IPI RESEARCH RECESSION WATCH Updated Third Quarter 2018 RECESSION Our Recession Watch Dashboard is showing an overall low risk of recession starting within the next year. DASHBOARD Because data for the components of this dashboard are available with varying frequencies, some will be more current than others. In all cases, we have used the latest data available. DEFINITIONS Historical Average **Current Level** We believe we are in the late stage of the current expansion, but that this stage can last several years. A slow recovery leaves several signals in mid-stage, which has contributed to the cycle's RECOVERY durability. Fiscal policy may also help extend the cycle. D 10-Year Treasury Yield, Low A 3-Month Treasury Bill, Low G Commodity Prices, Low B Civilian Employment, Passes Prior Peak E Housing Starts, Expansion Total H Yield Spread, BAA, 20-Year Treasury, Low F GDP, % Above Prior Peak C CPI, Year-over-Year, Low I Average Hourly Earnings, Year-over-Year, Low L Real Earnings Peak For more details on any of the components of this dashboard, please see the links embedded within the graphic (marked with a + symbol).



To complete the Over Index, LPL Research measures trends in three broad economic drivers: spending, borrowing, and confidence. For each of these three drivers, we found four diverse components that reflect the economic activity of that subindex from a different angle. The Over Index takes each of the subcomponents and uses a sophisticated statistical process to normalize and index each data series into an overall score for each of the three drivers. The combined aggregated data help to measure the likelihood that the economy is showing signs of overactivity and that we may be approaching a cyclical peak.

TREASURY YIELD CURVE

WATCH

LEADING ECONOMIC

INDICATORS

YES

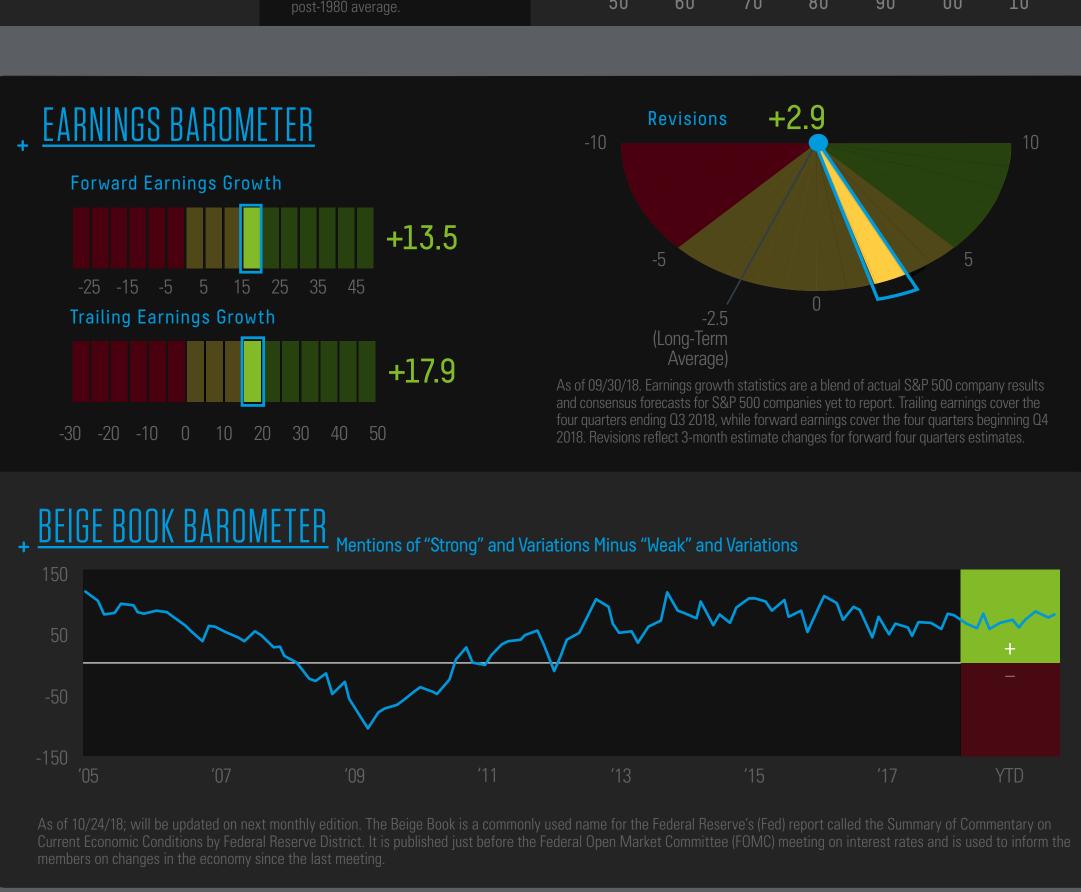
Yield Spread, 10-Year Treasury Minus 3-Month T-Bill, % '80 '85 '00 '10 Index of Leading Economic Indicators, Year-over-Year % Change 20 10 -10 -20 ^{'75} **'80 '85 '90 '95** 15 '70 '00 '05 '10 TREND CONFIRMATION: NYSE Composite Index (Left) and Cumulative Advance-Decline for NYSE Stocks (Right) 14,000 .14M .10M 11,000 80,000 9,000 60,000 '16 '16 '17 S&P 500 Trailing Four Quarter Earnings Growth Rate, % (Left) Institute for Supply Management (ISM) PMI Shifted 6 Months Forward, % (Right) 70 50 40 -70 30 **'90** 10 15 '00 '05 **'95** S&P 500 Trailing Price-to-Earnings Ratio and Post-1980 Average 30

5 FORECASTERS: LATE CYCLE WARNING?

There is no magic formula for predicting recessions and bear markets — every cycle is different. But we believe the Five Forecasters cover a variety of perspectives and help capture a more complete view of the economic and market environment. They are meant to be considered collectively, not individually.

ON WATCH NO **YES** As of 09/30/18. Shaded areas MARKET BREADTH **YES** WATCH As of 09/30/18. White arrows indicate **PURCHASING MANAGERS' SENTIMENT (PMI)** ON WATCH NO **YES** As of 09/30/18. Clear peak in ISM PMI **MARKET VALUATION** YES NO

20 10 [']50 **'70** 60 **'80 '90** '00 '10 +2.9 Revisions



Investing in stock includes numerous specific risks including: the fluctuation of dividend, loss of principal, and potential illiquidity of the investment in a falling market. NYSE Composite Index measures the performance of all stocks listed on the New York Stock Exchange. The NYSE Composite Index includes more than 1,900 stocks, of which over 1,500 are U.S. companies.

This research material has been prepared by LPL Financial LLC.

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