

News or Noise: This Is Not Your Father's Oldsmobile

By David Fisher

In rolling out a new weekly investment blog, we wanted to do something different and focus on one important and underappreciated story during the week. Some posts will be positive and focus on opportunities in the markets and the economy while others will concentrate on risks we see. Some stories will have near-term implications and others will be related to issues that may not fully impact us for years to come. Topics will include markets, economics, investor psychology, business and science. If you have a suggestion for a topic we should cover in a future blog post, please email us at invest@signaturefd.com.

New Year, New Laws

The new year always brings a pile of new laws. California alone saw 876 new laws, including SB 1298, which authorizes autonomous vehicles on public roads. The law still requires a person to be in the driver's seat and able to take over, but changes in the auto industry are definitely coming. The reality is that advancements in automobiles will likely be here much sooner than we anticipated. At this week's annual Consumer Electronics Show, both Toyota and Audi will unveil autonomous driving technology.¹ For all practical purposes, cars today operate in similar fashion to the cars of 50 years ago. But we believe profound changes are likely in the next 20 or 30 years. Within 10 years, some experts project that up to a third of new vehicles will not be powered by gasoline and many will contain technology to allow for semi- or fully-autonomous driving.²

Google is a leader in autonomous vehicle technology. According to Wikipedia, the company has logged more than 300,000 accident-free miles and typically has a dozen cars on road tests at any given time. A separate European Research Council project saw four driverless cars travel from Italy to China with minimal human intervention.³ The benefits of this technology are numerous: energy savings, safety and, maybe most important, reduced traffic congestion. A study by the Department of Transportation projects that highway miles driven could increase to 4.7 trillion in 2030 from 2.9 trillion in 2005. "Computer models indicate that automation would double or even triple highway capacity."⁴ In an age of reduced government funding for road construction autonomous vehicles could be a very desirable way to increase efficiency.

The Challenge of Driverless Cars

Certainly, challenges remain. Battery packs for electric cars still cost more than \$10,000, so at current scale the cars are not price competitive. Moreover, there is a major hurdle in transitioning national infrastructure. There are more than 150,000 gas stations in America, while the most optimistic estimates show around 10,000 charging stations currently in place. The biggest challenges, though, may be in our legal system. An attorney at the California Department of Motor Vehicles was quoted as saying that “the technology is ahead of the law in many areas,” and that the laws, “all presume to have a human being operating the vehicle.”⁵ Who will be blamed for accidents involving driverless cars? How will highway rules evolve with some human-driven cars and some technology-driven cars? How will privacy rules adapt for the large amounts of data that technologically advanced cars will collect and transmit?

Throughout history it has been this way—innovation leads and then society has to deal with the ramifications of that evolution. The past few hundred years have seen the transition from agrarian to urban societies, the use of new forms of communication, and the development of the Internet. We are confident that given the benefits of energy efficiency and reduced congestion, the shift to driverless vehicles will happen, but some are skeptical. Recently, one writer came to this conclusion: “The minute you ask [a car] to drive for you, you’re asking the car to take over a set of moral and legal responsibilities that, for now, only a human being can shoulder. Without deep changes to the way we think about driving, [driverless cars] may be impossible.”⁶ A significant debate lies ahead, but in discussing this issue with friends and colleagues, we have become convinced the technology is much closer to reality than most realize, and for now that is the key point.

Sources

1. Sherr, Ian. “A Driverless Lexus? Toyota Closer to Automating Cars.” *The Wall Street Journal*. January 3, 2013.
2. Hun, Laura B., et.al. “The Coming of Intelligent Green Vehicles.” *The Futurist*. January-February 2013, pg 43.
3. Ibid.
4. Ibid.
5. Wikipedia. “Google Driverless Car.” http://en.wikipedia.org/wiki/Google_driverless_car.
6. Brandom, Russell. “Self-Driving Cars Can Navigate the Road, But Can They Navigate the Law?” <http://www.theverge.com/2012/12/14/3766218/self-driving-cars-google-volvo-law>. December 14, 2012.