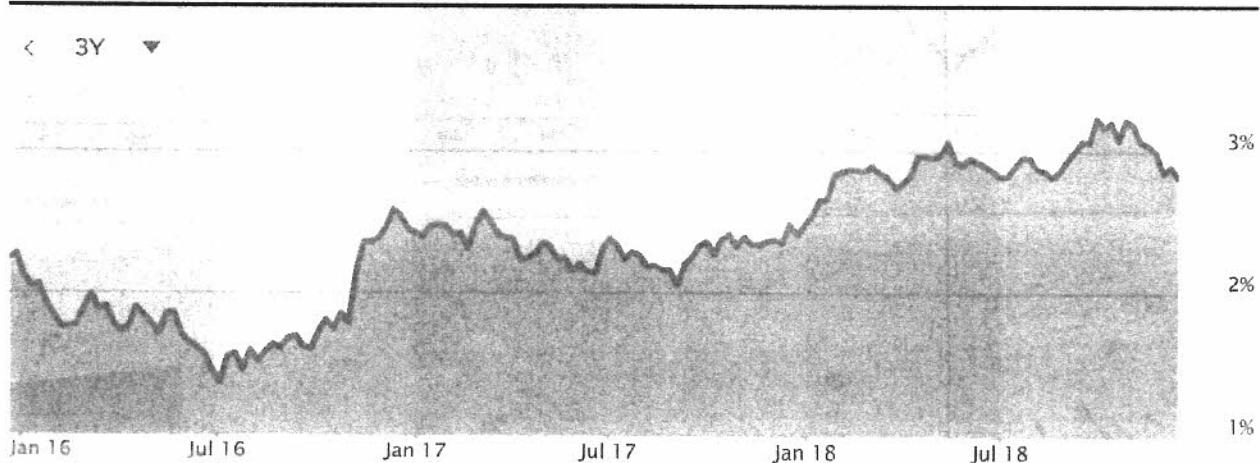


Chart - 24

## 1 Year Bill 2 Year Note

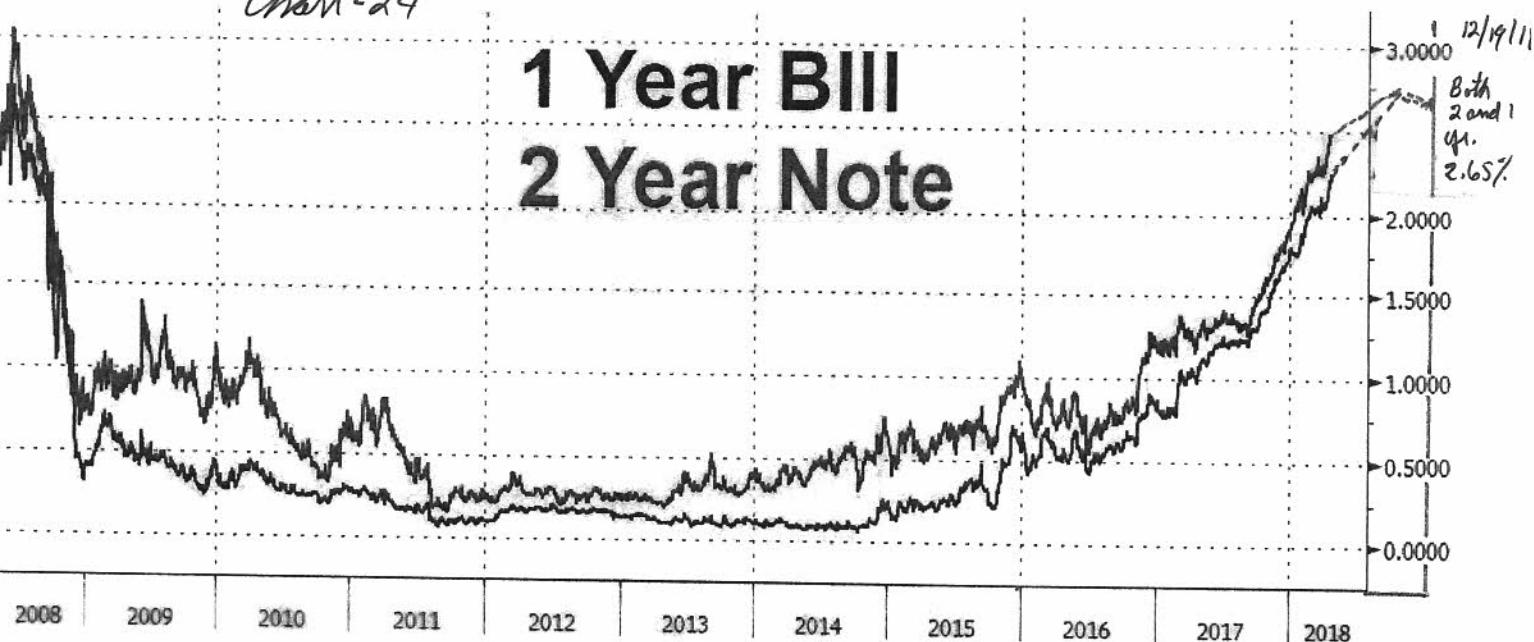


Chart - 25

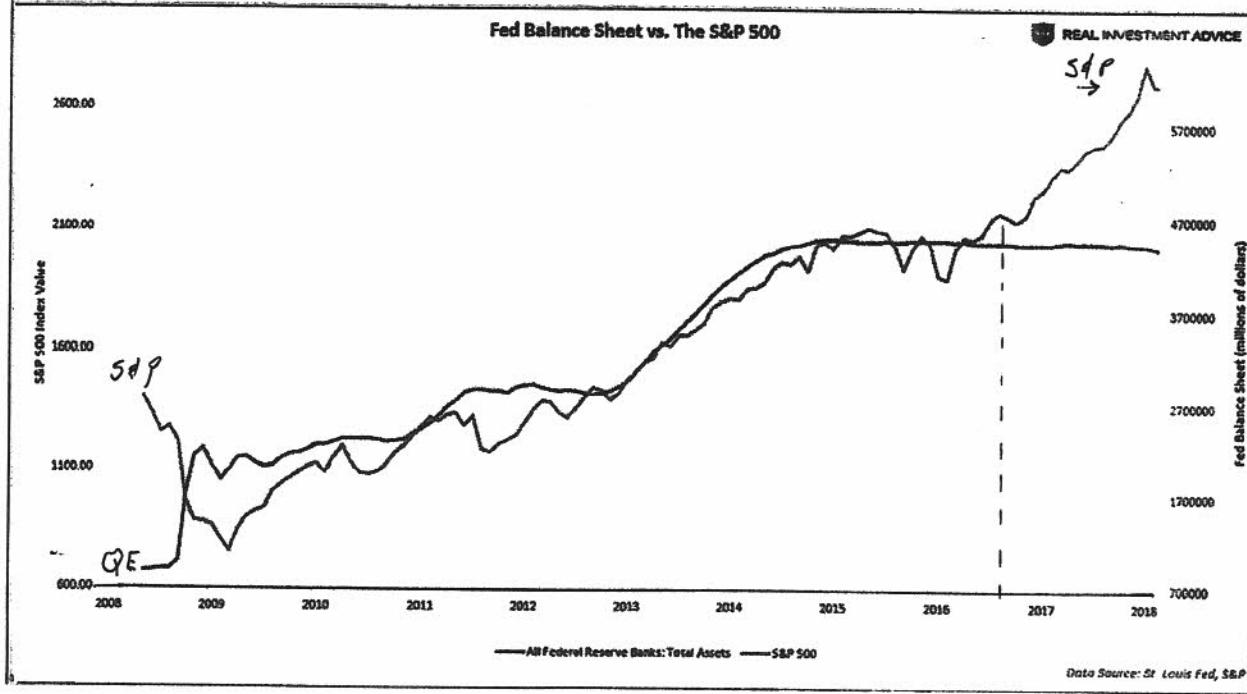
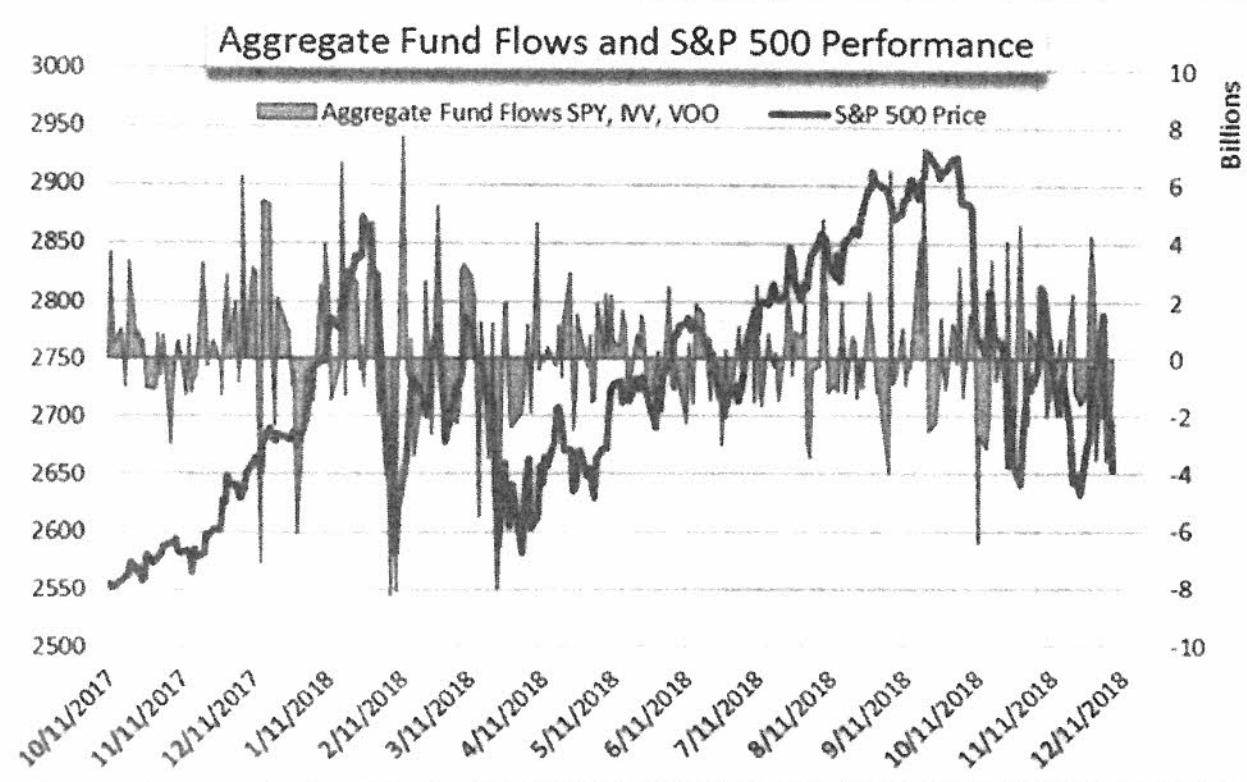
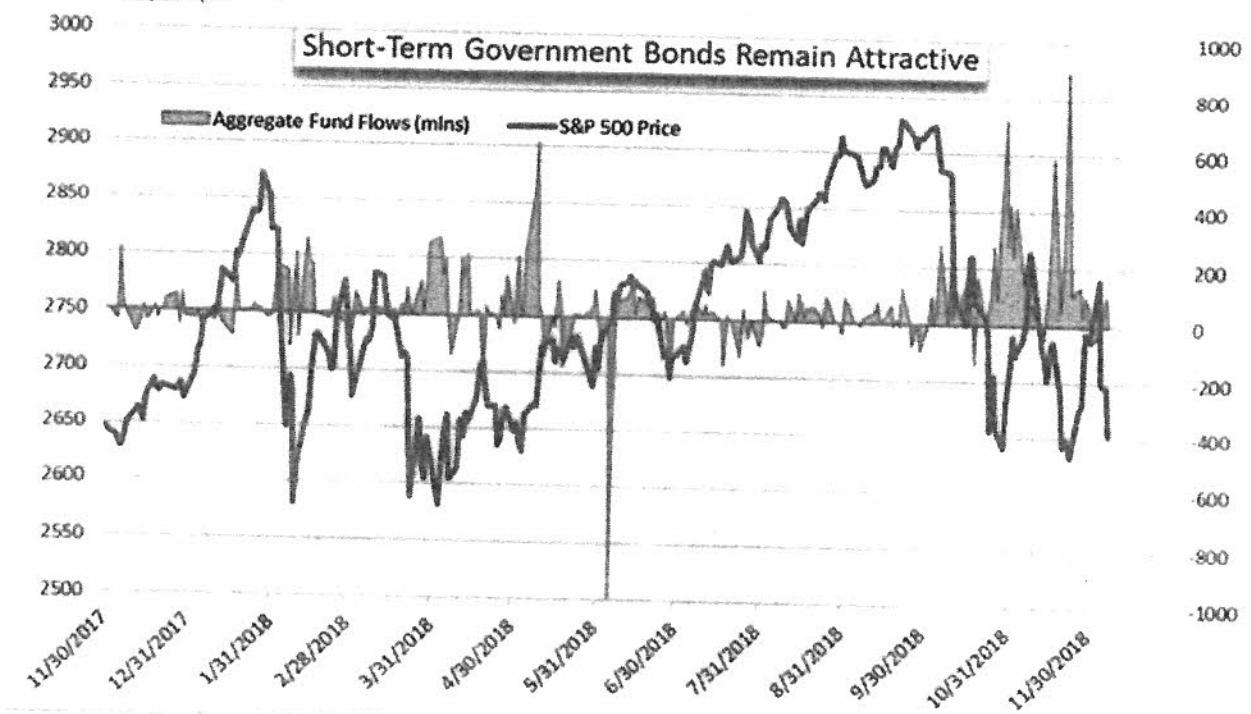


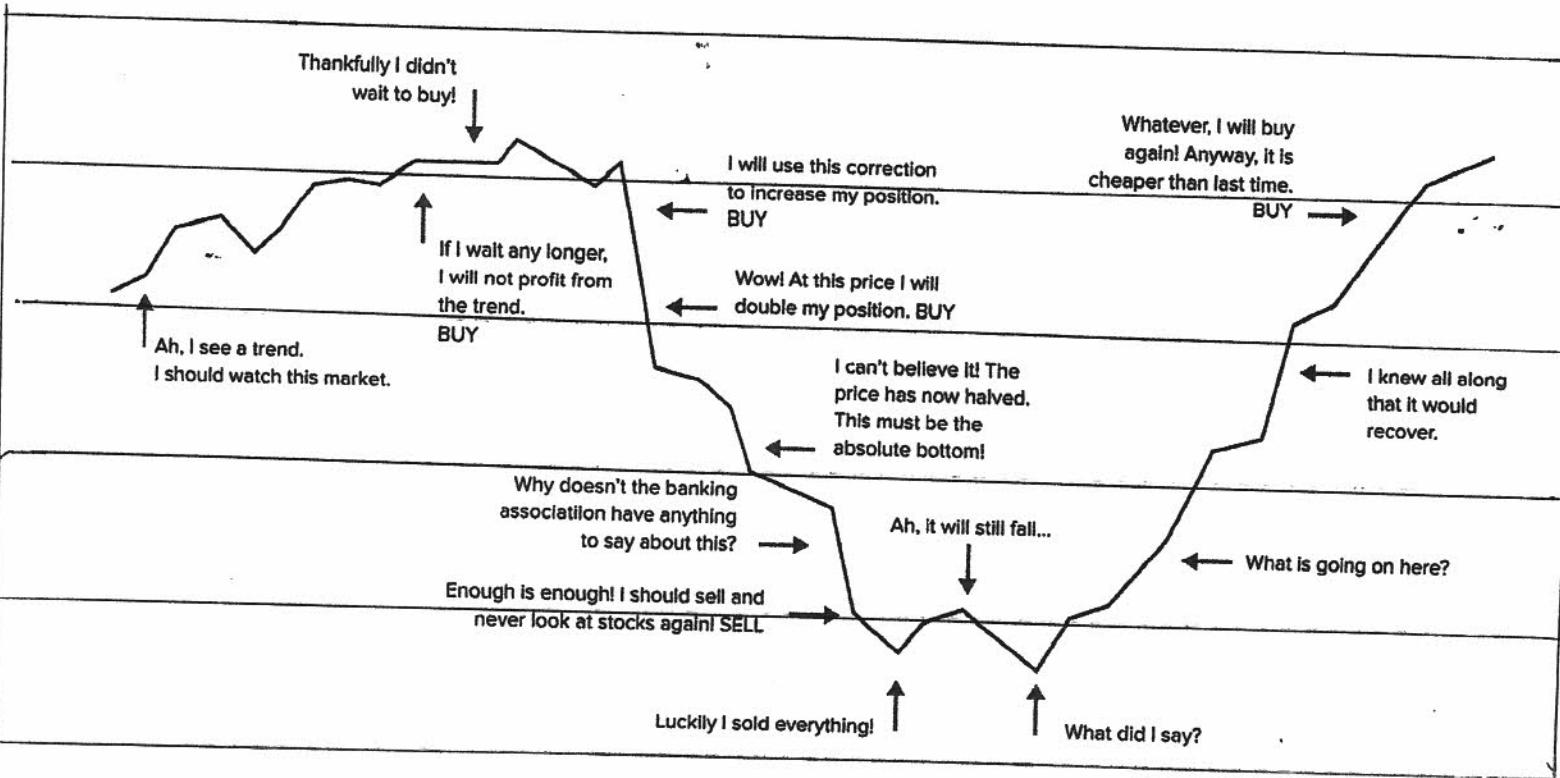
Chart - 26



*Chart - 27*



**Figure 1: Investment Process - Roller Coaster of Emotion**



Source: Credit Suisse

toptal

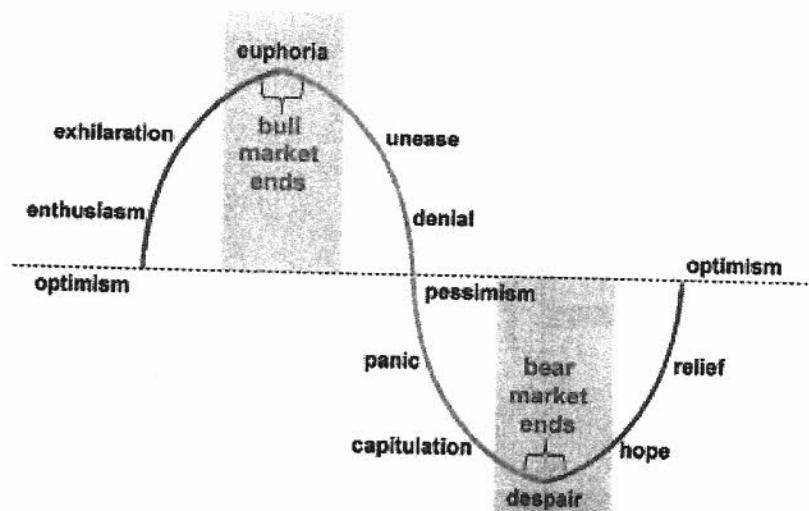
*Figure - 2*

JUST A NORMAL DAY AT THE NATION'S MOST IMPORTANT FINANCIAL INSTITUTION...

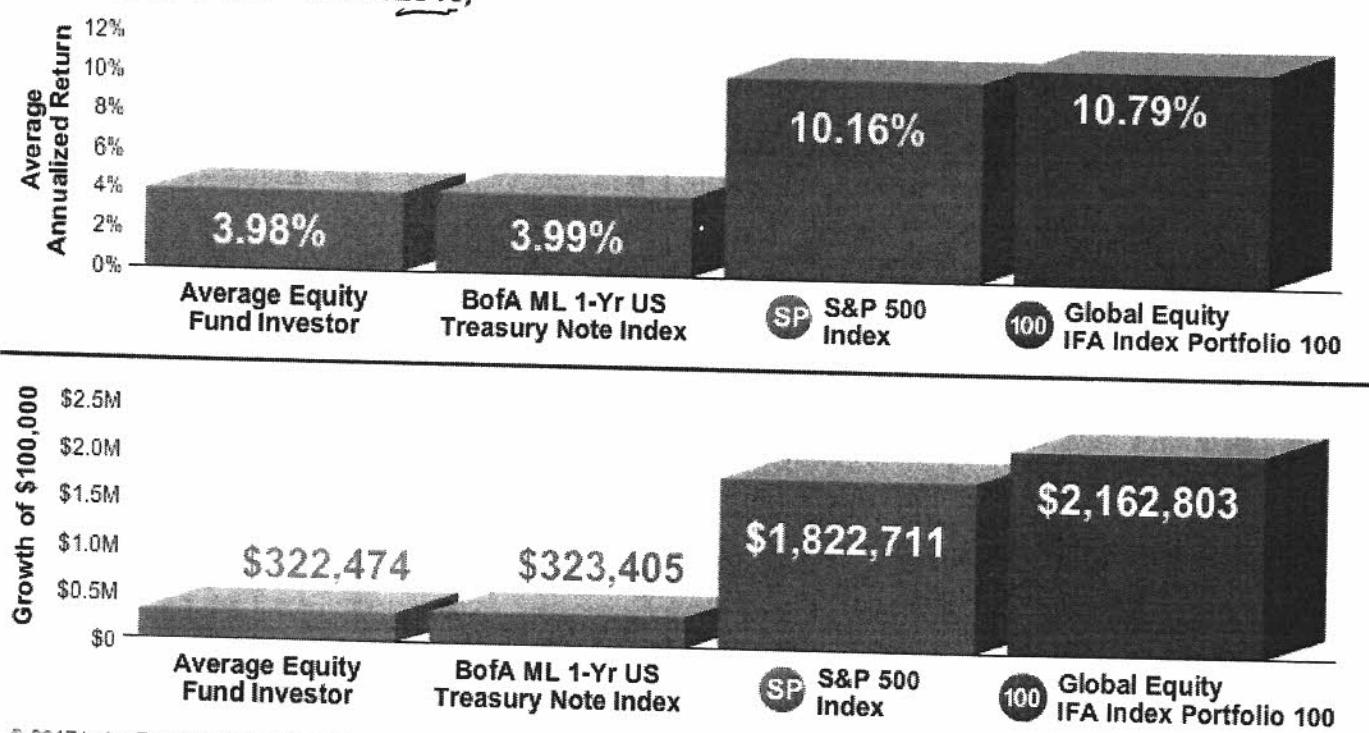


*Figure - 3.*  
Market's emotional roller coaster

MAINTAIN DISCIPLINE = KEY TO LONG-TERM SUCCESS



*Figure - 4*  
The Dalbar Study: 30 Years of Average Equity Fund Investor vs. Indexes  
30 Years (1/1/1987 - 12/31/2016)



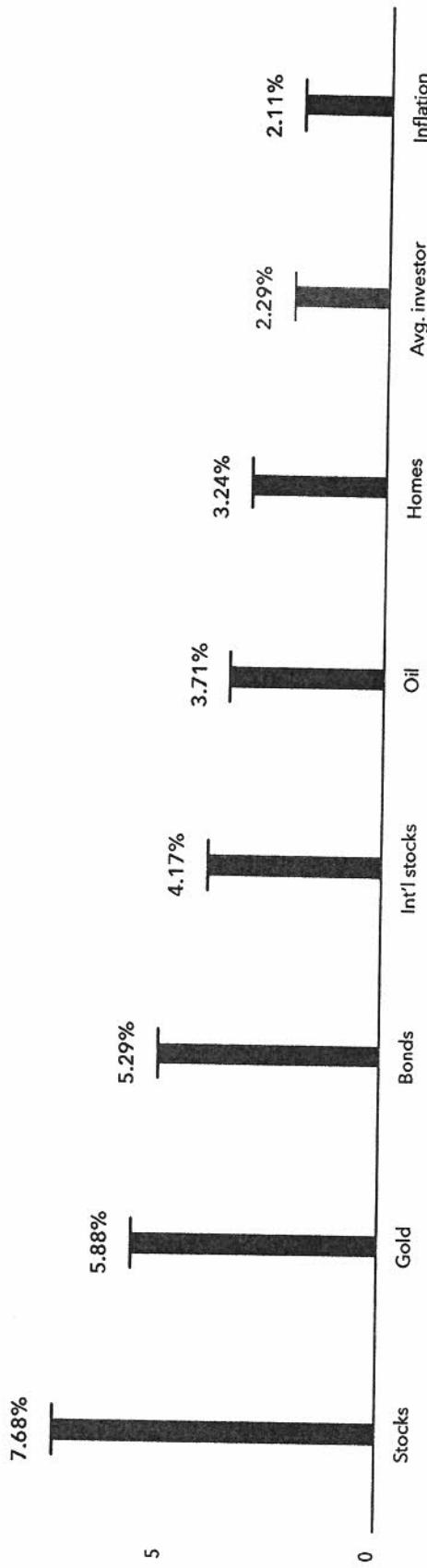
## Figure - 5

How the average investor stacks up

The average investor underperforms

20-Year annualized returns by asset class (1997-2016)

10%



**Want to know more?**  [blackrock.com](http://blackrock.com)

Sources: BlackRock; Bloomberg; Informa Investment Solutions; Dalbar. Past performance is no guarantee of future results. It is not possible to directly invest in an index. **Oil** is represented by the change in price of the NYMEX Light Sweet Crude Future contract. Contract size is 1,000 barrels with a contract price quoted in U.S. Dollars and Cents per barrel. Delivery dates take place every month of the year. **Gold** is represented by the change in the spot price of gold in USD per ounce. **Homes** are represented by the National Association of Realtors' (NAR) Existing One Family Home Sales Median Price Index. **Stocks** are represented by the S&P 500 Index, an unmanaged index that consists of the common stocks of 500 large-capitalization companies, within various industrial sectors, most of which are listed on the New York Stock Exchange. **Bonds** are represented by the BBG Barclay U.S. Aggregate Bond Index, an unmanaged market weighted index that consists of investment-grade corporate bonds (rated BBB or better), mortgages and U.S. Treasury and government agency issues with at least 1 year to maturity. **International Stocks** are represented by the MSCI EAFE Index, a broad-based measure of international stock performance. **Inflation** is represented by the Consumer Price Index. **Average Investor** is represented by Dalbar's average asset allocation investor return, 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 12/31/16 to match Dalbar's most recent analysis.

©2017 BlackRock, Inc. All Rights Reserved. **BLACKROCK** is registered trademarks of BlackRock, Inc. or its subsidiaries in the United States and elsewhere. All other trademarks are those of their respective owners.

**Not FDIC Insured • May Lose Value • No Bank Guarantee**

Lit. No. INVEST-EMOTION-0617

009041A-0617

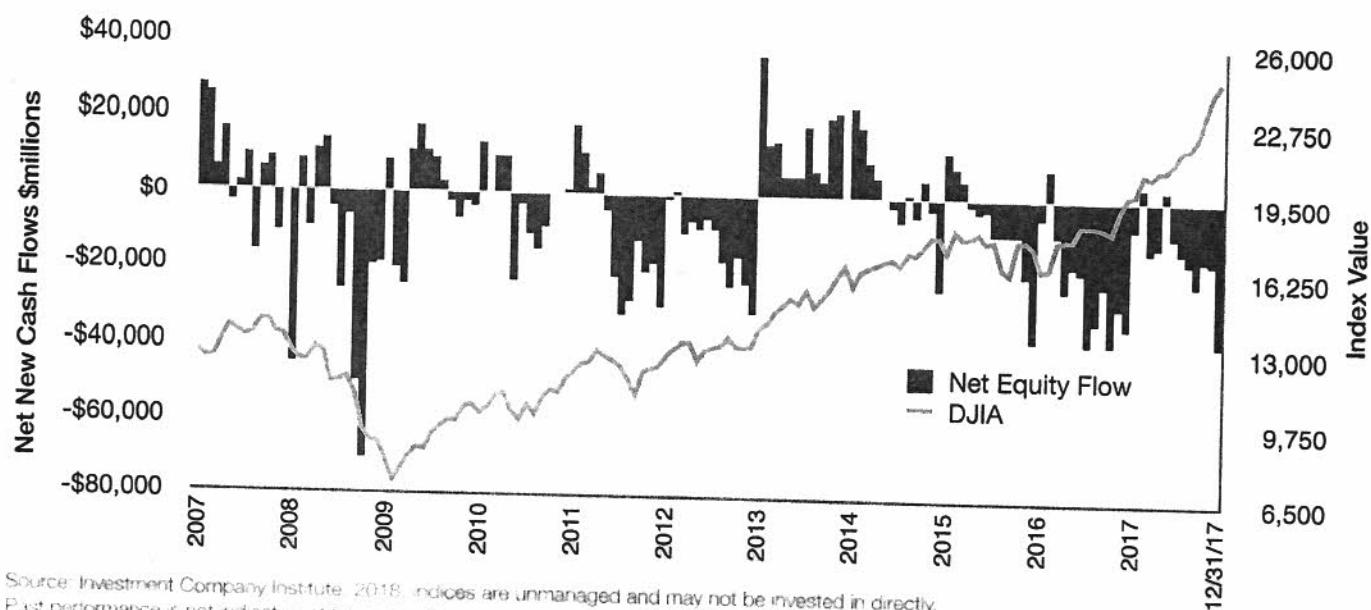
**BLACKROCK®**

USR0717U-199230-565685

Figure - 6

## Fund Flows Indicate Investors Did Not Buy and Hold

Monthly Fund Flows in Declines & Recoveries 2007-2017



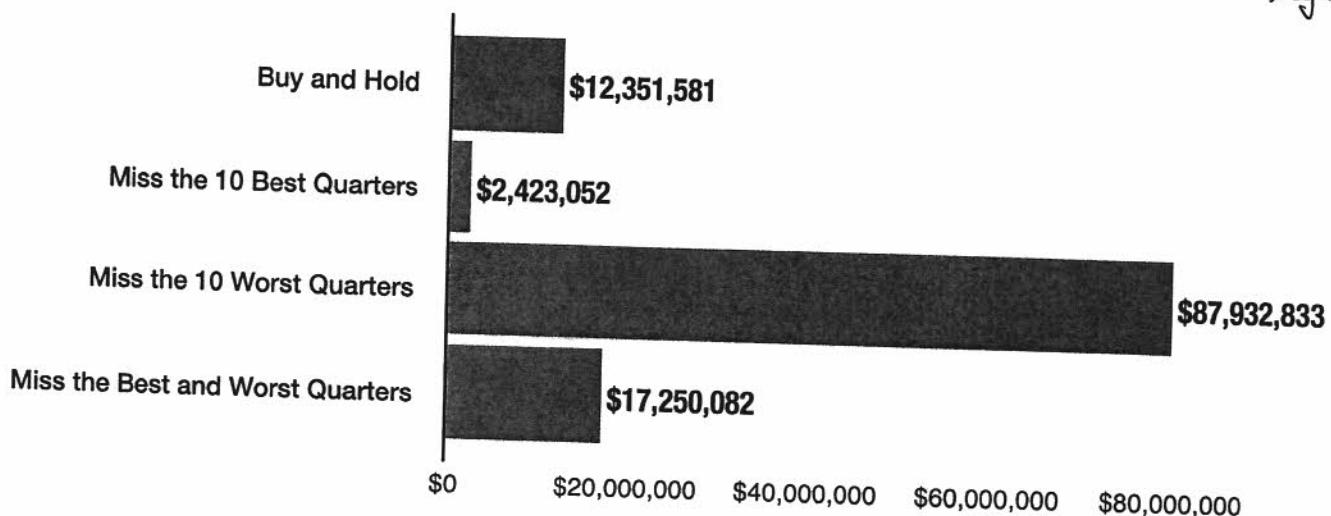
Source: Investment Company Institute, 2018. Indices are unmanaged and may not be invested in directly.  
Past performance is not indicative of future results.

Figure - 7

## Dow Jones Industrial Average 1950-2017

Hypothetical \$100,000 Invested

Chart 1 =  
Figure 7



Source: Bloomberg, 2018. Indices are unmanaged and may not be invested in directly. Past performance is not indicative of future results.

Figure - 8

## Perfect Recession Timing

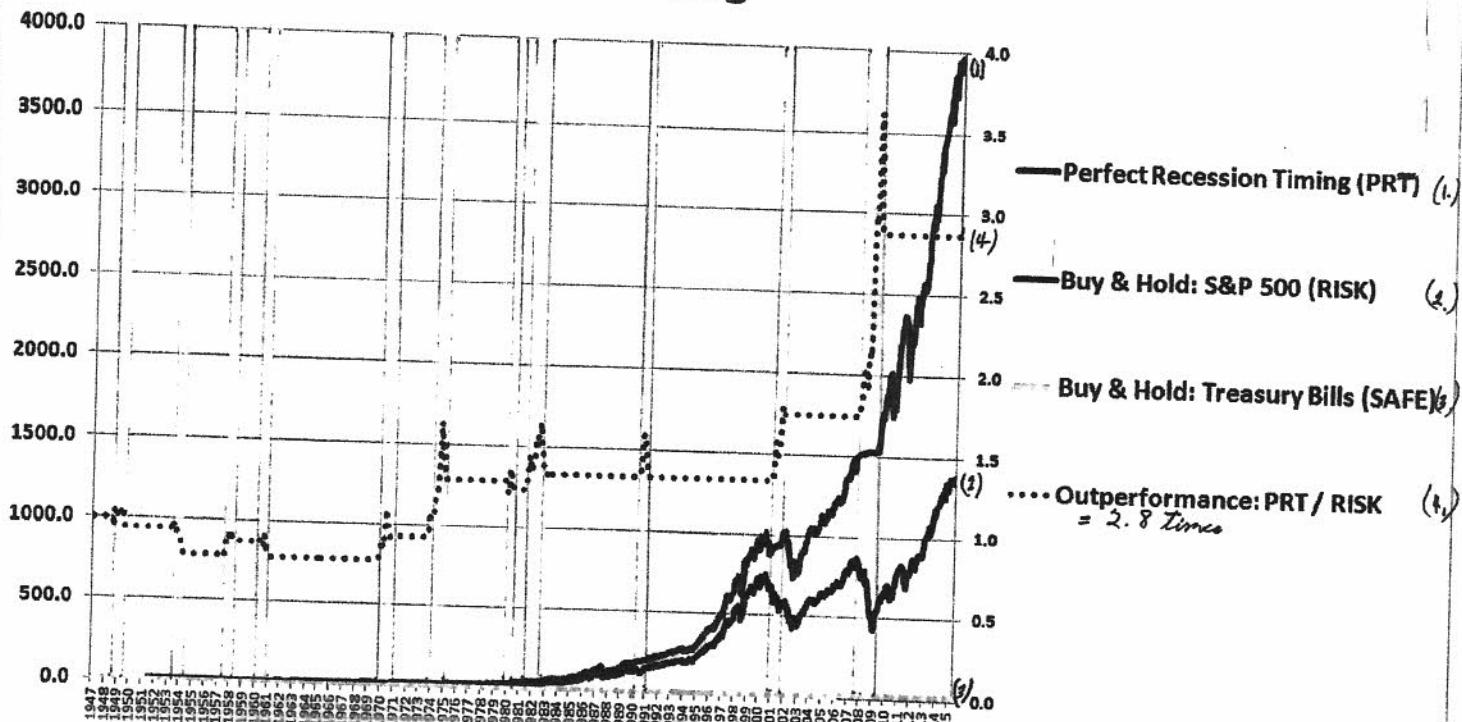
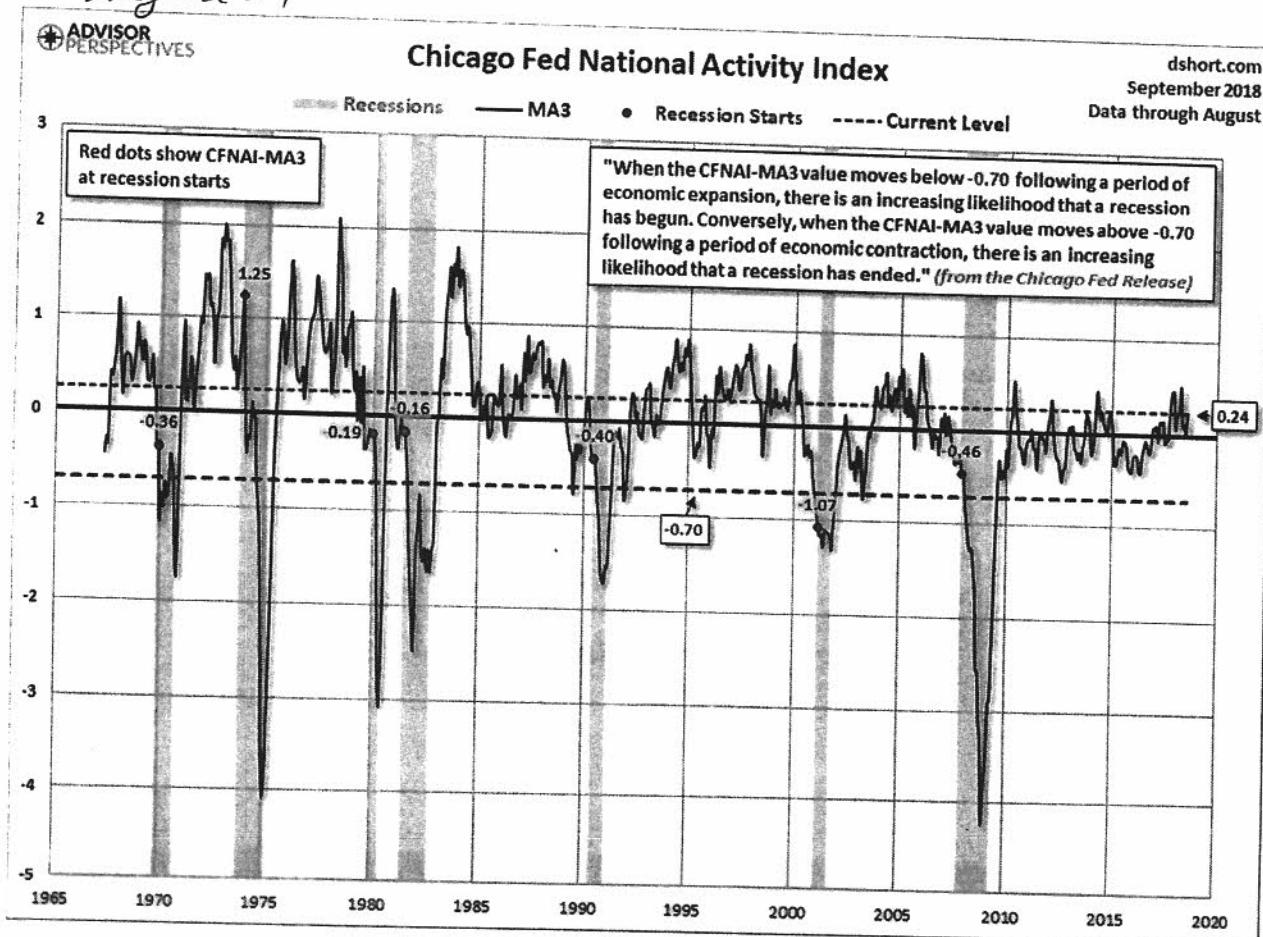
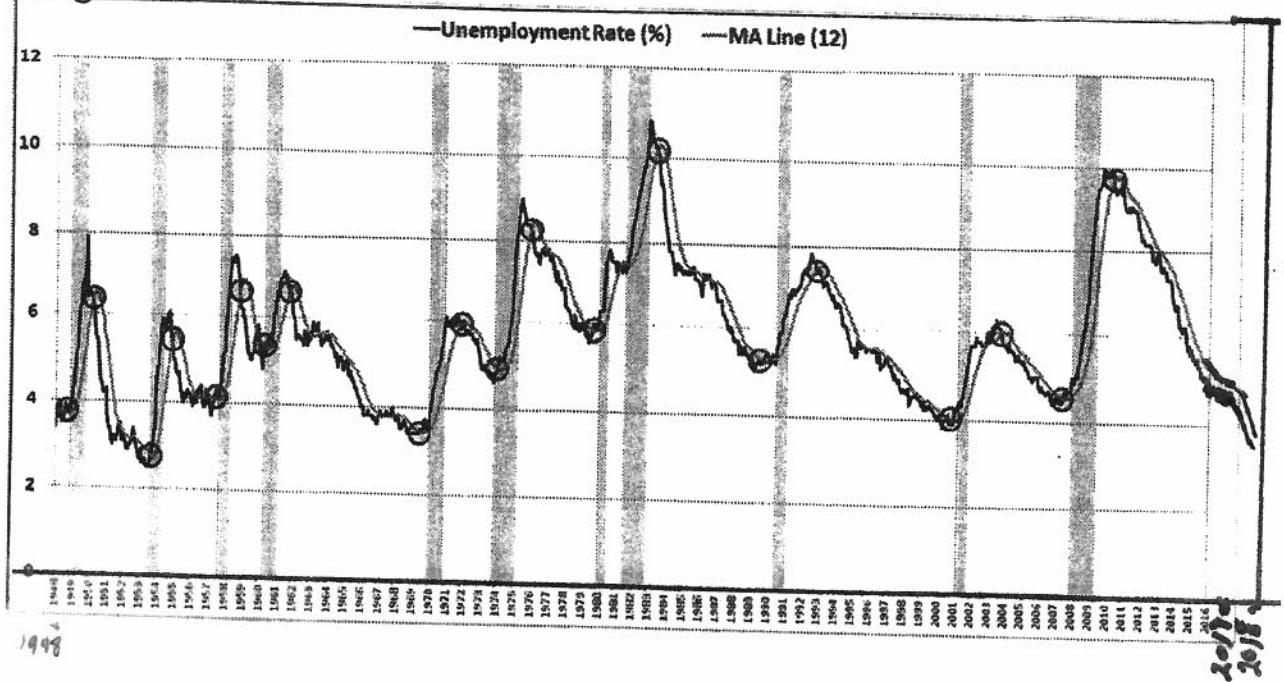


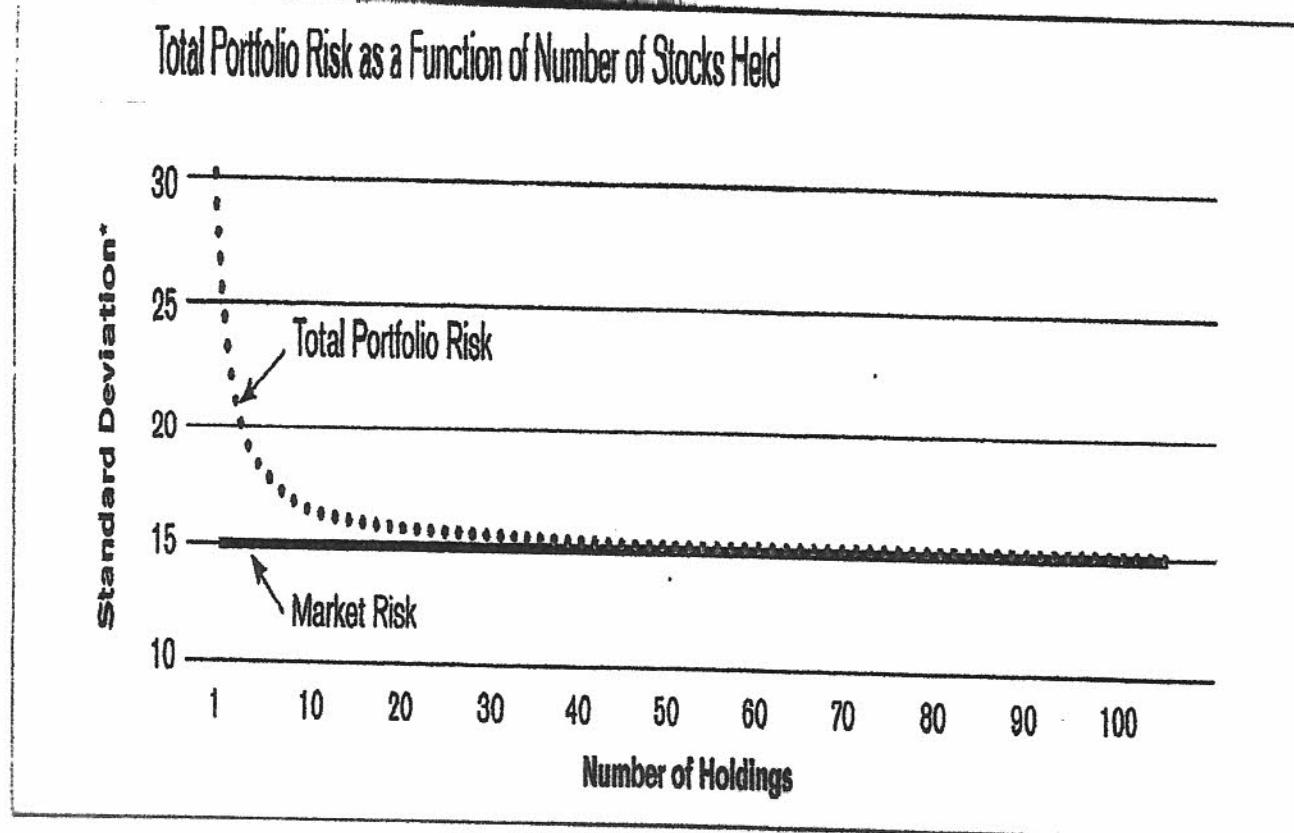
Figure - 9



*Figure - 10*

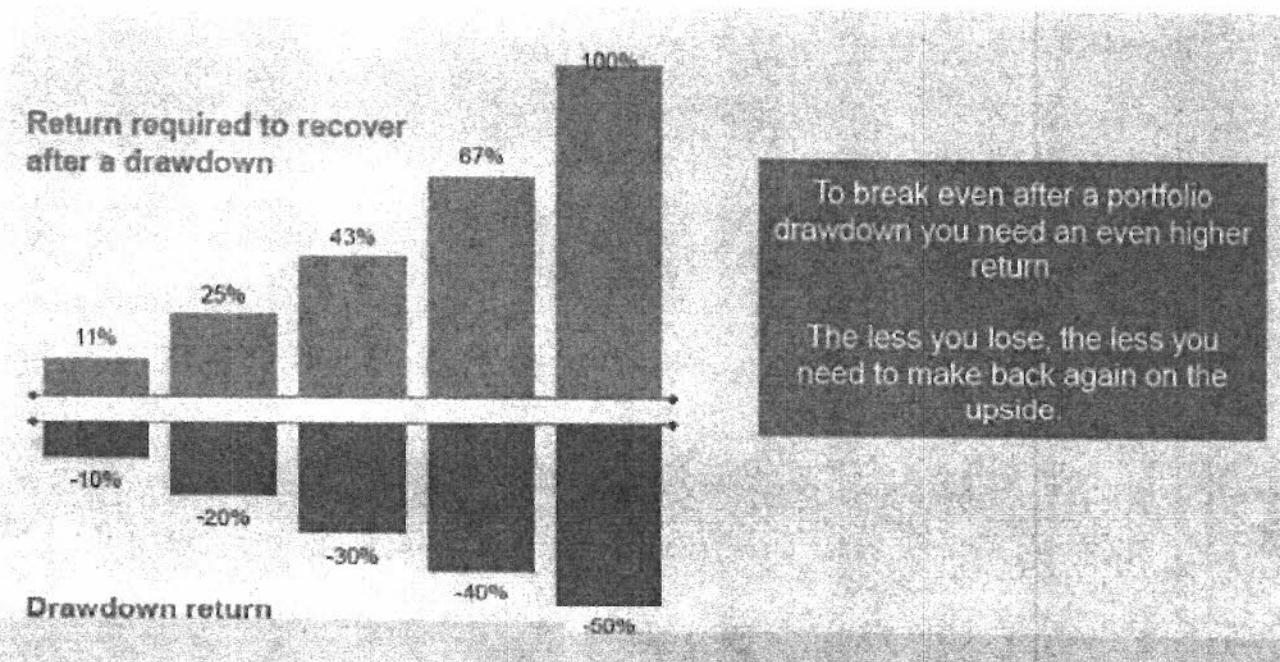


*Figure -11*  
**DIVERSIFICATION MAY BE ACHIEVED WITH AS FEW AS 20 HOLDINGS**



Source: Modern Portfolio Theory, RS Investments, [www.rsinfd.com](http://www.rsinfd.com)

*Figure -12*  
**The upside of downside protection  
LOSING LESS MEANS LESS UPSIDE RETURN NEEDED**



**Table-1**  
**Recessions and Connected Market Declines**

| <u>Recessions</u><br>NBER—Dates         | <u>Number of Months</u><br>(Recession Length) | <u>Market Price (S&amp;P)</u><br>Peak to Trough | <u>Change in</u><br><u>GDP</u> |
|---|---|---|--------------------------------|
| Aug 1929 to Mar 1933                    | 43  | -86.1%  | -26.7%                         |
| May 1937 to Jun 1938                    | 13  | -54.5%  | -18.2%                         |
| *Feb 1945 to Oct 1945                   | 8   | Gain  | -12.7%                         |
| Nov 1948 to Oct 1949                    | 11  | -20.6%  | - 1.7%                         |
| *July 1953 to May 1954                  | 10  | -14.8%  | - 2.6%                         |
| Aug 1957 to Apr 1958                    | 8   | -20.7%  | - 3.7%                         |
| Apr 1960 to Feb 1961                    | 10  | -13.6%  | - 1.6%                         |
| Dec 1969 to Nov 1970                    | 11  | -36.1%  | - 0.6%                         |
| Nov 1973 to Mar 1975                    | 16  | -48.2%  | - 3.2%                         |
| Jan 1980 to July 1980                   | 6   | -17.1%  | - 2.2%                         |
| July 1981 to Nov 1982                   | 16  | -27.1%  | - 2.7%                         |
| July 1990 to Mar 1991                   | 8   | -19.9%  | - 1.4%                         |
| Mar 2001 to Nov 2001                    | 8   | -49.1%  | - 0.3%                         |
| Dec 2007 to Jun 2009                    | 13  | -56.8%  | - 4.3%                         |
|   |   |   |                                |
| *Demobilization—<br>WWII and Korean War |   |   |                                |

*Table -2 (lead Times) :- Unemployment rate (UE)*

| RECESSION START | UE TURNED HIGHER | LEAD |
|-----------------|------------------|------|
| 1948.11         | 1948.06          | 5    |
| 1953.07         | 1953.07          | 0    |
| 1957.08         | 1957.04          | 4    |
| 1960.04         | 1960.03          | 1    |
| 1969.12         | 1969.06          | 6    |
| 1973.11         | 1973.11          | 0    |
| 1980.01         | 1979.07          | 6    |
| 1981.07         | 1981.04          | 3    |
| 1990.07         | 1990.04          | 3    |
| 2001.03         | 2001.01          | 2    |
| 2007.12         | 2007.03          | 8    |
| AVERAGE         |                  | 3.45 |