

# SEVENS REPORT

## *alpha*

Good afternoon, everyone, and welcome to our Sevens Report Alpha Webinar. We are excited to be back with you, and today we have got a pretty exciting topic, and it is all about megatrends. Now, those of you who were subscribers about a month ago know that we sent out a recommendation that was an issue really that was focused on an autonomous driving and electric cars – sort of all the big changes occurring the automotive industry, and that was very well received, and the pics there have done well since. But now I want to talk a little bit more about not just the automobile side of really what is technologic revolution. I want to talk about the appeal of robotics and artificial intelligence across industries, and that is what the focus of this webinar is about and to best do that, we are very lucky to be joined by Bill Studebaker who is CIO of ROBO Global, and ROBO Global is the issue wear of the ETF, ROBO, and they basically are the experts on robotics and AI and investment in that industry. So, Bill, thank you very much for joining us.

**Bill Studebaker:** Thanks, Tom. It is a pleasure to be here.

**Tom Essaye:** Absolutely. Before we begin our discussion with Bill, though, we will do our typical order here which is we go through the goals of the webinar and, as always, I am going to start with, “What do you think about markets”. That is my little macro monologue, especially important today because we have just had the ECB meeting, the 10-year yields is at 2.40%, and there’s some interesting events here going in the market. So, I am happy to be able to talk about it for a few minutes before we get into our conversation, and then we are going to obviously welcome in Bill, and we are going to discuss really three major topics. #1 – Why is this the next megatrend like FANG in Biotech, because those are two of the most recent really technological advancements that have created massive annual returns. Then we are going to talk about evaluations. Robotics and IA, I was very surprised when I was doing my research for the issue to learn that this is not some .com thing. I mean, these are real companies that trade at reasonable evaluations. They just have incredible growth potential if we see robotics and IA industry grow the way that Bill thinks it will, and the way that I also think it will following my research. And then, finally, timing. Look, robotics and IA have done very well this year. There is no disputing that, but we want to talk about really where we are in the cycle and explain why we have not missed it yet, and we are going to press Bill on that and talk about really how much more potential there is and the sort of growth rates we can look at in the robotics and IA industry.

I mean, in a broad sense, this is one of those sort of technological advancement changes, what have you, that if we get this right and we get in with the right companies, the right ETFs, this thing can sail away

for us here in the next couple of years, and we all know that it is nice to have that one investment or that one allocation that does very well that you can always point to it and say, "Well, you know, the market may be difficult, but at least I got this right." And I think there is an opportunity for IA and robotics. Starting with the macro, though, what do we think about markets.

Is the reflation finally here? That is the #1 question that I am wrestling with right now. The BKX is trading above 100 still. The 10 year is above 2.40. It is holding on today, actually relatively impressive performance by yields in the face of what was perceived by the market to be a dovish ECB meeting. If I were a bond bull/yield bear, I would be a little bit nervous based on the price action of yields this morning, but as we have talked about in the Report, and unfortunately I have gotten caught a few times over the years. There have been a lot of head fakes in this reflation, and so once bitten twice shy, we need to make sure that we don't get caught by another one. So, again, we are waiting for that weekly close above 2.40 in the 10 year. Looking forward, I hate to say it, but this is all about tax cuts here in between now and year end depending on whether it looks like progress is actually made there or whether it gets sucked in by the Washington mess. It is unfortunate that we are sort of stuck in a little bit of a binary market, but as yesterday showed, as Wednesday showed, this market is priced in tax cuts. So, we had that 401K headline hit yesterday morning. It took the market down almost 1% pretty quick. Today the House passed a budget, the same budget that the Senate passed last week. You know, from this morning's Report that does not really change anything, but nonetheless, stocks traded off the headline, and popped up, you know 7 to 8 points in the S&P 500, although we are giving that a bit back. We are giving a bit of that back now as I expected.

Looking forward, we probably will see some digestion on a bit of this reflation rally, especially given the number of catalysts that have stacked up here in the next two weeks. So, we had the ECB today. You got the Bank of England a week from today. The Fed chair looks like it is going to be between Powell and Taylor. Most people think it will be Powell. We will probably get that announcement within the next week, and then you got the employment report out next Friday. So, we are going to have sort of a lot of news that the market has been anticipating over the next 6 days. We will probably, barring any major surprises, we are probably going to get a bit of digestion out of that, but my concern beyond that is that as we digest, do we see volatility, headline volatility, tick up on basically solely taxes and every sort of tea leaf that gets revealed on whether or not it is going to move forward or turn around and come back, and unfortunately I think the answer is yes, I expect November and December to maybe be two of the most volatile months of the year. I hope I am wrong. I hope stocks just continue to grind relentlessly higher and low volatility, but we have rallied a lot in anticipation of some events, and now those events have passed, and we are really lacking a catalyst beyond this other than taxes. These are just beholden to it. So, while I hope I am wrong, I think we need to maybe buckle up a little bit because I think we are going to get some volatility here in November and December. That is basically my macro outlook. I will obviously be covering it similarly in the report, but with that, I want to shift gears and really get to the heart of today's webinar and welcome back in Bill. Again, thank you very much for joining us.

**BS:** Good morning, Tom, or good afternoon. Great to be here.

**TE:** Absolutely. We are very happy to have you, and let's just jump in because we try and keep these things pretty short. Bill, you and I had a pre call, you know, as I do with everybody that comes on here earlier in the week, and you know there were three topics I wanted us to hit on, and the first is probably the most important. Bill, what makes robotics and AI the sort of big advancements we are seeing in technology? What makes this such a compelling opportunity from an investment standpoint? What makes this potentially the next big megatrend?

**BS:** Well, Tom, simply put, robotics automation, artificial intelligence, which we have kind of defined the acronym as RAI, we think is one of the best investment opportunities out there to investors bar none. I mean, this is a true megatrend, and recent advances really in robotics, AI, and machine learning have put us on the cusp of a new automation age, and what investors are now beginning to appreciate is that these are not niche technologies. They are foundational technologies that are being applied to all industries, all markets happening now. If you think about, the Shark Tank star investor, Mark Cuban, was probably spot on when he stated that the world's first trillionaires would be coming from somebody who masters AI and all of its derivatives and applies it in ways that we never thought of. Clearly, Cuban has sort of seen the writing on the wall. The ingredients for a breakthrough are in place, right? You have got computer power that is growing significantly, algorithms are becoming more sophisticated, and perhaps most important of all the world is generating vast quantities of fuel that powers AI data, right? Billions of gigabits, every day, and AI can really go beyond changing business processes to changing the entire business model of companies with kind of a winner take all dynamics and firms that wait for the AI dust to settle are going to be left behind. I think while many investors are aware that robotics and AI are kind of a market sector, I think only those who are kind of aware of how deeply these technologies expand into every area of our world understand the potential it represents from an investment perspective, and that reach cannot really be overstated. Just as computers and the internet traded a digital revolution that you know transferred how we work, play, and even think, RAI is bringing about a robotics revolution that promised to be even larger in drive, even greater change, and you find it hard to fathom.

Maybe we could just take a look at some of the drivers of this revolution and how RAI is already driving a mass of transportation now. When you think about warehouse logistics, it could be this is kind of the epicenter where a lot of disruption is happening. Amazon, as you all know now is a phenomenal company. They recognize [technology] of e-commerce needed to be great for fulfillment. So, they bought a company called Kiva Systems back in 2012 for \$800 million that was coincidentally cofounded by one of my partners and shareholders, Raf D'Andrea. That was a game changing technology, and it now allows us to get basically almost just in time fulfillment. When you think about what is going on in e-commerce. E-commerce is growing 15-20% in the US, but it is growing 30-40-50% overseas. In fact, Alibaba, last quarter which is a big market cap company had 50% top line growth. What you are seeing here is that actually a lot of this automation is occurring much more rapidly outside the US. In China, is an example. Last year, they had \$5.5 trillion dollars in mobile payments transactions which compares to a whopping \$112 billion in the US. So, 50 times larger, and that is fueling massive automation. So when you think about e-commerce, right, it is putting tremendous pressures on the transportation logistics centers or logistics that are trying to keep up with the disruption, and this is all feeding into a \$20+

billion big store retail base that is trying to deal with all of this disruption. So, think about other areas where this is being applied, right, in health care. We are now being able to operate with submillimeter accuracy. If we can operate with submillimeter accuracy, you know, we are not going to 4-5% penetration. We are going much further, right? Two years ago, most people's perception of autonomous vehicles was probably, it was a Jetson's dream. Now we are seeing pretty rapid disruption coming. I cannot tell you when exactly in earnest this takes off, but it is probably coming faster than most people would believe.

**TE:** I would agree. Do you think that this, do you think it is a fair analogy, Bill, to say that what is happening with AI and robotics will sort of change the way people behave on a day to day basis similarly to how the internet changed things and then also later now and it is getting more widespread the internet as things changed, as well. Do you think it is on par with that type of disruption for people's individual life.

**BS:** I mean, easily. I think Bill Gates probably said it best back in 2013 when he stated that robotics he expected to be more ubiquitous computers and more transformative internet. When you think about what the internet transformed, it was only a few industries, but robotics AI will transform every single industry. The amount of money that is now coming in the industry is going to be unprecedented. Softbank just launched what they call their vision fund, which is \$100 billion fund that focuses exclusively on robotics AI and IOT. They have been since last week put another release out and said that they are going to launch vision funds 2 and 3 and the chairman and daughter of Softbank plan to invest upwards of \$880 billion in this sector. When you think about the kind of money that companies are now having to invest. Amazon is spending \$50 billion on systems and infrastructure the next few years. Alibaba is spending \$15 billion. Companies and countries need to invest here. Otherwise, they are going to get disrupted.

**TE:** So, we talk about a lot of these changes that are looming. We all have this dream released. I have this wild dream that when my son is old enough to drive, the car is going to drive itself, which for me as a parent would probably make my stress level go down, but as always with growth, right, we are always worried about a tradeoff of growth versus valuation. So, we know the growth is there, but what I found so interesting about this industry is that you are not talking about absurd value in a lot of these companies, and when you go down the list of your holdings at ROBO, a lot of these are established companies. I mean, they are not startups. You know, these are established either robotics or industrial companies that have arms that are you know getting more and more into the robotics and AI. Talk to me and talk to us a bit about valuations and why this is not, you know, hey there is tremendous growth here, but you are going to pay 100 times earnings, and gee I hope it all works out. This is a different story.

**BS:** Well, sure. That is a pretty loaded question. I actually would like to take a minute just to give you some historical perspective on how we came up with this thought and how it originated. By way of background, we actually are an index company. We produce the first and only index that focuses exclusively on robotics automation AI, and the reason we did this. It was back about five years ago. We had the strong belief and conviction that robotics and AI were disruptive technologies that could change

the world in ways that were hard to imagine and difficult to predict. We looked around in terms of how could we invest in this sort of opportunity. There were not any dedicated mutual funds, hedge funds, very little going on private equity or even venture capital. We then recognized that there were some pure play companies and that there were actually a lot of companies who had enabling technologies in their business and their business mix that were not well understood or appreciated by the market. So, we decided to create our own index classification system. We defined a company as either a technology or an application. The technology is what makes the robot work. It is the computing, the processing, the sensing, the actuation integration. Then the applications are the use cases. So, where is robotics being deployed in AI? To help here and to add in the logistics, warehouse logistics being used into manufacturing and a few others. So, we identify basically 12 subsectors, and our approach to investing in this was to invest across the entire value chain of robotics automation AI also recognizing that this is a true global megatrend.

Our index is 40% US, but it is 60% international, not by design. This happened to be what technologist exists. There is a very deep bench of companies globally that are now participating in this. Many of these names are very unrecognized and certainly not valued at all by Wall Street. The beauty of exposure that we created is that it is 25% large cap. It is 75% mid and small, and less than 2% of the companies are any traditional indices, meaning that the share capture for investors is enormous. This is new growth that investors do not own. We think similar to the internet was a niche, the first smart phone was a niche, biotechnology was a niche. You know, the FANG companies were niches at one point. We think this is the next growth trade, and if you look at the S&P index which warehouses all of the FANG stocks and a few others, but that is 50% of the weight, our index the ROBO Global index, the ETF, trades at a 20% P/E discount and 40% price to book of sales. So, if you look at our valuation, the valuation of the ROBO index is 30 times trailing earnings, 26.5 times current and 21-22 times forward earnings. So, not a very demanding multiple, and the growth expectations I do not think are very well understood.

**TE:** Yea, I want to stop you there because I talk a lot about forward earnings in sort of a macro sense for the market, and I sort of hammered home to regular Sevens Report subscribers that look, you have S&P 500 trading at around 18.5 times next year's earnings. Ok. Well, you just told me that the ROBO Global index is trading at 21-22 times. So, a marginal premium, but when you consider the growth potential of these robo oriented names compared to the S&P 500, that took me aback honestly when you told me that because I expected it to be double that, frankly. You know, it would not have surprised me given the type of growth you are looking at. So, it is a compelling mix of growth and value in my opinion.

**BS:** It is interesting, Tom, to point out here is that we built this index with some of the world's leading robotic thought leaders and entrepreneurs. I guess we were very fortunate to identify the opportunity. We were equally as fortunate to have brought in five PhDs to help us understand the technologies and where the world is going to. You can go on our website at [roboglobal.com](http://roboglobal.com) and look at everyone's bios, but pretty outstanding expert professionals that we have on our team, which is very different than Wall Street. You really have to understand these technologies I think to be successful in what we are doing here. We also certainly believe right now that we are at the front end of a massive disruption period. To pick the obvious winners and losers is going to be very difficult. To get the next FANG stock is hard.

Everyone now knows Nvidia, and it is a quiet \$120 billion company. It was only roughly a \$20 billion company 2-3 years ago. Nvidia is in our index. We sort of had the foresight to recognize what their gaming GPU technology was all about, but we never could have forecasting the kind of growth that they have seen and where it is coming from. If you look at our 84 components in our index, I would say easily over 10% of our index is up over 100% year to date. The index is up 40%.

We were down quarterly with the purpose of trying to give investors a balance ride. We recognized that you cannot have the upside without the downside, but we wanted to smooth out the ride for investors. We have a portfolio that we called modified equal weight. We are not market-cap weighted like a lot of indices and ETFs that expose investors to excess concentration risk and volatility. It is great when it goes up, but when it goes down, people don't like that. Forty percent of our portfolio is what we call a bellwether. It maintains a 2% weight. A non-bellwether is 60% of portfolio and has a 1% weight. Bellwether companies on average derive between 60-70% of revenue that comes directly from robotics automation AI, non-bellwether about 25%. We are going to the gold rush with the picks and the shovels. Companies like Amazon and Google are not in our index. In our judgement, they are not making money from selling the technologies. They are actually doing a far better job than almost most companies and using the technologies

**TE:** Using the technologies. They are the end users, right? They are not the creators, they are the end users.

**BS:** Right, to enable their business. So, I have just got to say that we think that RAI is really the next FANG trade, and you are seeing this in the performance where the FDN index of the last 52 weeks is up around 32%, whereas ROBO is up around 40%. So you are beginning to see, you know, investors have not missed this. Index obviously performed well. I kind of like to say that in baseball parlance, you know, we are not even in the first inning of the baseball game. I would say that the players are in their locker room putting their cleats on. This is how earlier on, this is the true megatrend that is going to go on for a long period of time.

**TE:** It is exact just hat up. I know you can't see the slides because you are traveling, but I just had up the slide that you gave me that showed Easter Sunday in New York in 1900 and Easter Sunday 13 years later and spot the car and then spot the horse. You saw sort of over that 13 year period how much change had occurred, but to your point 13 years later I am sure it was even crazier kind of thing. So, it is one of those things, and you and I discussed this, and I wanted to really hear from the horse's mouth about the longevity of this trade because the natural reaction is you look at ROBO and you are like, gee, the thing is up 40% this year. You know, ugh. You know, I guess I have missed it, but similarly the Biotech like we saw that start to move in the mid-2000s and similarly to the internet stocks and the semiconductor stocks as we have seen the internet of things grow. These trends can last so much longer than we think, and as you said to me one of the things that makes this attractive is the reach. So many different industries that we do not think about. When somebody says robotics and AI to me, I know that they go, gee, you know cars and you know maybe I would go to a restaurant and there are that many servers and things come out on a conveyer belt of whatever, but all the things I don't think about. Like you said, logistics. You know, we all want our stuff within two days now regardless of where it is being sent from.

How do companies like Amazon manage that inventory, just in time inventory. I mean just in time inventory for anybody who has taken a logistics class in school is sort of, you know, the unicorn of how you can do it. If this helps, the potential there is really just huge, and it has barely scratched the surface as you said.

**BS:** It really is. I think to your point on the slide, I think the takeaway here is that the manufacture industry has a history of being able to reinvent itself. We started with the steam engine. Then we went to electricity and then the mass production, and each happened faster than the previous. Another revolution is underway, and again what is going on now is that the rate of change is truly exponential. Companies that have a linear mindset are going to have a problem prospering in this new environment. Again, what you are seeing is that all companies are having to employ these technologies to enable their business, and the sustainability of this could not be any clearer in my mind.

**TE:** Yea, and it is great to hear from an industry. That is one of the reasons I wanted to have you on from an industry expert because I think that, you know, we all started hearing about, and this is just to use an analogy, but we all started hearing about the internet of things several years ago honestly, but I only feel like really recently has it achieved the penetration that people have thought it would perhaps earlier, but if you look at the stocks that are exposed to that. Again, going back to the semiconductors which are sort of one of the pure plays on the internet of things, the gains were substantial even before people really realized it. It is like by the time everybody sort of turned around and said, "Oh boy, the semiconductors have killed it", well they have been doing it for years. It is just now that people have sort of adopted to where they thought it would be a bit earlier. If you have some time, we have a few minutes left. I want to jump in and grab a couple of questions that have come in if that is OK?

**BS:** Sure, please.

**TE:** OK, the first one is from George in Ohio, and George basically says if you had to pick one, what is the industry that you think will be most changed by robotics and AI?

**BS:** It is almost impossible to suggest one. I mean, every industry is going through huge and dramatic changes. In isolation, you think about autonomous vehicles and the kind of disruption that is going to change. Everyone is reading a lot more about this now. Goldman Sachs estimates in the United States alone we spend \$2.1 trillion on the cost of maintaining our vehicles. So, in a world of shared autonomy where in densely populated areas 50% of that spend, you know, is captured. We are talking about \$1 trillion of the US alone not to mention the global reach share and the disruption this is going to create. For example, to parking lots. I mean, there is some estimated 16% of densely populated urban areas are filled by parking lots. If lots of people are having to park their car, parking lots are probably not going to do very well. If you think about how this is going to disrupt the insurance industry. It is going to get turned upside down with plummeting fatalities and wrecks, etc. So, it is huge. When you think about additive manufacturing. 3D printing is estimated to be 1% penetrated in a \$500 billion market. We are going from a period of massive production to mass customization. They can only be met through automation and these sort of technologies. So, in terms of how fast does that happen. Well, I can't tell you five years from now if additive manufacturing turns out to be a \$10 billion market or a \$50 billion

market, but it is going to be somewhere in between them. The rates of growth are enormous. Surgical robotics is estimated to be about \$4 billion market. Over the next six years, it is estimated to go to roughly \$14-15 billion. That is a 27-28%. I really can go on and on, and I don't need to evade the question. I just don't have one area where I have that conviction.

**TE:** John from Tennessee wrote in, this is a good question, I imagine some people are thinking it. What do you worry about as far as disrupting this movement? What concerns you that it may not reach the fruition that you guys think it will?

**BS:** Not to sound crass, but nothing. The genie is out of the bottle. We have been automating for hundreds of years. We are going to continue to automate. This is a natural extension to what we are doing. I think the biggest risk for people, investors, is to miss an obvious megatrend. For companies and countries that are not using these technologies to enable their business or societies are going to be left behind. So, the rate at which some of these activities happen obviously can ebb and flow. Industrial manufacturing is 15-16% of our index. Industrial automation can be exposed because of the cyclical issues right and secular issues that are hard to predict. We have actually seen for the first time in a better part of three years, industrial manufacturing is now seeing a pickup in organic growth rates, which were in the mud for the better part of 4-5 years. You think about parts of the economy, right? What is interesting about the exposure with robotics and AI, and it is in our slide deck, but is the unintended benefit of what we did that our exposure touches different parts of the economy, right? You have warehouse automation that is growing 20-30% with a massive secular tailwind behind. You have healthcare that has had strong organic growth trends and continues to. You have industrial manufacturing that is picking up. You have food and ag. Then you have energy and like 3D printing that are actually kind of cyclically depressed. So, again, it has sort of had the unintended benefit of dampening out the volatility.

**TE:** And I think it is funny. The third question we are going to take, and then we are going to be out of time, is from Tyler in Georgia. To a point, some of these questions were submitted before the presentation. So we kind of covered this one, but it basically asked about sort of the fund makeup, and it was... Does ROBO basically have too much reliance on one sector, and I imagine he is probably implying tech, and that goes to your point in that it is not a tech fund, right?

**BS:** No, I would not say exclusively tech. Again, 50% of our portfolio we define as technology and 50% is application. So, we are very well diversified across that spectrum, and we are sort of agnostic to how that develops in our portfolio. We have 12 subsectors. Again, our largest is industrial manufacturing. It is 15-16%. We have other smaller parts of the portfolio like 3D printing and energy that are each around 3-4%. Consumer is small. That is going to continue to grow. Use cases are going to continue to grow too. This industry is going to evolve, and as it evolves our index and exposure will evolve. So, we do not have any rigid parameters that we are putting on this. I am not quite sure if that is the best way to do it. If we just had sort of specific geographies, etc. We are agnostic to where these companies come from. Again, the beauty behind this exposure is that these are companies that most investors have never heard of or don't own. 25% of the index is in Japan. I am not sure very many people are familiar with Daifuku. It is a \$3 billion market cap. It trades around low-20s times next year's earnings. They do



warehouse logistics automation, picking/sorting systems, conveyors, and automated guided vehicles. Their business is on fire. Last quarter, their orders were up 36% sequentially and up 2.5 fold year by year. We have companies in Korea, for example, that does 3D sensing technologies. A billion and a half dollar market cap. Not many people are probably aware of. We have a lot of really interesting companies that span the globe.

**TE:** Fantastic. Absolutely. It is more than meets the eye to be fair, because that is what I found when I was doing my research on it for the issue. Unfortunately, that is all the time we have for today, but, Bill, I want to thank you very much for coming on. It has been tremendously insightful in an area of unbelievable opportunity potentially in the markets.

**BS:** Well, thanks for having me, and if your investors have an interest, please go to our website at [roboglobal.com](http://roboglobal.com). My email is [william@roboglobal.com](mailto:william@roboglobal.com) if investors have any specific follow up questions. I am happy to address.

**TE:** Perfect, and we will be sending out the slides and the recording of this very shortly after, and yea we definitely encourage anyone who is further interested to reach out to Bill and his team to see if this is something that makes sense for you or your clients. Alright, well, Bill, thank you very much. I certainly appreciate it, and we would love to have you on again.

**BS:** Sounds good. I would love to participate any time. Thank you.

**TE:** Alright. Great. Thank you very much everyone. Have a good day.