March 2018

Bull Markets, Bear Markets, and (Mis)Timing

# Second Longest Bull Run



Chart: Number of Months (x-axis, 0 to 160) vs % Increase (y-axis, 0% to 600%)

- Dec 1987 – Mar 2000
- Mar 2009 – Jan 2018
- Jun 1949 – Aug 1956
- Aug 1982 – Aug 1987
- Apr 1942 – May 1946
- Jun 1932 – Sep 1932
- Feb 1933 – Jul 1933
- Mar 1938 – Nov 1938
- Mar 1935 – Mar 1937
- May 1970 – Jan 1973
- Oct 1974 – Nov 1980
- Oct 2002 – Oct 2007
- Oct 1957 – Dec 1961
- Jun 1962 – Feb 1966
- Oct 1966 – Nov 1968
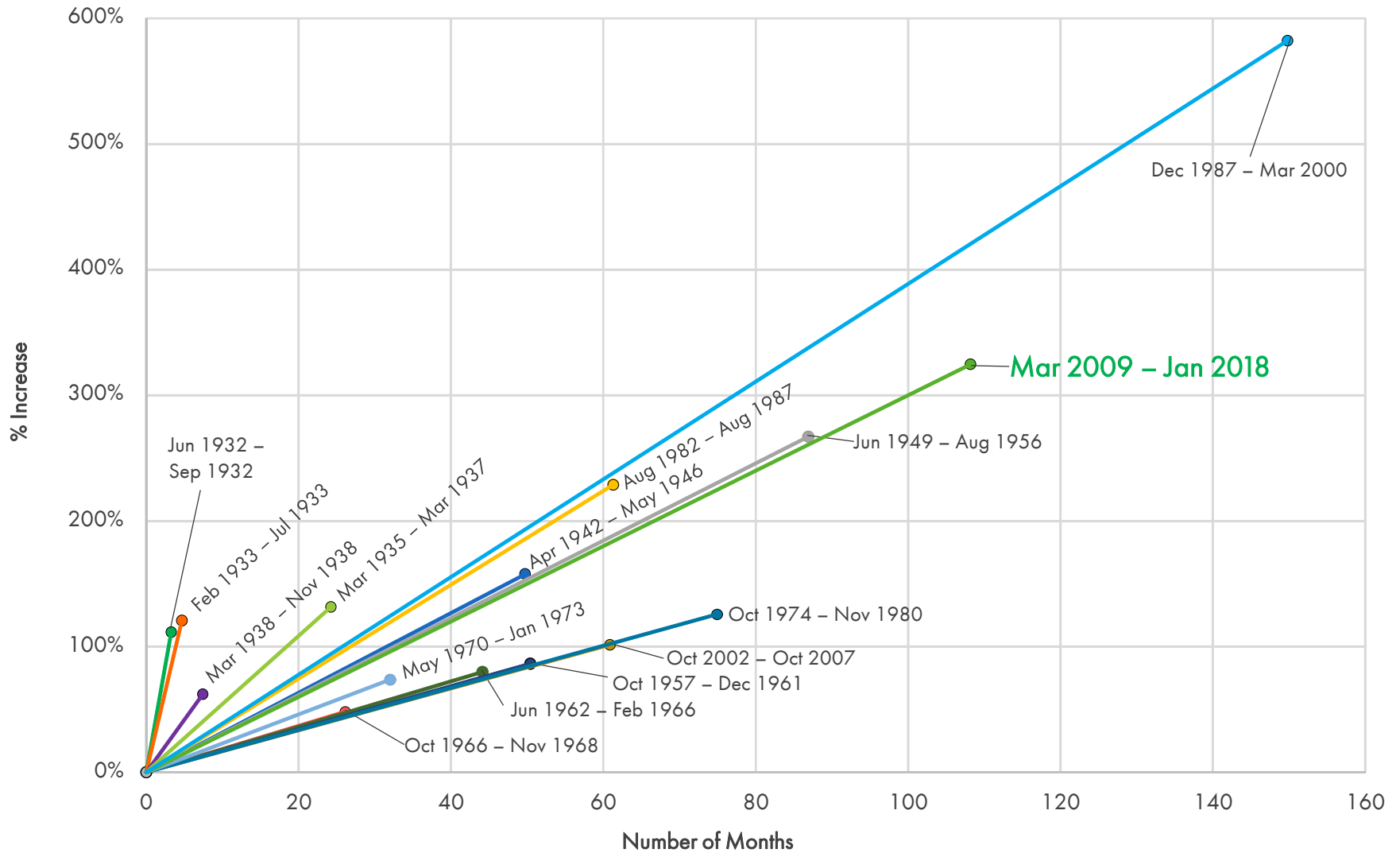
# Bear Market Distinctions

- **Event-Driven**
  - One-off shock that does not lead to a recession
    - War, oil spike, technical market dislocation
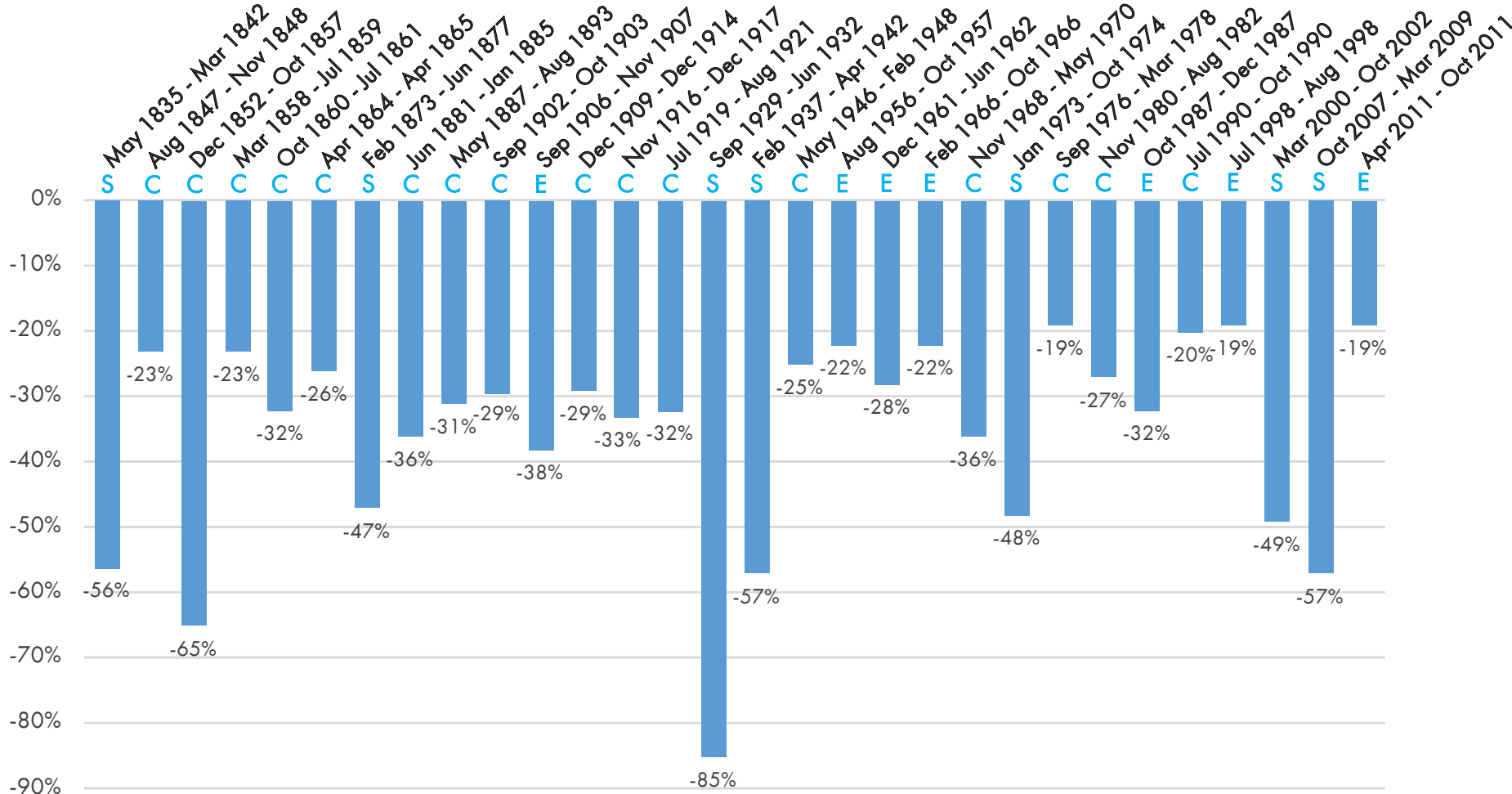
- **Cyclical**
  - Related to business cycle
    - Historically triggered by tightening monetary policy
    - Profits fall, economy contracts

- **Structural**
  - Extreme financial imbalances
    - Debt, valuation become unsustainable
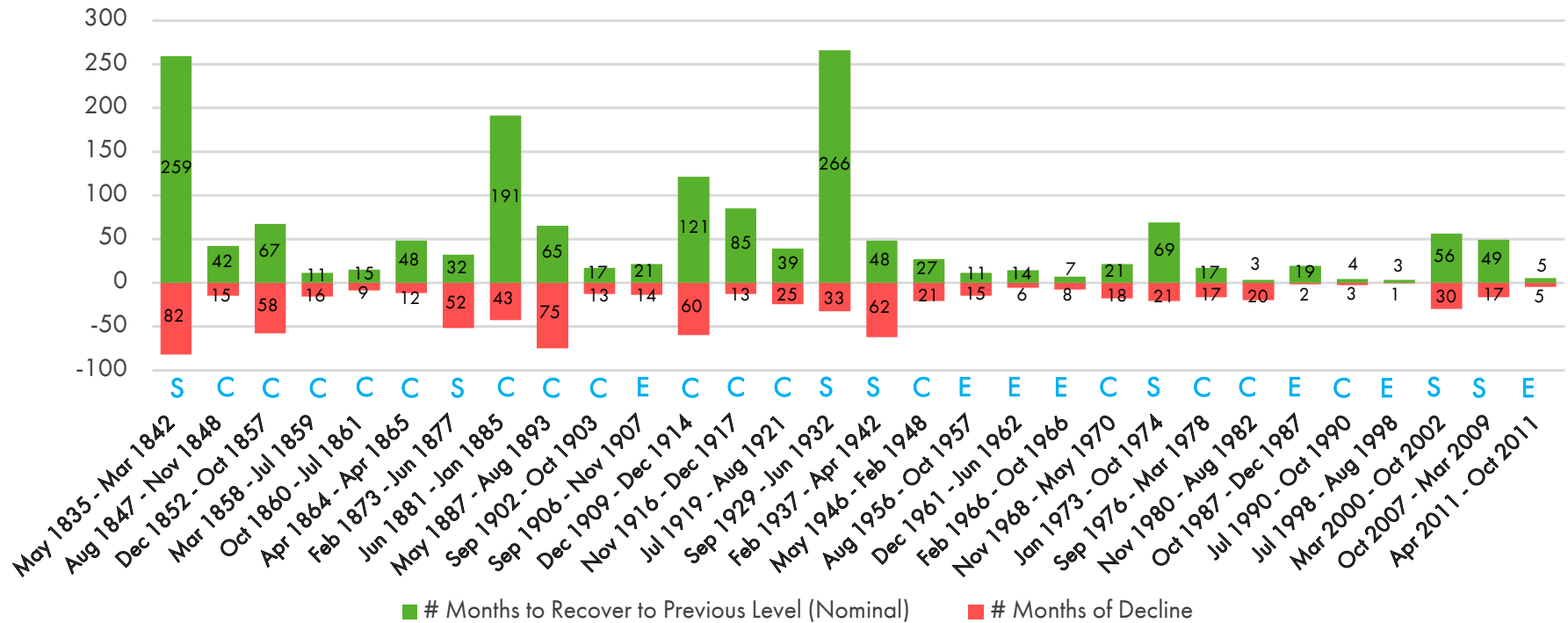
# Bear Markets in History



Historical Bear Markets Decline %

# Bear Markets in History

## Historical Bear Markets' Months of Decline versus Recovery



■ # Months to Recover to Previous Level (Nominal)　■ # Months of Decline

| S&P 500 – Bear Market | | | Time to recover back to previous level | |
|---|---|---|---|---|
| Type | Length (m) | Decline (%) | Nominal (m) | Real (m) |
| Average | 26 | -35 | 54 | 82 |
| Median | 17 | -31 | 29 | 37 |
| Average Structural | 42 | -57 | 111 | 134 |
| Average Cyclical | 26 | -30 | 48 | 75 |
| Average Event Driven | 7 | -26 | 11 | 48 |

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# Economy Fluctuates (But Not As Much As It Did)
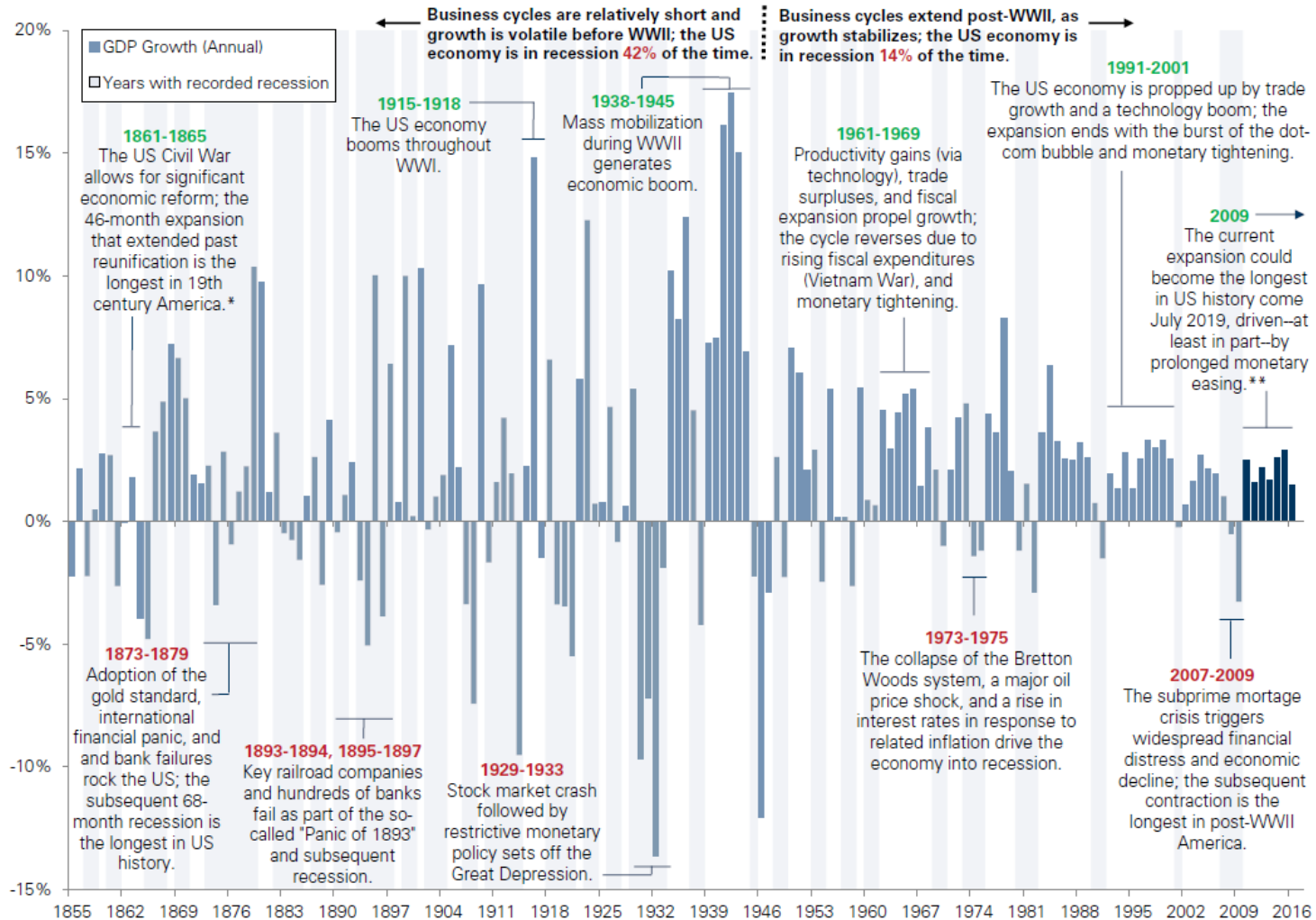


*The NBER tracks economic cycles beginning in 1854.

**The Barro-Ursua dataset used for historical US GDP runs through 2009; Fed data is used from 2009 through the present.

*Source: Goldman Sachs Global Investment Research, Harvard University (Barro-Ursua Macroeconomic Data 2010), Federal Reserve, NBER, various news sources.*

# Recession Conditions—Yield Curve

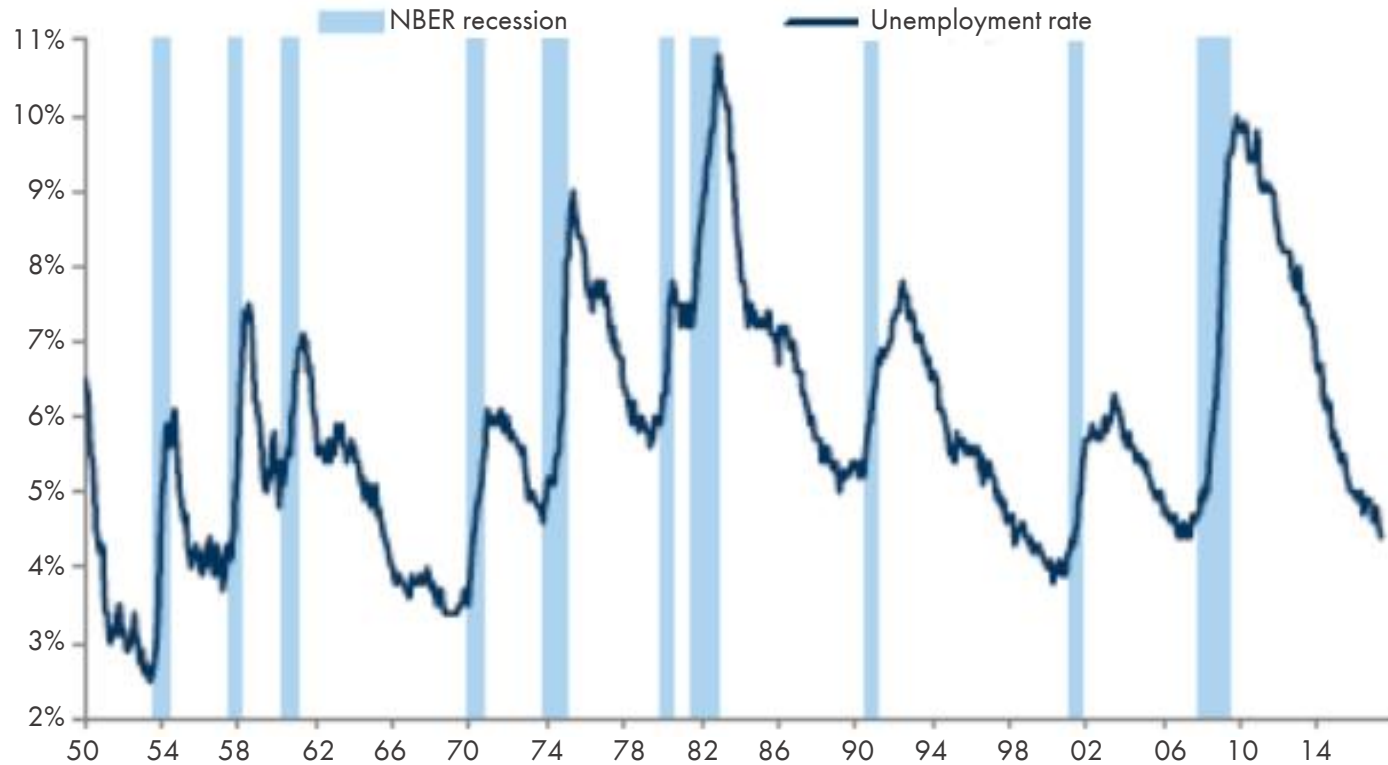US 10-year Treasury yield minus 90-day Treasury bill yield
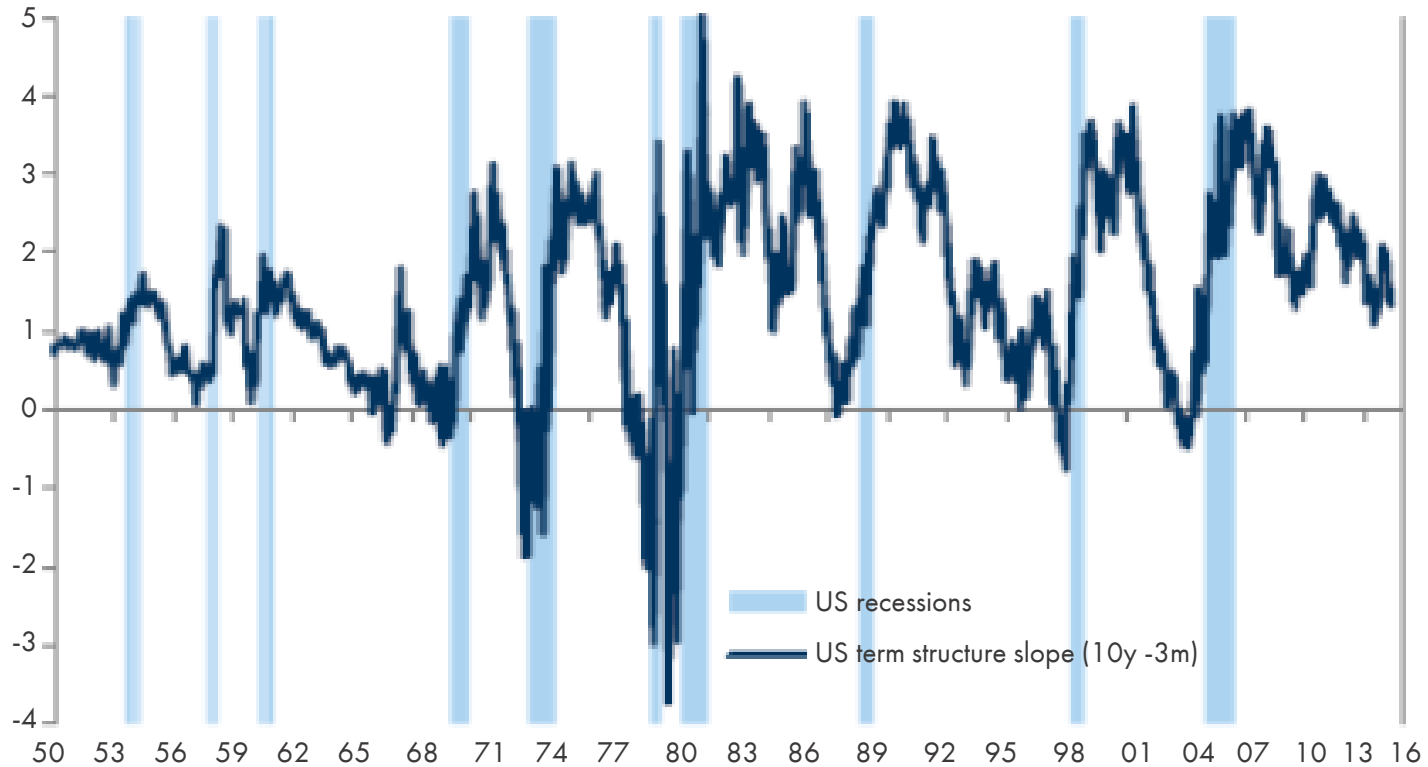


Source: Global Financial Database, Goldman Sachs Global Investment Research

# Recession Conditions—Unemployment

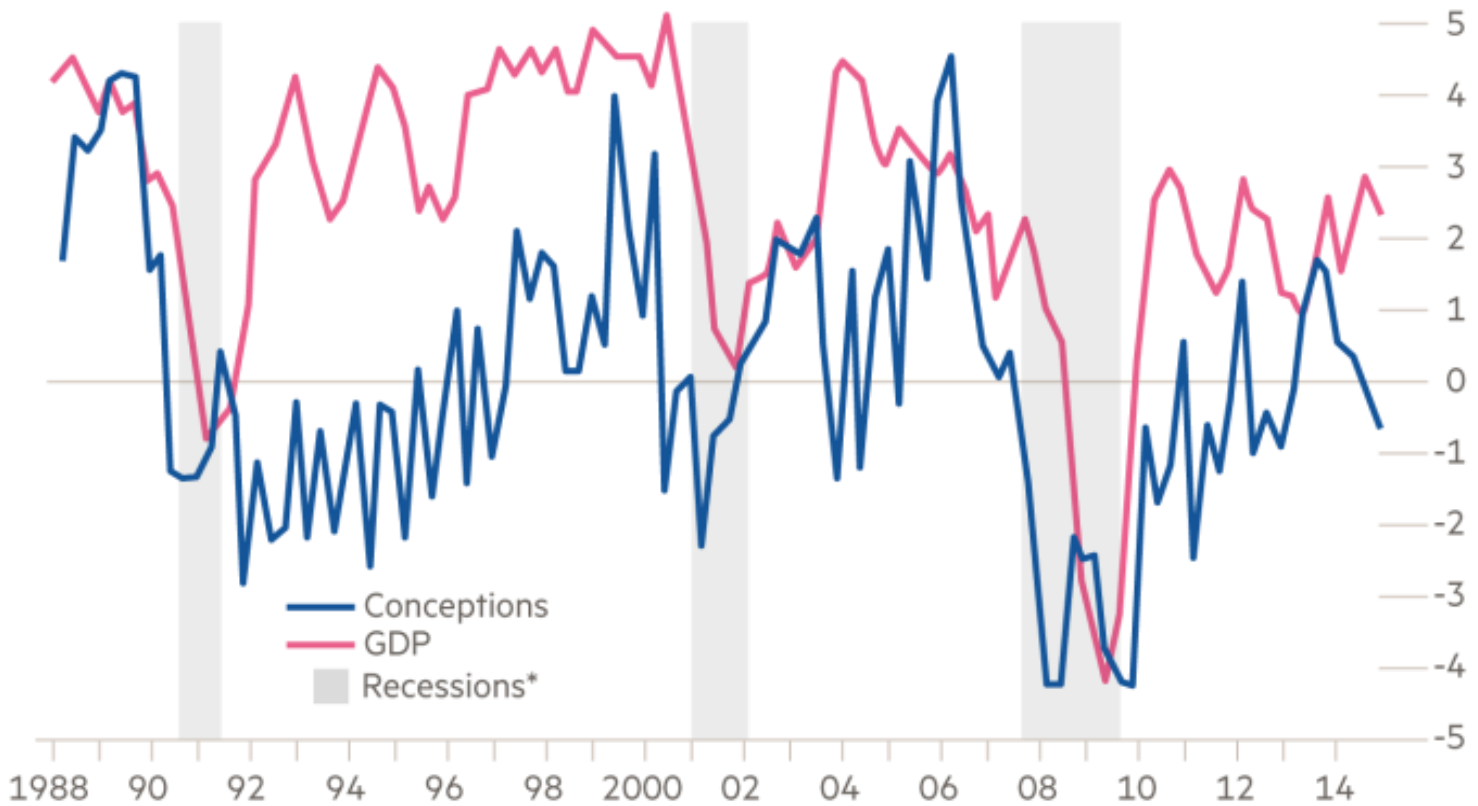US unemployment rate, NBER recessions



Source: Datastream, Goldman Sachs Global Investment Research

# Recession Conditions—Fertility



Change compared with the same quarter a year earlier (%)

Conceptions
GDP
Recessions*

1988 90 92 94 96 98 2000 02 04 06 08 10 12 14

Source: Buckles, Hungerman and Lugauer (2018)
© FT

* National Bureau of Economic Research classification

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# Bear Market Signals

| Indicator | Category | Current | Trigger | Triggered | Data since[d] | Hit rate %[b] | Type of trigger |
|---|---|---|---|---|---|---|---|
| Fed raising rates | Credit | 125bp | >75bp | ☑ | 1983 | 100% | Stays on |
| Tightening credit conditions | Credit | -10.0% | >0% | ☐ | 1990 | 100% | Resets |
| Trailing S&P 500 12m returns | Returns | 18% | >11% | ☑ | 1936 | 92% | Resets |
| Trailing S&P 500 24m returns | Returns | 47% | >30% | ☑ | 1936 | 92% | Resets |
| Low quality outperforms high quality (last 6m) | Returns[e] | -3ppt | >0ppt | ☐ | 1986 | 100% | Resets |
| Momentum outperforming (6m/12m) | Returns[e] | +4ppt/+5ppt | >0ppt | ☑ | 1986 | 100% | Resets |
| Growth outperforming (6m/12m) | Returns[e] | +5ppt/+6ppt | >0ppt | ☑ | 1986 | 100% | Resets |
| 5% pullback over prior 12m | Returns | 1 | >0 | ☑ | 1928 | 92% | Resets |
| Low PE underperforms (6m/12m) | Returns[e] | +3ppt/-0ppt | <0ppt | ☐ | 1986 | 100% | Resets |
| Conf Board consumer confidence | Sentiment | 125 | >100 | ☑ | 1969 | 100% | Resets |
| Conf Board net % expecting stocks higher | Sentiment | 32 | >20 | ☑ | 1988 | 100% | Resets |
| Lack of reward to EPS & sales beats | Sentiment | 0.74ppt | <1ppt | ☑ | 3Q00 | 100% | Resets |
| Sell side indicator | Sentiment | 56.9% | >63% | ☐ | 1988 | 100% | Resets |
| FMS cash levels | Sentiment | 4.4% | <3.5% | ☐ | 2001 | 100% | Resets |
| Inverted yield curve | Sentiment | 69bp | <0bp | ☐ | 1962 | 88% | Stays on |
| Chg in long-term growth expectations | Sentiment | +2.2ppt | +0.6ppt | ☑ | 1987 | 100% | Resets |
| Rule of 20 | Valuation | 23 | >20 | ☑ | 1961 | 100% | Resets |
| VIX rises over prior 3m | Sentiment | 37 | >20 | ☑ | 1986[a] | 100% | Resets |
| ERR rule | Growth | Yes[c] | See | ☑ | 1987 | 100% | Stays on |

Source: BofAML US Equity & Quant Strategy, BofAML Global Investment Strategy, FRB, S&P, Conference Board, BLS; [a]Based on VXO 1986-1989; [b]% of bear markets where signal was trigged either before or during a bear market; [c]ERR rule: Within six months' window 1) the 1m ERR is below 1.0 for two or more months, 2) the 1m ERR drops from 1.0+ to below 1.0 and, 3) the 3m ERR is under 1.10; [d]Data that first became available during a bear market was not analyzed for that respective bear market; [e]Relative to equalweight S&P 500 price index

### Table 6: Percent of bear market signposts triggered prior to the start of a bear market, since 1968

| Prior bear markets start date | Available signals | Signals triggered | % triggered |
|---|---|---|---|
| Nov-68 | 6 | 6 | 100% |
| Jan-73 | 6 | 6 | 100% |
| Nov-80 | 6 | 6 | 100% |
| Aug-87 | 14 | 13 | 93% |
| Jul-90 | 17 | 17 | 100% |
| Mar-00 | 18 | 18 | 100% |
| Oct-07 | 19 | 19 | 100% |
| **Current** | **19** | **11** | **58%** |

Source: BofAML US Equity & Quant Strategy

# Cost of Being Early

## Historical S&P 500 Total Returns Preceding Market Peaks

| | RETURN | | |
| --- | --- | --- | --- |
| Peak | 24 months | 12 months | 6 months |
| Mar-37 | 129% | 33% | 19% |
| May-46 | 72% | 33% | 15% |
| Aug-56 | 74% | 20% | 15% |
| Dec-61 | 32% | 32% | 11% |
| Feb-66 | 30% | 11% | 11% |
| Nov-68 | 44% | 18% | 12% |
| Jan-73 | 39% | 19% | 14% |
| Nov-80 | 65% | 39% | 29% |
| Aug-87 | 93% | 40% | 20% |
| Jul-90 | 45% | 15% | 10% |
| Mar-00 | 42% | 22% | 20% |
| Oct-07 | 36% | 18% | 9% |
| Today | 35% | 20% | 10% |
| Average | 58% | 25% | 16% |
| Median | 45% | 21% | 14% |
| Min | 30% | 11% | 9% |
| Max | 129% | 40% | 29% |

## Average Daily Performance of S&P 500 Before and After Market Peaks



Trading days relative to market peak
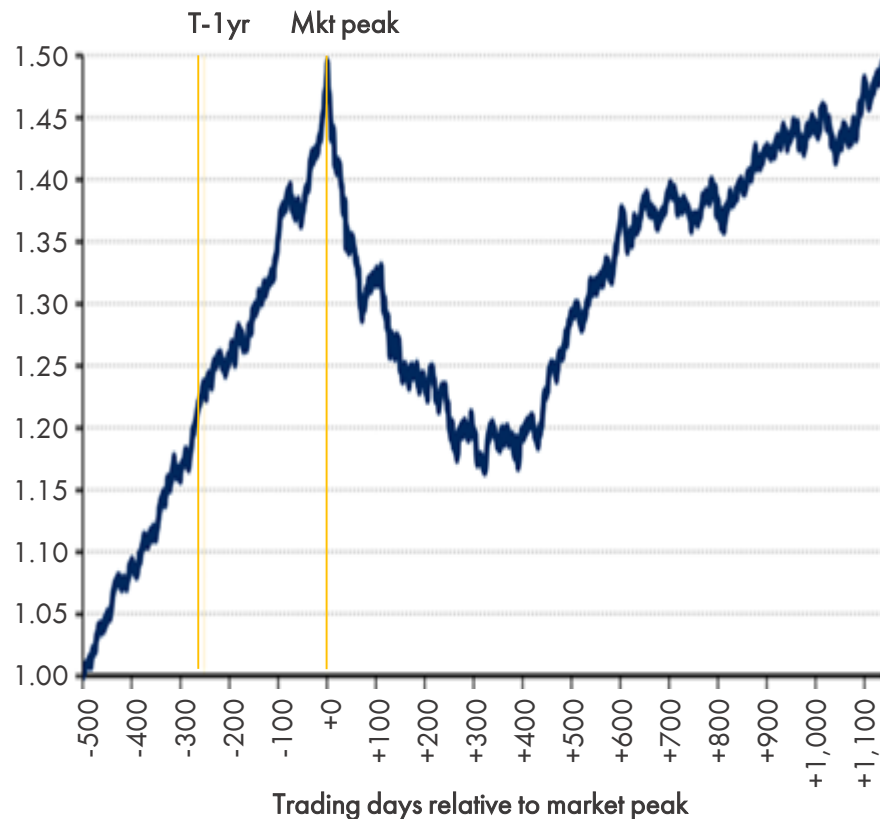
Source: BofAML US Equity & Quant Strategy, Bloomberg, S&P

# Cost of Being Uninvested

## S&P 500 Returns by Decade Excluding the Best and Worst Days

| Decade | Price return | Excluding best 10d per decade | Excluding worst 10d per decade | Excluding best/worst 10d per decade |
|---|---|---|---|---|
| 1930 | -42% | -79% | 39% | -50% |
| 1940 | 35% | -14% | 136% | 51% |
| 1950 | 257% | 167% | 425% | 293% |
| 1960 | 54% | 14% | 107% | 54% |
| 1970 | 17% | -20% | 59% | 8% |
| 1980 | 227% | 108% | 572% | 328% |
| 1990 | 316% | 186% | 526% | 330% |
| 2000 | -24% | -62% | 57% | -21% |
| 2010 | 121% | 52% | 241% | 133% |
| Since 1930 | 11,415% | 49% | 1,275,665% | 16,389% |

Note: Latest decade as of 7/24/2017
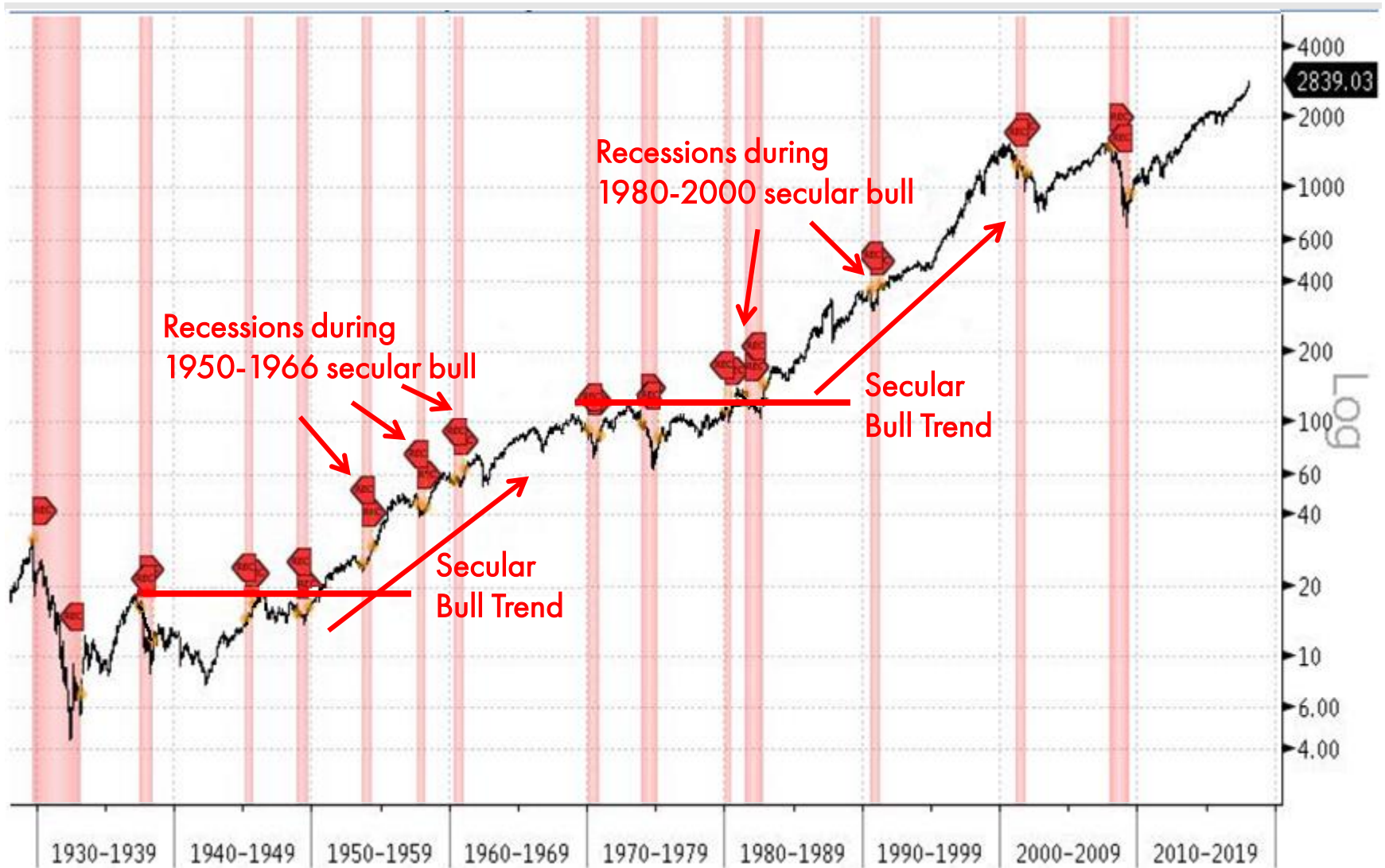Source: S&P, BofA Merrill Lynch US Equity & Quant Strategy

# Structural Bull Market



Generational lows:
1942, 1974 & 2009
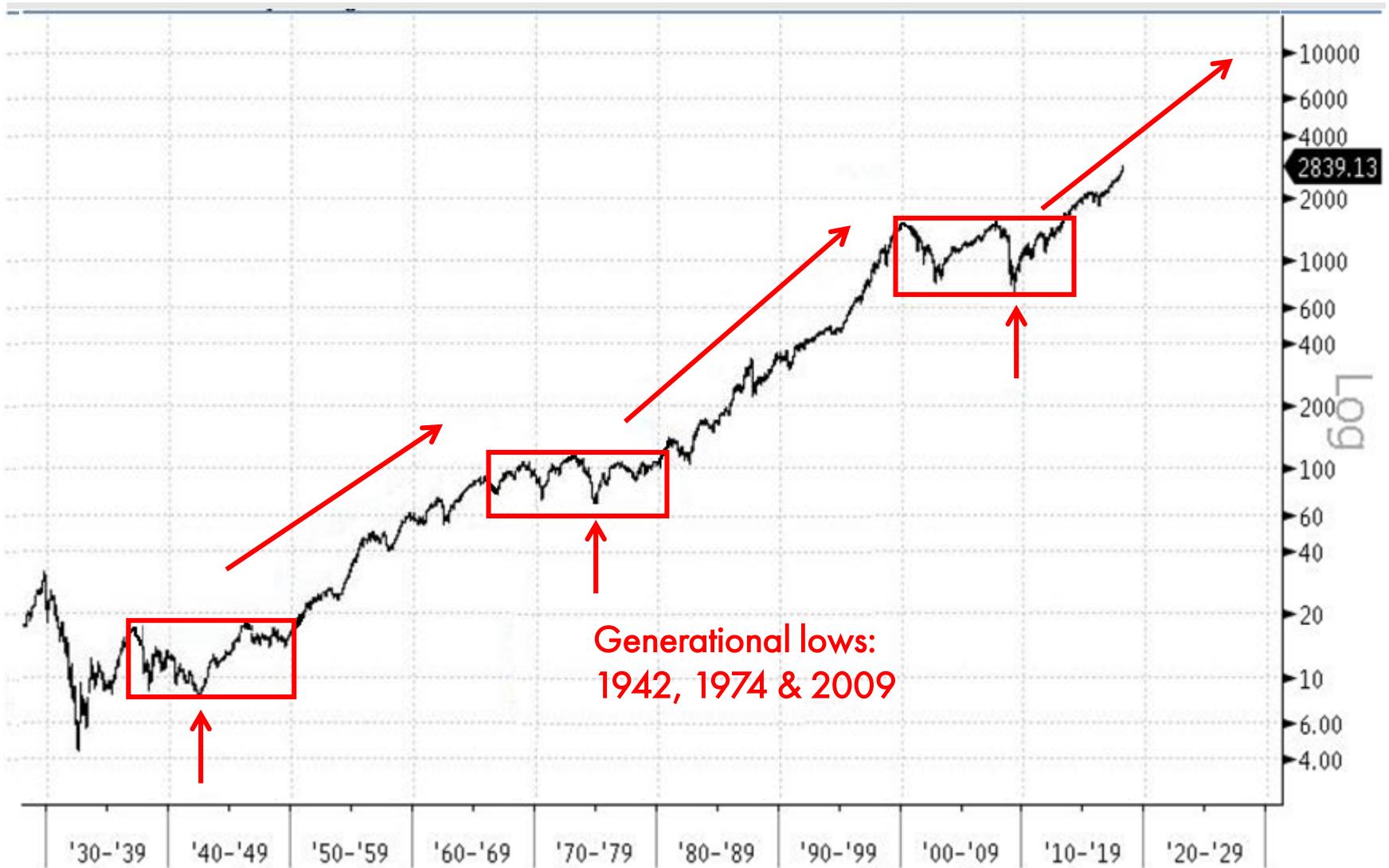
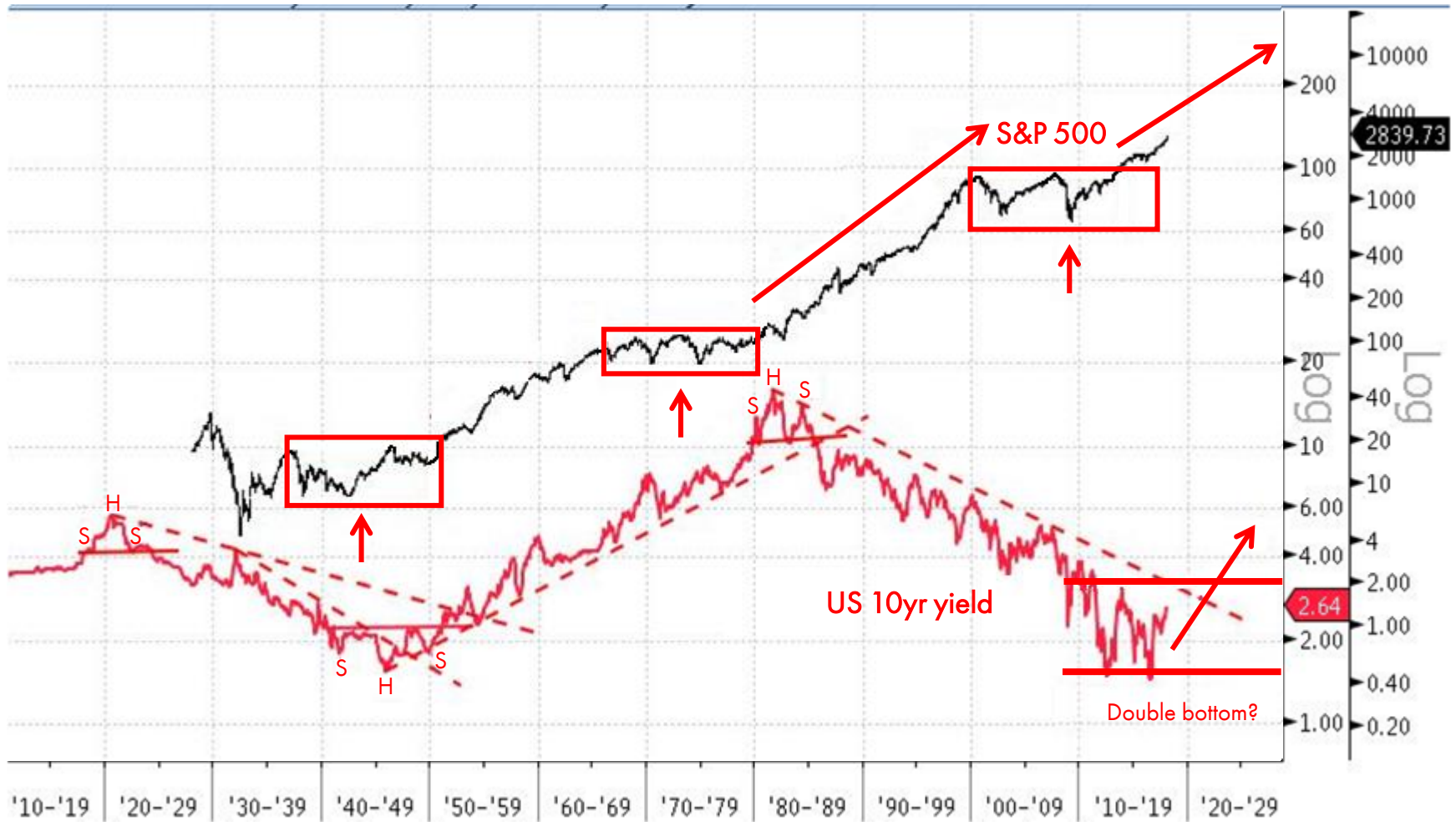Source: BofA Merrill Lynch Global Research, Bloomberg

# Structural Bull Market and Recessions



Source: BofA Merrill Lynch Global Research, Bloomberg

# Structural Bull Market and Interest Rates



Source: BofA Merrill Lynch Global Research, Bloomberg

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# Previous Structural Bull Markets and Today Overlay



This S&P 500 secular overlay chart lines up the secular bear market peaks from 1937, 1966 & 2000

SPX 5000 by 2023-2024

S&P 500: 1950s secular bull market

SPX 3000 by 2019

S&P 500 from April 2013 breakout

S&P 500: 1980s secular bull market

S&P 500: average monthly run-rate

7262.58
7000
6574.50
6000
5000
4578.30
4000
3000
2841.09
2000
1000

2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027

Source: BofA Merrill Lynch Global Research, Bloomberg

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