



*•Peter Cook is the author of the **Is That True?** series of articles, which help explain the many statements and theories circulating in the mainstream financial media often presented as 'truths.' The motives and psychology of market participants, which drives the difference between truth and partial-truth, are explored.*

The stock market is a market of stocks, or at least it was prior to the ascendance of indexing. • The idea is that certain stocks, or sectors, act as bellwethers for the overall stock market is well-known. The S&P 500 index (SPX) is composed of eleven economic sectors, among which are technology, utilities, energy, health care, financials, and industrials. • All eleven sectors have a positive correlation with SPX, meaning that they generally go up or down together with the overall market. • At one end of the correlation scale, the utilities sector has the lowest correlation to SPX, at .26 over the past 30 years (on a scale between 0 and 1). • This means that only 26% of the price of the utility index can be explained by the price of the SPX. One explanation for the low correlation is that utilities are regulated entities with high dividends, so the stocks behave more like bonds than stocks. • Energy stocks also have a relatively low correlation of .37, possibly because extremely high

energy prices, which are good for energy companies, are bad for the economy and hence the broad stock market. The industrial sector has the highest correlation with the SPX over the past 30 years, at .86. • Industrial stocks are ones such as Boeing, GE, 3M, and Caterpillar, which produce large capital goods that are used in the transportation, mining, and manufacturing sectors of the economy. • One explanation for the high correlation between the industrial sector and SPX is that if business managers are confident enough to invest capital on large purchases, they must see a relatively bright economic future. • In contrast, if the outlook is uncertain or poor, business managers tend to suspend or pull back on capital expenditures. Because of the high correlation between the industrial sector and SPX, it is important for investors to examine nuances within the industrial sector for clues about the economy and the stock market. • XLI is a popular industrial sector ETF, which contains a mixture of capital goods and transportation stocks. • The top 10 holdings comprise 45% of the portfolio, with Boeing as the largest holding, at 8%. • XLI also has significant holdings of transportation stocks such as FedEx and Union Pacific. The chart of XLI's performance relative to SPX (which we will name XLI/SPX) is shown below. • XLI has performed similarly to, but not identical to, SPX, as suggested by the high correlation between industrial stocks and SPX. • Over the past five years, SPX has risen 62%. • Over that same time span, XLI has outperformed SPX by



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mid-2013 to mid-2014, industrial stocks were booming along with the increased production of US shale oil, which required machinery to extract from the fields, and rail/truck to transport to storage and pipeline hubs. • However, the peak in XLI/SPX in June 2014 foreshadowed the eventual transition from boom to bust. • As oil fell from \$110 in late 2014 to \$26 per barrel in early 2016, industrial stocks performed relatively poorly. In February 2016, the world's top central bankers met in Shanghai to discuss how the drastic change in the price of oil was inflicting instability on global economies and financial markets. • Their response was the so-called Shanghai Accord. • Among other policy responses, China agreed to give a booster shot to its spectacular (for better and worse) credit creation machine. • Industrial stocks got the memo that China would build more infrastructure (and ghost cities), so XLI/SPX spurted 6% in a short period of time. The next surge in XLI/SPX occurred in November 2016, when XLI outperformed SPX by 9%. The reason was the surprise election of Donald Trump, who had proposed trillion-dollar infrastructure proposals during his campaign. • More broadly, a Republican sweep of the US government appears to have been seen as friendly to businesses and the military budget. The final surge in XLI/SPX occurred in late 2018 as expectations rose that a tax cut/reform bill would pass. • XLI increased 6% relative to SPX as a result. • Traditional Keynesian economic theory deems deficit spending to be a booster shot to GDP, which should increase spending of all forms. • In addition, the bill mandated that capital expenditures could be expensed in their entirety in the first year. • Normal tax accounting would



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Looking at the

green arrows, we can see that relative performance of XLI leads changes in orders for capital goods. • For example, the 2014 peak in XLI/SPX occurred prior to the peak in new orders. • The trough in XLI/SPX occurred in Q3 2015, which was prior to the trough in orders in early 2016. • The surge in XLI/SPX in November 2016 occurred prior to the mid-2017 spike in new orders. • In summary, in mid-2014, early 2016, and again in late 2016, the stock market anticipated correctly a change in the underlying economic data. • That is, a change in XLI/SPX preceded either a change in trend or a change in the slope of the trend for capital goods orders. However, the late-2017 spike in XLI/SPX has so far not been followed by a spike in new orders, as indicated by the red arrow. • It is too soon to draw a definitive conclusion, but the drop in XLI/SPX over the past few weeks could signify that investors are giving up on a new surge in new orders for capital goods. • It is also possible that the decline in XLI/SPX is the beginning of a sustained period of underperformance. • If that occurred, XLI/SPX would confirm the message of a flattening yield curve, increasing the probability of a recession in 2018-19, as discussed in detail in [The Next Recession Is Closer Than You Think](#). • **Conclusions**

- **The industrial sector, as represented by the XLI ETF, is the most highly correlated sector with SPX** (.86 over the past 30 years). It appears that whatever is good/bad for the industrial sector is closely aligned with what is good/bad for SPX, which itself is closely aligned with what is good/bad for the economy.
- **The XLI/SPX ratio measures the performance of industrial stocks relative the S&P 500 index.** Over the past five years, changes in XLI/SPX have been a leading indicator, meaning it foreshadowed changes in trends for new orders in the capital goods industry.
- **The most recent spike in XLI/SPX occurred in late 2017 as the tax cut/reform bill was passed, apparently in anticipation that tax changes would spur a capital spending boom.**
- However, new orders for capital goods have not boomed; they have remained flat since Q3 2017. **The recent decline in XLI/SPX could be a signal that the boom isn't going to happen.**
- Persistent weakness in XLI/SPX, if it continues, would confirm the message of the flattening yield curve, which is strongly associated with economic weakness, increasing the probability of a recession. **A recession in 2018-19 would clearly not be expected by the Fed, economists, and politicians, who are forecasting real GDP growth of 2-3%.**