Ep. 174 AI & Investing with Chief Market Strategist Lauren Goodwin

Patti
Hi Everyone, welcome to the Patti Brennan show. Whether you have $20 or 20 million, this show is for those of you who want to protect, grow and use your assets to live your very best lives. Joining me today is Lauren Goodwin. Folks, you are in for a real treat. Every time Lauren and I get together, we just riff, she's so easy to talk to. And I got to tell you, there are a lot of people in our industry who are economists, market strategists, and, you know, fly all over the world as Lauren does. There are very few people who I can honestly tell you, speak in words that we can all understand and act upon. Lauren, welcome to the show.

Lauren
Oh, thank you so much for having me. It's great to speak with you.

Patti
When we were talking about artificial intelligence, your team writes these white papers that are like 35 pages long chalk with all these charts and graphs. They wrote one on artificial intelligence, and they call it the mega trends themes. And so I asked Lauren if it would be okay, if we would go through that with and for all of you as well. So to kind of set the stage, Lauren, basically what I got was, you've broken it down into kind of chapters of innovation, and you talk about something called the S curve, which I want to get back to.

But the stages go from data to decisions. Then you go from gigs to grids, AI's infrastructure challenge. You talk about what you know, what could be, some of the headwinds from concentration to competition. We certainly have seen that with China, from R and D. Again, we've seen that 60 minutes had someone on their show talking about the implications of artificial intelligence taking over the world and then from adaption to allocation artificial intelligence investment opportunity set.

In other words, what are we going to do? How can we optimize our portfolios using artificial intelligence, and what that could mean in the future? So Lauren, having said all of that, I'd love to hear from you. Can you kind of explain to me and the viewers and the listeners, what's the big deal? Why all of a sudden this hype, I mean, artificial intelligence has been around, right? You talk about traditional artificial intelligence and then generate generative artificial intelligence. What's the difference?

Lauren
I'm so glad that you asked this question, Patti, because often we jump straight to the 'what are the amazing things that we can do with AI? What does it mean? What does it look like?' And this question around sort of how we got here is actually quite informative to the answers to those other questions.

So artificial intelligence as a process has been around since the 50s, and one of the things that's really interesting, is from my perspective: How often in the 90s, 2000 2000s of 1010s have I heard about machine learning, right? Which is another form of data structure and tool and technology, algorithms, all

that stuff, right? Exactly. And so these technologies became much more popular and more usable than artificial intelligence, essentially because of energy, the ability to run lots of different calculations in terms of decision trees that was developed more quickly because it was possible, given the energy and technology constraints that we have the computer chips, capabilities that we had now as computer chips have modernized as our ability to use energy more efficiently, has modernized these artificial capability, artificial intelligence capabilities, the idea that you could talk to your computer have become possible again. And so these technologies have been around for a long time, but it's with the development of computer chips, with the, really, the the application or use case of chatGPT, where this, this concept that we've seen in the movies, or that, you know, we've, we've thought about even, you know, you think back to the days when you plugged in your computer to AOL, and you were on AOL Instant Messenger, you know, the idea that you could really interface with a computer in an authentic way that snapped to life just a couple of years ago. And I think that that, that transition, that opening of the imagination for everyday people is contributing to the excitement and the expansion of this theme that we've seen in the last couple of years.

Patti
So if I hear you're right, the more we are using it, the fact that it is becoming democratized, for lack of better word, it's actually improving the output is that I'm hearing that, you know, the data sets, etc, the more we use it, the better it gets.

Lauren
Well the reason that generative technologies have become available today is, is because the technology around computer chips, the sheer amount of computing power has really unlocked it. But getting to the what you're describing, I do think that some of this is also true in the way we might think about AI with respect to investing, because you know the ways that you and I might interface with artificial intelligence, the way that my team might use artificial intelligence tool to conduct research or to pressure test our ideas, the way that you know one of your clients might use an AI related tool as a personal assistant. These are capabilities that are only just being explored, but the fact that they are possible, that consumers and businesses and the government can use this technology as one of the reasons why it's become so important and such a focal point for investing.

Patti
It's so interesting because, to your point, it's almost unlimited the uses, right? I mean, I think about the implications for people in general, you know, we think about as, you know, I'm on the board of MIT's age lab, and as we all get older, we're living longer. We're not necessarily even living better, because, you know, you get aches and pains, and people need care. And I worry about, you know what's happening and who's going to be here to deliver the care. And lo and behold, now people are talking about robots being able to deliver quality care and provide the companionship to prevent the loneliness that has really become the latest pandemic.

Lauren
Oh, absolutely. And just to give another real world example, something that I think is so fascinating, and also in the healthcare space, we, in addition to our mega trends, do a black swan report every year where we think about the things that could actually happen in this year, in 2025 that would disrupt the

way we think about the world. And one of them is, you know, there's so many potential downside risks, right? One of them is an upside risk, where artificial intelligence has so revolutionized healthcare research already, that in all of human existence up to today, of all the proteins in the world, we've only really been able to analyze a few dozen 1000 of them, up to 200,000 in a year. There's a Google related technology called Alpha fold that is made to help analyze these proteins, and within a year, that number is up to 20 million proteins. Almost all proteins known have been have now been assessed. This was unthinkable. I mean, you think about if you were, you know, using with a magnifying glass, looking at a piece of sand and analyzing it on a beach, and suddenly a machine could do it for you. This is incredible technology, and the way that that can be used, just to give an example, is to treat diseases like dengue fever, which are complicated to treat, because they are there are many different variants of the disease that interact with each other, and so it's historically not been feasible, and it's and it's a disease that impacts many, many parts of the world. So this technology, I mean, we have only just started to climb that S curve of what amazing technology can do, you know, and I think about the implications for that, just to you, you know, for the for, for this example, I mean, it's personalized medicine right at our doorstep.

Patti
So you mentioned the S curve again. I just think that the way that you frame things you've taught me, Lauren so much about this. So this idea of an S curve, and, you know, in one of your other papers, you compare this period to other periods of time, the Industrial Revolution, the internet and every significant change that occurs does tend to go through this S curve phenomenon. So can you explain what that is, and maybe even where we might be right now?

Lauren
Absolutely and so if for our listeners, not viewers, if you can picture an S and start on the bottom left of an of the s in business and technology, this term of the 'S curve' is used a lot, and it's a concept that processes technologies, but also people. We tend to adapt really slowly until there's an inflection point for change. So if you move along the bottom left of the s towards that first sort of dip upwards, **you hit an inflection point for change.** And then things tend to change very rapidly. And over time, you climb that S curve really quickly, and then you end up on the top right part of the S. You should even out over time in a new a new state, or way of being. And if I were to give an example of a recent technology even, and we'll keep it digital for now, but even 4g technology, 15 years ago: I was living in Washington, DC, and if you wanted to take a taxi or a car service, you called a taxi company, and your rates were set based on zones, just relatively randomly drawn zones, and so your ride might be cheaper on this side of the road versus the other, and it was within a year where I could order lunch from my phone while taking a conference call with video in an Uber you know, the just the pace of change and the way we lived our lives can be really rapid once you're shown how it could work. And so what we see happening with artificial intelligence today is that there's a lot of research on what the future state might look like, and A lot of ideas about when we get to the top of that S how the how the world might have developed, but right now, we're actually only just at the very bottom left. We've really only built what's called the foundational layer of artificial intelligence and starting to broaden into other parts of the technology.

But that very reality should give investors a lot of hope, because what it means is, though the markets have been driven in a big way by artificial intelligence, we you have not missed the boat if you were not invested in the Magnificent Seven. **This is that is phase one of what is likely to be a big and important trend,** and the Climbing of the S curve, the way that the technology and our use cases for it will change. We're only just really starting to experiment and know what that might look like.

Patti
The impact and the innovation that that is yet to be seen is really exciting, isn't it? And that's to your point, the adoptionand how we are going to adapt our lives with all of these cool little things and cool new things that we can do. And it is that, you know, adoption and use, using it in so many ways that we probably can't even think of right now. So what do you think could be some of the challenges, what are the challenges with artificial intelligence? And by the way, I should tell everybody, we are having this conversation on a Wednesday in February, late February, and Nvidia is reporting its earnings later on today.

Lauren
such a good point. It's going to be a fascinating call. I will say, you know, Nvidia in particular, has been the bellwether stock for artificial intelligence, because they are the company that makes these chips that allow for all of these processes to occur. And up until just recently, there was no competition. Everybody, every company that wanted to be involved with artificial intelligence, really had to use Nvidia and their chips and Nvidia was great. They were continuing to innovate and make them faster and faster and better and better. And with that came more expense, as with anything competition does tend to occur, and China has come out with a competitive product.

Patti
So I'm curious, from your perspective, that's just one example, but you mentioned energy and infrastructure. So what do you think could slow the pace of change down? If anything,

Lauren
If anything, because we are so early in this technology, I think it's nearly certain that we will see maybe it's not slowing, but let's say changing of direction or a different type of focus over time. And the reason I say that is and maybe it'd be helpful at this juncture to bring up what we think of as the the phases of development for AI, and the first one is the foundational layer, meaning, what are the basic things that you need to make this technology work? And that's really where we've seen a lot of the development in AI so far. That's your data structures, your algorithms, your semiconductors, again, a lot of what the Magnificent Seven is working with. And this is a segment of the economy that has seen enormous growth, enormous investor attention, and in this phase of development, barriers to entry have been pretty high. When we think about changes in direction for this technology, it becomes so important, because we know that over time, if a business is really profitable and they do something really cool and interesting, that everybody needs, that more people are going to learn how to do that. And so we knew that something like deep seek, or developments that would compete with a chip maker like Nvidia. We knew that that would happen over time, and it's starting to. So competition into this space is one opportunity to change direction of not only the way that AI is used, but also the investment

opportunities. As this sort of trend evolves, and I'll put this much more concisely, you need infrastructure and energy to fuel that trend. We've started to see some broadening into those spaces. But you can think about the just the sheer amount of capital intensity and investment that might be necessary there. And then, there's an application layer, which we've only begun to explore. But if we think about things like, you know, helping folks with their health care, or helping folks manage their day to day lives, that involves a lot of very personal data, a lot of you know spaces in the economy that tend to be regulated, in many cases, for a reason, because you don't want, anything related to your health or your finances to be in good order. Those are systems that just aren't developed yet, and because we don't know exactly how those systems will look, it's very difficult to say exactly where, you know, the best AI investment will end up being, because I think we'll see several stops on that train.

Patti
You know, it's really interesting, as you're talking there, I'm thinking, boy, the unintended consequences of this could be severe. You know, you think about, I just think about what the lengths that we go through to protect our clients and their money from, you know, from people who are, you know, pretending to be somebody that's trying to help them, or, you know, just literally getting into their accounts, getting into their computers. And that's happening as we speak. My concern with AI, would be, you know, with the opening up of, you know, all the networks, the implications for fraud could be tremendous.

Lauren
Oh that's absolutely the case. And I think that, you know, when it comes to a holistic investment review with respect to AI, one of the things that stands out to me is, you know, when you think about fraud and the financial system, banks, financial institutions, these are heavy, heavily regulated systems, financial advisors. I mean, there's all types of rules that we have to follow, because we as a community help people with their life savings. And so I'd argue that there probably should be some rules in how that's done, and the promotion--

Patti
100%, and I don't mean to interrupt you, but I can't agree more. I will tell you that I feel like I'm a better advisor because of the rules, because we have to be squeaky clean. I've got to run this thing like a business, and we've got to protect our clients, and the regulations give us those parameters, those boundaries, the things that we have to do and follow. For example, even something as simple as Email. Email is rampant with fraud and phishing attempts and people trying to get people's money. And you know, a regulation that we have to follow is we cannot take any instructions based on an email. We have to talk to the client. So that's just one layer of regulation that is there to protect the consumer and the investing public. I do think about, you know what we are doing right now is we're going to the nth degree on that, because when we are actually having those conversations, we're calling the client, versus them calling us because we've got their phone numbers. We're asking them the security questions to make sure that their cell phones haven't been hacked. You know, things of that nature.

Because I just want to make sure that we're talking to the person that we're supposed to be talking to. And, you know, with the deep fake and people's voices and things of that nature, I just don't know how big companies are going to do it in the future. I just don't know how we know our clients. We know

what's going on with them on a day to day basis, whereas you know I don't know how these 800 numbers are going to be able to protect their clients. I thought one thing that was really interesting in your paper talked about the implications for, you know, you know all professions, right, you know the skill sets that are going to be necessary and the upscaling and the things that we're all going to have to learn. You know, it wasn't until a couple of years ago that a couple people in my office said learning how to prompt AI is important -- there's going to be classes on it. And sure enough, I'm taking a class on how to prompt artificial intelligence.

The thing about it, for me especially is I want to be very sensitive to the fact that we're just using it like you are, for research, for information, etc. Nothing personal no personal information, no names, things of that nature, because I don't know who's on the other end, but I thought it was really interesting how you went from democratizing the expertise, right, bringing it down the expertise, and how roles are going to be graduating as you write, from execution to monitoring. And I thought that was really fascinating, because it's data. And you know, I will tell you. And Lauren, you know this, because you know my my firm, I'm a, I'm a complete nerd, and I want to, I want to know what's happening all the time 24/7 so we have lots of different systems that we've coded so they communicate with each other. I have a scorecard for every single client that's updating 24/7, and the scorecard is two pages with all the things that I want to know about, what's happening in their lives, and it's phenomenal, and it's a way for me to monitor their progress. And if they're not tracking, if there's something I need to we need to know, we get alerts and then alarms. Opportunities bubble up because we can't go digging in, you know, to every single case, every single client situation, every single day. So I want it to bubble up so it's brought to our attention. What do you think about that in terms of the future of the labor market?

Lauren
Yeah, I think it's such a powerful question, because one of the key concerns around artificial intelligence is something that we've seen with robotics, where if robots can do complicated manufacturing tasks, they can assemble parts of a vehicle, for example, then that takes away someone's job. And I do think that there will be transformation in the labor force as a result of this technology, but we might want to think about it in slightly different ways than we did about robotics and some of the more physical elements of the labor force. And actually, the example you give with respect to your clients dashboards, that's a perfect example, because if we go back, let's say, 20 years, you probably would have still had a version of that dashboard, but you might have needed more folks working in Excel, day in and day out.

Patti
Yeah, we were calling fund companies, getting values, doing all that stuff manually, exactly.

Lauren
And so were those companies, right, those fund managers. And so when we think about then what a team like yours or a team like mine looks like today. I don't need someone to be inputting those numbers into Excel, and frankly, I'm happy for that, because human error in something that's a repetitive task like Excel or sourcing insights from a market research report, whatever the case may be, those are skills that are already starting to be displaced by this technology. But if we think about Microsoft Excel as a great example, before that, folks might have even been using paper, you know,

they were keeping books in the books, yeah, and so as this new technology was developed, you need fewer bookkeepers, but actually, the net gain of financial analyst positions was remarkable, more than outpacing the number of bookkeepers in the economy and transforming the way that businesses thought about their financials because they were able to get more timely information, changing management science, and I think that we can think about artificial intelligence in a similar way a team like yours. You can't just not have staff because you have these fantastic dashboards. In fact, far from it. That gives your staff, though more time to think about the personal needs of your clients, to have in depth conversations, to understand their dynamics, for when they have a question about their financials or their dashboards, to take the time to really engage with them, and that gives everyone a better experience. Now, I don't mean to say that artificial intelligence won't do any harm or won't remove any jobs. I think that we will probably see many jobs need to change or upskill, and there's almost certainly loss related to that. In fact, we're seeing it with the Writers Guild of America, the Screen Actors Guild, many creative functions folks asking, what is this going to mean for our work? I think then the language that we use in the report around roles, graduating from execution to monitoring, creating, checking these, these realities, around knowing that content is authentic and is real, right? Only becoming more important.

Patti
Yes, you know at the end of the day, it's information, and there's a lot of information out there that is noise, so how do I take that information and apply it in a way that is meaningful? Perfect example, you know, we had a meeting with the client, and we have all their dashboards, and we were bringing all this stuff up, and we were talking about day to day life, and I was able to really concentrate and listen to what the client was saying. And at one point she said, You know, I have a beautiful home. They've got gorgeous furniture, etc. And she was talking about the people that clean her home, and she was asking, she was saying, you know, the person who cleaned my home for 15 years has retired, and now I've got somebody new, and they're not nearly as, you know, effective.

And I said, You know what? As a matter of fact, I can refer somebody to you that I already know is phenomenal, because I use her at my home, and they also clean my office. So, you know, to be able to really focus on what was important to her. That's not a tax question, it's not an investment question, but it's quality of life, and I got to be able to hear that because I knew the answers to all the other stuff, and all of the other stuff was bubbling up. She was going to be fine. I was able to say that in about five minutes. And had, had we not had that technology and had used that I we would probably never would have gotten to that question.

And what was really on her mind and, you know, it's just, we want to make a difference in people's lives in the way that they need the difference to be made. So, so in terms of going forward, you say that we're right at the bottom of this S curve, and there's different stages of this. One thing I thought was really fascinating, when you think about an S, it begins to dip down towards the end, right? It's, you know, once the everything has been, you know, adopted. And there's all these applications and things of that nature. What I think is fascinating is as it begins to dip down, and some of the challenges, I think about the internet in 1999 and all of the companies with the tech bubble bursting and how, you know, people realized it's not quite as easy as we thought it was going to be. But sure enough, as 1 S curve was ending, another one was beginning. And you know, that was about the time that Amazon was

selling books. That's how Amazon started. And they used that as the beginning to test their theory, their idea of, you know, of what Amazon is today. So, you know, with the S curves and the innovation to your point, we are really at the beginning of the beginning. I think, I think you are, I'm not sure where I heard this, **but we're not even in the first inning like we're literally in the batting cages right now** when it comes to all this technology. And I think that's so exciting. And I think, to your point, in your paper, there's so many opportunities in so many industries, because we're all realizing that this is the future and we can be better and more effective at what we do. And I'm just really excited about the implications. Tell me what you're excited about. Tell me what you're thinking about.

Lauren
You know, when I when I think about artificial intelligence, besides, you know how much my family would benefit from a personal assistance?

Patti
Absolutely!

Lauren
… It really comes down to a simple economic concept that I think we can all understand, which is supply and demand, right? And I think about a different generational technology, the automobile.

I mean, if you think of how the automobile and the interstate highway system, and how those completely changed the way we all live our lives, if you knew in the early 1900s you knew for a fact that the automobile was going to be one of the couple of primary modes of transportation in the world. What you wouldn't have known is whether you should invest in Ford, or wait for a company called Chevrolet, or wait 100 years for a company called Tesla. You wouldn't have known any of that.

What you would have known, though, is that all of those automobiles needed tires, right? And so can we think about artificial intelligence today in terms of supply and demand for the real things that we need today? Now, one of the challenges that the internet faced in the early 2000s was that you saw proliferation of companies that used the internet, and I'm putting that in air quotes, but that but the supply and demand for that product or service maybe weren't there in the way that that was really sustainable. So you and we see a little bit of it today. A lot of companies have put .ai or are introducing artificial intelligence into their processes when we haven't yet, as a society, been able to really figure out the norms of how we make sure stuff's real and how we and how we really engage with this technology. And so I think that that's where we see more risk and where being really aware of supply and demand factors is particularly important. Whereas if I think about, you know less about, you know, the Chevrolets and the Teslas of the later 20th century, and think more about what you could really do in the first part of that trend for AI, those things are starting to become more apparent.

We know that this is a very energy intensive trend in a time when there was already a lot of conversations around, how do we diversify our supply chains? And have you know, not only fossil fuels, but also natural gas, maybe more renewable sources. How do we create more energy independence in places like Europe that had been relying on Russia and others for gas, there'd always been, there had already been this conversation around energy, and now it's even bigger because of AI. So what are the

energy and infrastructure implications that are investable today? What are the components of the technology or digital supply chain that we know are in existence? And sometimes Patti these are not as cool as Nvidia. Sometimes it's servicers of utility, transmission functions, or whatever the case may be. And that's why I say that focus on supply and demand or in the things we know you need to make this work. I think there's so much in terms of investment opportunity there that investors are only just starting to get their hands around, right?

Patti
You know, I'm reminded of the Gold Rush, right? You know. And the best investment that you possibly could have made was not in the gold or the, you know, the picks and the shovels. It was in the blue jeans. Levi Strauss was a company that you know absolutely went crazy because of the gold rush. So I think that that's fascinating, and I'm just going to end with your summary towards the end of your white paper. And again, folks, there are many people who listen and watch this podcast. A lot of you are advisors, if you don't already have this, and I hope you do. New York Life Investments has the best content, in my opinion, of any one of these firms, and it's free, So I highly recommend it.

So to pull this all together. You talk about drivers, near term, medium term, long term, near term. You talk about the capital intensive nature of artificial intelligence. You think it's technology and it's, you know, it's, it's easy, and it's tech and it's, etc, it is far from it. It's, there's a lot of capital that is going to be necessary in order to make this work. So then that's the short term, then you talk about the medium term, and you know, it's, it's, I think it's so interesting. Somewhere in the paper, you talk about the implications for greater productivity, we'll be able to do a lot more with less, right? But I thought it was fascinating that you didn't see, you don't think, or at least at this point, a significant impact on economic growth. It's not like it's going to push GDP to 5%. Did I get that right?

Speaker 1
You did get that right. And the reason that we think that is not because artificial intelligence won't have necessarily a positive impact on the global economy, but rather that it's, you know, one of the reasons that we describe economic growth as not necessarily being substantially higher or lower as a result of this technology is because Artificial intelligence has elements of creative destruction. We could have, for example, as has been the case with the internet economic activity, that looks pretty similar to what it did before the internet, in terms of just output being created, but our lives are easier in some ways, and maybe we waste some time in others. And so you see elements of artificial intelligence, I don't think it will look exactly the same as the internet, but the next five years, just as an example, we've described them as being very capital intensive. When you add that geopolitics and supply chains and lots of other parts of the global economy are changing, that might mean more investment and more growth in the near term, whereas in the longer term, if you have a more productive labor force, that tends to be you have perhaps higher quality growth, but not necessarily an economic growth rate that's 3,4,5, percent in perpetuity, because to have that type of continually resetting growth expectation, you have to have continually resetting S curves. And though I'd like to think that that will be the case, we don't know what will happen on the other side of this S curve. And so we see it again, a broadly positive trend for the US and global economies, but certainly not without its costs and hiccups.

Patti

it's interesting. I never thought about this. But as you were talking, I wonder if you know, going back to even the internet and the cloud and other. Innovations I think about, you know, our economic growth here in the United States, and the fact that recessions tend to be further and further apart and shorter and less, you know, not nearly as deep and devastating. And I can't help but wonder whether the previous innovations, the previous S curves, is really contributing to the quality of the growth that we experience, the reliability of it, if you will, and whether we're just getting smarter or managing an economy. Now that might be a very optimistic view, you know, I mean giving a lot of you know people credit in the White House and the Federal Reserve. But I do think that we have learned a lot, even as recently as the pandemic, the way the United States responded to the pandemic versus other nations, and how we have come out of it versus those same other nations.

So Lauren Goodwin, I can't tell you how wonderful you are. You have taught me and my firm so much about artificial intelligence and just economics in general. Thank you so much for joining me today.

Lauren
Well, Patti, you and your firm have taught us so much about what it is to deeply care for a client and to educate ourselves about the market. So thank you, and thank you for having me.

Patti
Absolutely and thanks to all of you who are listening and watching the Patti Brennan show. If you have any questions, if you want to get the information that we are referring to, go to our website at keyfinancialinc.com Send us a little note. We'll hook you up, we'll take care of you, as we always do, and get this information into your hands. I'm not kidding you, it's life changing. Thank you so much for joining us today. Take care.