Economic & Market Outlook: What Kills the Bull Market

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Managing Director and Head of Product Strategy & Performance Management for BNY Mellon Investment Management

Jamie was appointed Head of the Product Strategy and Performance Management for Investment Management in June 2015. In his new role, Jamie is responsible for the oversight of a number of strategic functions, including Manager Research & Performance Analytics; Seed Capital, Trading and Product Management. Market Strategy also reports to Jamie. He is a member of the BNY Mellon Investment Management Operating Committee. Before being appointed to his current position, Jamie served for nearly four years as head of manager research for Investment Management; prior to that, he served for five years as a Director of Asset Allocation Strategies for the Investment Strategy & Solutions Group of BNY Mellon and was responsible for overseeing the development and management of integrated multi-asset investment solutions that leverage the full complement of BNY Mellon specialist investment management capabilities. He was also a member of the BNY Mellon Asset Management International Executive Committee.

Jamie joined BNY Mellon in 2007 from UBS Global Asset Management, where he was Senior Asset Allocation Strategist for the Global Investment Solutions Group. He was responsible for the oversight of various activities, including the management of clients’ asset allocation portfolios, product development and client acquisition and servicing. Previous investment experience also included roles at Gartmore Investment Management, where he was responsible for the management of segregated and pooled balanced portfolios and JP Morgan Investment Management, where he was a member of the macroeconomic research team.

Jamie received his bachelor’s degree from the University of Bath (U.K.) in economics and politics.
2017 YTD Capital Market Returns

YTD Performance as of July 31 across Asset Classes

2017 Global Investment Outlook: Key Themes

Risk assets continue to grind higher and climb the wall of worry despite…..

**Reasons for concern**
- Disconnect between sentiment and actual data
- Policy uncertainty
- Elevated stock valuations
- Geopolitical risks intensifying
- Length of stock market rally and business cycle expansion extended compared to history

**Reasons for optimism**
- Synchronized upswing in global economic activity
- Subdued inflation persistence
- Easy monetary policy
- Improved earnings growth

Source: BNY Mellon.
Current U.S. Business Cycle One of the Longest

Duration of U.S. Economic Expansions

Current S&P 500 Bull Market 2nd Longest in History

Cumulative Performance\(^1\) through Secular S&P 500 Bull Markets

1) Excludes bull run between January 3, 1928 to September 16, 1929. Current bull run through June 30, 2017. Each bull market is normalized to 100 at the start date to enable comparisons. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
# How do Bull Markets End?

## Potential Bear Market Triggers

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*Not all historical bear markets are included. Examples are used for illustrative purposes. Source: BNY Mellon.*
How do Bull Markets End?

### Recession Indicators
- **Composite Indicator**
- **Economic Slack**
- **Housing Starts**
- **Consumer Sentiment**
- **Leading Indicators**

### Monetary Policy Indicators
- **Composite Indicator**
- **Fed Rate Hikes**
- **Yield Curve**
- **Inflation**
- **Unemployment Rate**
- **Job Growth**

### Exogenous Shocks Indicators
- **Composite Indicator**
- **Oil Prices**
- **US HY & IG Energy Spreads**
- **Geopolitical Risk-North Korea**
- **Geopolitical Risk-Russia**
- **Geopolitical Risk-Noise in Washington**
- **Geopolitical Risk-Middle East**

### Credit Crunch Indicators
- **Composite Indicator**
- **IG Corp. Spread**
- **HY Corp. Spread**
- **TED Spread**
- **Financial Conditions**
- **Corporate Profits**

### Asset Price Bubbles Indicators
- **Composite Indicator**
- **Valuations (12-month P/E, CAPE, S&P/Gold)**
- **Earnings vs Bond Yield**
- **Large Cap vs. Small Cap**

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*Green, yellow, or red used to determine whether an indicator is showing a higher or lower probability of an upcoming bear market. For each variable, the current level and recent trend is compared to history and also the performance at the end of previous bull markets. Using several methodologies to compare the current vs. historical performance, we then decided to score using either green, yellow, or red.*
## Market and Investment Risks

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<th>Investment Implications</th>
<th>Possible Actions</th>
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<td><strong>Interest Rate Risk</strong></td>
<td>• Negative return outlook for fixed income paying asset classes</td>
<td>• Consider re-allocating capital to unconstrained fixed income, laddered bond, floating rate and more globally diversified fixed income strategies</td>
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<td><strong>Inflation Risks</strong></td>
<td>• Inflation is a silent killer that erodes the future purchasing power of the cash flows derived from most financial assets and therefore impairs the value of the asset underpinning these cash flows</td>
<td>• Add exposure to real / hard assets such as commodities and commodity linked equities, TIPS, real estate and Infrastructure</td>
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<tr>
<td><strong>Unstable Correlations</strong></td>
<td>• Erratic movements in asset class and market correlations impact the level of actual vs assumed risk diversification of investors’ policy portfolios</td>
<td>• Take a more dynamic approach to asset allocation to anticipate and mitigate the impact of unstable correlations</td>
</tr>
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<td><strong>Uncompensated Market Risks</strong></td>
<td>• Equity market valuation and prevailing bond yields relative to long-term averages suggest the risk associated with owning equities and bond indices could be negatively compensated</td>
<td>• Consider allocating to unconstrained active equity and fixed income strategies in order to partially disconnect from the “benchmark” risk associated with both asset classes</td>
</tr>
<tr>
<td><strong>Insufficient Active Risk</strong></td>
<td>• In a low return world the case for active risk to plug the gap created by lower expected risk premia for equity and debt rises</td>
<td>• Absolute return and market neutral based strategies look more attractive in a potential low “benchmark” return world</td>
</tr>
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</table>

Refer to disclosures at end of presentation
Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. US Capacity Utilization as % of Total Capacity. Source: BNY Mellon using data from Bloomberg.
Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. US housing starts track the number of new housing units that have been started during the reference period. For consumer sentiment, University of Michigan Consumer Sentiment Index is used. Source: BNY Mellon using data from Bloomberg.
Leading Economic Indicators

**U.S. Index of Leading Economic Indicators (% y/y)**

Conference Board US Leading Index includes economic variables (leading indicators) that tend to move before changes in the overall economy. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
Fed Funds Rate and Number of Rate Hikes

Fed Funds Effective Rate

Fed Funds Effective Rate (%)

Bull Market


# of Fed Rate Hikes: Trailing 12-months

bull market

# of Fed Rate Hikes over trailing 12-months


Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
FOMC Dot Plot vs. Market Expectations of Future Interest Rates

U.S. Treasury Yield Curve

U.S. Yield Curve calculated as US 10-year Treasury yield – US 2-year Treasury yield. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak.

U.S. Inflation

Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
Oil Price

West Texas Intermediate Oil Price (% y/y)

Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg and Global Financial Data.
Growing Policy Uncertainty

- Unprecedented levels of policy uncertainty pose a risk to economic growth outlook since policy has the potential to dramatically shape the economic and financial market landscape.
- In addition, a decoupling of high policy uncertainty and subdued volatility add to investors’ “complacency” worries in financial markets.

Data as of June 30, 2017. VIX calculated as trailing 21-day average. The Global Economic Uncertainty Index is a GDP-weighted average of national EPU indices for 18 countries: Australia, Brazil, Canada, Chile, China, France, Germany, India, Ireland, Italy, Japan, the Netherlands, Russia, South Korea, Spain, Sweden, the United Kingdom, and the United States. Each national EPU index reflects the relative frequency of own-country newspaper articles that contain a trio of terms pertaining to the economy (E), policy (P) and uncertainty (U). Source: BNY Mellon using data from Bloomberg.
U.S. Interest Rate Spreads

**Moody’s U.S. Long-term Corporate Baa Spreads**

- **Bull Market**
- **Moody’s Long-term Corporate Baa Spread (bp)**

**TED Spread**

- **Bull Market**
- **TED Spread (bp)**

Corporate Baa Spread: Corporate Yield of a Moody’s BAA Graded Bond – US 30-yr. Treasury Yield. Moody’s Long-Term Corporate Bond Yield Averages are derived from pricing data on a regularly replenished population of corporate bonds in the U.S. market, each with current outstanding over $100 million. The bonds have maturities as close as possible to 30 years; they are dropped from the list if their remaining life falls below 20 years, if they are susceptible to redemption, or if their ratings change. All yields are yield-to-maturity calculated on a semi-annual basis. TED Spread is calculated by taking the BBA Libor USD 3 Month Index minus the US Generic Government 3 Month Yield. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak.

*Source: BNY Mellon using data from Bloomberg and Global Financial Data*
See appendix for data definitions. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
The Chicago Fed’s National Financial Conditions Index (NFCI) provides a comprehensive weekly update on U.S. financial conditions in money markets, debt and equity markets and the traditional and “shadow” banking systems. Index includes 105 indicators of risk, credit, and leverage. Higher values of the index indicate tighter conditions. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
Cyclically Adjusted Equity Valuations

**Shiller CAPE (Cyclically Adjusted Price to Earnings)**

Shiller Cyclically Adjusted PE Ratio (CAPE Ratio): Price earnings ratio is based on average inflation-adjusted earnings from the previous 10 years. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Robert Shiller and Bloomberg.

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Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
U.S. Equity Valuations

S&P 500 in Terms of Gold

S&P 500 index level divided by the price of gold in USD per troy oz. Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
U.S. Small vs. Large Cap Stock Performance

Trailing 12-month Return Difference (%): Russell 2000 - S&P 500

Bull markets are defined as a rise of 20% or more from a trough value and are measured from the trough of the market to the next peak. Source: BNY Mellon using data from Bloomberg.
Appendix: Additional Data Definitions

Oil: WTI Oil spot (USD)

US High Beta: The S&P 500 High Beta Total Return Index measures the performance of 100 constituents in the S&P 500 that are most sensitive to changes in market returns.

Small Cap: The Russell 2000 Total Return Index is a small-cap stock market index of the bottom 2,000 stocks in the Russell 3000 Index. The Russell 3000 Index is considered a benchmark of the US stock market.

US Value: The S&P Composite 1500 Total Return Value Index is a subset of the S&P 1500 index tracking the performance of value stocks.

HY US: The Bloomberg Barclays US Corporate High Yield Total Return index is a broad-based measure of the US high yield market.

IG US: The Barclays Bloomberg US Aggregate - Corporate Index is designed to measure the performance of the investment grade corporate sector in the US.

10Y Treasuries: Average yield of a range of Treasury securities all adjusted to the equivalent of a ten-year maturity.

2Y Treasuries: Average yield of a range of Treasury securities all adjusted to the equivalent of a two-year maturity.

US Large Cap: The S&P 500 Total Return index tracks the performance of the largest 500 US companies. The S&P 500 Index is widely regarded as the best single gauge of large-cap U.S. equities and captures approximately 80% coverage of available market capitalization.

US Low Vol: The S&P 500 Low Volatility Total Return Index is designed to measure the performance of the 100 least volatile stocks of the S&P 500.

MSCI EM: The MSCI Emerging Markets Total Return (USD) index tracks the performance of Emerging Market equities.

Commodities: The S&P GSCI Total Return Index is a benchmark used to measure commodity performance over time.

EM Debt USD: The Bloomberg Barclays EM Debt USD Aggregate Total Return Index tracks the performance of USD denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.

US Growth: The S&P Composite 1500 Total Return Growth Index is a subset of the S&P 1500 index tracking the performance of growth stocks.

Gold: Gold (USD/troy oz.) spot.

EM Debt LC: The Bloomberg Barclays EM Local Currency Government Total Return Index measures the general performance of locally issued fixed income securities by Emerging Market governments.

USD: The US Majors Dollar Index tracks the performance of the USD versus a basket of foreign currencies including the euro, Japanese yen, Pound sterling, Canadian dollar, Swedish krona, and Swiss Franc.

Global Agg.: The Bloomberg Barclays Global Aggregate Total Return (USD hedged) Index is a broad-based measure of the global investment-grade fixed income market.

U.S. TIPs: The Bloomberg Barclays US Treasury Inflation-Protected Securities Total Return Index tracks the performance of publicly issued, US Treasury inflation-protected securities that have at least one year remaining to maturity and have $250 million or more of outstanding face value.

Hedge Funds: The Hedge Fund Research HFRX Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage, and relative value arbitrage.

U.S. Agg.: The Bloomberg Barclays US Aggregate Total Return index measures the performance of the investment grade sector in the US.

MSCI EAFE: The MSCI EAFE Total Return (USD) index tracks the performance of Developed Market equities across Europe, Australasia and the Far East excluding the US and Canada.

VIX: Indicator of the implied volatility of S&P 500 index as calculated by the Chicago Board Options Exchange (CBOE).