

Fourth Quarter 2019



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UMB Investment Management appreciates this opportunity to share our insight with you.



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Cause and Effect

Cause and effect is a relationship between events where one is the result of the other. If one expected the following: global economic slowing, falling interest rates, benign inflation, trade wars, slowing corporate earnings, a primary dealer liquidity crisis and a Presidential impeachment, what would the forecast look like? Average GDP growth? Stock market up 30%?

All of these issues happened in 2019, and the effect was 2.3% GDP in the U.S., which matches the 10-year average GDP, and the S&P 500 up 31.5%.

Trend, or potential GDP, suggests that long-term GDP should grow at approximately 2.1%. This is not a doomsday forecast. Since the Great Recession ended in 2009, the U.S. economy has grown at an average 2.3% annual rate. As fiscal and monetary stimulus benefits wane, GDP will slow to the potential GDP forecast. UMB's GDP forecast is 1.9% for 2020.

Economic Data

The economic result of a slowing nation is caused by demographics and productivity gains. Many economic variables continue to signal a slowing economy, but favorable economic conditions currently outweigh the risks:

- Potential GDP: Long-term potential GDP is estimated at 2.1%. Potential GDP considers two variables: labor force growth rate plus productivity gains. The labor force growth rate, which is a function of population growth rate, is expected to grow 0.5% in the future. Productivity gains, output per worker, is expected to grow 1.6%. When the two are added together, the result is potential GDP (2.1%).
- Equity markets and valuations: The S&P 500 gained 31.5% in 2019. This leading indicator is signaling that economic conditions will continue to grow modestly over the next 12 months. Equity valuation is just about right. The market trades at a 18.5 times forward earning multiple, which is slightly above the five-year average.
- Interest rates: Low interest rates have supported modest economic and corporate earnings growth. In the recent Federal Reserve meeting, the Fed governors were divided, with half favoring lower rates and half thinking current levels are just about right. We think the Fed will lower rates to 1.75% by year end.
- Inflation: One of the Fed's goals is to have stable inflation around 2%. The Personal Consumption Expenditures (PCE) Price Index, excluding food and energy, is at 1.7%, and all year this inflation index has been below the Fed's target. Wage inflation (average hourly earnings) is growing at a controllable 3%.
- Recession signals: Our three recession indicators (slope of the yield curve, Leading Economic Indicators (LEI) and initial unemployment claims) all suggest that a recession beginning in 2020 has a low probability.
- Risks: Current conditions may be just about right, but there is a long list of troublesome issues threatening the future. Trade wars, geopolitics, negative interest rates, debt, foreign relations; the list goes on and on. However, none of these risks present a clear and present danger to our 12-month forecast.

Outlook

We expect 2020 GDP to slow to 1.6%-2.1% amid elevated uncertainty. We expect the Fed to take no action in 2020, leaving short rates at 1.75%. Modest economic growth along with low interest rates should support corporate earnings growth. We expect stock prices up 4-6% in 2020. The table at right summarizes our 2020 forecasts:

right our sts:	U.S. Real GDP Growth Rate	1.6% - 2.1%
	Global Real GDP Growth Rate	3.5% - 3.8%
	S&P 500 Price Target	3,400
	S&P 500 Operating EPS Growth	5.00%
	Projected 10-Year Treasury Rate	2.00%
	Fed Funds	1.75%



Equity Markets - Cause and Effect

Quarter Recap

In the fourth quarter, the S&P 500 increased 9.1%, signaling that the economy still has gas in the tank. On a short-term basis, the cause of the market rally was trade de-escalation as tariffs were delayed in mid-October and the outline of a Phase 1 trade deal between the U.S. and China was agreed upon by mid-December. The impeachment of President Trump led to a lot of noise late in the quarter, but had absolutely no effect on the markets. For 2019, the S&P 500 was up 31.5%.

Cause and Effect

One of the causes of the 31.5% total return in 2019 has to do with anchoring, which is the starting point for the return calculation. The starting point in 2019 was at a low level and depressed valuations due to the sharp selloff in Q4 2018, down a stunning 19.8%, from concerns regarding the Federal Reserve raising interest rates. This being said, on a two-year basis the S&P 500 total return is 12%, which matches the average 12% EPS growth over the past two years. As we have discussed previously, earnings are the most important driver for stock prices. Importantly, in 2019, the Fed reversed course and began lowering interest rates (three interest rate cuts of 25 basis points (bps) each in 2019 vs. four interest rate hikes of 25bps each in 2018).

Valuation

Valuations expanded significantly in 2019, another driver of stellar equity returns. The forward price earnings ratio (P/E) started the year at 14 times and ended the year at 18.5 times. This multiple expansion drove the vast majority of the total return for the S&P 500 in 2019, as earnings only grew slightly. While we don't think multiple expansion will again drive the market in 2020, we think the market is fairly valued due to low interest rates and modest inflationary pressures (see chart on page 7). In 2020, earnings growth should boost stock prices modestly higher.

Forecast

We expect the S&P 500 to reach 3400 during 2020. This represents a valuation of approximately 18.5 times forward earnings per share (EPS) estimates of \$184. Our modest 5% price return forecast is driven by 2% GDP and 5% earnings growth. Our forecast could be conservative if interest rates and inflation remain in check, if we continue to see a stabilization in global economic growth, and if we see an improvement in global trade. In 2020, we do expect to experience volatility in the equity markets. In 2019, the S&P 500 had two corrections of 5% or more and no corrections of 10% or more. Historically, the market averages more than three corrections per year of greater than 5% and more than one correction of greater than 10%.

The Fed and Interest Rates

Quarter Recap

With the trade spat showing signs of stabilization and the economy continuing to grind along at a steady pace, the Federal Open Market Committee (FOMC) changed their tune modestly during the fourth quarter. They had previously hinted that they were ready to make multiple additional cuts to rates, and the bond market was positioned for the Fed Funds rate to fall to 1.50% or lower before the Fed tapped the brakes. However, the stabilized trade situation and unstoppable stock market inspired the FOMC to move rates down one time during Q4, and then switch to a "wait and see" message. They signaled an intention to leave rates unchanged (at 1.75%) for the foreseeable future, believing that financial conditions are appropriate for the current environment. Consequently, this caused longer rates to move up, pushing the 10-year treasury rate to 1.92% at year end and steepening the yield curve back up to +32bps (10-yr. minus 2-yr.). This is a strong signal that the bond market believes the economy is on decent footing and that a recession is not a risk over the next 12-18 months.

Rising rates resulted in moderate returns for the quarter, but still didn't derail an exceptionally strong calendar year in the bond markets. Despite modest fourth quarter returns, Intermediate Investment grade indices posted calendar-year returns in the 6-8% range — truly exceptional and well in excess of forecasts coming into 2019. This resulted from a combination of falling rates (from Jan. to Dec.) and strong performances in corporate bonds.

Forecast

For 2020, we believe the economy will remain on a steady path, and that Inflation will stay subdued, enabling the Fed to stay on hold for the entire year. This will mean that the Fed Funds rate remains unchanged at 1.75%. We believe the strong labor market will keep concerns about inflation alive, and as a result, the 10-year Treasury rate will drift up slightly to the 2.00% range. The volatility of the global trade situation, coupled with the impending presidential election, will create a highly uncertain environment and one in which the FOMC will most likely prefer to "stay out of the way" and avoid exacerbating volatility with unexpected changes to their messaging or policies.

High-Yield Spreads

High-yield spreads continue to align with the positive signals coming from the economy and stock market, driving strong returns for the high-yield sector in 2019. High-yield spreads do not in any way indicate that an economic slowdown is coming soon. We acknowledge that we are late in a very long cycle of outperformance, and leverage ratios are elevated. However, steady earnings growth and low borrowing rates have ensured that coverage ratios remain very strong, supporting a modestly positive outlook for the sector for the next few quarters. We continue to favor modest overweight to credit risk at this time.



US Real vs. Potential GDP

Consumer Confidence - Conference Board



NFIB Small Business Optimism



- Potential GDP is a long-term forecast of the highest level of growth that is sustainable. Potential GDP currently stands at approximately 2.1%. Potential GDP is driven by labor force growth rate and productivity gains.
- The labor force is expected to grow 0.5% per year over the next 10 years. This is fairly easy to predict and doesn't change quickly. The slow labor force growth is driven by low population growth, which stems from a low birth rate.
- Productivity gains over the past 40 years average approximately 1.9% per year. Productivity gains have been a disappointment in the past decade, although the potential for technologies like artificial intelligence, augmented reality and autonomous vehicles to increase productivity is significant.
- Taken together, the labor force growth rate of 0.5% and productivity at 1.6% allows the economy to grow by approximately 2.1% per year-slower than in past decades, but not a bad story.
- The Conference Board Consumer Confidence Index® has increased sharply over the last year, remaining near a 15-year high. The surge over the past few years in consumer confidence has largely been driven by a robust labor market. The strength in consumer confidence supports our view that we will continue to see solid consumption growth.
- Small Business confidence (NFIB Small Business Optimism) has flattened out over the past couple of months as firms are concerned about slowing global growth. The elevated level supports modest growth.
- CEO Confidence has recently hooked lower and is somewhat concerning. The CEO Confidence survey is geared toward large, Fortune 500 companies. Weaker international trends and trade disputes may be starting to impact confidence.
- Prior to past recessions, all confidence metrics typically are decelerating in a synchronized fashion. We do not see this with the current readings, leading us to believe we will see economic growth in 2020.



US MANUFACTURING AND INDUSTRIAL PRODUCTION

Manufacturing and Services





Global Purchasing Managers' Index for manufacturing, quarterly



- U.S. manufacturing started to slow in early 2018. The manufacturing index suggests manufacturing has been contracting for the past five months. History tells us that the manufacturing sector can contract while the overall economy expands.
- Many prognosticators believe the reason manufacturing has slowed is primarily due to trade uncertainty.
 We disagree. While trade likely plays some role, we believe the natural economic cycle is the more likely cause in addition to several one-off events such as the GM strike and the Boeing 737 Max production issues.
- The service sector of the economy has remained healthy despite the manufacturing slowdown. Historically, a broad based economic slowdown requires a slowdown in both the manufacturing and non-manufacturing indices.
- Industrial production (IP) is a coincidental indicator, telling us what the economy is currently doing. IP turned negative in the month of September. As of December, IP is declining 1.0% year-over-year.
- We think global manufacturing activity is in a bottoming phase. After contracting for six straight months in 2019, from May to October, global manufacturing activity has expanded slightly over the last two months.
- Stabilization is being led by China, where their policy makers are aggressively attempting to stimulate their economy through easy fiscal and monetary policies. China's manufacturing sector has slightly expanded the last two months.
- However, manufacturing activity in the U.S. and Euro Area remain sharply negative and represent a risk to our forecast of stabilization.



LABOR MARKET

Unemployment Rate



Initial Unemployment Claims



COMMODITIES



- The U.S. labor market remains extraordinarily healthy. The unemployment rate (U-3) stands at 3.5% in December while the marginally attached unemployment rate (U-6) is at 6.7%.
- Finding qualified labor is becoming a problem for firms, which could slow job gains and economic growth over the next couple of years. The National Federation of Independent Businesses hard-to-fill job openings survey shows that 33.0% of companies are having a hard time filling job openings — a figure that's among the highest readings on record.
- Initial unemployment claims remain historically low, at around 211,000. This suggests the unemployment rate will remain fairly low in 2020. We expect the unemployment rate to end 2020 around 3.5-3.8%.
- The number of claims is an excellent recession indicator. Historically, claims have spiked higher prior to a recession. Currently, there is no sign of claims moving higher.
- A near perfect example of cause and effect is commodity prices. With the introduction of tariffs (cause) one would expect commodity prices to rise (effect). In fact, the exact opposite happened. Tariffs were put in place on steel and aluminum in the first half of 2018, which happened to mark the top in prices.
- After the implementation of tariffs, prices fell by 12% for steel, 15% for copper, and 21% for aluminum.
- Ultimately, tariffs play a minimal role in commodity pricing. What really matters to commodity markets is supply and demand. Tariffs are mainly noise.



S&P 500 4Q 2019 Price Action



10 25 8 Dec 2019 20 18.61 6 Valuation 15 10 2 Dec 2019 1.77 0 5 2020 1990 1995 2000 2005 2010 2015 - S&P 500 - Foward 12P/E (RH Scale) — 10 Year US Treasury (LH) Source: Refinitiv Datastream: UMB Investment Management

• Despite all the trade headwinds and impeachment news in Q4, the S&P 500 posted a total return of 9.1%.

- The cause of the strong quarterly return was due to easing trade tensions between the U.S. and China.
- In early October, the United States delayed tariff increases and outlined a Phase 1 trade deal with China, which was officially agreed upon in mid-December.
- Despite the negative publicity of a Presidential impeachment, markets reacted favorably, as the fundamentals of the economy and corporate earnings are more relevant than impeachment.

- S&P 500 valuations, as defined by the P/E ratio, expanded meaningfully in 2019, driving stock prices higher. We believe an appropriate valuation range for the market in this low interest rate environment is 15-18x earnings. Currently, the market trades at 18.5x earnings.
- As long as interest rates remain low, valuations can stay at an elevated level, as detailed in our valuation vs. interest rate charts.
- Significant cause of the market valuation expansion in 2019 were the low interest rate environment, a recovery in global economic trends, and anticipation of an earnings recovery in 2020.
- Our price target is 3400 for the year, which would represent a 5% price return for 2020. Our price target is based on 18.5x earnings of \$184. We expect valuation levels to maintain the current multiple and the returns to be driven by earnings growth of 5%.

S&P 500 P/E Ratio vs. Interest Rates



S&P 500 Net Profit Margins



- Expanding profit margins have helped drive earnings growth over the past 10 years. The current net profit margin is 9.97%. This compares to the average since 1990 of 6.7%. Margins are driven by interest rates, taxes, labor costs, pricing power and productivity.
- Much of the margin expansion has been exhausted in our view (i.e. corporate taxes aren't going lower, labor costs are starting to go up, and commodity prices may become a headwind).
- We don't think margins can expand much more. That said, margins could continue to stay elevated for a few more years if we avoid recession.
- Peak profit margins is a meaningful risk to our EPS forecast.



- We are constantly aware of geopolitical threats that cause uncertainty in the markets. We would include potential wars, military conflicts, terrorism, cyber security attacks, and spikes in oil prices as shocks to the market.
- One of the reasons markets are not as sensitive to shocks as in the past is due to the changing fundamentals of the oil markets. The U.S. has become less dependent on foreign sources of oil as shale discovery has significantly increased the amount of oil the U.S. produces.
- While geopolitical threats can cause short-term moves in oil prices, we don't view it as a longer-term threat. A spike in oil is a risk to our short-term forecasts as it can negatively impact consumer spending. Oil price must be over \$100 a barrel to present a meaningful risk to economic growth.

S&P 500 vs. Oil



Unemployed to Job Openings Ratio



Wage Growth



Inflation



- The labor market is tightening. The scarcity of labor is a common theme among small business owners. There are 6.8 million job openings but only 5.7 million unemployed people to fill those jobs.
- We believe that as the labor market continues to tighten, wages will continue to increase. Average Hourly Earnings and the Employment Cost Index both show a slight upward trend over the past few years.
- Faster wage growth could lead to inflationary pressures in the economy and push the Fed into tightening mode. We are monitoring wage growth closely.

- The Fed's inflation target is 2.0%. One of the Fed's preferred inflation indices is the Trimmed Mean PCE index. This index removes the most volatile variables (beyond just Food and Energy), and is believed to provide a more reliable measure of inflation over time versus the PCE, CPI and other commonly published data.
- The index has been hovering around 2.0% for quite some time.
- Other indices also indicate that inflation is running around the 2% level. Core CPI is 2.4% and Core PCE is 1.7%.
- Inflation appears to be steady for now, supporting the case for maintaining the current level of rates.



Inflation Expectations: Five Year Break-Even







- The FOMC closely follows inflation expectations, since they tend to be a solid indicator of the direction for future measured inflation.
- Inflation expectations have been well below the Fed's 2.0% target for quite some time.
- With the stable outlook from the FOMC and comments suggesting that the economy is on stable footing, inflation expectations moved up during the quarter, but remained well below the stated target.

- High-yield spreads have pushed back down near cyclical lows.
- This implies a healthy appetite for credit risk among investors and shows little concern for impending issues with the economy.
- Leverage ratios are elevated, but coverage is strong due to solid cashflow and earnings.
- We are concerned about the long-running increases in leverage throughout the system, and therefore continue to be underweight in the high-yield sector.

Equity Market Performance

Total Return % as of 12/31/2019						
1 Month	3 Month	YTD	1 Year			
3.01	9.06	31.48	31.48			
4.49	14.40	50.29	50.29			
1.98	8.99	32.69	32.69			
2.66	10.44	32.09	32.09			
-0.09	5.50	29.32	29.32			
1.31	-0.54	29.00	29.00			
2.80	4.47	27.94	27.94			
2.37	3.51	27.61	27.61			
3.44	0.80	26.40	26.40			
3.05	6.37	24.58	24.58			
3.59	14.37	20.82	20.82			
6.03	5.49	11.81	11.81			
	1 Month 3.01 4.49 1.98 2.66 -0.09 1.31 2.80 2.37 3.44 3.05 3.59	1 Month 3 Month 3.01 9.06 4.49 14.40 1.98 8.99 2.66 10.44 -0.09 5.50 1.31 -0.54 2.80 4.47 2.37 3.51 3.44 0.80 3.05 6.37 3.59 14.37	1 Month3 MonthYTD3.019.0631.484.4914.4050.291.988.9932.692.6610.4432.09-0.095.5029.321.31-0.5429.002.804.4727.942.373.5127.613.440.8026.403.056.3724.583.5914.3720.82			

Bond Market Performance

1 Year
6.67
6.80
23.89
16.44
14.83
12.99
9.71
9.51
8.72
6.86
6.35
5.22
4.46
6 5 6

Green = YTD outperformance

Blue = YTD underperformance

Source: Bloomberg

- Fourth Quarter, 2019
- The S&P 500 rose 9.1% in Q4, bringing the YTD return to 31.5%.
- The combination of the 2019 +30% return and the 2018
 -4% return averages 12% per year. This also happens to be the same as the two-year earnings growth rate of 12%.
- Interest rate-sensitive sectors, such as real estate and utilities, performed well as rates came down. Technology was the best-performing sector, as some of the largest names in the group are less sensitive to the change in economic trends.
- In the quarter, three sectors generated returns over 10%, indicating the market strength has broad breadth (which indicates a healthy return).
- Slightly higher rates for the quarter resulted in modest returns, but lower rates over the calendar year drove exceptionally strong returns for the YTD.
- Long maturity assets have posted fantastic returns due to lower rates. Corporate bonds benefited from the strong gains in risk assets (equities, etc.).
- Recent returns are not likely to be replicated in upcoming quarters.

U.S. Contributions to GDP Growth



Source: Refinitiv Datastream; UMB Investment Management

% Contribution to GDP by Quarter

Component	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19
Consumption	2.3	1.0	0.6	3.0	2.1	1.2
Investment	2.2	0.5	1.1	-1.2	-0.2	-1.1
Net Exports	-2.0	-0.4	0.9	-0.6	-0.1	1.5
Government	0.4	0.0	0.5	0.8	0.3	0.5
Total	2.9	1.1	3.1	2.0	2.1	2.1

UMB GDP Forecast*

Year	Q1	Q2	Q3	Q4	Year
2017	2.3	2.2	3.2	3.5	2.4
	(A)	(A)	(A)	(A)	(A)
2018	2.5	3.5	2.9	1.1	2.9
	(A)	(A)	(A)	(A)	(A)
2019	3.1	2.0	2.1	2.1	2.3
	(A)	(A)	(A)	(A)	(A)
2020	1.6	1.9	1.9	1.8	1.8
	(E)	(E)	(E)	(E)	(E)

Source: Thomson Reuters Datastream; UMB Investment Management
(A) = Actual, (E) = Estimate

Source: UMB Investment Management

*Quarter over Quarter Seasonally Adjusted Annual Rate



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