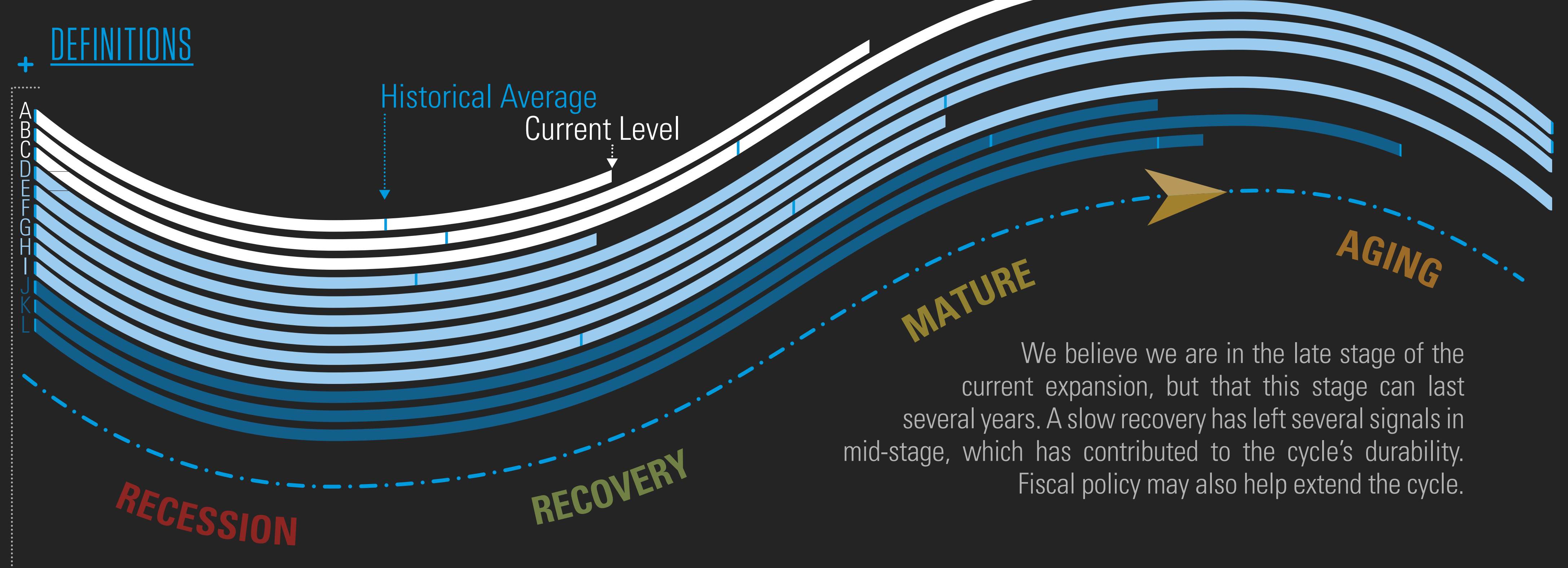
RECESSION WATCH January 2020

LPL RESEARCH
RECESSION WATCH DASHBOARD

Our Recession Watch Dashboard is showing a modest risk of recession starting within the next year.

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



We believe we are in the late stage of the current expansion, but that this stage can last several years. A slow recovery has left several signals in mid-stage, which has contributed to the cycle's durability. Fiscal policy may also help extend the cycle.

A 3-Month Treasury Bill, Low
B Civilian Employment, Passes Prior Peak
C CPI, Year-over-Year, Low
D 10-Year Treasury Yield, Low
E Housing Starts, Expansion Total
F GDP, % Above Prior Peak
G Commodity Prices, Low
H Yield Spread, BAA, 20-Year Treasury, Low
I Average Hourly Earnings, Year-over-Year, Low
J Profitability, Peak
K Real S&P 500 Price Index, % Above Prior Peak
L Real Earnings Peak

Data for all series is as of December 31, 2019. Starting point for all series is June 1954 except housing starts (March 1961), hourly earnings (December 1970), and commodity prices (December 1970). Real prices and real earnings determined using the Consumer Price Index for all urban consumers (CPI-U). Commodity prices are based on the GSCI Total Return Index. Profitability is based on real profit per unit value added for non-financial corporate business based on current production as calculated by the BEA.

The 10-year Treasury yield hit a new low for the current cycle in July 2016 (based on the daily average), shifting us to earlier in the cycle by that metric.

Sources: LPL Research, Federal Reserve, U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, U.S. Bureau of the Census, Standard and Poor's, Robert Shiller, National Bureau of Economic Research, Haver Analytics, Thomson Reuters

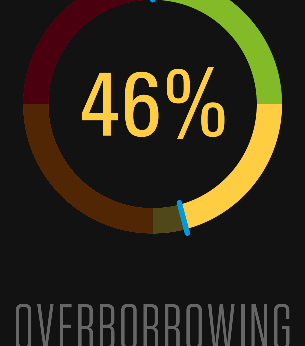
The opinions voiced in this material are for general information only and are not intended to provide or be construed as providing specific investment advice or recommendations for your clients.

Any economic forecasts set forth in the presentation may not develop as predicted and there can be no guarantee that strategies promoted will be successful. All indexes are unmanaged and cannot be invested into directly.

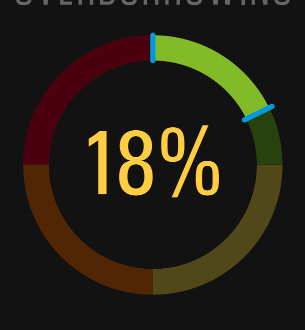
For more details on any of the components of this dashboard, please see the links embedded within the graphic (marked with a + symbol).

+ THE OVER INDEX

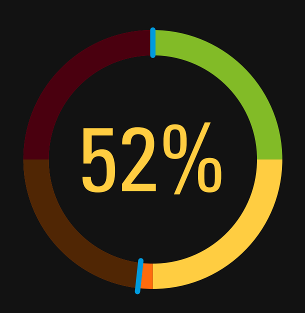
OVERSPENDING



OVERBORROWING



OVERCONFIDENCE



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.

As of 12/31/19. Shaded areas indicate recession.

Spending is measured by the selected criteria: real home prices, big ticket purchases, business spending, and commodity prices.

Borrowing is measured by the selected criteria: credit card debt, consumer debt payments, business debt, and commercial loan growth.

Confidence is measured by the selected criteria: consumer confidence, valuations, wage growth, and business leverage.

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.

The PE ratio (price-to-earnings ratio) is a valuation ratio of a company's current share price compared with its per-share earnings. A high PE suggests that investors are expecting high earnings growth in the future, compared with companies with a lower PE.

The Standard & Poor's 500 Index is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

The Purchasing Managers' Index (PMI) is an indicator of the economic health of the manufacturing sector. The PMI is based on five major indicators: new orders, inventory levels, production, supplier deliveries, and the employment environment.

TREASURY YIELD CURVE

NO | ON WATCH | YES

As of 12/31/19. Shaded areas indicate recession.

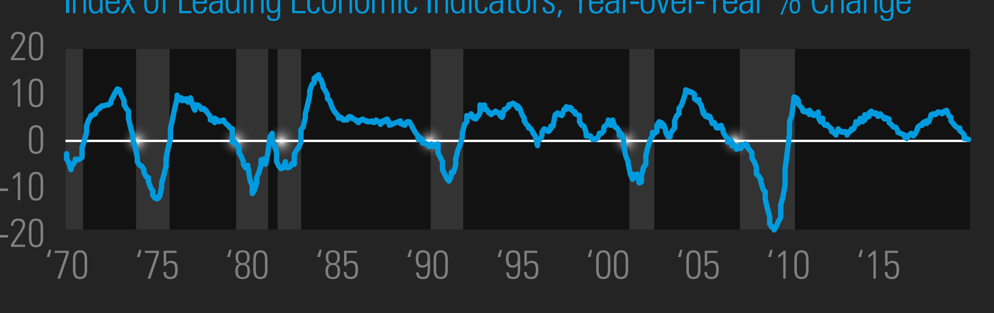
Yield Spread, 10-Year Treasury Minus 3-Month T-Bill, %

LEADING ECONOMIC INDICATORS

NO | ON WATCH | YES

As of 12/31/19. Shaded areas indicate recession.

Index of Leading Economic Indicators, Year-over-Year % Change

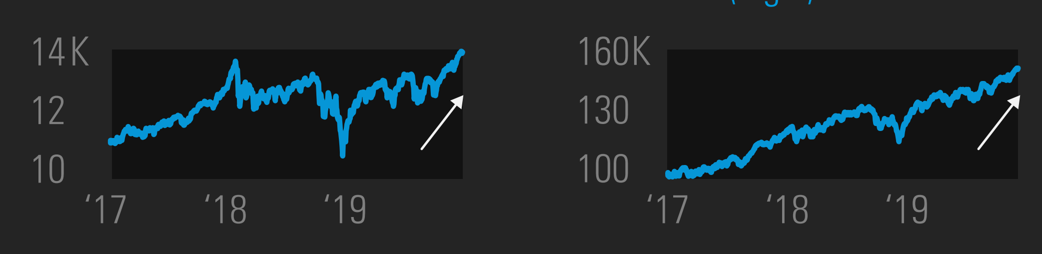


MARKET BREADTH

NO | ON WATCH | YES

As of 12/31/19. White arrows indicate trends. Divergences signal bear markets.

TREND CONFIRMATION: NYSE Composite Index (Left) and Cumulative Advance-Decline for NYSE Stocks (Right)

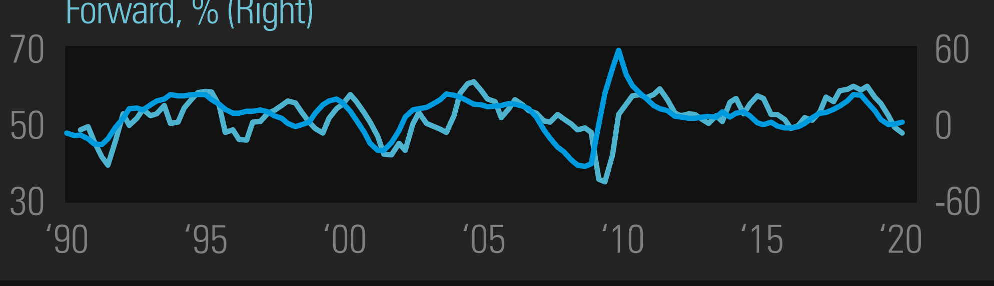


PURCHASING MANAGERS' SENTIMENT (PMI)

NO | ON WATCH | YES

As of 12/31/19. Clear peak in ISM PMI signals likely peak in earnings growth rate.

S&P 500 Trailing Four Quarter Earnings Growth Rate, % (Left)
Institute for Supply Management (ISM) PMI Shifted 6 Months Forward, % (Right)



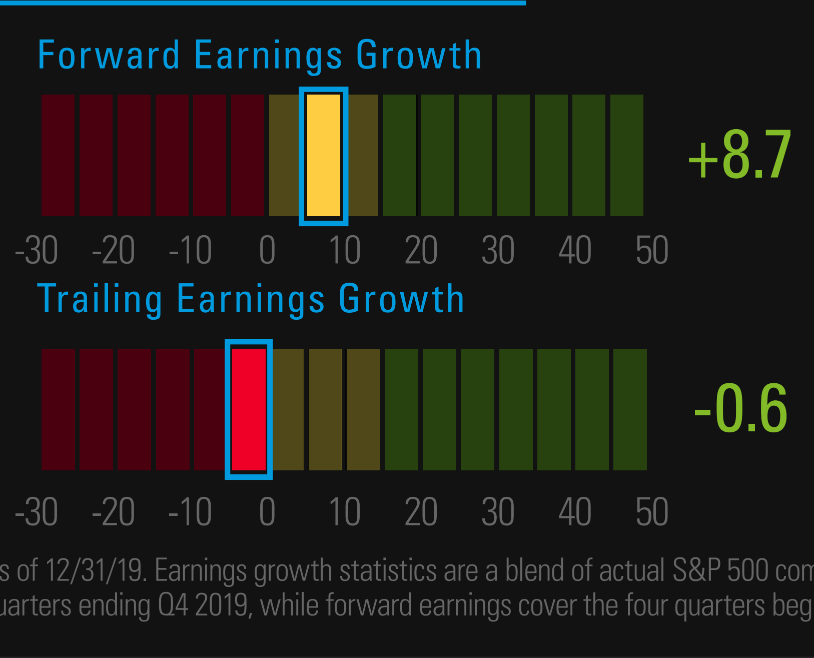
MARKET VALUATION

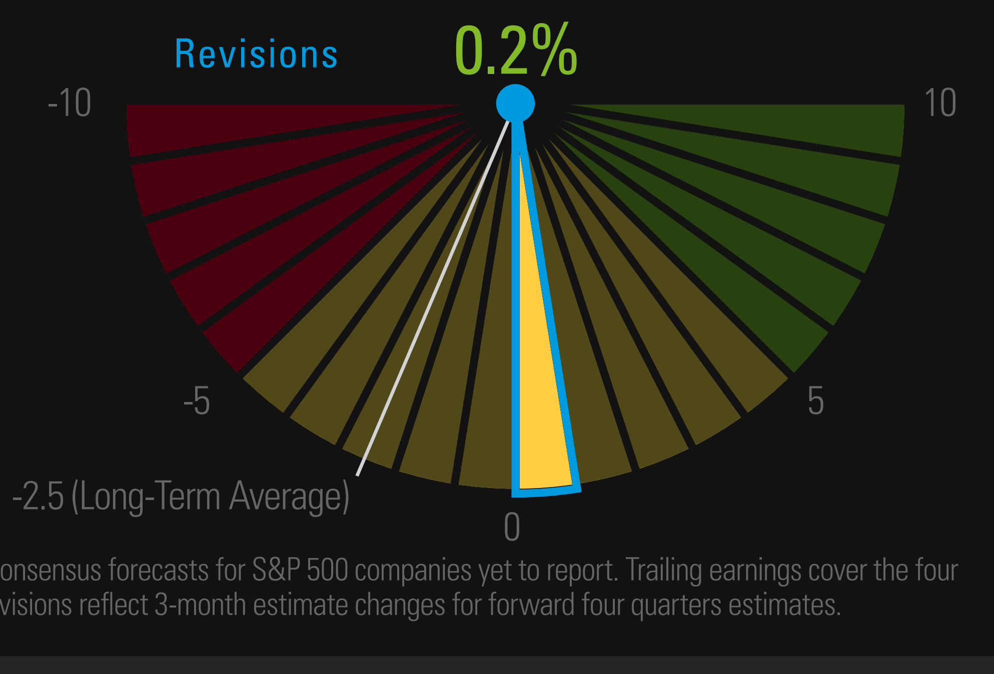
NO | ON WATCH | YES

As of 12/31/19. White bar indicates post-1980 average.

S&P 500 Trailing Price-to-Earnings Ratio and Post-1980 Average

+ EARNINGS BAROMETER





As of 12/31/19. Earnings growth statistics are a blend of actual S&P 500 company results and consensus forecasts for S&P 500 companies yet to report. Trailing earnings cover the four quarters ending Q4 2019, while forward earnings cover the four quarters beginning Q1 2020. Revisions reflect 3-month estimate changes for forward four quarters estimates.

+ BEIGE BOOK BAROMETER Mentions of "Strong" and Variations Minus "Weak" and Variations

As of 12/31/19; will be updated on next monthly edition. The Beige Book is a commonly used name for the Federal Reserve's (Fed) report called the Summary of Commentary on Current Economic Conditions by Federal Reserve District. It is published just before the Federal Open Market Committee (FOMC) meeting on interest rates and is used to inform the members on changes in the economy since the last meeting.