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U.S. Business Cycle Report

October 2019

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Quotes

Quotes or book excerpts that I find particularly insightful…

"Heart surgery gets under way in a busy Boston hospital. A midwife in a remote African village delivers a baby at a primitive medical clinic. A 747 takes off from Chicago's O'Hare airport. All these tasks [require] sound judgment and precise execution… [There is now a] recognition that checklists can increase success whenever critical tasks are being performed… The rationale for checklists is not an issue of aptitude, but the realization that complex activities can overwhelm. Professionals who have skill, knowledge and experience are making mistakes, despite their expertise… checklists can be a simple solution to help navigate complexity… [It is unlikely] the future will hold significant change to the concept of checklists, technology may change the methodology, but the principal remains the same. It is by far the best tool to contain errors."

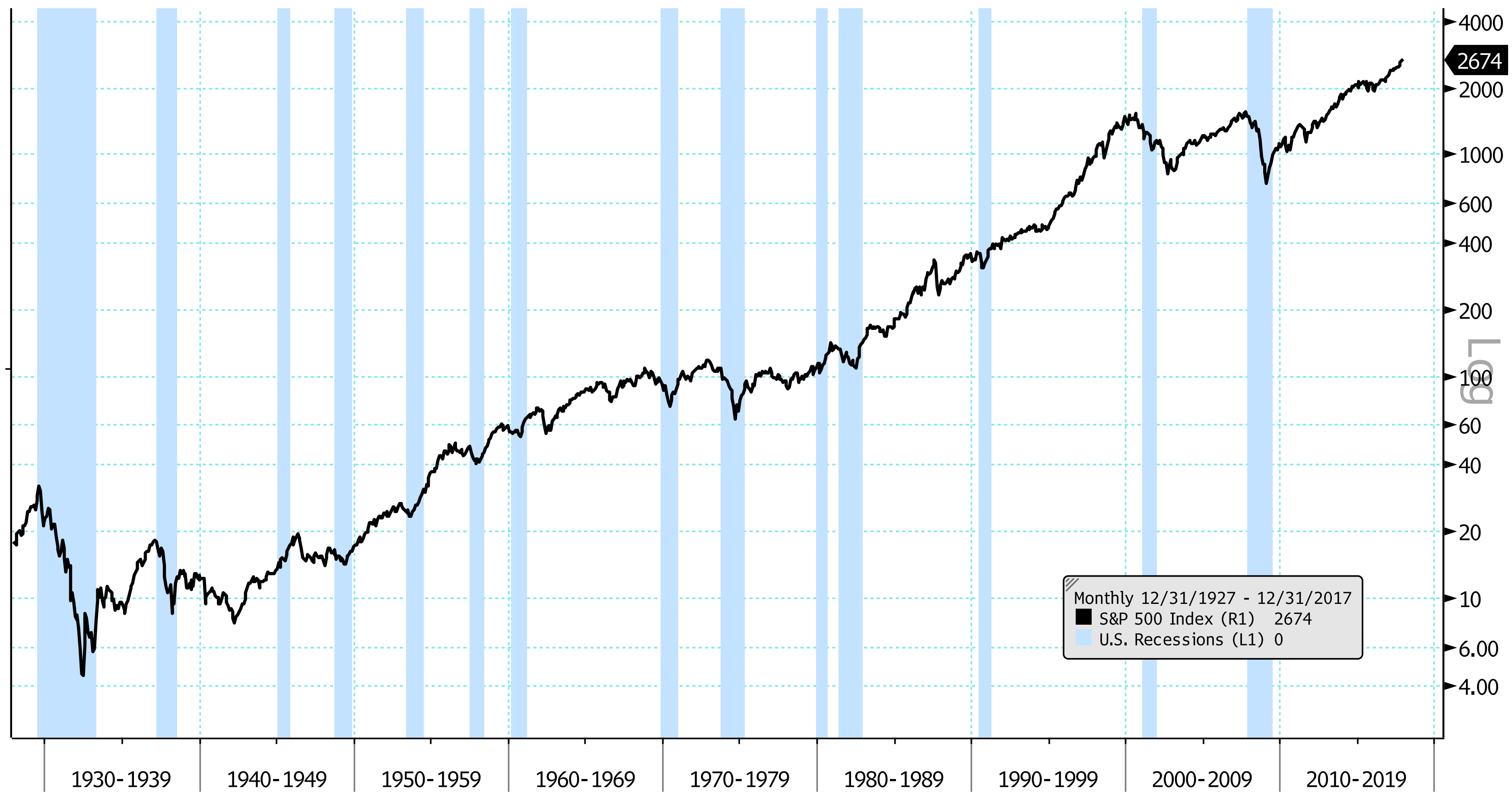
-Boeing, *The Simple Genius of Checklists*

"Formally or informally, many forecasters consider a whole range of economic data to assess the [current and] future position of the economy. Checklist assessments are straightforward but time-consuming because they require looking at the widest possible range of data. The data may then be extrapolated into forecasts via objective statistical methods, such as time-series analysis, or via more subjective or judgmental means. An analyst may then assess whether the measures are in an equilibrium state or nearer to an extreme reading… The checklist's strength is its flexibility. It allows the forecaster to take changes in the structure of the economy into account quickly by changing the variables or the weights assigned to variables within the analysis."

-CFA Curriculum

Why is the Business Cycle Important?

S&P 500 (log scale) and official National Bureau of Economic Research (NBER) U.S. Recessions

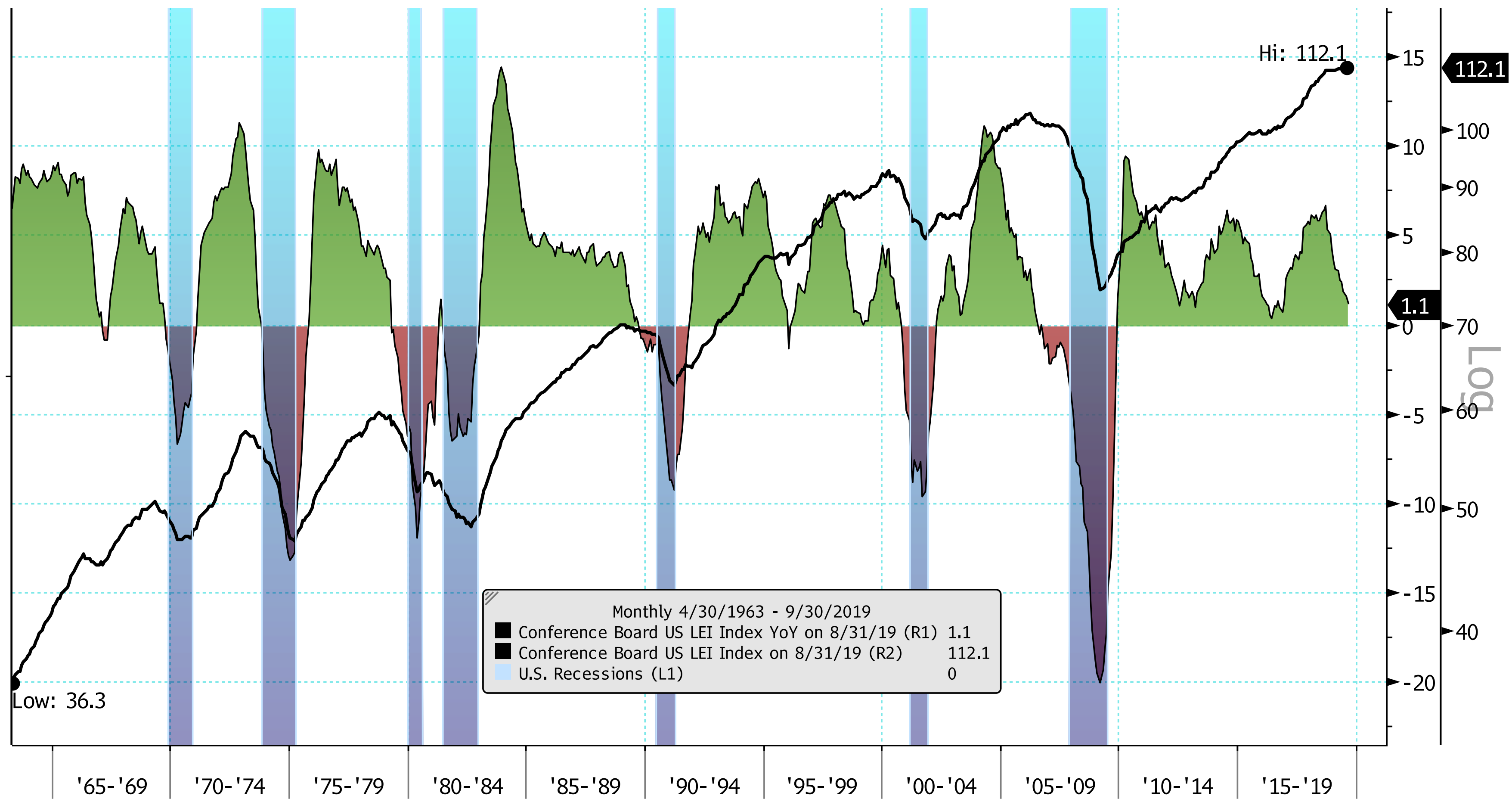


Source: © Merk Investments, Bloomberg

*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**

U.S. Leading Economic Indicators (LEIs) Index

Conference Board's LEI Index and YoY Rate of Change

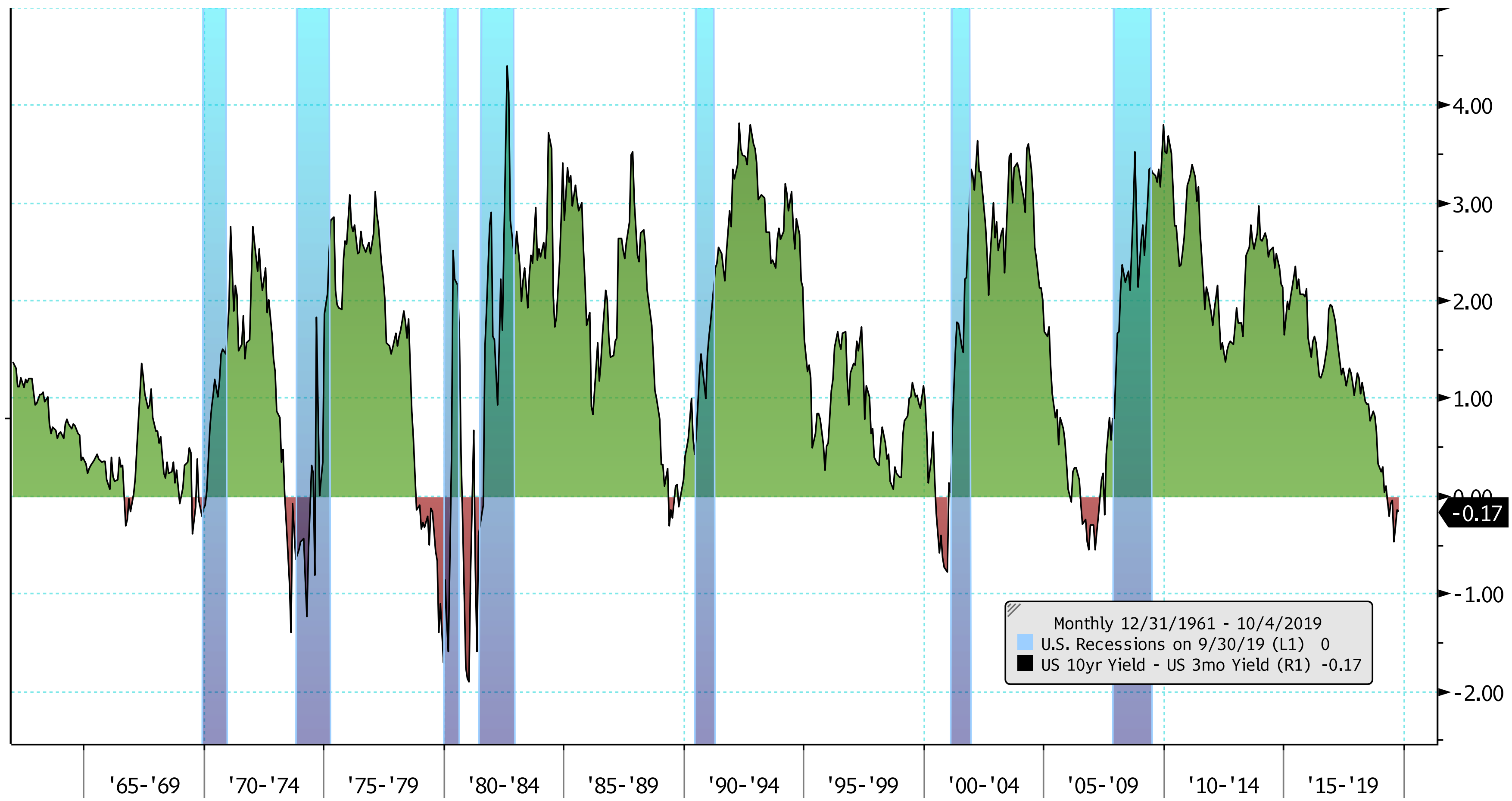


Source: © Merk Investments, Bloomberg

Analysis: Since last month's report the LEI YoY rate of change fell to 1.1% and the index level remained at its cycle high. Over the past several months positive momentum has slowed, but given that the YoY rate of change remains positive, history suggests a recession is unlikely to start within the next six months. This picture keeps me generally positive on the outlook for the U.S. economy. Chart Framework: I'd get incrementally negative on the business cycle outlook if the LEI YoY went negative.

U.S. Yield Curve Steepness

(10yr yield – 3mo yield)



Source: © Merk Investments, Bloomberg

*Analysis: The 10yr-3m yield curve has been inverted (meaning the 3-month yield is higher than the 10-year yield) since May, currently inverted at -17bps. 10yr-3m inversion has historically been a strong recession indicator (with recessions historically starting 6-18 months after initial inversion). I'm currently negative on this picture. Chart Framework: I'd get incrementally positive on this picture if the yield curve uninverted while other macroeconomic data (e.g., U.S. Mfg PMI) also improved. *It may be worth noting that the 10yr-3yr (shown on the next page) has always inverted prior to recessions and still has not (yet) inverted.*

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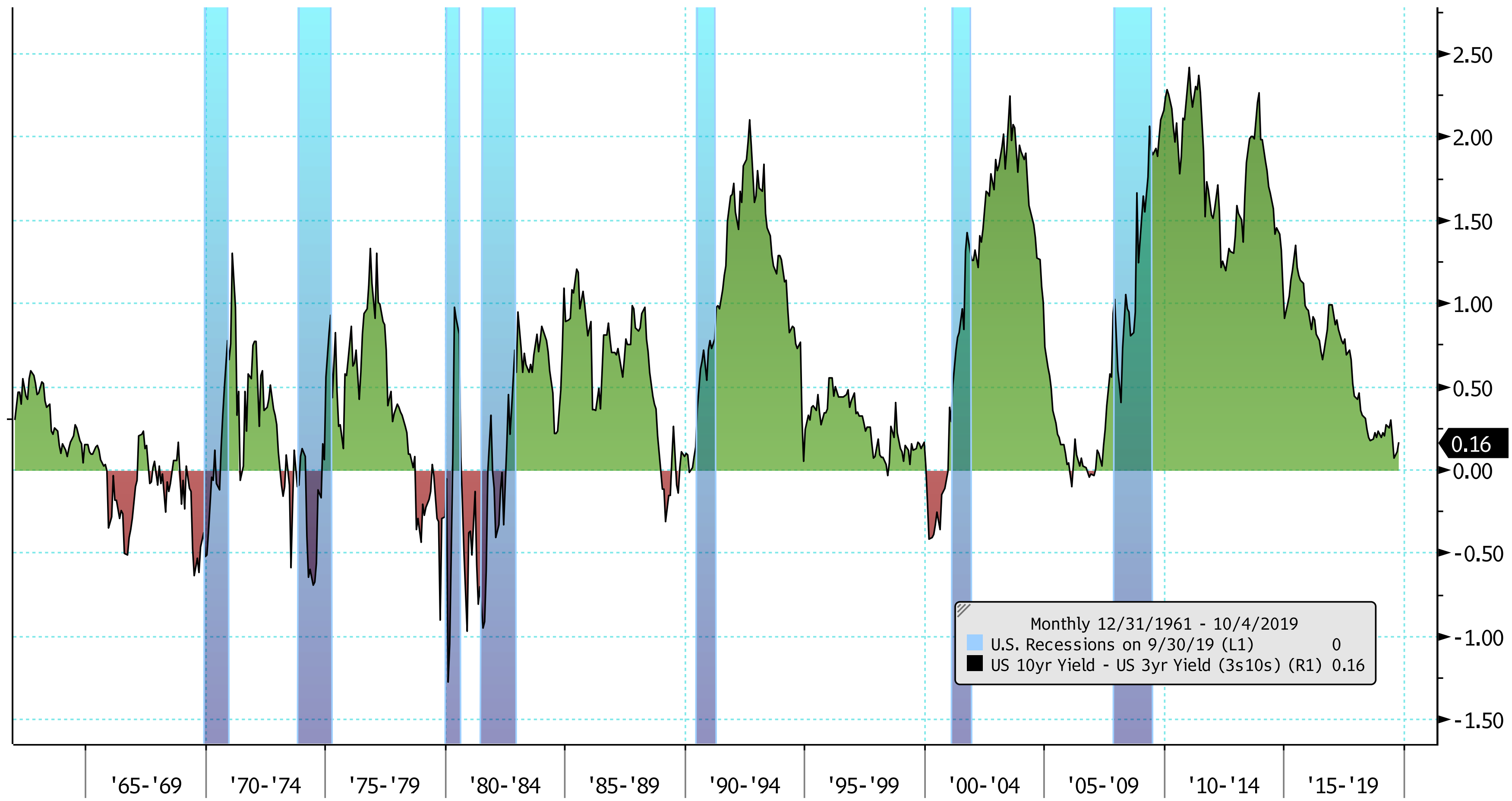
U.S. Yield Curve Steepness

(10yr yield – 3yr yield)

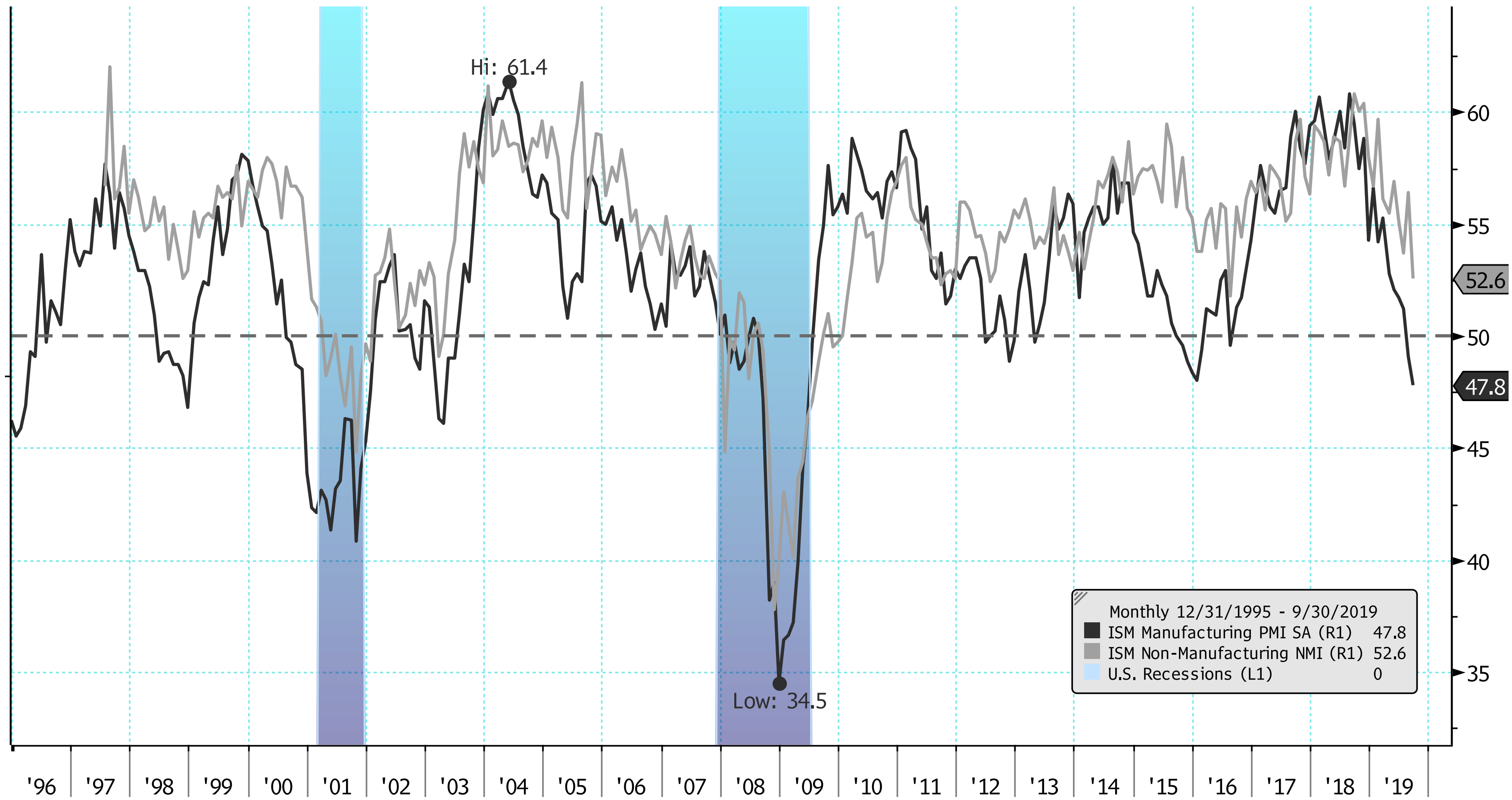


Source: © Merk Investments, Bloomberg

Analysis: A cross reference to the 10yr-3yr shows a yield curve that is still positively sloped (meaning the 10yr yield is higher than the 3yr yield). The yield curve is slightly steeper since last month's report, but the bigger picture flattening trend has continued. The 10yr-3yr curve may invert in the coming months. Chart Framework: I'd get incrementally negative on the medium term business cycle outlook if the yield curve inverted (i.e., 3yr yield > 10yr yield).

U.S. PMIs

Manufacturing and Non-manufacturing (aka Services) PMIs (Purchasing Managers Index)

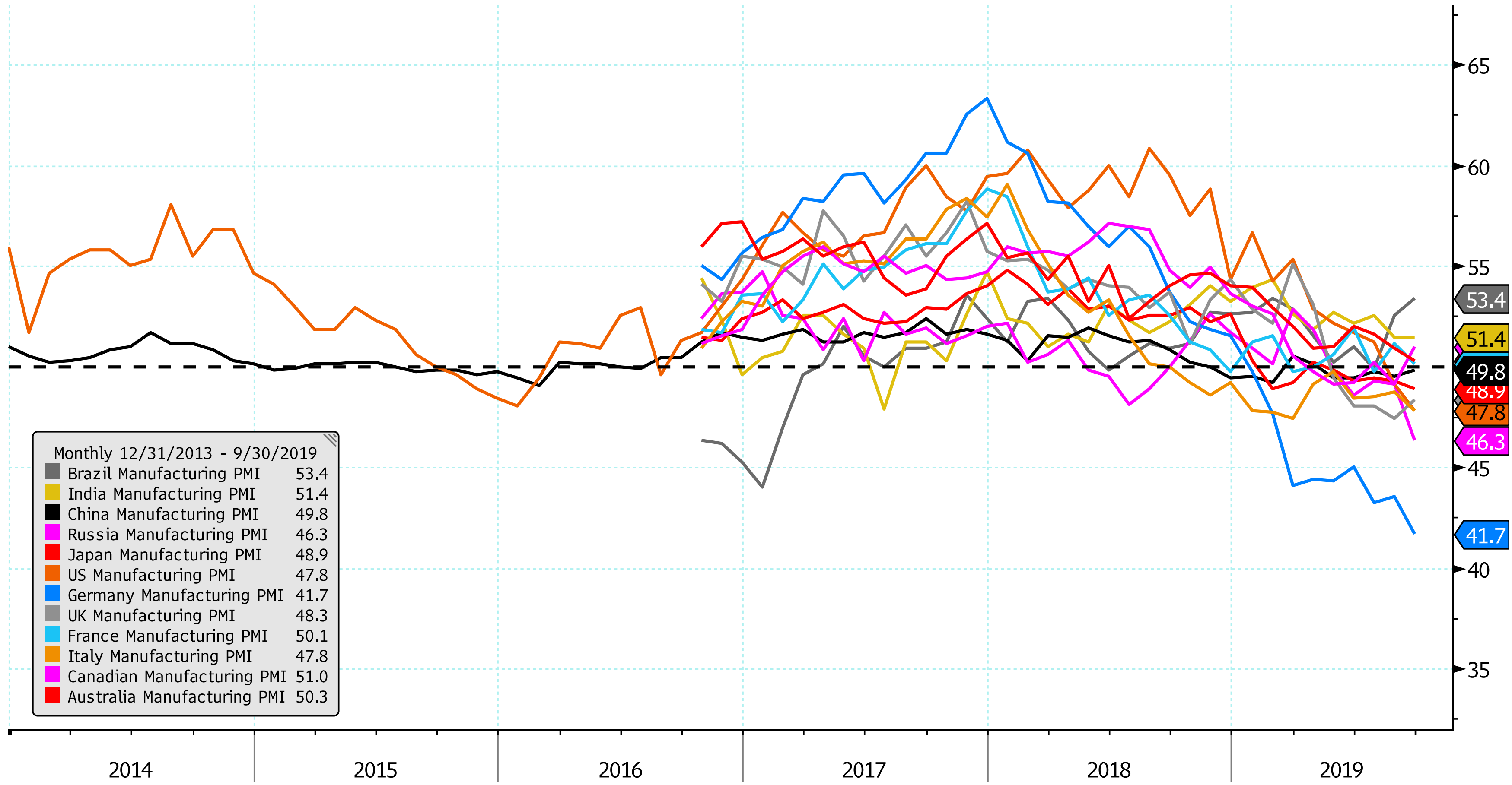


Source: © Merk Investments, Bloomberg

Analysis: Manufacturing PMI declined over the past month, from 49.1 to 47.8, remaining below 50 and suggesting economic contraction. I'm currently negative on this picture. Chart Framework: I'd get incrementally positive on the business cycle outlook if the manufacturing PMI rose above 50.

Global Manufacturing PMIs

Largest twelve global economies' Manufacturing PMIs (Purchasing Managers Index)

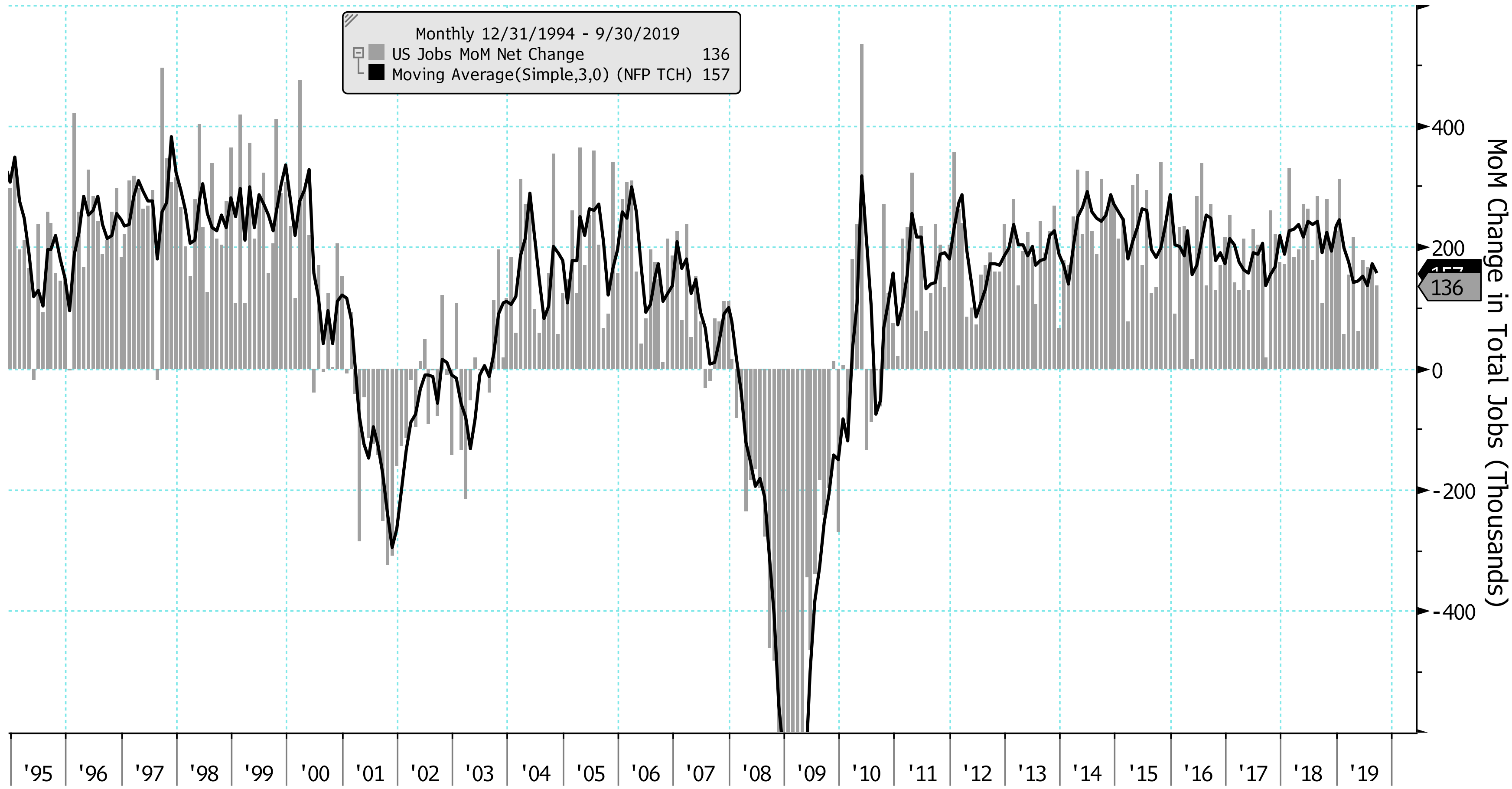


Source: © Merk Investments, Bloomberg

Analysis: Global economic momentum was mixed over the past month. Seven out of the twelve readings remain below 50, i.e., in contractionary territory. Given my framework I'm negative on this picture. Chart Framework: to get positive on this picture the majority of Mfg PMIs would have to be above 50.

Job Gains

The Net Monthly Change in Non-farm Payrolls (grey) with 3-month Moving Average (black)

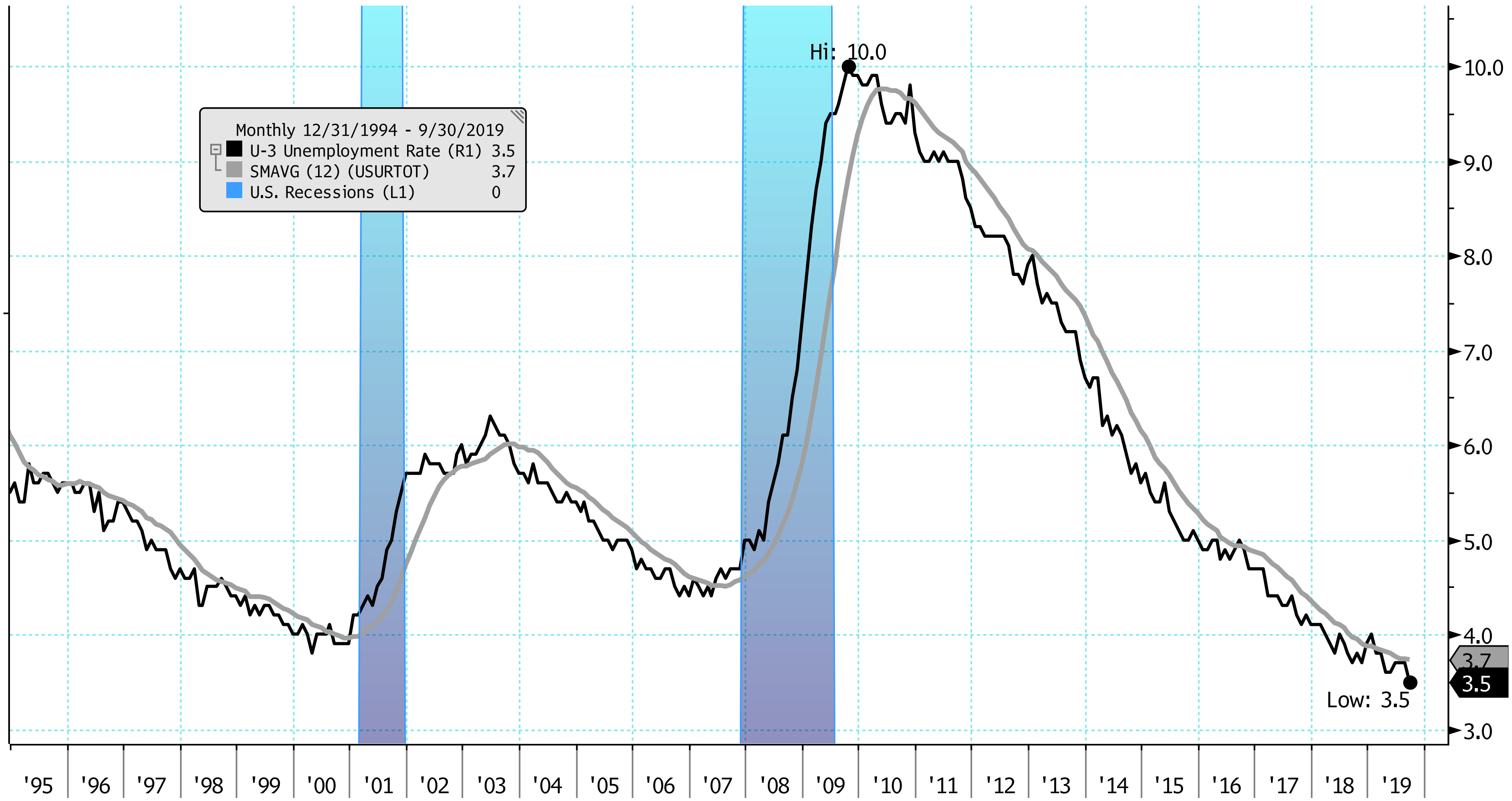


Source: Bloomberg, © Merk Investments LLC

Analysis: The 3-month moving average of job gains is 157k, still a relatively strong level.
Framework: I'd get incrementally negative on this picture if the 3-month average for job gains fell below 135k.

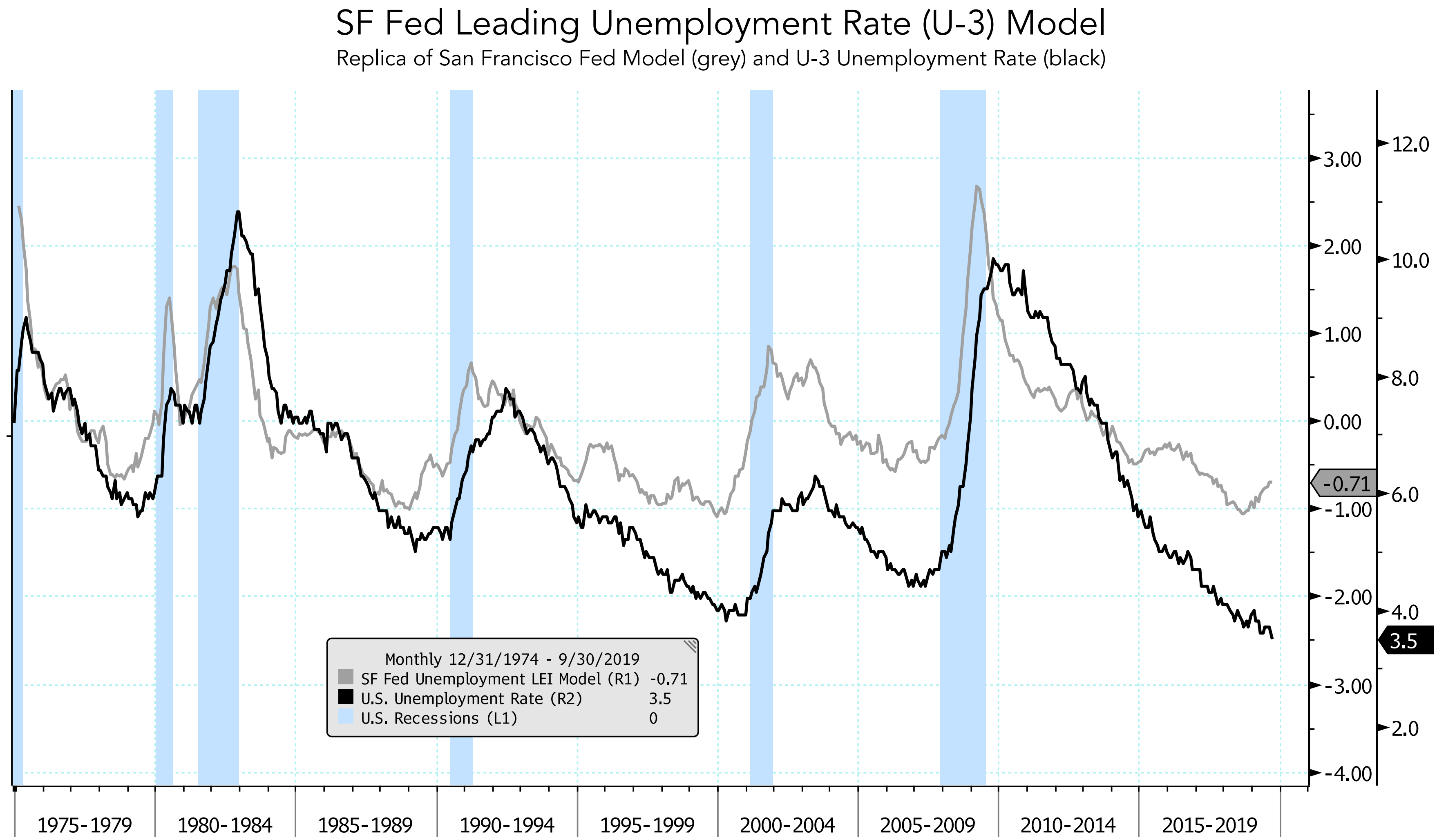
U.S. Unemployment Momentum

U-3 Rate and U-3 12 month Moving Average



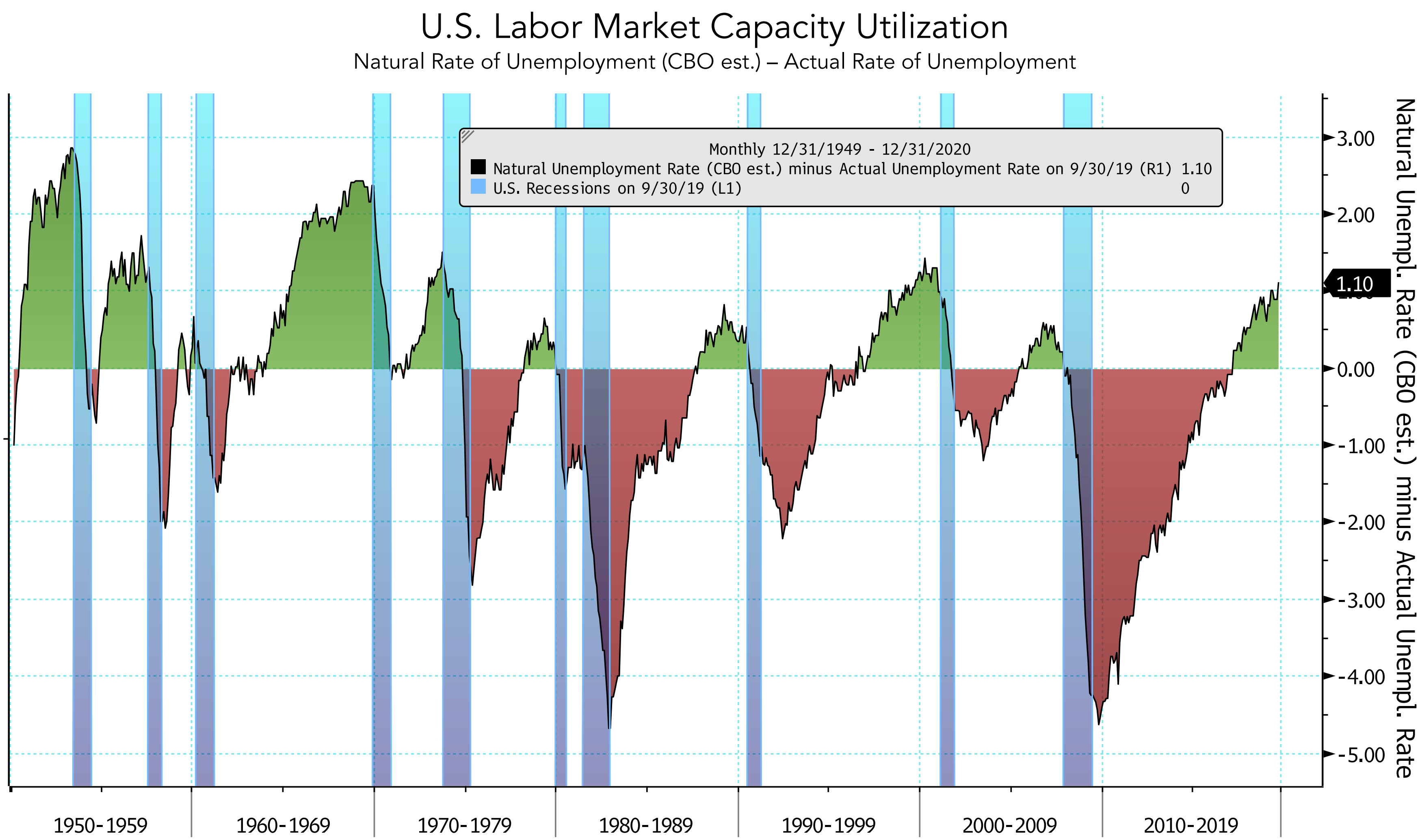
Source: © Merk Investments, Bloomberg

Analysis: The unemployment rate declined to a new cycle low of 3.5%, and remains below its 12-month moving average (labor force participation remained stable at a multi-year high– not shown). Chart Framework: I'd get incrementally negative on the business cycle outlook if the unemployment rate moved above its 12m MA while the labor force participation rate trended lower.



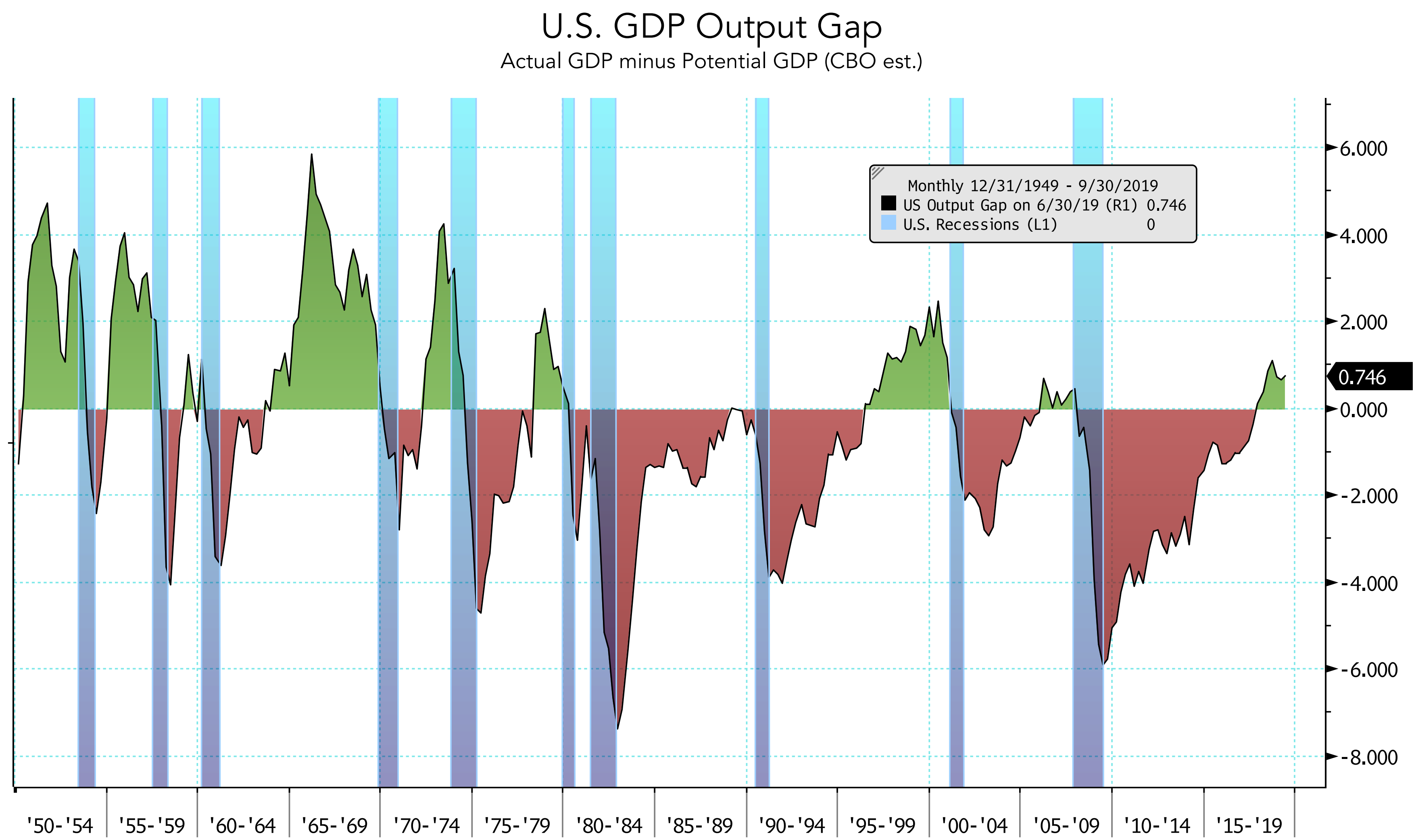
Source: © Merk Investments, Bloomberg

Analysis: The SF Fed unemployment rate model (grey line) has continued to move higher in recent months, which warrants caution as it might signal that a cyclical turning point in the labor market is coming. Given my chart framework I'm currently negative on this picture. Chart Framework: I'd get incrementally positive on the business cycle outlook if the SF Fed model line started trending lower again on a YoY basis. For reference: [the San Francisco Fed Paper]



Source: © Merk Investments, Bloomberg

Analysis: The estimated natural rate of unemployment is higher than the current unemployment rate (4.6% estimate – 3.5% current reading), meaning the U.S. economy is potentially running above capacity, which likely increases the risk of a recession roughly 1-5 years out. It is worth noting that the estimate of the natural rate of unemployment is debated, and some think it is lower than the 4.6% estimated by the CBO. 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 -1.00 on the chart, which would likely only be during or after a recession. It's worth noting that despite the current picture above many other metrics seem to indicate that some slack remains in the labor market.

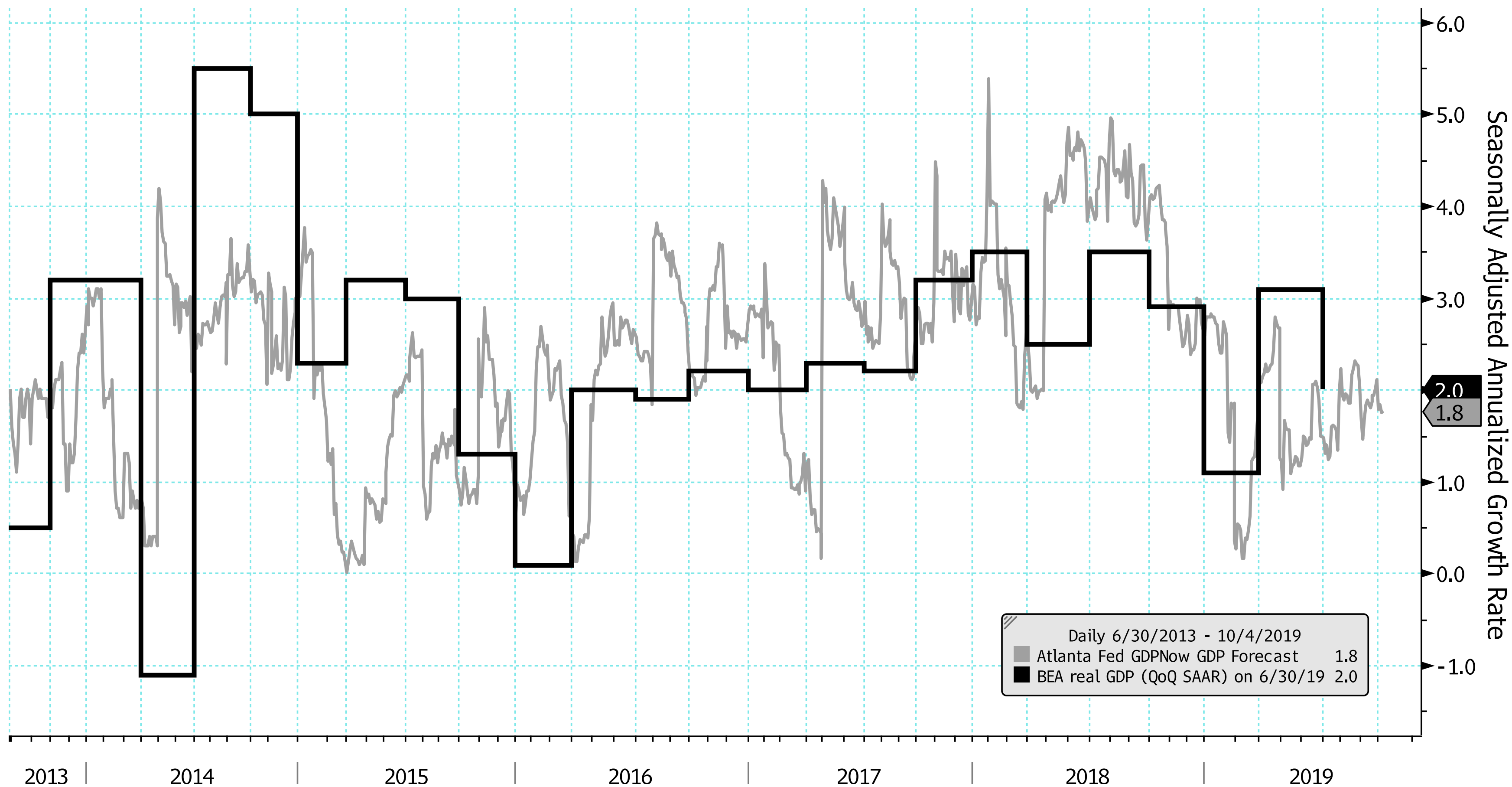


Source: © Merk Investments, Bloomberg

Analysis: Actual GDP is more than potential GDP (as estimated by the CBO), which suggests the expansion may be in its late stages. As with the unemployment rate on the previous page, there is debate about what potential GDP should be. I'm currently incrementally negative on the business cycle outlook medium/longer term based on this picture. Chart Framework: I'd get incrementally positive medium/longer term around -2.0 on the chart, which would likely only be during or after a recession.

Atlanta Fed GDPNow GDP Forecast

GDPNow Forecast and the official QoQ SAAR from BEA

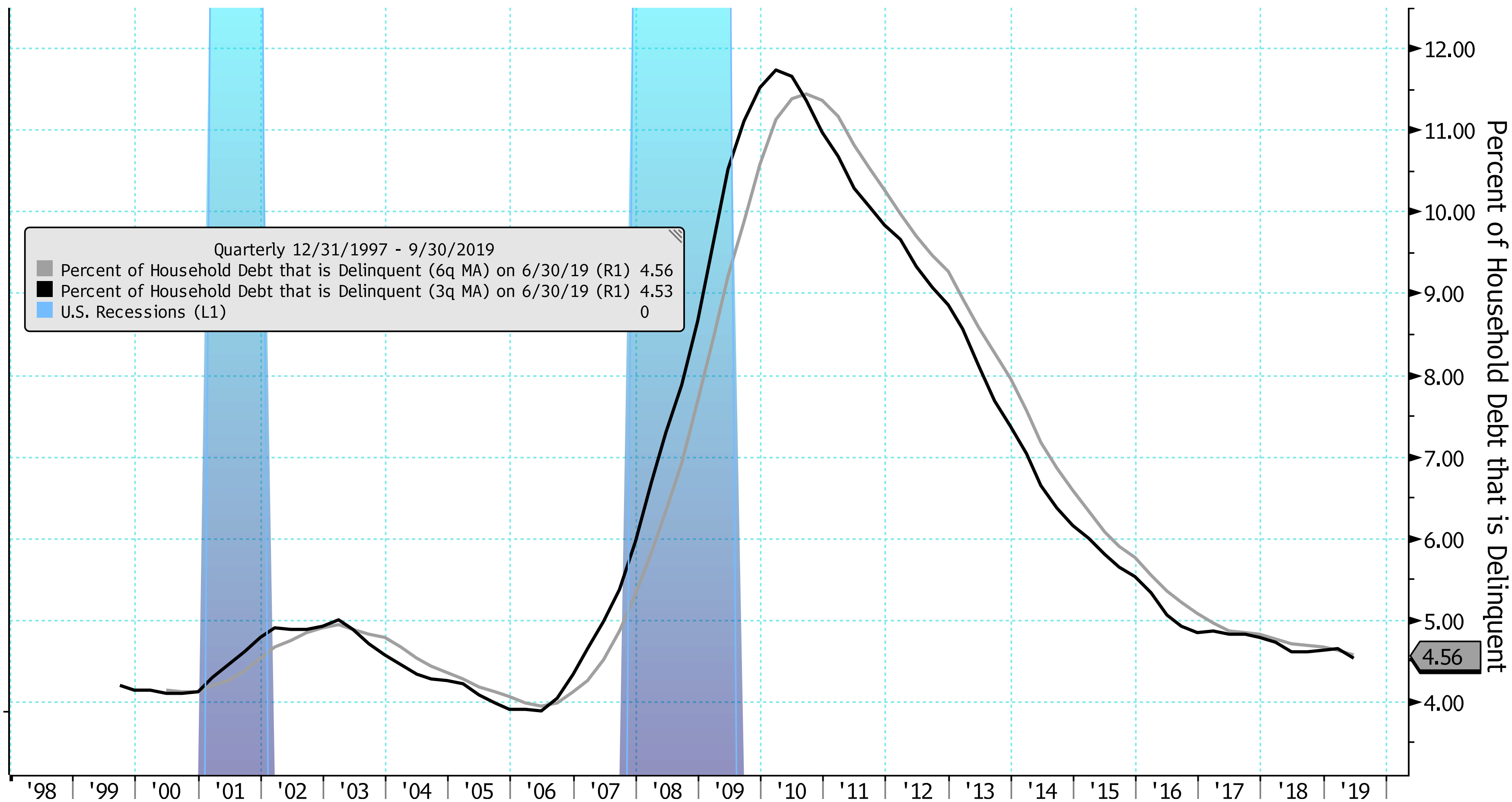


Source: © Merk Investments, Bloomberg

Analysis: The Q2 2019 GDP reading (black line) came in at 2.0%, the current forecast for Q3 2019 GDP is around 1.8%. Chart Framework: I'd get incrementally negative on the business cycle outlook if the Atlanta Fed GDP indicator fell below zero.

U.S. Household Credit Cycle

Percent of Household Debt that is Delinquent (3 quarter and 6 quarter moving averages)

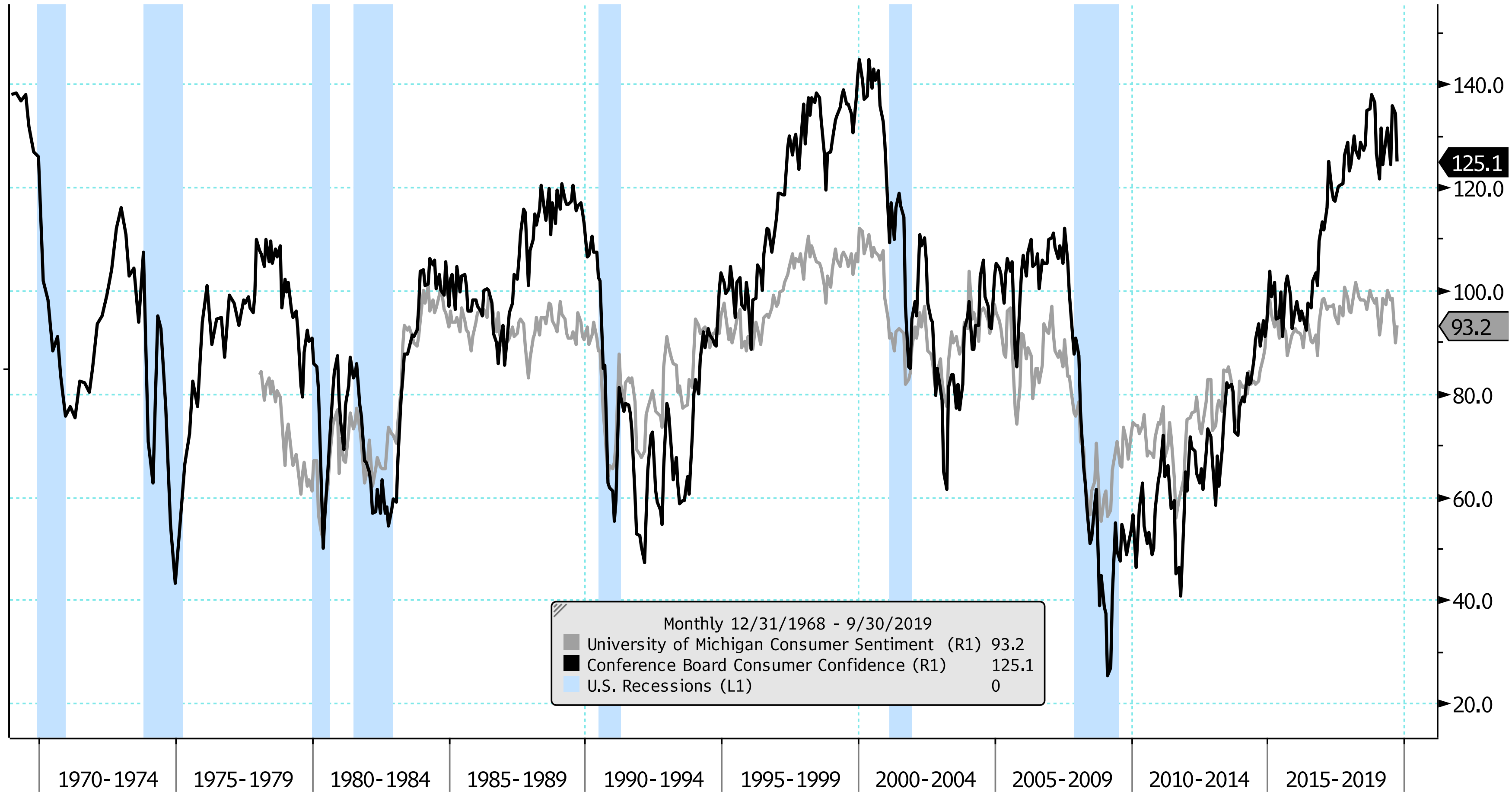


Source: © Merk Investments, Bloomberg

Analysis: The Q2 2019 data showed another downtick in the household delinquency rate (generally a positive sign for the economy); and the 3-quarter moving average (black) moved back below the 6-quarter moving average (grey). Given my chart framework I'm currently positive on this picture. Chart Framework: I'd get incrementally negative if the 3q MA rose above the 6q MA. The Q3 2019 data comes out in late November.

U.S. Consumer Confidence

Michigan Consumer Sentiment and Conference Board Consumer Confidence



Source: © Merk Investments, Bloomberg

Analysis: The consumer confidence indexes are now both trending lower, from elevated levels, which is consistent with late cycle patterns. Given my framework, I'm currently negative on this picture. Chart Framework: I'd get incrementally positive if one or both measures are trending higher on a YoY basis.

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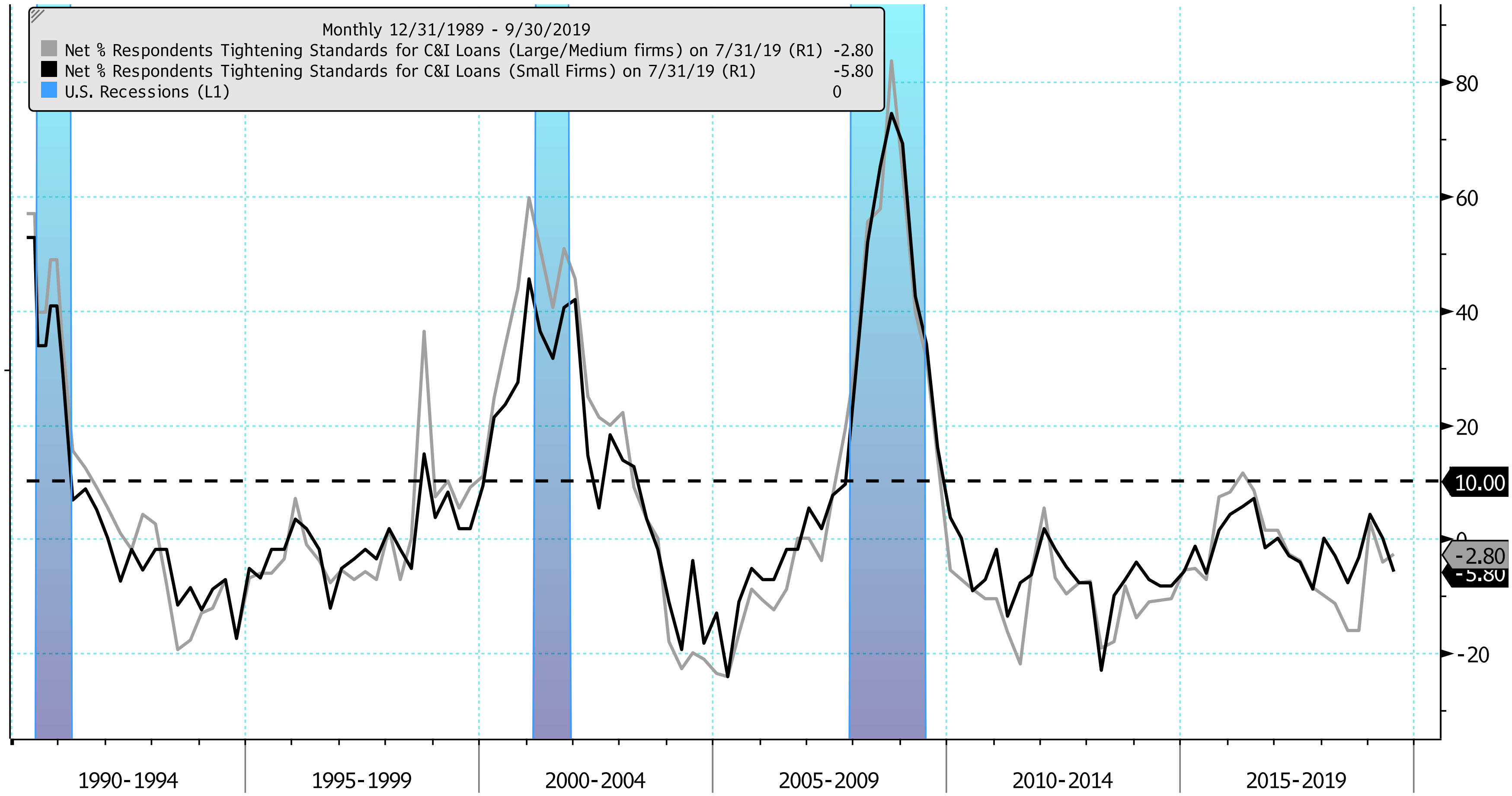
Bank Lending Standards

Senior Loan Officer Opinion Survey (SLOOS): Net % of Respondents that are Tightening Lending Standards for Commercial and Industrial (C&I) Loans

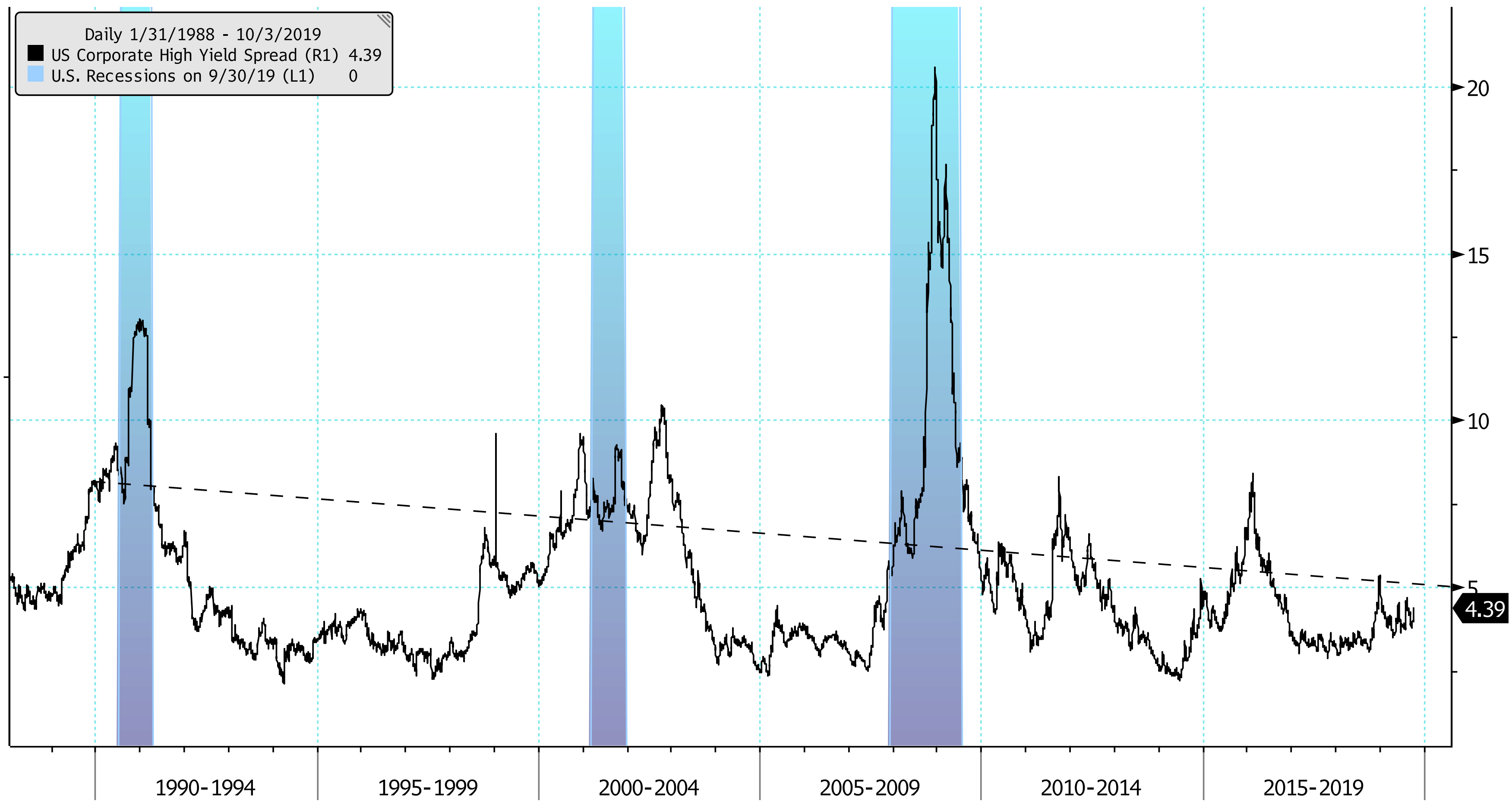


Source: © Merk Investments, Bloomberg

Analysis: Data from the Fed's Senior Loan Officer Opinion Survey suggest bank lending standards generally continue to be supportive of economic activity. Chart Framework: I'd get incrementally negative on the business cycle outlook if 10% of respondents report tightening lending standards. It's worth noting that this data only comes out quarterly, and with a lag.

High Yield Spread

US High Yield Spread with Trend Line

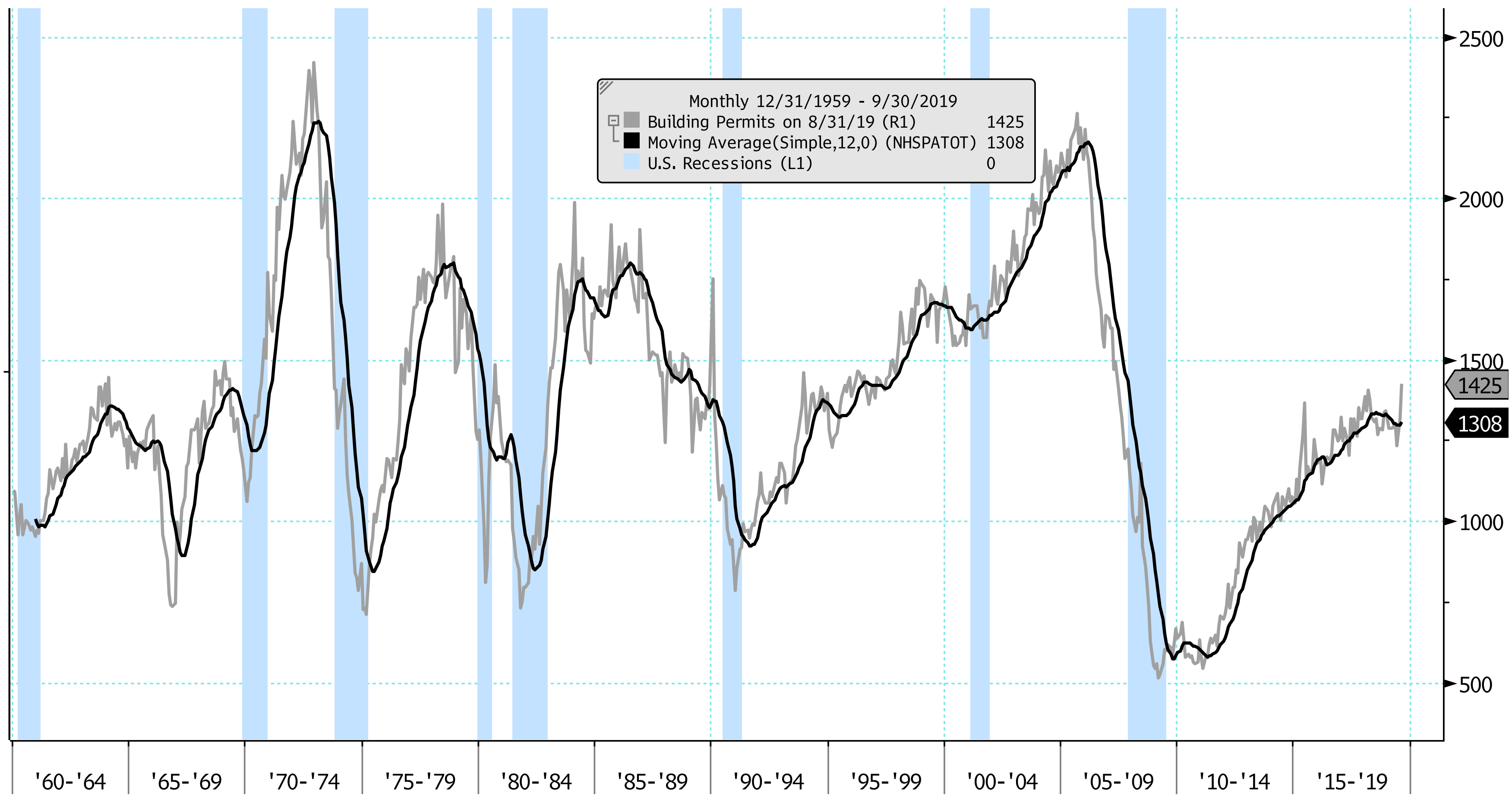


Source: © Merk Investments, Bloomberg

Analysis: The high yield credit spread remains below what I consider to be the warning level, although it has been trending higher and bears watching. Chart Framework: I'd get incrementally negative on the business cycle outlook if the spread moves above 5.

U.S. Building Permits

U.S. Building Permits and 12-month Moving Average



Source: © Merk Investments, Bloomberg

Analysis: Building permits, historically a long leading indicator, made new cycle highs. I'm currently positive on this picture. Framework: I would get negative if the 12-month moving average started trending lower again.

Checklist

Chart	Time Horizon	Per Framework Outlook on Business Cycle
LEIs	Short/Medium Term	Positive
Yield Curve	Medium Term	Neutral/Negative
U.S. PMIs	Short/Medium Term	Negative
Global PMIs	Short/Medium Term	Negative
Job Gains	Medium Term	Positive
U-3 v 12m MA	Medium Term	Positive
SF Fed U-3	Medium Term	Negative
Labor Force Capacity Util.	Medium/Longer Term	Neutral/Negative
Output Gap	Medium/Longer Term	Neutral/Negative
GDP Forecast	Short Term	Positive
Household Credit	Medium Term	Positive
U.S. Consumer Confidence	Short/Medium Term	Negative
Lending Standards	Medium Term	Positive
High Yield Spread	Short/Medium Term	Positive
U.S. Building Permits	Medium/Longer Term	Positive
	Time Horizon	**Overall Outlook on Business Cycle**
	Short Term (<6 months)	Neutral/Positive with high uncertainty
	Medium/Longer Term (6m - 5 years)	Neutral/Negative with high uncertainty

Conclusion/Thoughts

This continues to be an extremely challenging economic environment to analyze, with mixed signals. I would estimate the probability of a recession starting in the coming six months to be around 30-45%. While my base-case view remains that the U.S. economic expansion will likely continue over the next several months, and in general until further notice, the trend in much of the data is concerning and the data probably needs to start improving soon if the U.S. economy is going to weather the current soft patch.

Of greatest concern are the depth and duration of yield curve inversion (10yr-3m) and the weakness in the U.S. manufacturing PMI (now below 50 for two consecutive months). On the positive side: recent housing market data looks strong, the LEI index continues to trend higher YoY, and financial conditions continue to be generally supportive of the expansion. And even given some of the late cycle indications, some slack seems to remain in the labor market, which may further suggest that the economic cycle can continue for a while longer. Also, historically U.S. business cycles have ended with an "overheating" and an overshoot of inflation- the U.S. economy has not (yet) "overheated" and there seems to be an absence of obvious excesses.

Much of the weakness in global manufacturing is likely attributable to uncertainty over global trade policy, an issue that the current U.S. administration seems to have a fair amount of unilateral influence over. In my view the administration will likely make an effort to move toward resolution as the re-election campaign approaches, which may be the catalyst for a global economic rebound. The more time passes before a resolution, however, the more likely a resolution could be too little too late with regards to avoiding a recession.

While uncertainty around the outlook has increased greatly, based on my checklist approach I think the U.S. business cycle picture near-term is overall still slightly more positive than negative. On balance, based on the charts and frameworks presented (which inevitably may not capture all possible risk factors in real-time), it seems more likely than not that the U.S. economic expansion continues in the coming several months. The longer term outlook remains negative as we are likely in the late part of this economic expansion. All of the presented charts and concepts are somewhat inter-related, as is the economy in general, so the idea is to have some different data points to cross-reference. In my view no one indicator can be looked at in isolation.

-Nick Reece, CFA

About the Author

Nick Reece, CFA: Nick is a Senior Analyst and Portfolio Manager at Merk Investments. He focuses on macroeconomic research and private wealth management, regularly publishing reports on the U.S. business cycle and equity market. Prior to joining Merk in 2012, Nick gained experience working on capital markets deals with Paul Hastings in Hong Kong, and with Atlantis Investment Management. Mr. Reece holds a B.A. in Economics from Trinity College and is a Chartered Financial Analyst (CFA) charterholder. Nick lives in New York City. Outside of work, he is an avid reader and volunteer high school math tutor. You can follow Nick on Twitter @nicholastreece.

Disclosure

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