



MORNING BRIEFING

November 19, 2019

P/E Primer

See the [collection](#) of the individual charts linked below.

(1) Question of our times: Is the market overvalued? (2) Inflation-adjusted valuation models aren't alarming. (3) Meet MAPE: Misery-Adjusted P/E. (4) Les Misérables are much less miserable. (5) Inverse relationship between P/E and misery. (6) A primer on forward P/Es. (7) 505 P/Es. (8) S&P 500 Energy, Financials, Health Care, and Industrials are the fairest of them all. (9) Market-cap shares vs earnings shares for the sectors. (10) Global sectors: valuation vs market-cap shares.

Valuation I: Everyone is asking us: Is the market overvalued? Yesterday, Joe and I compared valuation to a beauty contest, noting that beauty is in the eye of the beholder. A talent show might be more apt an analogy during today's divisive times. Like any objective judge at a talent show, we want to see the contestants compete before we pick the winner. That's what we at YRI do on a regular basis when we assess the various valuation models.

In recent years, we've given more of our votes to the contestants that incorporate inflation and interest rates into their acts. That's led us to a more sanguine opinion about stock valuation than suggested by the more traditional reversion-to-the-mean P/E models, especially the ones based on trailing earnings.

As we observed yesterday, there are lots of models for assessing valuation in the stock market. We follow three of them that account for inflation in determining valuation. We discussed the Real Earnings Yield and the Rule of 20 yesterday. Both deliver sanguine assessments, suggesting that stocks are not overvalued. The third one sends the happiest signal right now. We call it the Misery-Adjusted P/E (MAPE). Consider the following:

(1) *The Misery Index*. The Misery Index is the sum of the unemployment rate and the yearly percent change in the CPI inflation rate ([Fig. 1](#) and [Fig. 2](#)). The Misery Index tends to fall during bull markets and to bottom before bear markets. It was down to 5.4% during October, almost matching the most recent low of 5.0% during September 2015, which was the lowest reading since April 1956. What you're about to hear may be hard to believe, we know, amid all the naysaying by all the naysayers, but the truth is: Most Americans have never been less miserable, at least in terms of how they're affected by the performance of the macro-economy.

(2) *MAPE*. We've found that there is a reasonably good inverse correlation between the forward P/E of the S&P 500 and the Misery Index ([Fig. 3](#)). That makes sense to us. When we are miserable, we aren't in the mood to drive up the valuation multiple. When we are happy, we tend to become exuberant, driving up the P/E. However, a high P/E, by historical standards, may not necessarily reflect irrational exuberance if interest rates are historically low because inflation is subdued. In other words, the current readings of the Misery Index are historically low and may justify P/Es that exceed the historical average.

Our homebrewed MAPE is the sum of the S&P 500 forward P/E and the Misery Index ([Fig. 4](#)). It

averaged 23.8 from September 1978 through October 2019. Readings above (below) the average suggest stocks are overvalued (undervalued). It was 22.6 during October, i.e., below average. MAPE correctly warned that stocks were overvalued prior to the bear markets of the early 1980s and 2000s. It did not anticipate the last bear market, but that's because the problem back then was the overvaluation of real estate, not stocks.

Valuation II: How Is P/E Measured? We've received requests to drill deeper into the S&P 500 forward P/E by individual companies and by the sectors. First, to be clear, I asked Joe to review how these valuation multiples are calculated. Here is his primer, which applies to both S&P and MSCI data:

(1) *Companies.* We use I/B/E/S data provided by Refinitiv (formerly Thomson Reuters) for the weekly forward operating earnings of each S&P 500 company ([Fig. 5](#)). These are the time-weighted averages of industry analysts' consensus earnings expectations, which change weekly, for the current and coming years. For each of the S&P 500 companies, the forward P/E is simply the company's stock price divided by the latest weekly reading of its forward earnings ([Fig. 6](#)). (The two linked charts show the forward earnings and forward P/E for Nike, the only component of the S&P 500 Footwear industry.)

(2) *Broad indexes and sectors.* The forward P/E of the overall S&P 500 stock price index is measured by dividing the total market capitalization of all the companies in the index (derived by adding up each company's market cap, i.e., the number of its shares outstanding multiplied by its share price) by aggregate forward earnings (derived by adding up each company's forward earnings, i.e., its number of shares outstanding multiplied by its forward earnings per share) ([Fig. 7](#)). The same methodology is used to calculate the forward P/Es of all the S&P 500 industries and sectors.

(3) *Mean vs median.* So the forward P/Es of the industries, sectors, and broad indexes are not market-cap weighted and are not averages of the P/Es of individual companies that they include. For example, during the week of 11/15, Joe calculated the forward P/Es of each of the 505 issues in the S&P 500 ([Table 1](#)). The average was 22.3, with a low of 3.8 and a high of 301.2. This average is heavily impacted by the high outliers.

The median P/E was 17.7, which was close to the actual forward P/E of the S&P 500, at 17.1. Joe calculates the median P/E for the S&P 500 once a month. Not surprisingly, it tends to closely track the actual forward P/E ([Fig. 8](#)).

Valuation III: 505 P/Es. As noted above, there are 505 issues in the S&P 500. Also noted was that the average P/E is inflated by the high outliers. During the 11/15 week, there were 37 companies with a forward P/E exceeding 40.0, including four that are in the S&P 500 Energy sector and 22 that are in the Real Estate sector. There were 169 companies with forward P/Es between 20.0 and 40.0, including 35 that are in the Information Technology sector. There were 118 companies with forward P/Es of 15.0-20.0 and 181 companies with forward P/Es within the 3.8-15.0 range.

Valuation IV: US Sectors. When we drill down to the sector level, we see that seven of the 11 S&P 500 sectors have forward P/Es exceeding that of the overall index's 17.7 reading through the 11/14 week: Real Estate (42.4), Consumer Discretionary (21.5), Information Technology (20.6), Consumer Staples (19.8), Utilities (19.2), Communication Services (18.3), and Materials (17.8) ([Fig. 9](#)). If you are looking for value, i.e., low P/Es, they are in Financials (12.8) and Health Care (15.0).

In the 11/7 [Morning Briefing](#), we suggested that Energy is relatively cheap and might be a good hedge against higher oil prices caused by supply concerns, should a conflict between Israel and Iran occur, and/or by stronger-than-expected demand if world economic growth improves next year, as we expect. Financials also look cheap and more attractive now that the yield curve is no longer inverted. Health

Care has been held back by fears that if a Democrat beats Trump during the presidential election at the end of next year, there will be more political pressure for a one-payor healthcare system run by the federal government. Our current assumption is that Trump will win a second term, which would provide a boost to health care stocks.

For additional insights into the sectors' valuations, we also like to compare the market-cap shares to the earnings shares of the sectors. We generally become concerned if any sector's market-cap share rises to 30% without support from a comparable reading for its earnings share. We don't see much to worry about on this score. Consider the following:

(1) *Consumer Discretionary and Consumer Staples* currently account for 9.8% and 7.3% of the S&P 500's market-cap share, or 17.1% combined ([Fig. 10](#)). Their earnings shares are 8.0% and 6.5%, or 14.6% combined. So they are both a bit pricey.

(2) *Information Technology and Communication Services* currently account for 22.7% and 10.4% of the S&P 500's market-cap share, or 33.1% combined ([Fig. 11](#)). Their earnings shares are 19.4% and 10.1%, or 29.5% combined. They are both fairly valued, in our opinion.

(3) *Materials, Energy, and Industrials* currently have market-cap shares of 2.7%, 4.4%, and 9.4%, or 16.5% combined ([Fig. 12](#)). Their earnings shares are 2.7%, 4.6%, and 9.9%, or 17.2% combined. They seem relatively cheap to us.

Valuation V: Overseas Sectors. Since early October, Joe and I have been studying and discussing the record-wide divergence between the forward P/E of the US MSCI and the All Country World ex-US MSCI. To get a better handle on this subject, Joe ran a table showing the 10/31 values of both the forward P/Es and the market-cap shares of the 11 sectors of selected MSCI countries and regions ([Table 2](#)). Here are a few of our conclusions:

(1) *Information Technology and Communication Services.* One of the main reasons why the US valuation multiple is higher than that of the ACW ex-US is that the Information Technology sector has the highest market-cap share in the US, currently at 22.6%, and the sector's P/E, at 20.3, is among the highest in the world for this sector.

China's IT sector is cheaper, with its P/E at 17.8, but it has a market-cap weight of just 3.6%. IT is relatively cheaper in emerging market economies, with a forward P/E of 15.6 and a market-cap share of 15.8%.

Interestingly, the market-cap share of Communication Services is higher in China (at 21.7%) than in the US (at 10.2%).

(2) *Energy.* If you decide to increase your weight in Energy, it might make more sense to do so with the overseas rather than the domestic sector. The sector's forward P/E is 10.6 over there, but 16.2 over here. There's a bit more market-cap share over there, at 6.6%, than over here, at 4.3%.

(3) *Consumer Discretionary and Consumer Staples.* The combined market-cap share of the two major consumer sectors is bigger in China (at 28.9) than in the US (at 17.5). Consumer Discretionary is cheaper abroad (at 14.8) than in the US (at 22.3), mostly because of Amazon and Netflix, as we discussed last Thursday. Consumer Staples are equally valued in the US and abroad, both between 19.0-20.0.

(4) *Financials.* The Financials sector is relatively cheap around the world. Here is the latest

performance derby showing the market-cap shares and forward P/Es across the major MSCI indexes for the sector: Canada (39.7, 10.9), EM (24.6, 8.8), China (22.2, 6.4), ACW ex-US (21.4, 10.0), UK (20.2, 9.7), EMU (16.5, 9.6), US (12.9, 12.3), and Japan (10.7, 8.7).

CALENDARS

US. Tues: Housing Starts & Building Permits 1.318mu/1.381mu, Williams. **Wed:** MBA Mortgage Applications, DOE Crude Oil Inventories, FOMC Meeting Minutes (October 30). (DailyFX estimates)

Global. Tues: European Car Sales, Japan Trade Balance ¥301b, China 1-Year & 5-Year Loan Prime Rates 4.2%/4.9%. **Wed:** Canada CPI 0.3%*m/m*/1.9%*y/y*, ECB Publishes Financial Stability Review, Lane. (DailyFX estimates)

STRATEGY INDICATORS

S&P 500/400/600 Forward Earnings ([link](#)): Forward earnings edged lower for all three of these indexes for a second week. These indexes began a forward-earnings uptrend during March, but only LargeCap is near a record high. LargeCap's forward earnings has risen during 28 of the past 40 weeks, MidCap's 19 of the past 36 weeks, and SmallCap's 17 of the past 34 weeks. LargeCap's is just 0.4% below its record high nine weeks ago, while MidCap's and SmallCap's are 5.6% and 9.8% below their October 2018 highs. MidCap's forward earnings is at an 18-month low now, while SmallCap's forward earnings is near September's 17-month low because analysts are now including a large goodwill writeoff in their 2019 annual forecast for Frontier Communications. At their bottoms earlier in 2019, LargeCap's forward EPS had been the most below its record high since June 2016 and MidCap's was the lowest since May 2015. During mid-September, SmallCap's had not been this far below since October 2010. The yearly change in forward earnings soared to cyclical highs during 2018 due to the boost from the Tax Cuts and Jobs Act but began to tumble in October as y/y comparisons became more difficult. In the latest week, the rate of change in LargeCap's forward earnings edged back down to a 38-month low of 1.0% y/y from 1.1%. That's down from 23.2% in September 2018, which was the highest since January 2011. MidCap's -5.5% y/y change is the lowest since December 2009 and down from -4.9% a week ago. That compares to 24.1% in September 2018 (the highest since April 2011). SmallCap's -8.0% y/y change is up from -9.6% in mid-September, which was the lowest since December 2009 and compares to an eight-year high of 35.3% in October 2018. Analysts had been expecting double-digit percentage earnings growth for 2019 last October, but those forecasts are down substantially since then. Here are the latest consensus earnings growth rates for 2018, 2019, and 2020: LargeCap (22.7%, 0.5%, 9.9%), MidCap (22.7, -7.0, 12.0), and SmallCap (22.4, -19.0, 36.5).

S&P 500/400/600 Valuation ([link](#)): Valuations rose for a sixth straight week for all three of these S&P market-cap indexes, and continue to improve from their three-month lows during the late summer. LargeCap's forward P/E rose 0.1pt w/w to a 22-month high of 17.6. That compares to a five-year low of 13.9 during December and a 16-year high of 18.6 during January 2018—and of course is well below the tech-bubble record high of 25.7 in July 1999. Last week's level remains above the post-Lehman-meltdown P/E of 9.3 in October 2008. MidCap's forward P/E was up 0.1pt w/w, to a 20-month high of 17.0, and is up from 13.0 during December, which was the lowest reading since November 2011. MidCap's P/E is down from a 15-year high of 19.2 in February 2017 and the record high of 20.6 in January 2002. However, MidCap's P/E has been at or below LargeCap's P/E for most of the time since August 2017—the first time that alignment has prevailed since 2009. SmallCap's P/E edged up slightly to a nine-week high of 17.7, but remains below the 12-month high of 17.8 in mid-September. That's still well above its seven-year low of 13.6 during December and compares to its 15-year high of 20.5 in December 2016, when Energy's earnings were depressed. SmallCap's P/E was above LargeCap's again for a fifth week, primarily due to substantially lower forward earnings for Frontier

Communications. It had been below for four months through the end of August—the first time that has happened since 2003.

S&P 500 Sectors Quarterly Earnings Outlook ([link](#)): With the Q3 earnings season approaching the finish line, the Q3 blended estimate/actual improved for a fifth straight week. The S&P 500's Q3-2019 EPS forecast rose 8 cents w/w to \$42.28. That represents an earnings decline of 0.9% y/y compared to the prior week's forecasted earnings drop of 1.1%. On a pro forma basis, blended Q3 earnings are down 0.4% y/y, which would be the first drop in 13 quarters and compares to y/y gains of 3.2% in Q2, 1.6% in Q1, 16.9% in Q4-2018, and 28.4% in Q3-2018 (which marked the peak of the current earnings cycle). Seven of the 11 sectors are expected to record positive y/y earnings growth in Q3-2019, with none rising at a double-digit percentage rate. That compares to seven positive during Q2, when three rose at a double-digit percentage rate. The same seven sectors are expected to beat the S&P 500's Q3 earnings decline of 0.4% y/y, up sharply from just three beating the S&P 500 during Q2. Consumer Staples, Industrials, Materials, Real Estate, Tech, and Utilities are the only sectors expected to post better (or less worse) growth on a q/q basis during Q3. On an ex-Energy basis, the consensus expects earnings to rise 2.2% y/y in Q3. That compares to ex-Energy gains of 3.9% in Q2 and 3.0% in Q1, and is well below the 14.2% y/y gain in Q4-2018. Here are the latest blended Q3-2019 earnings growth rates versus their Q2-2019 growth rates: Health Care (9.4% in Q3-2019 versus 10.3% in Q2-2019), Utilities (6.7, 1.1), Real Estate (5.6, 3.1), Consumer Staples (3.5, 1.7), Industrials (3.4, -9.5), Financials (2.6, 10.0), Consumer Discretionary (0.9, 2.7), Communication Services (-1.5, 17.6), Information Technology (-2.1, -2.2), Materials (-11.0, -12.7), and Energy (-37.8, -8.8).

S&P 500 Q3 Earnings Season Monitor ([link](#)): With the Q3-2019 earnings reporting season now over 92% complete, S&P 500 revenues and earnings are beating the consensus forecasts by 0.9% and 4.8%, respectively. At the same point during the previous earnings season for Q2, revenues and earnings had beaten forecasts by a higher 1.3% and 6.1%, respectively. However, a higher percentage of companies has recorded a positive earnings surprise in Q3 than in Q2—75% versus 74%. A slightly higher percentage of companies showed a positive revenue surprise—58% versus 57%. The 461 companies in the S&P 500 that have reported through mid-day Monday collectively have recorded an earnings decline of 0.2% y/y, dragged down by Micron Technology's earnings deceleration. On the revenue side, results are 3.7% higher than a year earlier. On a sour note, y/y earnings growth trailed revenue growth for a third straight quarter, something that hasn't happened since the last Energy "recession" in H1-2016. Ex-Micron, y/y earnings growth for the S&P 500 jumps 1.0ppt to 0.8%. Adjusting for the dismal y/y growth declines for the Energy sector, Q3's S&P 500 ex-Energy revenue growth improves 1.1ppts to 4.8% and earnings growth rises 2.6ppts to 2.4%. Overall, Q3 earnings growth results are positive y/y for 62% of companies versus a higher 66% at the same point in Q2, and revenues have risen y/y for 68% compared to a lower 67% in Q2. We don't expect these figures to continue materially as the remaining Q3-2019 results are reported in the coming weeks.

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