Three Growth Trends to Watch

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Opportunities tied to machine learning, the self-driving car, and pent-up smartphone demand.

Key takeaways

- ✓ Machine learning could power a new generation of digital assistants.
- ✓ Self-driving cars could drive demand for semiconductors.
- ✓ Pent-up smartphone demand could support sales.

Truly game-changing innovations don't happen every day, but it certainly feels like the pace of change has been accelerating. *Viewpoints* listened in on recent meetings with three Fidelity fund managers to hear where they have been finding growth opportunities for their funds. Among their ideas: machine learning, creating hardware for self-driving cars, and pent-up demand in the smartphone market.

Why machine learning is a big investment opportunity

Sonu Kalra, Portfolio Manager

Machine learning is a type of artificial intelligence that provides computers with the ability to adapt and change without being explicitly programmed to perform this as a specific task. This technology is in the relatively early stages of adoption, but is already being used in a number of ways.

As communication, media, and financial transactions become more digital, increasing amounts of personal, business, and other forms of data are being collected. Companies have begun using computers to harness this data, and are creating machine-learning predictive software to help consumers make better decisions.

Google parent Alphabet (GOOG) is a preeminent player in the machine-learning space. In early May, the firm unveiled Google Assistant—a computerized personal assistant that will be available on Google smartphones and Google Now, the firm's smart wireless speaker. The technology stands out from competition in that it can engage in two-way conversations, using Google's natural-language processing algorithm.

Similarly, Amazon's (AMZN) Alexa and IBM's (IBM) Watson offer a number of assistant-like features, including the ability to provide directions, request a ride-sharing pickup, play music, or order a pizza. Alexa also has the ability to unlock home doors.

Another popular use of machine learning is with self-driving cars. As of this past October, all Tesla models have self-driving capabilities, including cameras that provide 360-degree visibility, sensors that can detect objects around the car, and radar able to see through various weather conditions and even the car ahead.

The company has collected massive amounts of operating data from customer cars running Tesla's Autopilot driver-assist system. This data should help Tesla's engineers to further enhance the algorithms that control its cars' active-safety systems, with the aim of reaching full autonomy in the near future.

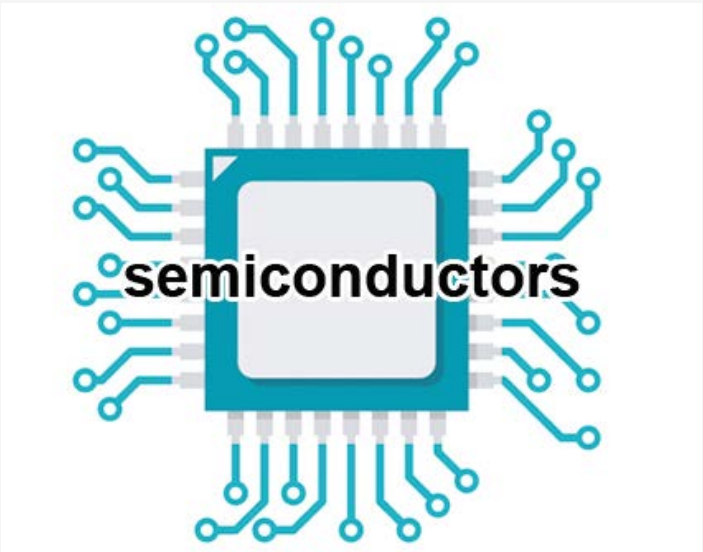
The rosy outlook for the semiconductor industry

Steve Barwikowski, Portfolio Manager

After two decidedly mediocre years of growth for semiconductor companies, I think the fundamental backdrop should improve in 2017.

In the PC market, semiconductor demand had been suffering from cannibalization by the tablet and smartphone markets. However, tablet sales have begun to decline, and smartphone sales have leveled off as that market has matured. Therefore, I think headwinds from these competing computer-form factors should subside.

What's more, the average age of the installed PC base is near an all-time high, at around six years. Unless PC users further lengthen their holding time, we should see healthy replacement buying, which in turn would help benefit PC chip suppliers such as Intel.



Although smartphone growth might be flattish overall, there are high expectations for Apple's next iPhone, scheduled to debut later in 2017. Unlike recent models, this one is anticipated to be a meaningful upgrade. Sales of the iPhone have historically tended to have a significant up-channel impact on component suppliers.

Finally, secular growth of semiconductor content in cars should continue, on the back of proliferation of more sophisticated auto infotainment and safety systems, as well as greater penetration of electric and semiautonomous features. I believe that autos will remain a key area of growth for semiconductors.

On the supply side, inventories are lean, so chip suppliers should benefit from any improvement in the broader macro environment that may arise from the new administration's pro-growth policies. Although stock valuations have expanded, growing companies can still be bought for low price/earnings multiples versus their historical averages.

Why smartphone sales growth could be unexpectedly strong

Matt Drukker, Portfolio Manager

We saw a record-low number of smartphone upgrades in 2016. The 20 million postpaid mobile smartphones—those for which service typically is provided via a term contract with a wireless carrier—sold by the four major national wireless carriers in 2016 was the lowest in three years. Less than a quarter of smartphone customers received an upgrade. That implies that the average user on a postpaid contract is on pace to keep a phone for roughly four years. In my view, that's too long: the current pace of upgrades is unsustainably low and arguably overstates the useful life of a phone.

Therefore, there's a segment of smartphone customers who I think will be forced to upgrade soon, simply because their phones are too old to run the latest-and-greatest operating systems and features. This is why I think many consumers will be in the market for new phones in 2017.

Of course, when people switch phones, it also opens the door for them to switch carriers. So if this trend plays out and we do see more phone upgrades, that could force carriers to compete even more aggressively for customers in 2017, especially in terms of advertising spending, services packaging, and, of course, pricing.

All of this has the potential to cause market-share shifts, which is something we will be monitoring closely.