

## 2017 4th Quarter Stock Market Commentary

## **BELIEF CLUSTERS**

"Frisbeetarianism is the belief that when you die, your soul goes up on the roof and gets stuck." - George Carlin

In late 1999 individuals around the world were bombarded with media reports on the catastrophe the developed world faced because of the looming Millennium Bug, or Y2K problem. The problem arose because computer programs written during the late 20<sup>th</sup> century routinely stored dates using only two digits for the year, rather than four. Thus June 6, 1944 (D-Day, marking the start of the Allied effort to liberate western Europe from the Nazis) was represented as 060644. At the turn of the century, the year 2000 would be represented simply as 00, which to a computer would be indistinguishable from 1900. There were predictions of widespread infrastructure system failures, such as the power grid or telephone network. Planes were forecast to drop out of the sky because of an inoperative air traffic control system. There were even suggestions that there might be an accidental launch of nuclear missiles. In reality, while there were isolated problems, for the most part software engineers corrected the computer code well in advance of the end of the millennium, and the event proved to be a bust.

But more interesting than the Y2K problem itself, is the fact that in surveys taken prior to the turn of the century, the more people expressed fear of the looming digital apocalypse, the more likely they were to believe that John F. Kennedy had been killed in a massive conspiracy. They were also more likely to think that the government was deliberately hiding evidence of the existence of UFOs and to be convinced that the FDA (the Food & Drug Administration) was purposely suppressing access to known cancer cures because of a desire to boost pharmaceutical company profits.

There is no logical reason that these beliefs should be linked, but somehow most people either believe all or none of them. They are an example of what has sometimes been dubbed a "belief cluster." Even further, certain beliefs which contradict one another tend to be clustered. For example, people who believe Princess Diana was killed by rogue elements of the British Secret Service also believe that she faked her own death to escape public scrutiny. Thus, some people seem to think she is both dead and alive.

Both sides of the political aisle have belief clusters, too. Conservatives, as a group, can be characterized by belief in individual liberty tempered by personal responsibility, limited government and free markets (unless government regulation can protect the business they happen to be in). But when these guiding principles are applied to individual issues, they can result in logically inconsistent positions. For example, many conservatives hold the position that all life is sacrosanct and that life begins at conception. Thus, they oppose abortion. But at the same time these same individuals favor the death penalty as the just punishment for murder, despite the fact that it is inconsistent with a belief in the sanctity of life.

Liberals also have belief clusters. Generally, they tend to hold that government intervention is necessary to protect civil liberties and individual rights, and produce equal opportunity for all citizens. As one example, liberal orthodoxy holds that global warming is caused primarily by the carbon dioxide produced from the burning of fossil fuels (a stance with which I personally agree) and government legislation and regulation are necessary to reduce carbon emissions and prevent ecological catastrophe. Government needs to subsidize alternative and renewable energy, and encourage (if not mandate) the use of electric vehicles. Another pillar of the liberal belief set is that we need to support labor unions, which are seen as an effective counterweight to the power of big business and the most effective way to promote fair pay, economic security and health care reform. But it seems to me that support for electric cars is likely to undermine the labor movement in the United States, and that these are beliefs in conflict, similar to believing that Princess Diana is both alive and dead.

Political pressure around the world is rising to promote the use of electric vehicles. Great Britain recently announced that it will ban the sale of all gasoline and diesel vehicles by 2040. France has announced a similar time frame, although it will also permit the sale of hybrid vehicles. India wants all vehicles sold in the country to be electric by 2030. Norway, with a population of only 5 million, has set an even more ambitious target of 2025 for all vehicles to produce zero emissions. Ten other countries, Austria, China, Denmark, Germany, Ireland, Japan, the Netherlands, Portugal, Korea and Spain have set official targets for electric car sales. The United States does not have a federal policy, but at least eight states have set their own goals. (Even NASCAR was considering holding its first electric car race until they realized that a pit stop would last eight hours.)

For the most part, the heavily unionized Big Three U.S. automakers, General Motors, Ford and Fiat-Chrysler, are taking a wait-and-see attitude about electric vehicles. Of the ten largest electric vehicle producers world-wide, only General Motors cracks the list in tenth place. The other traditional U.S. auto makers do not make the list. The largest producer worldwide is Chinese manufacturer BYD, and two other Chinese manufacturers made the list. In second place is Renault Nissan. Tesla, the Palo Alto company most closely associated with electric cars in this country, is third.

Tesla's sleek Model S, which sells for nearly \$100,000, has primarily served a niche market. But its new Model 3, with a price in the \$35,000 range, is designed to serve a mass market. Chairman Elon Musk has announced a goal of producing 5,000 Model 3s each week. If he is successful, these sales will come mostly at the expense of gasoline powered cars made by traditional auto makers. Unfortunately for the United Auto Workers, Tesla, like every Silicon Valley company, is adamantly opposed to the unionization of its workforce. This threatens to exacerbate a persistent trend.

In 1954, the peak of union membership in the United States, 35% of the total labor force was unionized. By the mid-1980s, that figure was down to 23%. Currently, it is below 11%. In the auto industry, as recently as 1999, 85% of all cars and trucks produced in the United States were produced by United Auto workers members. Less than twenty years later, that figure is down to only 54%, according to Bloomberg.

The push from environmentalists to promote the use of electric vehicles is occurring at the same time that huge strides are being made in the development of self-driving cars, also called autonomous vehicles. In addition to being potentially safer than human piloted cars, they are much more fuel efficient. Self-driving cars operate at slower speeds, and do not weave in and out of traffic, resulting in greater fuel efficiency. This development is a much bigger threat to unionized workers than the push to human driven electric vehicles. All the major auto companies are working on this technology, but so are a host of other companies. The most advanced prototype is from Alphabet (formerly Google), whose Waymo subsidiary has produced cars that have already driven more than three million miles, and have simulated over a billion miles more. The U.S. Government defines automation into six levels, starting at level zero which means the human driver does everything and ending with level five, in which the automated system performs all the driving tasks. Waymo, working in conjunction with Intel, is the closest to being able to deliver a Level 4 automobile. Other technology companies are also working in this area, including Apple, Uber and, of course, Tesla. Note that not one of these companies uses union labor. For investors the stakes are enormous. Alphabet's annual revenues are currently roughly \$90 billion. But the sales of the Big Three auto makers exceed \$400 billion per year. Even a small market share shift threatens the profitability of an entire ecosystem of parts suppliers.

But the largest disruptive effect will come from the use of autonomous vehicles to carry goods. Self-driving vans have the potential to make home deliveries significantly cheaper, transforming retail commerce. There are currently eight times as many professional drivers in the United States as there are United Auto Workers members. There are roughly four million individuals, mostly people who lack a college education, whose solidly middle-class existences are threatened by the development of self-driving electric vehicles. If a significant number of them are forced to work in retail or hospitality, there will be a huge drop in spending power which is likely to ripple through the entire economy.

The shift we have discussed seems inexorable. It is only a question of when it occurs, not if. This will not be the first time that conflicting beliefs have forced a seismic shift in the outlook for old-line manufacturing. In a 2015 survey Consumer Reports found that more than 80% of American consumers expressed a preference to "Buy American." But these same individuals simultaneously want to increase their purchasing power, and when faced with actually paying higher prices for domestically made goods, most have opted for cheaper imports. The result has been the nearly complete dismantling of whole industries that employed large numbers of workers with less than a college education – manufacturing shoes, textiles and clothing, for example. This is an economic analog of Maslow's Hierarchy of Needs. The need for affordable goods trumps the abstract desire to demonstrate nationalistic chauvinism. The current Zeitgeist seems to include the belief that traditional fossil fuel powered cars and trucks are contributing significantly to global warming, and that this is an existential threat. This is viewed as a much higher priority than the support of organized labor. Our government would be wise to allocate more resources towards providing an educational system more oriented towards a world driven by technology, rather than continue the hollowing out of a large part of the middle class and exacerbating our already disquieting level of income disparity.

For the average investor there is a tendency to have a binary ranking system in which disrupters like Amazon or Tesla are considered to be investable, while the disrupted, like WalMart or General Motors, are to be avoided. But this is way too simplistic. Trends like the replacement of gasoline engine cars with electric vehicles, or the widespread utilization of autonomous vehicles, are likely to be played out over many years, if not decades. But in the near to intermediate term overreaction by the market can make even the disrupted a good investment. As of this writing WalMart is up nearly 40% for the year, while General Motors has had a total return in excess of 30%. As always, it is necessary to weigh the long-term growth rate for a company against what you have to pay for that growth rate. Valuation still matters.