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U.S. Equity Market Chart Book

July 2018

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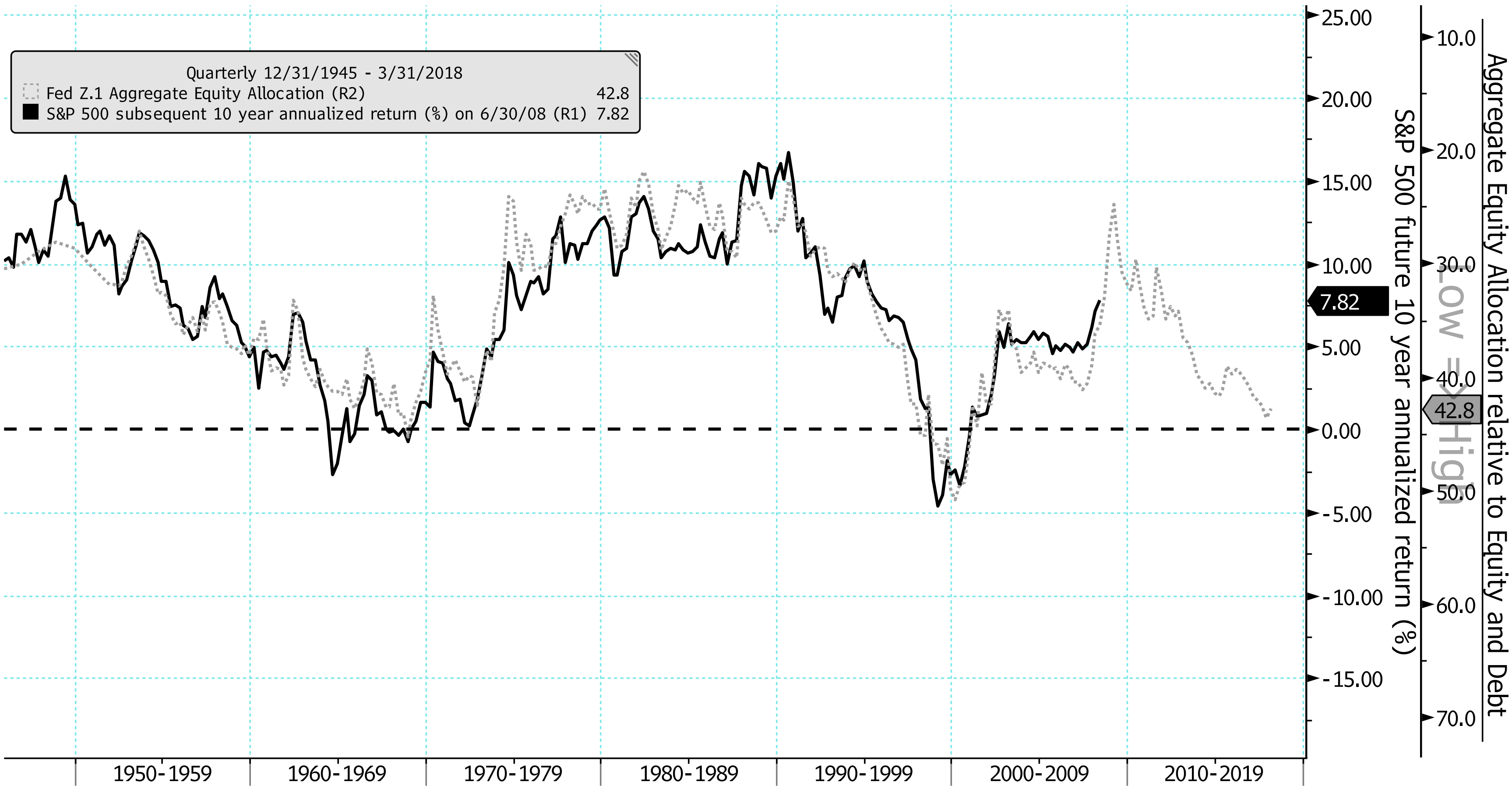
S&P 500 Valuation Indicator

Aggregate Equity Allocation Proxy (From Fed Z.1 Report) and S&P 500 Subsequent 10 year annualized Returns



Source: Bloomberg, © Merk Investments LLC www.merkinvestments.com/research

Analysis: If history is any guide, this chart suggests annualized S&P 500 returns (w/o dividends) might be close to 0% over the next ten years. The grey dotted line is the market value of US equity divided by the total market value of US equity and debt, which is used as a proxy for aggregate equity allocation. The data comes from the quarterly Federal Reserve Z.1 report. At 42.8% the equity allocation is relatively high right now.

Chart Framework: I'd likely get positive on the longer term outlook for the S&P at an allocation below 30%, which would likely only be after a substantial bear market in the index.

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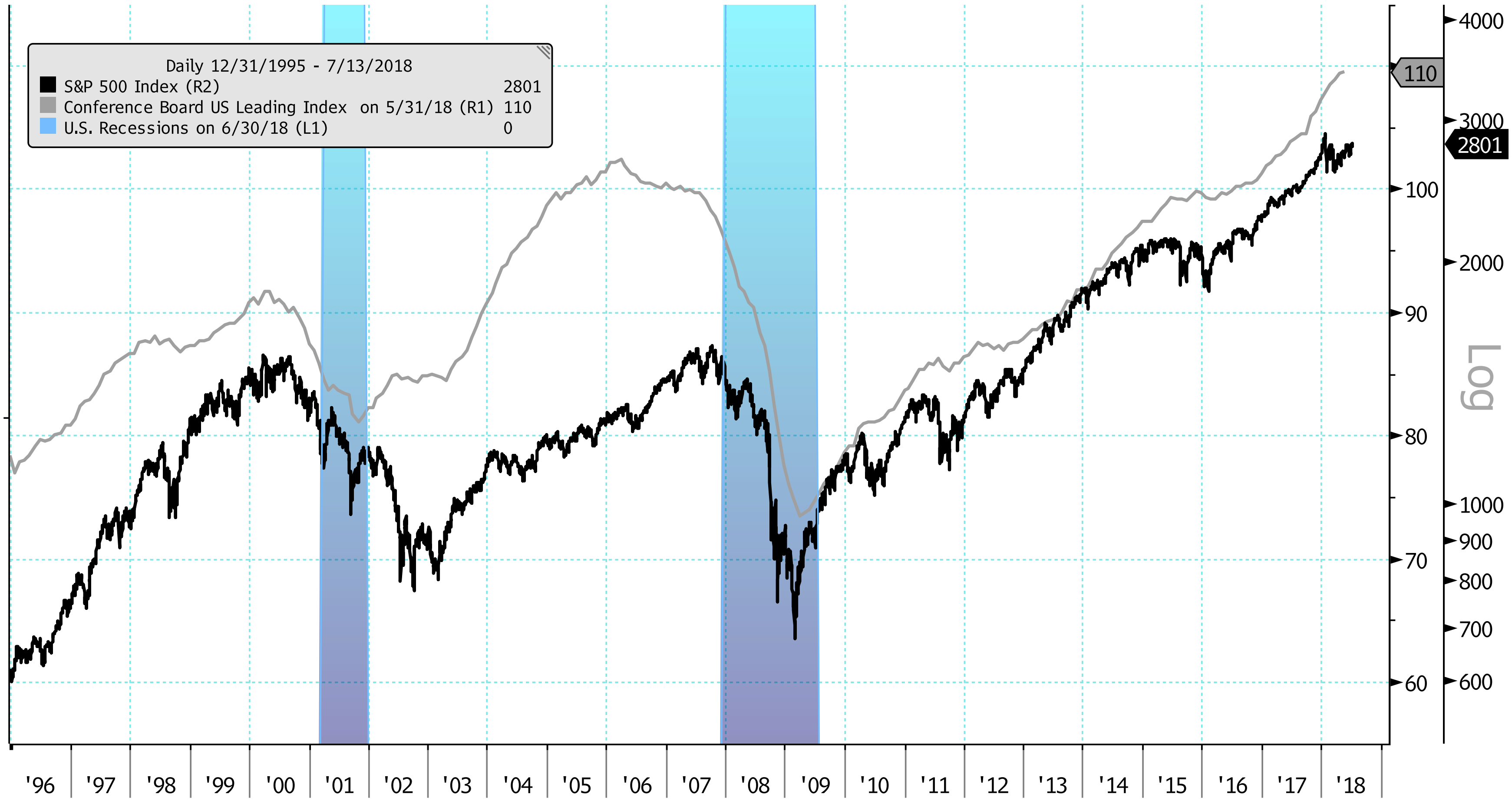
Business Cycle Backdrop

Leading Economic Indicators (LEI) Index and the S&P 500



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Analysis: LEI Index continues to move to new highs, historically a positive sign for stocks

Chart Framework: I'd get incrementally negative on the outlook for the S&P if the LEI Index began trending down YoY while the S&P was at or near bull market highs

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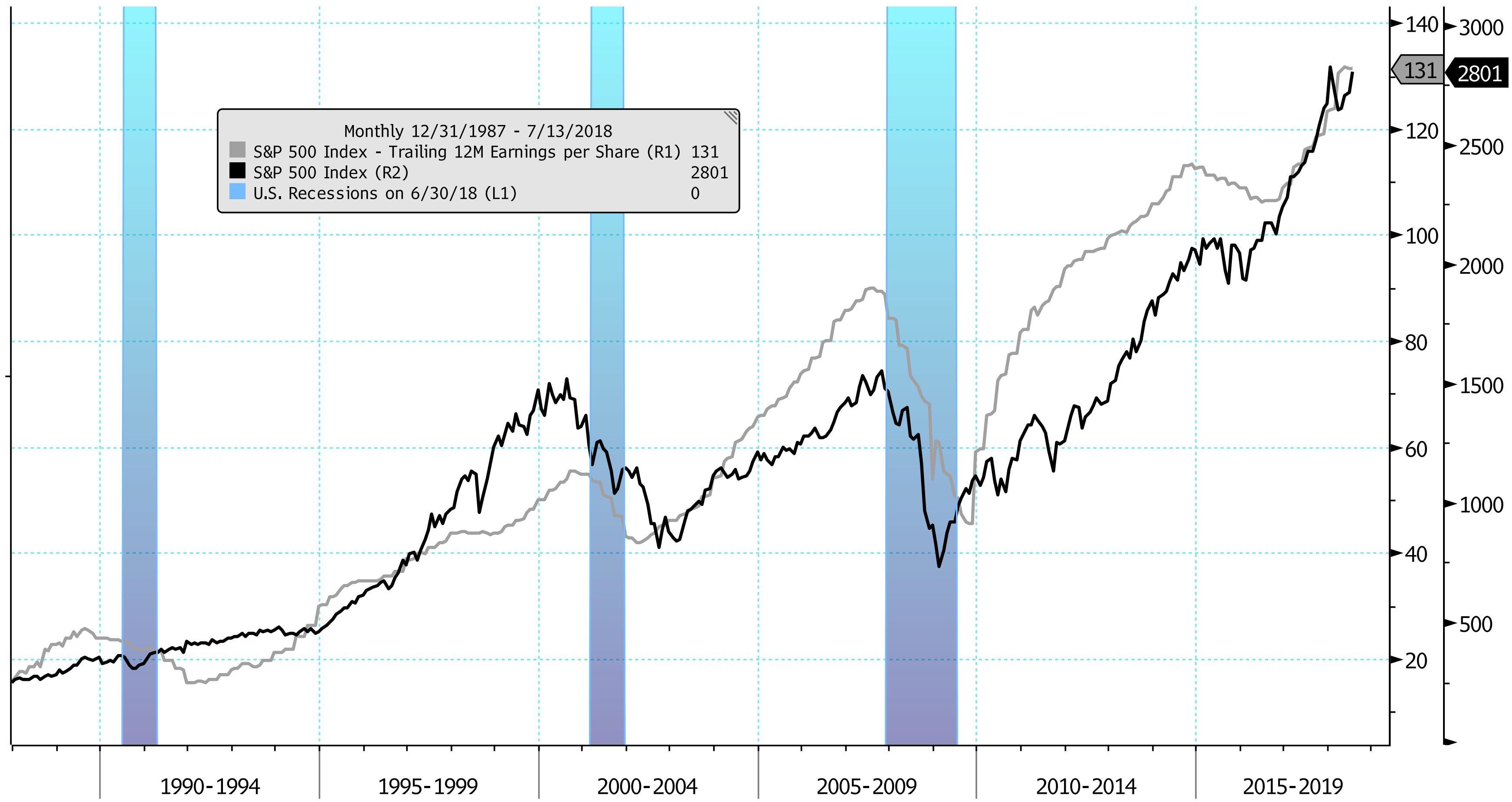
Earnings Backdrop

S&P 500 Trailing 12-month Earnings per Share and the S&P 500



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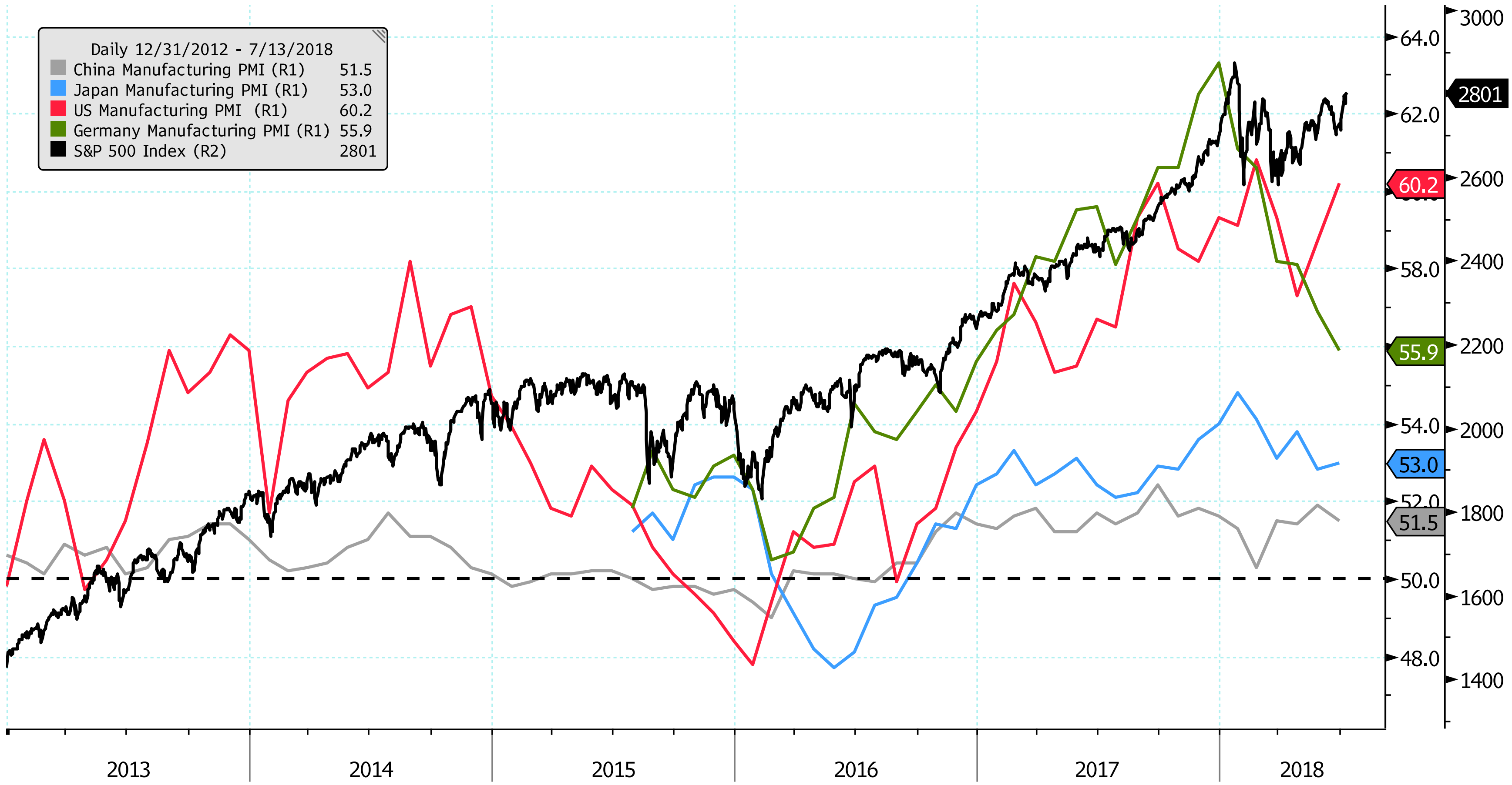
Analysis: For Q2 2018 (with 5% of the companies in the S&P 500 reporting actual results for the quarter), 89% of S&P 500 companies have reported a positive EPS surprise and 85% have reported a positive sales surprise. For Q2 2018, the blended earnings growth rate for the S&P 500 is 19.9%. If 19.9% is the actual growth rate for the quarter, it will mark the second highest earnings growth since Q3 2010 (34.1%). For Q2 2018, 62 S&P 500 companies have issued negative EPS guidance and 47 S&P 500 companies have issued positive EPS guidance. Chart Framework: I'd get incrementally negative if the trailing 12-month earnings move sideways/down over consecutive quarters. It's worth noting that this framework may be more of a coincident or confirmatory rather than a leading indicator with respect to a major market top.

Global Growth Backdrop

Large Economy Manufacturing PMIs (Purchasing Managers Index) and the S&P 500



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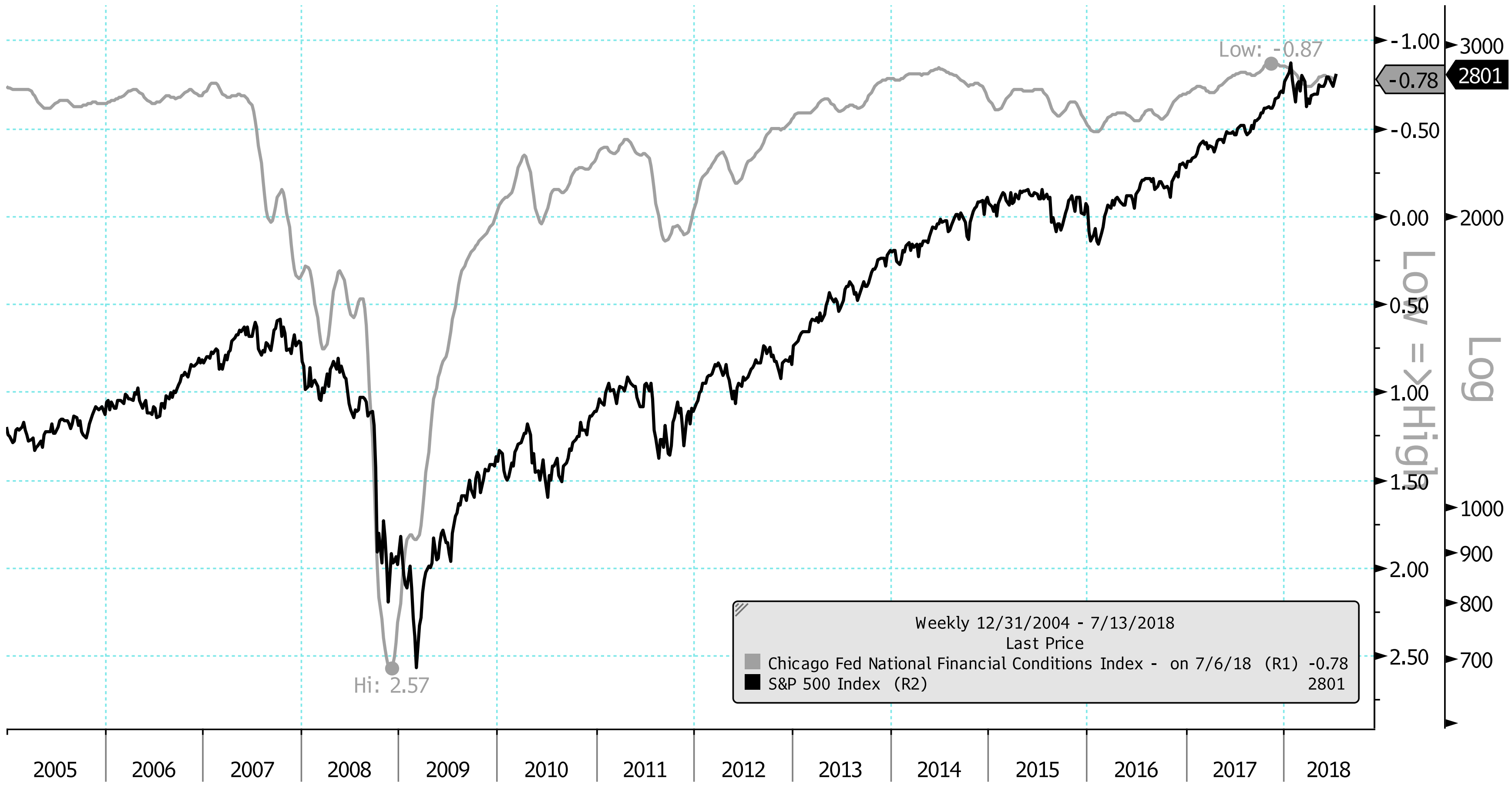
Analysis: German and Chinese manufacturing PMIs ticked lower. US and Japanese PMIs ticked up.
Chart Framework: I'd get incrementally negative on the S&P outlook if any of these PMIs fell below 50

U.S. Financial Conditions

Chicago Fed National Financial Conditions Index and the S&P 500



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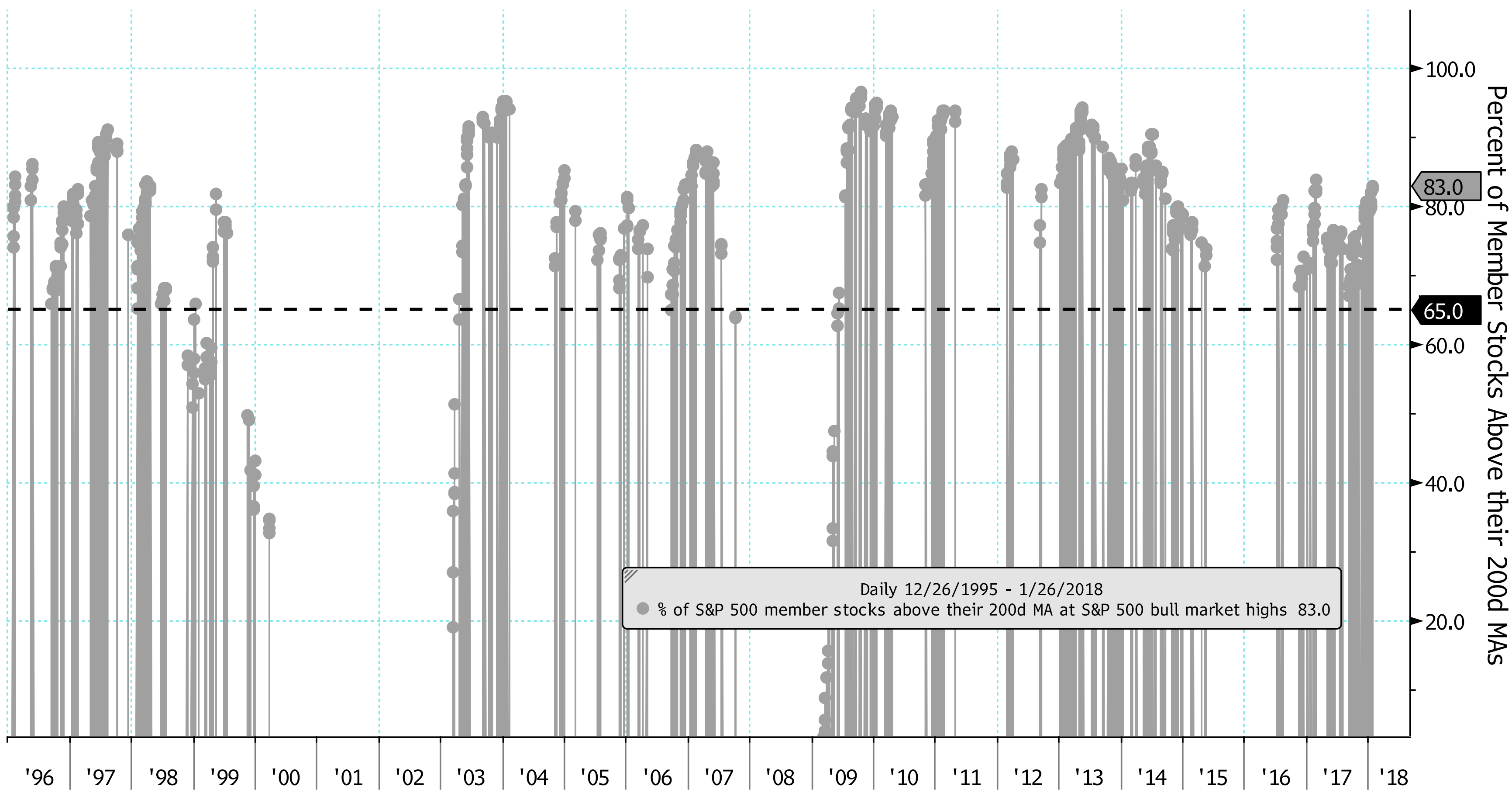
Analysis: Financial conditions have tightened slightly since last month's report
Chart Framework: I'd get incrementally negative on the outlook for the S&P if conditions moved through the -0.50 level

Market Breadth

Percent of S&P 500 member stocks above their 200d Moving Averages at New Bull Market Highs



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Analysis: Breadth at the previous high (1/26/2018) was at 83%, historically breadth has been weaker at major market tops.
Said differently, the breadth on 1/26/18 was not indicative of a major market top
Chart Framework: I'd get incrementally negative on the outlook for the S&P if the S&P made new bull market highs with breadth below 65%

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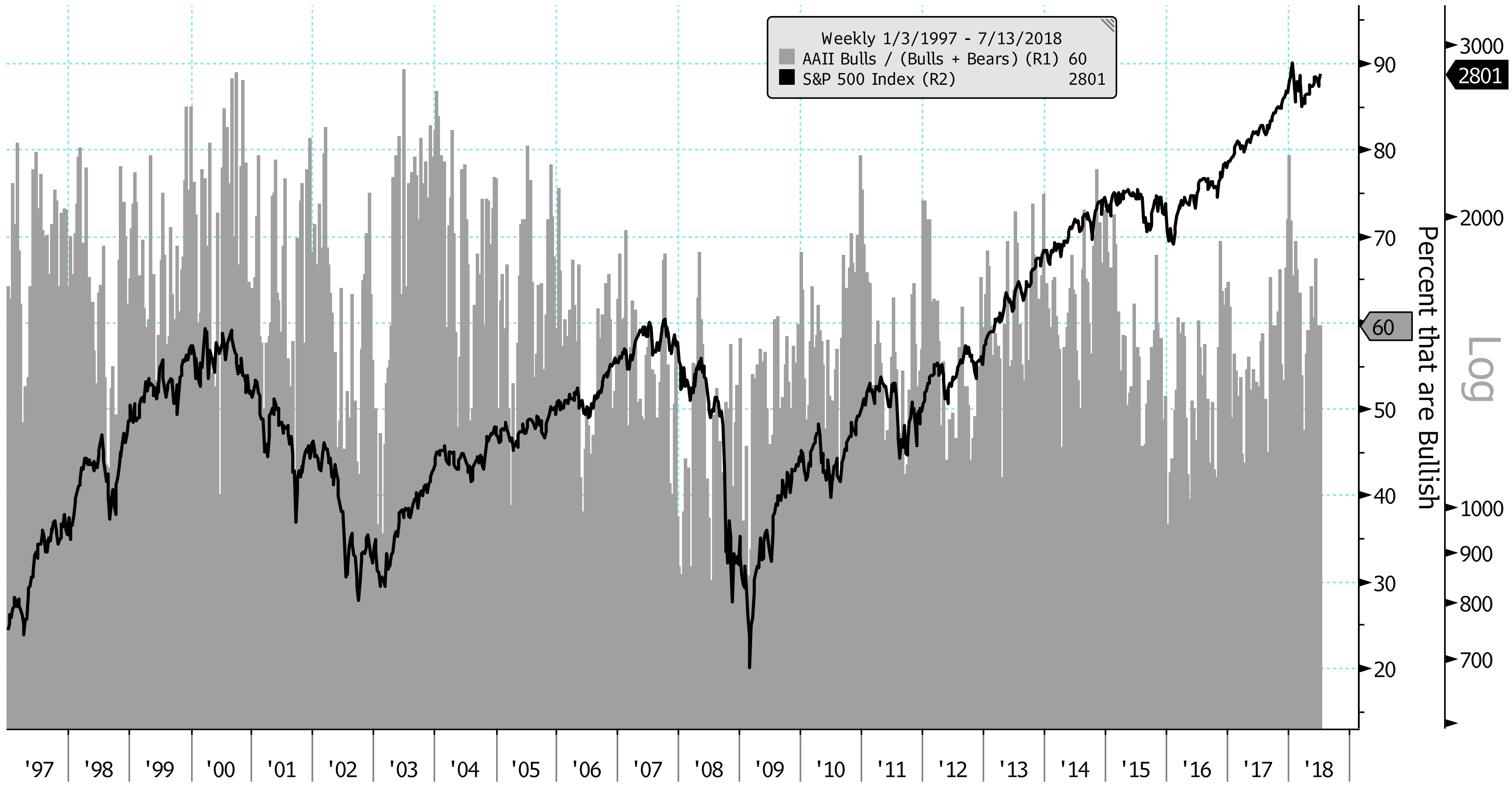
Market Sentiment

Percent that are Bullish (bulls / bulls+bears) and S&P 500

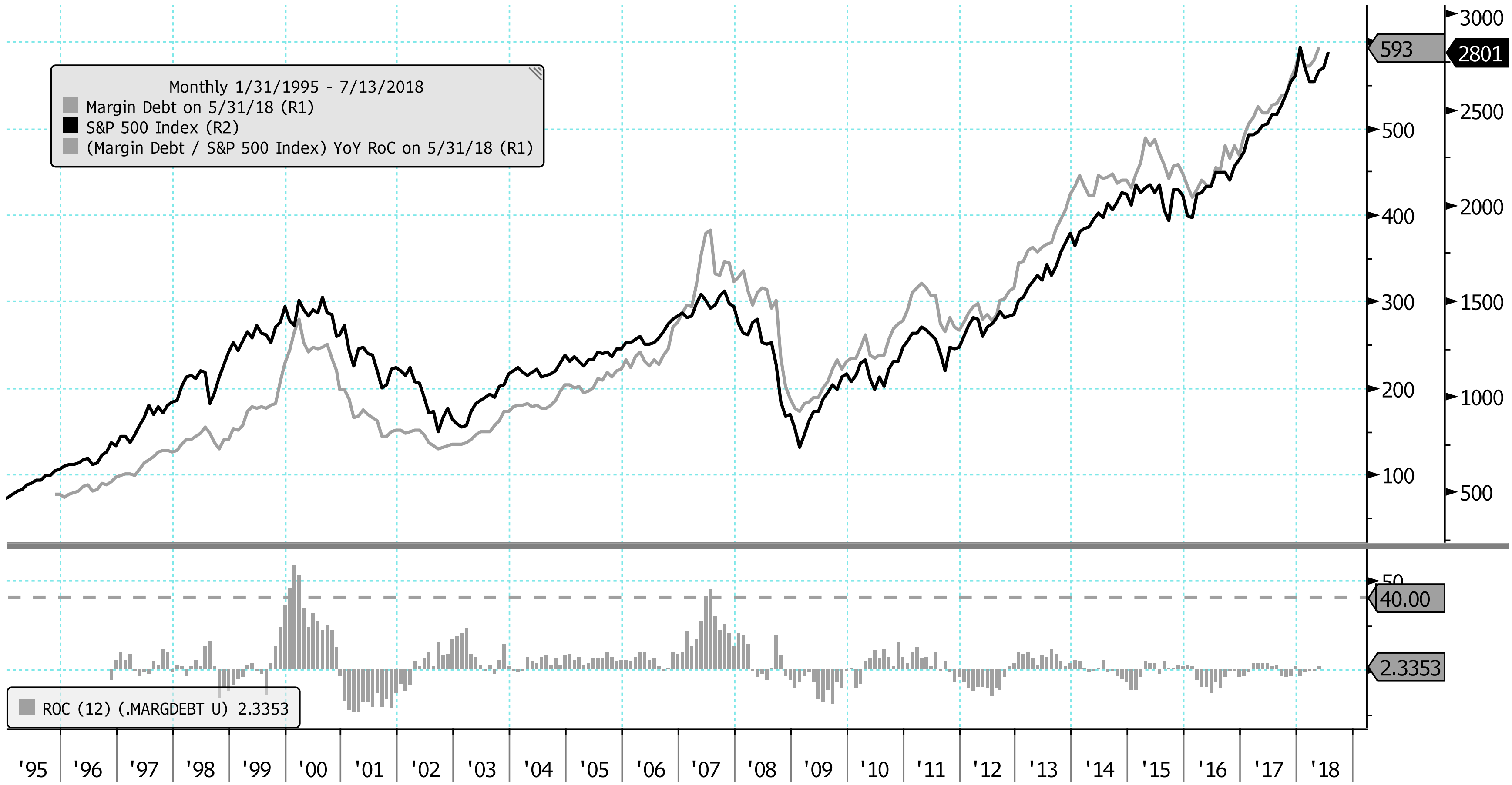


Source: Bloomberg, © Merk Investments LLC www.merkinvestments.com/research

Analysis: Bullishness is currently near the long term average,
In my view this chart should be looked at from a contrarian perspective,
Given that sentiment is near the average my current interpretation of this chart is neutral
Chart Framework: I'd get incrementally negative with sentiment above 70 and incrementally positive with sentiment below 30

Margin Debt

Margin Debt and S&P 500 (top panel), 12 month change in Ratio of Margin Debt / S&P 500 (bottom panel)

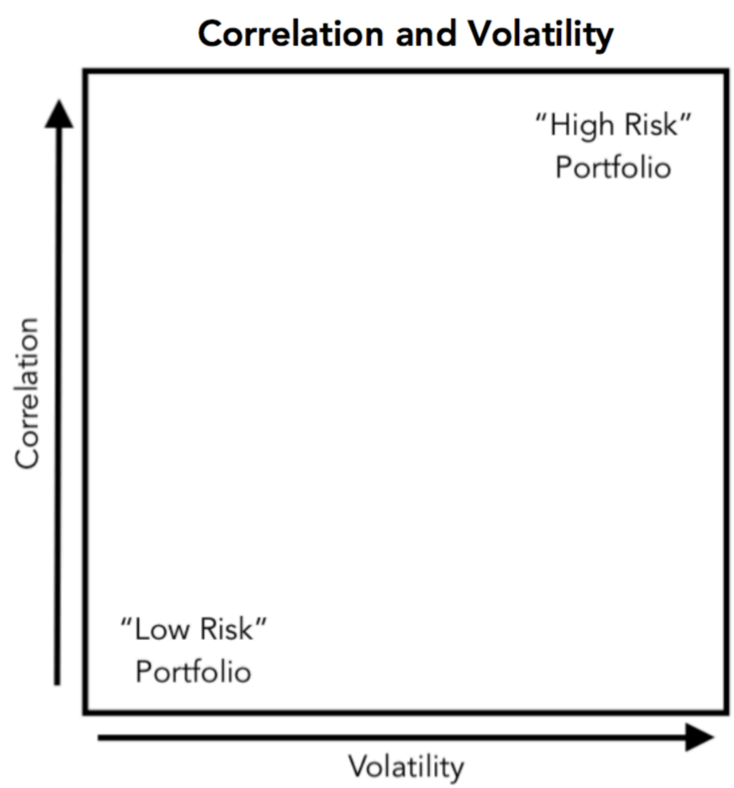


Source: Bloomberg, © Merk Investments LLC www.merkinvestments.com/research

Analysis: Margin debt is not rising relative to the stock market (bottom panel), perhaps supportive of the idea that the bull isn't over
Chart Framework: I'd get incrementally negative on the outlook for the S&P if YoY rate of change of the ratio (bottom panel) moved above 40.

Correlation and Volatility Framework

On the below diagram Correlation rises along the vertical axis from bottom to top, and Volatility rises on the horizontal axis from left to right

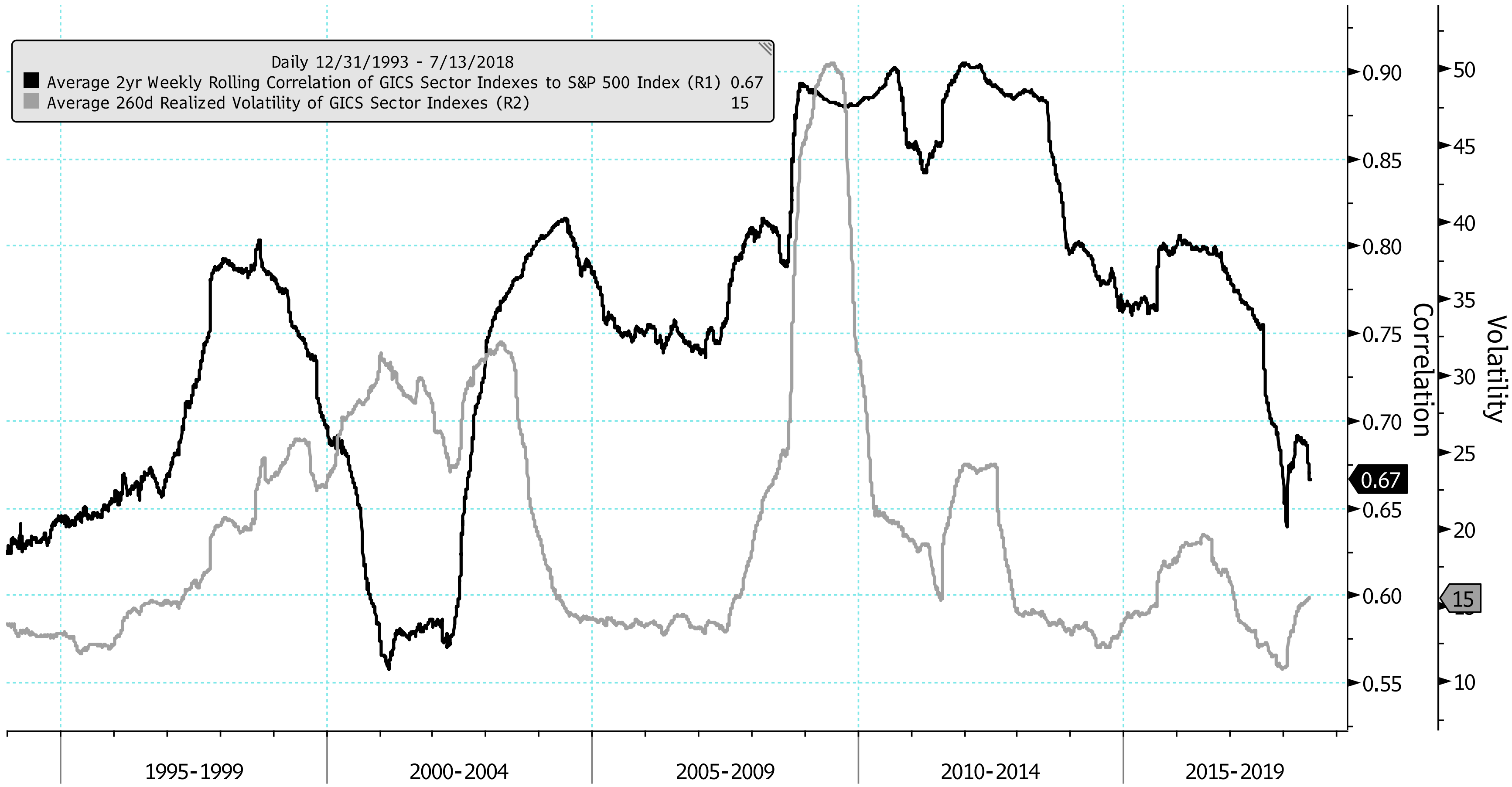


Source: © Merk Investments LLC www.merkinvestments.com/research

Analysis: This is a very simple diagram to help visualize how volatility and correlation relate to the conventional concept of portfolio risk. Volatility measures how much movement an individual asset has relative to itself, and correlation measures how much movement an individual asset has relative to other assets in a portfolio. For a given portfolio, the lower the volatility of each individual assets and the lower the correlation between the assets, the "lower risk" the portfolio will be, as measured by portfolio standard deviation—and vice versa for high volatility and high correlation. Counter-intuitively I would argue that longer-term investors might actually want to think the opposite way—that is to become cautious when asset markets appear low risk and consider opportunities when asset markets appear high risk. As Warren Buffett said: it's better to be fearful when others are greedy and greedy when others are fearful.

S&P 500 Correlation and Volatility

Avg. 2-yr Correlation of GICS* Sector Indexes to the S&P 500 Index and Avg. GICS Sector Index 1-yr realized volatility



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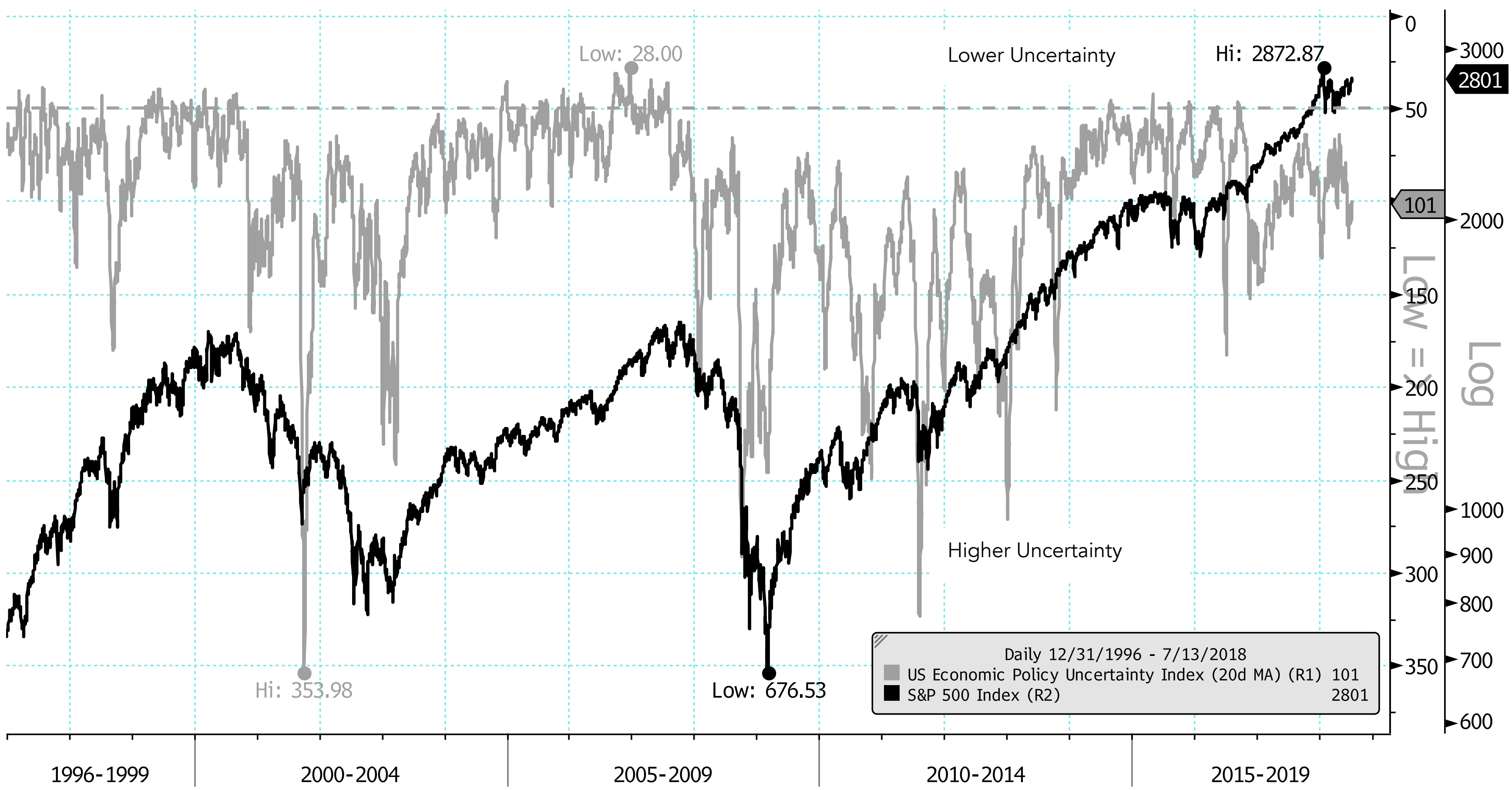
*Analysis: Both correlation and volatility are relatively low in a longer-term context. In my view this chart should be looked at from a contrarian perspective, and suggests a negative outlook medium-term. S&P 500 subsequent medium-term returns are likely to be most attractive when both correlation and volatility are high, for example in 2009. *GICS = Global Industry Classification Standards. The 10 sectors used for this analysis are: Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Telecommunication Services, and Utilities. In 2016 Real Estate was added as an 11th GICS Sector, which had been part of the Financials sectors. The S&P 500 stocks are each assigned to a sector. The correlation reading (black line) represents the average of all sector correlations to the S&P 500 (i.e., Correlation between Financials and S&P 500 + Correlation between Energy and S&P 500 etc…, divided by 10). The volatility reading (grey line) represents the average the sector volatilities (i.e., Volatility of Financials + Volatility of Energy etc…., divided by 10)*

Uncertainty

U.S. Economic Policy Uncertainty Index and S&P 500

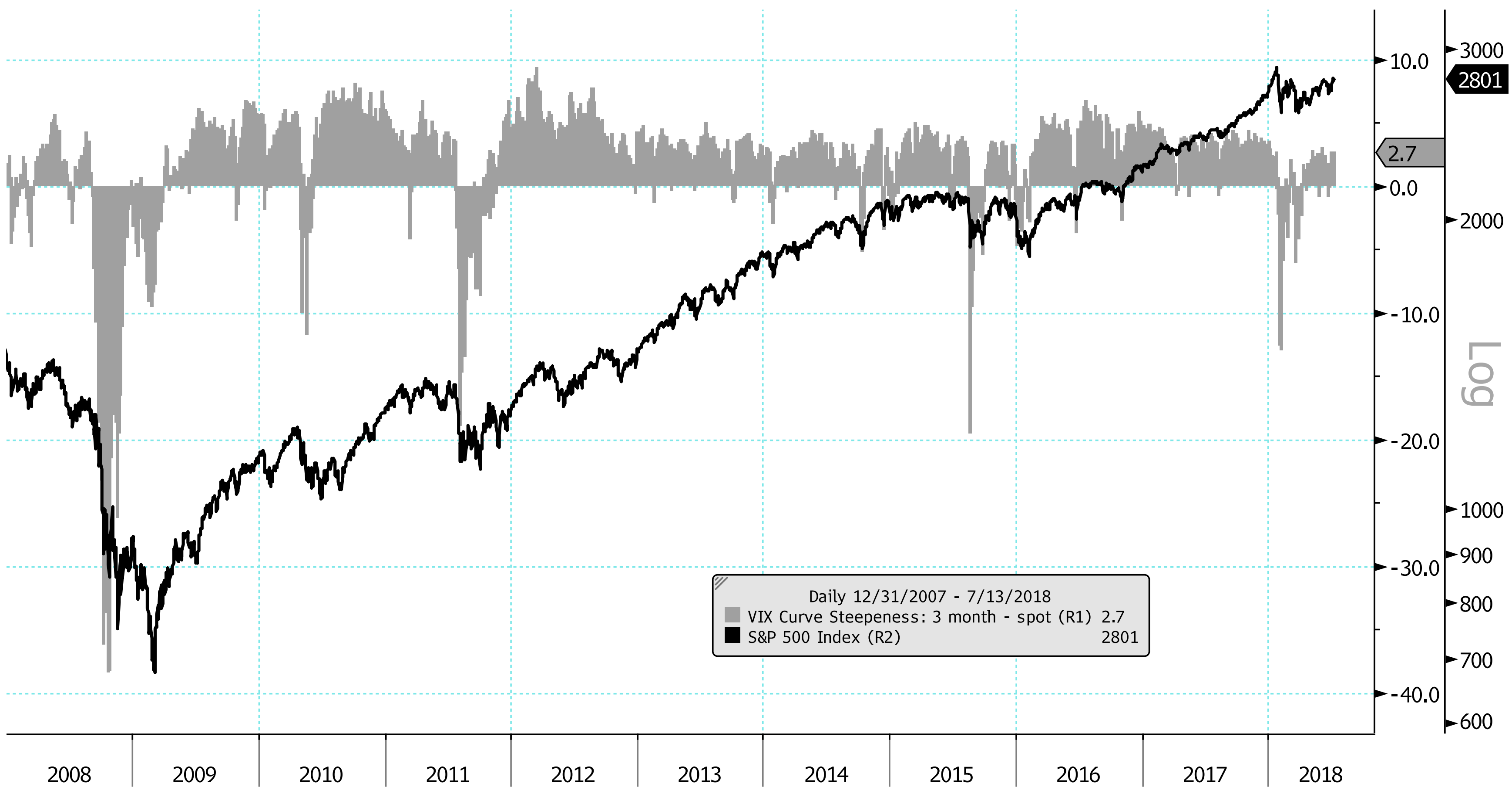


Source: Bloomberg, © Merk Investments LLC www.merkinvestments.com/research

Analysis: Uncertainty has increased somewhat since last month's report. There may still be some "wall-of-worry" left to climb.
Chart Framework: I'd get incrementally negative on the outlook for the S&P around the 50 level on policy uncertainty

VIX Curve

(3m futures implied VIX – spot VIX) and S&P 500



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Analysis: The VIX curve is normally sloped (meaning future expected VIX is higher than current VIX), historically a positive sign for stocks. (The VIX represents an estimate of the 30 day implied volatility of the S&P 500)
Chart Framework: this chart is best used for judging when corrective periods might be over. If a negatively sloped VIX curve (i.e., grey area below zero) persisted that could be a sign of greater stress remaining in the market.

S&P 500 Technicals

S&P 500 daily open-high-low-close chart with 50-day and 200-day Moving Averages (MA)

Source: Bloomberg, © Merk Investments LLC www.merkinvestments.com/research

Analysis: During this drawdown phase, the S&P 500 Index appears to have found "support" at the 200d moving average (black line) If/when the 50d MA crosses below he 200d MA that is thought of as a very negative technical indicator for the stock market. The S&P 500 closed last week above the psychologically important 2800 level. Many technical analysts believe the weekly closing price is the most important price of the week- as both intra-day and intra-week traders are out of the market at the Friday close- therefore the Friday close theoretically captures the balancing of orders between longer term investors. Chart Framework: I'd get negative if the S&P 500 appeared to be making lower lows and lower highs and if the 50d MA crossed below the 200d MA

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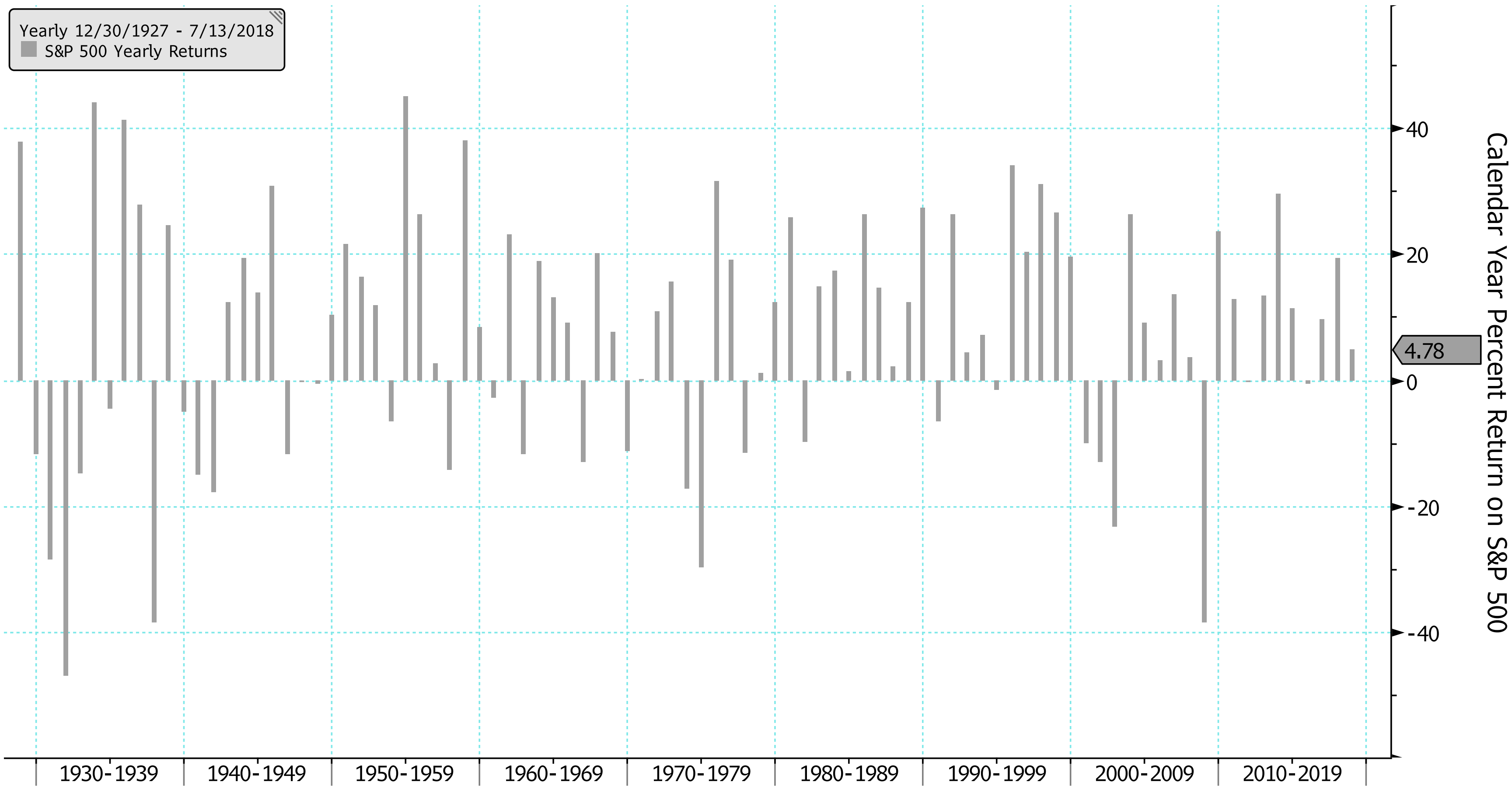
Calendar Year S&P 500 Returns

1928-to-Present Calendar Year Returns (dividends not included)



Source: Bloomberg, © Merk Investments LLC www.merkinvestments.com/research

Analysis: As of 7/13/2018 the S&P 500 is about +5% YTD. Coming into 2018 sell-side forecasts were for a 0-10% return this year.
From 1928-2017 the S&P 500 returned between 0-10% only 17% of years. 51% of years had returns above 10%, and 32% of years had negative returns.

Checklist (July 2018)

Page	Chart	Time Horizon	Per Framework Characterization
2	Valuation	Long Term	Negative
3	LEIs	Short/Medium Term	Positive
4	Earnings	Short/Medium Term	Neutral/Positive
5	Global growth	Short/Medium Term	Neutral/Positive
6	Financial Conditions	Short/Medium Term	Neutral/Positive
7	Market Breadth	Medium/Longer Term	Positive
8	Market Sentiment	Short/Medium Term	Neutral
9	Margin Debt	Medium/Longer Term	Neutral/Positive
10	Correlations/Volatility	Medium/Longer Term	Negative
11	Uncertainty	Medium/Longer Term	Neutral/Positive
12	VIX Curve	Short Term	Positive
13	S&P 500 50d v 200d MA	Medium Term	Positive
		Time Horizon	Overall Characterization
		Short Term (<6 months)	Positive with medium/high uncertainty
		Medium/Longer Term (6m-5years)	Neutral/Negative with high uncertainty

Conclusion/Thoughts

Short to medium term I'm positive on the major stock market indexes in the U.S.— my base case scenario remains that the S&P 500 makes new all time highs, getting above 2,873, before the next bear market, which for the purpose of clarity I'll define as a 25%+ drawdown over a six-month+ period. However, I'm cautious over the medium to longer term.

Specifically, financial conditions still look relatively supportive. Also, the normally sloped VIX curve is a positive sign for the S&P 500 to head higher. In terms of breadth, the cumulative advance-decline line for the S&P 500 continues to make new all time highs, which suggests strong breadth and may signal a rally to new highs in the S&P 500 in the coming weeks. In terms of fundamentals, realized and forecast earnings continue to rise.

What keeps me cautious on the medium to longer-term (roughly 5-10 years) outlook is the low volatility and correlation picture and the relatively high overall equity allocation, which is a proxy for valuation and for expected returns over the subsequent ten years. It is worth noting that the correlation among sectors has begun to decline again, which may be near term supportive.

-Nick Reece, CFA

Disclosure
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