

## Sensata: Highly Cash-Generative Automotive Sensor Leader

Sean Stannard-Stockton of Ensemble Capital Management presented his in-depth investment thesis on Sensata Technologies (US: ST) at Best Ideas 2019.

### *Thesis Summary:*

Sensata Technologies provides sensors to essentially all of the world's automakers to make cars safer, more fuel-efficient, and less damaging to the environment.

While global auto sales will likely grow at a low single-digit rate over the long term, the amount of sensor content per car is growing at a mid-to-high single digit rate, and Sean expects this to continue for a long time. Importantly, Sensata is well positioned to thrive as the world moves towards electrification with their content per electric vehicle higher than their content per gas powered vehicle.

The company's business model is highly cash generative and the management team are effective capital allocators, deploying FCF using opportunistic stock buy backs and acquiring complementary sensor businesses that generate strong returns for shareholders.

*The following transcript has been edited for space and clarity.*

Sensata Technologies is an auto supplier we've followed since 2011, and we've owned it at different points during that time. One of the interesting things about suppliers in general is that sometimes, but not always, they have stronger competitive positioning than the OEMs that they sell to. You could focus more on industry dynamics and take the view that these are suppliers, and they don't have the same sort of positioning as somebody else. We think it's important to slice and dice this. We've never owned another auto supplier besides Sensata and don't have a strong opinion about the other players, but we think Sensata has a differentiated competitive positioning compared to others in the industry.

First, here's a quick overview of Ensemble so you have some context. We're a Bay Area-based asset manager, with about \$820 million in AUM, about \$610 million of that in our equity strategy. It's our only in-house, equity strategy. The firm was started in '97. I'm the President and CIO today. I joined in 2002 as the second employee when we had about \$65 million — we've grown since then. The attributes of our strategy that are relevant to understanding why we find Sensata attractive is that our focus is on finding competitively advantaged business models. We're not value investors in the sense that we advertise ourselves that way. We are growth investors. We certainly pay enormous attention to the value of any stock that we buy and our whole process is around identifying the private market value of a business based on its cash flows and then comparing that to market trading values. A lot of our businesses grow at above nominal GDP rates, even some very fast-growing companies, but we're market-cap agnostic. We mostly are in the mid-to-large space so that we regularly hold a number of a single-digit billion market-cap positions in the strategy. We have a focused portfolio, so 15 to 30 holdings with 1% to 10% weights. Typically, we have a three- to five-year holding period. Active shares run around 90% or so, and 100% of my personal public equity assets are in this strategy.

When thinking about Sensata, it's really thinking about supplying the sensors needed to build the car of the future. The business was a division at Texas Instruments over a decade ago, it

was taken private by Bain, and then later taken public as Sensata Technologies. The key secular growth driver for the business is the increase in sensor content per vehicle. Auto production, that end market, is clearly a cyclical industry, and not one that we think is going to grow all that much even over the longer term. The driver of the reinvestment opportunity for the business is about serving an increased need for sensor content per vehicle. Having followed the stock for a long time, I think one of the best ways to trade this stock — and I mean that over a longer-term timeframe — is that when there are cyclical production concerns, it's a good time to buy the stock, and when people are overly optimistic about the production cycle, it's a good time to sell the stock, because that's basically a low-growth long-term driver, and it's really about the content.

What is a sensor? Sensata's key area is safety. Tire-pressure sensors are really important — those are mandated in the U.S. and Europe. If your tire blows out on the freeway, people die. This is a very important sensor. Tire-pressure sensing is also complicated because it needs to be inside the wheel, which is actually rotating very quickly, and so it needs to communicate wirelessly with the rest of the car. China is only now implementing tire-pressure sensor mandates, and Sensata is one of the leading providers there. We think that's a driver of growth.

Occupancy detection is a sensor that tells a car whether or not there is an adult or a child or no occupant sitting in the passenger seat, and to pull out an airbag if necessary. Emissions control is very important. Examples would be an eight-cylinder car that deactivates two cylinders once it hits cruising speed on the freeway to reduce emissions and improve fuel efficiency. Particulate filters — it goes to the emission scandals in Europe around diesel. This has been an important issue for them. Something to be aware of — though we think it's a minor thing in the grand scheme of things — is that diesel cars use more Sensata sensors than gas-powered cars. I'll go in depth a little bit later around different types of cars and their sensor content, but the shift away from diesel in Europe towards gas-powered cars is a near-term drag on Sensata's sensor content per vehicle, so you need to be thinking about that. On the flipside, there's obviously much more focus on emissions control across all car types in Europe, and that's a positive for Sensata.

Other sensors would include the basic smart car technologies, although Sensata is not focused on infotainment-type sensors — that's mostly a commodity business. Their sensors are more focused on things that drive the car — that are mission critical — and also are often operating under harsh conditions, like inside the internal combustion engine, although they also have a lot of content in electric vehicles and hybrid vehicles, which I'll talk about. Within that smart category, you have cabin comfort sensors, rain and light sensors — as you approach a curve, a modern Mercedes or BMW will recognize that you're turning and rotate the headlights at an angle to better illuminate where you're driving. All those sorts of things are driven by these sorts of sensors.

A key point is that these sensors are really cheap. Most of them are a couple of dollars each. If they fail, however, cars crash and people die. Less dramatically, a failed sensor can cost thousands of dollars in repairs because you have to pull out or replace an entire engine system that's dependent on that sensor. So despite the fact that these sensors are cheap, they're mission-critical products. They make up a very small percent of the cost of the overall car, which means that the auto makers have no incentive to cut costs on the sensors — they just want sensors that work — because if you cut the cost of your sensor portfolio in a car in half, it would be completely immaterial to the cost of the car.

Let's talk about production cycle a bit because the stock is down a lot, and this graph

explains why it's down. It shows a 25-year, almost 30-year history of auto sales in the U.S. We think auto sales in the U.S. are at normalized levels. There was this big decline from the recession and then there was the recovery. This is not secular growth. Yes, of course, population is still growing. You also have more people using other forms of transportation, and you have fewer people who have three cars — they have two cars or one car. There's really been no growth in car sales over the last 20 years, and that's the way we think about the U.S. production market. It's going to move up and down, but it's not a growth driver over a multiyear timeframe. There have been worries about production declining until just recently. There can be cyclical pullbacks, but we don't think there's any reason to believe that it is well above a normalized trend. If it was, then you would be worried that a decline to a lower level becomes permanent. Our view is that any declines from these levels are going to see a subsequent recovery, which is what we saw after the last recession.

This graph is European auto sales. One thing to note on the U.S. graph is these were annualized monthly numbers. It's a much smoother chart than for Europe and China. Bloomberg doesn't report those in the same way, so the Europe and China numbers are actually monthly. It's a seasonal business, so it fluctuates. The pink line there is the 12-month rolling average. You have a bit of growth here — it's been about 1% annually over the last 20 years, similar to population growth, so this is a no-growth production market over the very long term. There will be a mix shift in the types of cars, and we'll get to the sensor content per car because mix shift does matter a lot for Sensata. But we don't see any reason to think that auto sales in Europe are extremely extended and need to reset to lower levels. Instead, any sort of material decline would likely be offset through a cyclical recovery.

In China, it's a totally different business. This is the growth engine of global car sales. It's a bigger market than the U.S. — more cars are sold in China than in the U.S. — yet auto sales per capita in China are less than half the level of developed markets, so that's why it's still growing. You need more cars for the number of people that live there, as the country industrializes and modernizes. Growth has been about 5% per year annually, but it's volatile. This is monthly numbers, so some of that is just the seasonality, but even thinking about any smooth numbers, you still have more volatility. Over the past five years, growth has averaged about 5%, similar to the longer-term growth rate. But in 25% of all those months — the 60 months in the past five years — in a quarter of those months, you've seen year-over-year declines. Setting aside the recent more persistent weakness in China, you just need to be aware that even in the context of a growing auto market, the Chinese auto sales frequently print negative year-over-year numbers, which can look scary if you haven't followed it longer. More recently, it started to decline more persistently. Chinese auto sales went into decline last summer — in July, sales were down, and it has declined every month since. It's finished down about 6% for 2018, which is the first decline in Chinese auto sales in about 25 years. Some of this in the second half has to do with very strong sales in the second half of 2017 — some of this is just a lapping issue, which you can see on the chart by looking at the end of 2017. There's a real possibility, however, that 2019 could be down again. We're not Chinese economic experts, but we have a number of companies in different industries that have exposure to China, and we believe that the Chinese economy has slowed quite a lot. While it may still be growing, it may be effectively recessionary conditions. We would not discount the potential for car sales in China to decline in 2019. GM has issued guidance for 2019 and is forecasting flat sales in China, as well as in the U.S. Sensata themselves said at the end of October that they saw no reason to believe that car sales in China would decline materially in the year or two ahead. They did not set aside the possibility it could be down 3%, 4%, 5%. What they were saying was that there's no reason to see a big correction or collapse.

Because auto sales per capita are going to keep growing in China, we think any kind of declines in China's auto sales will be offset by cyclical rebounds. Looking at this chart and our own analytics, we don't see any reason to think that things are particularly extended there. The right time to buy into a cyclical trend is when it's down, so the real question is whether or not trends are inflated above long-term levels, which we don't think they are, but this is the key risk to owning Sensata. This is why the stock is down as much as it is. The market is worried that global auto production, in China in particular, will see contracting auto production, which would mean contracting purchase of sensors. Sensata can offset some of that through growth in content per vehicle, but not completely.

This graph shows global auto sales. If you assume the developed market sees no growth in auto sales and China grows at 3% rather than the 5% they have historically, you get about 1% annual global production growth. There are other markets besides the U.S., Europe and China, but those are the key drivers. That is the large majority of global auto sales. Notice the pink line — not the red arrow line but the pink line which is the 12-month moving average — it's rolling over. Looking at this chart, there's very little reason to think that you're in a hyper extended part of the cycle that needs to contract. Our basic viewpoint over the longer term — and I'll look at the growth model a little bit later on — is that there's about 1% global growth in auto sales, which is less than we've seen historically, but we think it's a very reasonable and conservative number going forward.

Content per vehicle: the average mature-market vehicle — something like a Honda Accord or similar — has about \$40 per vehicle in Sensata sensor content. That's the relevant number that has room to expand. The average luxury car would have over \$100 in sensor content per vehicle. If you think about how cars develop, the features in luxury cars tend to gravitate to more average-price cars over time. Things like an occupant sensor, or the headlights that I mentioned earlier, or a whole range of things that are initially standard in luxury cars generally become standard on the more average car over time. It's not that the mature-market or the average car will reach the same level as luxury cars, but they will both increase over time. The luxury car segment gives you visibility into how much the sensor content per car could grow in your average car, because all those features are going to get cheaper and cheaper and come into the average car over time.

The average Chinese car has only \$10 of Sensata content per vehicle, which has doubled over the last three to four years. Sensata expects it to grow by another 50% over the next three years. If you think about the average Chinese car, the basic entry-level car, in years past it might not even have had airbags. Now they're starting to have all of the sorts of things we're talking about. I mentioned the tire pressure sensor mandate, and that's a big one. That's something that Sensata really dominates. It's a lot of content, and it's been mandated that all Chinese cars have this over the next couple of years.

In terms of electric vehicles, at Ensemble our view is that electric vehicles are going to be adopted over a 10- to 20-year period at a faster rate than what we think is the general consensus. We do not discount at all the viability of electric vehicles. A couple of years ago, Sensata's sensor content per electric vehicle was much lower than for a gas vehicle because a lot of their sensors — or at least their competitively advantaged sensors — were those that operate inside the internal combustion engine under very high heat and harsh conditions, and that's what was special about those sensors and why they were so important — like the example of temporarily disabling a cylinder that I mentioned earlier. Over the last three or four years, the company has been intentionally adding electric vehicle sensor content, and then recently purchased a company called GIGAVAC, which has sensors that are more than just auto sensors, but their key auto customer is Tesla. With that purchase, Sensata's sensor

content per electric vehicle doubled from \$20 to \$40. They're not on par with your average gas vehicle, so any shift to electric vehicles would not be a headwind, but Sensata expects its content per electric vehicle to grow more quickly than gas, and so it will quickly turn into a tailwind. We now believe that any shift to electric vehicles would be a tailwind, no longer a headwind to Sensata. Hybrids, which have to have a gas engine plus all the electric stuff, are \$100 plus. We don't think that's the model for the future, but hybrids are another category and that would be a very positive attribute if, in fact, hybrids gained a dominant or bigger share of the overall market.

Looking at the growth model for the business, we talked about 1%-plus global production growth, and sensor content per vehicle across all vehicle types back on a 5% to 7%. Pricing is negative 1% to 2%, which could make it seem that they're not competitively advantaged since they don't have pricing power, but what's happening is they are signing multi-year contracts with the OEMs to supply sensors and are baking-in price reductions, because like most businesses, the cost of doing these things as you increase volumes goes down. So that is not pricing pressure from competition — it's just how they write their contracts. An interesting attribute we'll talk a little bit about later, is the fact that Sensata works with all the major global automakers, and they've worked with many of them for more than 20 or 30 years. Sensata engineers go to work every day in the automakers' facilities. That's where their desks are. It's not like they're coming in for a visit — they work there. You can think of a Honda Civic, for example, like a car platform, and the Sensata engineer is the person who designs the sensors for that car when it's being designed, in collaboration with Honda. (And I'm just giving Honda as an example — I don't know if the Honda Civic was actually designed with Sensata or not.) Once it's designed in, that platform — such as the Honda Civic — lasts for a long time. Carmakers build a platform and they keep it in place, so there is constant reordering of sensors. They're not going out and rebidding the market for new sensors. Sensata doesn't have a catalog — these are all custom-built sensors. It's not like three years into a new platform, the OEM goes out and says, "Hey, I want to rebid my sensor portfolio." At \$40 per car, why would they bother? It wouldn't be worth their time to pick up the phone and solicit bids and look at them, let alone actually switch to somebody different.

Pricing is negative 1% to 2%. This leaves a revenue growth of 4% to 6%. We put 4% to 6%-plus although the company's guidance is 4% to 6%. They've brought their guidance down some in recent years. Production's been slowing, and they had some challenges around the cyclicity of heavy off-road vehicles — trucks — where you had big declines in production, and now they're starting to see a big rebound in that. We would like to think that sensor content can grow more in the high single digits rather than the mid to high. It's not a huge differential, but if for the next five years this business, ex any M&A, grows at closer to 7% or 8% or maybe even 9%, if you have a shift to electric vehicles, it wouldn't be very surprising to us, but our valuation is more predicated on a mid- or somewhat above mid-single-digit revenue growth rate. Their business has an ongoing margin lift and its operating income growth is around 10%, so you have a solid, mid- or high-mid-single-digit revenue grower with more like 10% multi-year operating income growth — pre-tax, pre-interest operating income growth. I'll talk later about the interesting tax impact for Sensata, but it is what you're buying into.

When we think about businesses to invest in, as I mentioned at the introduction, we focus on businesses that are competitively advantaged. Before looking at the valuation, before thinking about anything around growth or anything like that, we're just looking to understand how a business is competitively advantaged. Our belief is that the market systematically underprices competitively advantaged businesses because the market systematically

underappreciates the ability of those companies to prevent competition from coming in and stealing their market or their profits. This is the keystone of what we're looking for. If a company is not competitively advantaged, we don't care how cheap it is or what its opportunity is. We pass on it.

I talked about the engineers working for decades in the office of the automaker. That's an unusual setup. You don't see too many suppliers who work in the facility of a company. The other thing is mission critical and low cost. This is something we look for across our portfolio. We're a generalist portfolio manager — we own 20 or 25 positions typically. If you look at something like Paychex, which is a business we've owned for a long time, that's a totally different business from Sensata. The cost of payroll processing is very low. In any business, if it went to zero, it would not show up in the earnings report for anything material, and yet, if you don't pay your employees, that's pretty mission critical. This general attribute of mission-critical products that are low cost, the overall structure is something that we find very attractive in a lot of businesses. In addition, the failure cost of these sensors is very high. Sensata works with every major automaker except for Toyota, which has a captive sensor maker called Denso. For a long time, that was the only major automaker that didn't work directly with Sensata. However, in recent years, Denso and Toyota have been turning to Sensata to have them make sensors that were too challenging for Denso to make at a high enough quality. That speaks to the technical proficiency the company has. Even though we don't think of that as an insurmountable competitive advantage, it's real because one of their few competitors has said, "Here, you make this."

Moving on to threats and risks to the business. Autonomous vehicles — it's unclear to us whether or not this is a risk or an opportunity. Like with electric vehicles, we believe that autonomous vehicles are going to have a faster, higher adoption rate than we think the consensus is, although there are certainly people on Wall Street that are a lot more bullish. We have an investment in Alphabet — we have a view on the value of Waymo, their autonomous driving division. We've seen what we consider to be some outrageous valuations from some analysts on the street of what Waymo might get to, and one of their assumptions is extremely rapid adoption of autonomous vehicles. We don't share that view, but we do think that over the next decade or two, it's a very real thing that's going to happen. Some people might say if there are autonomous vehicles, they're going to be operating all the time, so you'll have fewer cars around. You won't need as many cars to move people if these cars are moving all the time. I think the average car is parked 95% of the time. An autonomous vehicle maybe has a much higher utilization rate.

However, human drivers are a key sensor element in cars that automakers depend on. If you're driving your car on the freeway and you start hearing a weird knocking noise in the engine, you know to pull over and figure out what's going on. There is a wide range of things like that where the human is a sensor for how the car is doing, and the automakers don't have built-in sensors for those things. If you remove the driver, it's not just removing the navigator. It's also removing the key sensor of the car's health and what's going on with the car. We believe that autonomous vehicles will have dramatically more sensor content, not just in navigation but throughout the entire car. You have this push and pull. However, even if you have fewer cars per capita through autonomous vehicles, you will not likely see a decrease in miles driven, and it's miles driven that deplete a car and require it to be replaced, which means a new car with more sensors. So even if you see fewer car sales in an environment of autonomous vehicles, that may be offset with higher sensor content per vehicle and much more frequent sales. This is a mixed one that we're tracking closely.

A global recession is obviously a risk. Moving on to industrial sensing, I'm very focused on

auto in this presentation — it's about 75% of Sensata's business — but they also do sensors that are industrial sensing. This can be things like commercial HVAC systems and airplanes. We don't think it's as competitively advantaged as the auto business, but it certainly is a growth opportunity for them and an area that we think is a positive thing for them to participate in.

In terms of debt and capital allocation, remember that they have a private equity background. Bain took them private and then took them public. Their CEO has been with them through all of that. They have a private equity mindset that we like in that they are thinking about their M&A, what is their hurdle rate, what's their return, what's their ROI on buybacks. They are targeting a 3x EBITDA debt structure. They have a very variable cost structure, and so they're not quite as cyclical as you might think. I think their team is informed and smart about capital allocation and reinvestment, and also, private equity people generally run higher debt than average. Some investors might look at this and say they're too aggressive in their capital structure, but we think that they're doing a good job optimizing it.

This graph shows the valuation of the business, your forward multiples. We believe the stock is priced as if a major recession or a major decline in auto sales, which typically go together, is on the horizon. Big declines in sales don't typically happen on a global basis outside of a recession, so we think the stock's price is as if a recession is a sure thing. A recession could happen, but we do not think that it's a sure thing, and we think the stock is priced as if it is. One thing to know about valuation is that Sensata has a large non-cash expense in their income statement related to amortizing the stepped-up asset values as required by GAAP from Bain taking them private. I'm not going to go through all the of accounting there, but essentially when they were taken private, the value of their assets on the inventory were all stepped up and now they're being amortized. This is a non-economic, non-cash cost. It is a tax shield. It is a positive for the business due to this tax shield and has nothing to do with the cash flow distributable to shareholders. We don't generally think about proforma everything, but this is one where there's a common-sense economic adjustment to the income statement, and so you should exclude that. However, one thing to note is that the company only pays a tax rate of about 7% due to those tax shields, and while that's going to last for the foreseeable future, if you have a terminal value multiple framework as we do, then you need to be thinking about a higher tax rate than 7%. They're not going to have 7% taxes forever.

The return potential: the business generates about 40% returns on tangible capital. It's exactly the sort of business we like: it produces an enormous amount of cash, it's very lucrative and they reinvest in the business. They have 3x net debt capital structure that we think is sustainable, and that's what the company is targeting. We talked about the revenue and earnings growth potential. We do think they're smart capital allocators. They do a fair bit of M&A, although we think that any larger deals are mostly behind them. They systematically target around 20% IRRs on that M&A. They've done buybacks. They don't pay a dividend, but they've done buybacks at certain times in the past. Most recently, they were able to free up a bunch of cash on their balance sheet through various ways. They also moved to the UK for some legal reasons that allowed them to move to the UK from a tax standpoint or from a jurisdiction standpoint. This allowed them to free up more capital for buybacks, and they've reinitiated a new buyback more recently. They're smart about that, and they've said — and we believe — that buybacks are actually a bigger portion of their cash return strategy relative to M&As.

We think terminal value on this is around 20x earnings, but watch the tax rate, as we talked

about. Looking back at the previous graph, you can see that they reached about 20x earnings before 2015. 2016 was the last time you had big worries about a China decline. We did a writeup about Sensata in early 2016, I believe, talking about the opportunity. I went back and read it recently, and we said the stock is down because of worries about the Chinese economy and a broader U.S. market selloff, which is exactly the conditions we have today. Maybe this time, the Chinese worries are real. We believe they're more real and more worrisome than they were in early 2016, and yet, we've seen this play out before. If you think about almost doubling the multiple, let alone their earnings growth, we think in the next couple of years, you have 100%-plus potential upside, so a very positive potential outcome from all of this, and we think the stock is priced to protect you from, at the very least, a mild recession.

*The following are excerpts of the Q&A session with Sean Stannard-Stockton:*

**Q:** Please elaborate on the management, their incentives, and alignment with shareholders.

**A:** It's been a little while since we did the assessment on payment to management, and I'd hate to state something that wasn't accurate. I do know that all of the companies that we invest in, at the very least don't have detrimental incentive structures. The business in the past has had a return on invested capital incentives metric, and I believe they still do, but as I said, I haven't looked at it in a couple of years. We definitely think that management acts in a fully aligned way.

**Q:** What do you think are the key data points to track here to either validate or challenge your thesis over time?

**A:** For us, it's about sensor content per vehicle. That is something that we had thought in the market that the company guided to be in the higher single digits. During that 2015, 2016 industrial recession, heavy off-road vehicles saw significant declines. There was a significant slowdown in sensor content per vehicle. It stayed positive — it never declined. We don't see why that shouldn't grow closer to the higher single-digit numbers again. It's above what management is guiding for. It may be they're being conservative, but what would worry us a lot is if outside of some recessionary conditions, you saw sensor content per vehicle flatlining or growing at low single digits. We definitely wouldn't be as interested in this business if this was not the growth driver. Production is going to be volatile. If there was a global collapse of car sales, that would be very worrisome, but we simply don't see any path over a five-year-plus timeframe under which transportation vehicles are going to go into major decline, with the one caveat, as I talked about, being that autonomous vehicles could reduce the number of total cars in service at any given time, but they would be used up much faster given more miles driven per day or month. Even that wouldn't offset the auto sales all that much.

**Q:** In terms of capital allocation going forward, what would you like to see the management prioritize?

**A:** Right now — share buybacks. Given where the stock is priced, they've been buying back a lot of stock, and so they share that. They've done some larger acquisitions in the past, and those have been smartly done for the most part. We don't think they need to do a lot of bigger acquisitions right now, so we're not looking to them to do that. The one area where they might do more would be in electric vehicles, although it's not like there's electric vehicle sensor companies out there that have portfolios that they could buy to get market share. In fact, most electric vehicles are using sensors that were repurposed from non-auto uses — electric-powered sensors for electric equipment or other industrial things rather than cars.

With GIGAVAC, only about 40% is Tesla sensors. The rest is more electrified industrial sensors. They may do some acquisitions in the EV space or in the autonomous space. They did a JV with a company called Quanergy which has LiDAR systems — LiDAR, if you don't know, is the system that autonomous vehicles use for seeing the world around them. Deals around autonomous and electric vehicles could be something that we view favorably, but of course, it would depend on the terms and what the deal was.

**Q:** In looking at the automotive sector broadly, are you aware of other companies or business models that are similarly attractive?

**A:** Recently, there have been some worries about other sensor companies — Amphenol, TE Connectivity. Both those companies have been trying to increase the amount of sensor revenue that they generate. Generally, those sensors they're talking about are not competitive with Sensata. One thing to be aware of is that there are companies that sell complete auto systems, for example an airbag system, and those systems may have sensors in them. It's not like Sensata's the only company in the world making sensors, so as far as competition is concerned, it's worth paying attention to whether automakers start buying more complete systems which would displace some Sensata sensors, since the system would already include the sensors. We don't think that the auto industry is a particularly good industry to invest in more generally, and there are no other auto suppliers we're involved in. We looked at a couple recently around autonomous vehicles, but much of that doesn't look very competitively advantaged. It looks like it would be a great growth opportunity, but if it plays out, you're going to have a lot of other people come in there. You think about sensors, basically it's just a semi chip, something's that rolled out of Texas Instruments. It's sensing something and sending a signal. The key thing is that doing that under harsh mission-critical conditions is what makes it competitively advantaged. Simply doing it in a big computer, which is something common these days, is not so interesting. If you're looking at a different company, the focus would be what gives them a competitive advantage with the OEMs they're selling to, and we haven't come across too many.

**Q:** Do you think that there are aspects of their technology that could be applied more broadly, perhaps even outside the automotive sector, down the road?

**A:** Yes. We talked about industrial sensing. The whole factory floor is being electrified, and so that's part of the GIGAVAC acquisition. Things like HVAC systems need to become more and more efficient both from an emissions standpoint or environmental standpoint, and in terms of cost controls. They're doing those sorts of things. Some of those things are sold in airplanes. We've been long-time holders of TransDigm that sells parts to airlines. It's a hyper lucrative business, unbelievably so. Certainly, Sensata could drive deeper into that business. I forget the exact numbers, but an airplane has something like 1,000 times more sensors than a car does, which makes sense given its size and complexity. If you think about sensors and the Internet of Things, there's definitely a role for all of this. A lot of that just might be very commodity-based sensors that we wouldn't be interested in Sensata pursuing, but there's got to be different angles as the whole world becomes more interconnected in more rugged environments where Sensata probably has an opportunity to expand their addressable market.

*About the instructor:*

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Capital Management, and portfolio manager of the Ensemble Fund. In addition to advising the Ensemble Fund, Ensemble Capital manages \$800+ million in separate accounts on behalf of families and charitable institutions. Prior to working at Ensemble Capital, Sean worked at Scudder Investments. He holds a BA in Economics from the University of California, Davis and the Chartered Financial Analyst designation.