Andy: Hello and a very warm welcome to the Pzena Perspectives podcast. My name is Andy Williams and I'm a director of client and portfolio services based in our London office. On today's episode, I'm thrilled to be joined by Dan Babkes. Dan has been with Pzena for a decade. He's been a portfolio manager on the US large cap and focused value strategies for several years. And as of 2026, he's now also a co-portfolio manager on the Pzena Global Strategies. Dan, welcome to the podcast and congratulations on your first quarter as a portfolio manager on Global.

Dan: Thanks Andy. I'm thrilled to be here and also I need to extend the welcome to you. So for those who are just joining us, this is actually I believe your first podcast since you joined the team at Pzena this year. Is that right?

Andy: That is correct. This is my first podcast. Yeah.

Dan: All right. And I have to tell you, I've heard that you were quite a prolific podcaster in your prior role. So I'm honored to have received the invitation to your first one at Pzena. So thank you and I'm looking forward to the conversation.

Andy: Oh, absolutely. That's very kind of you to say so. And yeah, if you'll allow me, you know, it's fantastic to be here. I actually, you know, I've been in this business for about 20 years. I was very fortunate when somebody gave me that first copy of, you know, Benjamin Graham's *The Intelligent Investor*, and I think it was, you know, the original 1949 edition without any of the notes. And I recall reading that and you know, suddenly the world just starts to make sense and I was really fortunate to be able to pursue that passion kind of throughout my career. But you're not into value for very long before you come across Pzena. And then when you get here and actually start speaking to the people who are here, you realize just how special this place is. So I'm thrilled to be here and really looking forward to this conversation. So perhaps you know you might have been hoping for some more benign markets for your first quarter as a PM on global. You know but it's been — it's you know been absolutely anything but. You know AI is going to be the focus of our conversation today. But before we get on to that I want to start with you know what is the elephant in the room. You know there's a very human tragedy I think unfolding in the Middle East at the moment. We all hope that's resolved you know as peacefully and as quickly as possible. The consequence of that though is we're in the middle of another oil price shock and investors are understandably pretty nervous about how this might play out. How are you seeing the world at the moment?

Dan: You know, it's interesting because there's certainly a lot of headlines in the news every day that would suggest there's a lot of fear and angst in the market and there's certainly been some volatility. But I would say if anything surprised me the most, I would say it's that the market reaction thus far hasn't really been that severe actually. So if you look at the total decline in market averages since this oil price shock has begun, it's been fairly muted. I saw a statistic

recently that really surprised me. If you looked at EPS estimates for calendar 2026, they haven't declined. They actually went up slightly last month. So what that's telling me is that the market is assuming that this is going to be a reasonably short-lived conflict and the oil price spike is going to be a fairly manageable situation from an economic perspective. Now I don't know if that's right frankly and you know I would say historical experience — you put setting aside the geopolitical outcomes — but historical experience of supply chain disruptions like this in recent history could suggest something a little bit different. So I'll put on my prior analyst hat from COVID. I was actually our shipping analyst during COVID. And one of the things we learned was once the normal supply chain flows were disrupted during the pandemic, it took quite a while before trade flows were able to normalize. So you know back then we had a pretty significant position in MK Shipping and during lockdowns they basically parked a lot of the container ships and that just completely disrupted the normal flow of traffic. So even if the conflict is relatively short-lived, I think there's a second question, which is will oil prices normalize and will trade flows go back to a normal environment fairly quickly? And the answer is, frankly, I'm just not sure.

So in that scenario, I think the question becomes, you know, what happens if this becomes a more prolonged energy price spike? Now, if that happens, I think the market is going to start to be concerned about inflation, higher interest rates, stagnation potentially from an economic growth perspective. And I'll point out two things in that scenario. So one, if you zoom out and look at how value stocks have performed during periods where we've had more severe oil shocks, it's actually done reasonably well. So the drawdowns for value were similar and in multiple cases actually better than more expensive stocks during the last few incidents that we've had of oil price shocks in history. And then on the other side of it they materially outperformed.

So value tends to do well even in those scenarios just more broadly speaking. And then the second point I would say is when you have these broader supply chain type of disruptions — and this is me putting on my contrarian value investor hat — that can sometimes be a little perverse, that creates a lot of opportunity. So sometimes you'll see company specific shocks that allow you to find really attractive investments. You're starting to see some hints of things like that that could be coming down the pipeline. So for example, some of you may have been reading about shortages of helium which could disrupt the you know global electronic supply chain. So there are these types of second order impacts that can create really chunky company specific opportunities down the pipe. So we're starting to gear up for some potentially company specific opportunities on the other side of this. So that's really the way that we've been thinking about it.

Andy: There are a couple of things you said there that wouldn't seem to — they both probably can't be true, I'd suggest — and one was you know that the EPS figures are still you know looking pretty rosy, and that in your experience even with a best case scenario this is resolved quickly you are likely to see those the resumption of those trade flows or oil flows out of the Strait of Hormuz taking months. So does any or all of that change how you're thinking about

energy holdings specifically — and I'm thinking about Shell or Equinor for example — or does that just reinforce the existing thesis with those businesses?

Dan: Yeah. So a short-term change in the oil price in and of itself is not going to change our fundamental view of our energy holdings. So in the short term, what we've been doing is we've actually been rotating the portfolio on the margin by taking some profits in companies that have appreciated because of this oil price shock and redeploying the capital into some opportunities where we're finding better valuations. Longer term, if this is a broader disruption, you know, theoretically it could change the way the industry thinks about supply on the margin, so potentially adjusting transportation routes or sources of supply geographically, but I don't think we're at that stage at this point. So we've really been reacting by focusing on the valuations and like we always do, deploying the capital to the highest and best use.

Andy: Okay, very interesting. Let's move on to the focus of today's conversation and the topic of this quarter's newsletter, which is titled *AI Capital Cycles and the Opportunities for Value Investors*. Now we covered AI on this podcast back in December 2024. Not me obviously as I wasn't here, but somebody else did that one. And an awful lot has really happened since then in AI. It's probably the understatement of the century. Last time we talked about those huge capex numbers, and also how you know cap weighted benchmarks had outperformed the equal weighted benchmarks for a decade, which certainly isn't the norm in a historical context. That's very unusual.

Dan: Mhm.

Andy: Here we are 16 months later and I don't think I'm exaggerating to say that the scale of AI investment has gone parabolic. Can you set the scene for our listeners? You know, where are we now?

Dan: It's a great question and I'll give you two statistics that I think are pretty surprising. So number one, there's forecasts now that are assuming that AI data center capex annually could reach 1.4 trillion by the end of the decade, which is a pretty staggering number when you think about it.

Andy: Wow.

Dan: And if you look at valuations today, it's estimated that there's roughly 20 trillion of market cap that's now tied to AI related companies. So just to put that in perspective, that's comparable to the entire equity markets of Europe or Japan. So to put this in context, the way I would frame it is we're currently in one of the largest capital investment waves in modern history. So that's just the scale of what's happened. I think everyone's probably been surprised by the magnitude and speed of it. I certainly have been. And the one thing I would add is from our perspective,

capex isn't inherently good or bad. I think the real economic question and what everyone's trying to assess is what are the returns going to be on the capex and who's going to benefit from the returns of the capex. I'm sure this is what we're going to discuss over the course of this discussion, but I think that's the real economic question that investors are grappling with at this point.

Andy: Is there anything in particular that surprised you about how the last 18 months have played out with this capex cycle, with those extraordinary numbers that you've just shared with us?

Dan: So aside from the speed and the magnitude of the aggregate capex, the thing that surprised me the most is really the company specific valuations and what I mean by that is if you had told me a few years ago that multiple of the most valuable companies on earth would take their free cash flow to zero or negative territory, I don't think I would have believed you. And if you had then further told me those stocks would also still be trading within spitting distance of their all-time highs, I definitely would not have believed that. So that to me has been the biggest surprise — that we've seen some of the big bellwether tech companies reinvesting all of their free cash flow into this massive investment wave and the market's kind of giving them credit assuming that they're going to earn attractive returns on this capex. And that's not something I ever would have expected to have played out.

Andy: Yeah, that is extraordinary. And these are the sort of statistics which I think in you know 20-30 years time will be on some kind of value nerds quiz. I hope, because it is really really extraordinary. If I just dive into the newsletter a little. So the newsletter this quarter looks at some pretty striking parallels with railroads in the early 19th century, telcos as well. Now, one of the standout facts within there for me was that railroads increased US GDP by 25%. And yet, many of those companies went bankrupt. Is there a lesson in there for AI investors today?

Dan: You know, it's interesting. I think often times when I speak to other people in the market, I hear the AI debate framed as you're either a bull or a bear on the technology, right? So if you like the technology and you believe in it, you think it's all going to work out and these investments are going to earn good returns, or you're putting your head in the sand and you're ignoring the fact that this is really a transformative technology. And I don't really think that's the right way to frame the debate. And that's not what history suggests is the case. What history tells us is that booms in spending happen because people are optimistic about a change that's happening in the world. So railroads was one great example and the hypothesis can be right about the technology — right, so railroads changed the world. I personally think AI is also going to be a revolutionary technology and over time it will probably change the world. There could be business models that no one can even conceive of right now that may come out of this. That doesn't mean that the returns on this capex wave have to be high — that's a totally separate question. And history actually tells us that when you have these giant booms in spending, the other side of that doesn't

look so good for the companies that have spent all the money. Now, this time, who knows? This could be a different scenario. But just because the technology itself is transformational, that doesn't mean that it generates attractive returns on investments for the companies that are participating most aggressively in the investment wave. So that's really the point that we were making in the newsletter is, you know, I think we titled it *AI and the Capital Cycle*. You know, one alternative title that I proposed was, you know, *AI and Investing with Humility*, because we have to all acknowledge we don't know what the ultimate outcome of the spending is going to be. We don't know what the pace of adoption of the technology is going to be. And there's some real economic questions and you know I would say if I were to break this down in a little bit more detail and I'd say what's the key variable here that's going to drive outcomes for this — I'd say the one I would point to that I think is most significant is the pace of enterprise-wide adoption. So most people who are tracking this industry don't believe it's reasonable to assume you're going to earn an attractive return on this capex wave if you don't get material enterprise-wide adoption of AI applications. That's I think an embedded premise in it. And the other thing I'll point out is a lot of the capex dollars that are getting spent today are being spent on equipment that depreciates very quickly. So if we don't have rapid adoption, I do think there's a real question about what the returns are going to look like. And I don't think I have any particular insight to know that the pace of adoption has to be slow or it has to be at a specific rate that would generate a specific return on this capex. But the point is I don't think anybody else does either. I think it's a deeply uncertain scenario and going back to my earlier point around what's been surprising to me is, you know, we've done a lot of research around this point and if you ask 10 different experts, you'll get 12 different opinions. And yet the market's still pretty sanguine around the outcome here. So that's been a surprise to me.

Andy: Thinking back to a couple of things you just said, I think it's fair to say that the debate is still very much on the technology rather than the return on the capital that's being spent at the moment. You actually uttered four words that were on my mind as well actually, which were those four most dangerous words in finance: "this time it's different." I think you've got to where I was thinking really — actually talking about you know whether the past is a good guide to the future in terms of the returns that we've seen from similar capex cycles I guess. But is there — you know I almost feel like I'm laboring the point here but this does you know maybe it just feels like it because we're living in it — but the hype here, and there are some pretty loud voices saying that this time you know it really is different. Do you have any — do they keep you up at night at all? Or are you kind of firmly comfortable with thinking about this in terms of what's happened in the past and what's happened in history through similar cycles?

Dan: Well, everything keeps me up at night. That's — you know, I like to joke that's part of my job. I get paid to worry and I promise you I'm doing more than my fair share of that at this point. But taking a step back, I'll give two sides to that argument. So the big case that I think is rational around why this time could be different is the speed of the cost decline for the technology. It's massive. And I think in other technology cycles, you would point to Moore's Law as maybe

being the binding constraint around how fast the technology cost will decline. And this is declining exponentially faster. You know, I think I've seen estimates that the cost per token of inference is going down, you know, 90% year on year. So that does argue for the case that the pace of adoption in this cycle could be much faster than in prior technology cycles and that's a very reasonable thought. Now there's a separate question there which is who do these benefits accrue to — even if there is rapid adoption, is it necessarily the people spending the money or is it other players within the ecosystem? That's kind of a separate question. But the bull case around the technology and the speed of the adoption cycle really does come down to the speed of the cost decline. So that's quite significant.

I'll give the other side of the coin, which is there are other limiting factors I believe aside from just the cost of the technology. And when we do research and speak to companies and try to dig into that point I was making around the pace of enterprise-wide adoption, when we assess where we are right now for most of the Fortune 1000 companies that we're speaking to, what we believe has happened is there's a little bit of a disconnect between the hype driven by the consumer-facing applications and the ability for companies to adopt these applications at scale. And if you think about it, that's a little bit intuitive because we're all using these tools now in our personal lives and they're awesome. I'm using them all the time. You know, I think ChatGPT is probably the app on my phone I'm using the most at this point and it's a wonderful technology and the user counts are off the chart. You know, 700-800 million users that some of these companies have generated basically overnight. It's astonishing. So that's created a lot of hype to your point. And then the other side of that is that doesn't necessarily mean it's translated into Fortune 1000 companies rapidly adopting the technology for business cases. You know, there's change management issues to think about. There's basic things like do I have my data stored properly to be able to implement the technology solutions that I would like. So there are other limiting factors that I think you have to consider.

So those are the two sides of the coin. And you know what I would say is as far as making investment decisions given this heightened level of uncertainty — I do think it's really important to know what you don't know, that the outcome is going to be uncertain. So you have to plan for that. I think it's very hard to invest assuming one very specific case around speed of adoption and if that doesn't play out then the investment's in trouble. I think that's a much harder way to approach this type of situation and that's really something that we're trying to avoid here at Pzena.

Andy: I should say, you know, other generative AI applications are available. And we're certainly going to be talking a little bit later about how Pzena are using AI more in the process, but before we do let's get into the portfolios a little bit. So we've established the scale of the investment in AI. You've established the historical pattern. When you now look at the opportunity set, through this lens that we've been discussing, how do you think about categorizing the different types of companies that you're seeing?

Dan: Yeah. So I'd really put it into three buckets. So the first one is direct beneficiaries. So that's companies whose revenue and earnings are going up right now because of the investments. So think of that as companies selling you picks and shovels into the investment wave. Second bucket is companies that are perceived to be under threat. And I'm sure we'll talk about some of those because we have not had a giant exposure. We do have some exposure to companies in the portfolio where we think the market is incorrectly assuming that they must fit into that bucket and we're not so sure. So we'll discuss that second bucket I'm sure more at length. And then the third one I would say is everyone else. So think of that as the wider universe of companies that are going to be affected to varying degrees by the technology change and that's almost every business frankly — you know, in our discussions with companies across industries we're asking them how they're using AI today and what plans they're making, and our clients are asking us too, as they should be, because every business should be thinking about how they can implement new technology that's potentially transformational. So that's really the third bucket — just the wider universe of incumbent companies that are going to try to use the technology to develop a competitive advantage, or in a less favorable term, make sure that they're keeping up.

Andy: So let's start with the direct beneficiaries, those picks and shovels businesses as you put it. Where do we have exposure today?

Dan: Yeah. So we do have exposure to a few companies like that where the way I would frame that is it's companies where the demand visibility is a little bit more clear to us. So a couple of examples in our global portfolios would have been Samsung or TSMC. Now one thing that's important about the investments we've made in the AI beneficiaries — we didn't make any investments where the entire case was predicated on AI. Typically AI was more of an incremental upside driver rather than a core thesis. And the other point I would make is we're typically not making investments where we have to underwrite one specific pace of adoption because the company has now given up all of its free cash flow to make a big bet on a specific technology shift. That tends not to be the sweet spot for us because then you have to think the outcome on that particular investment is one where we think it's a little bit too uncertain to make those types of bets in any material size. And then we also have some smaller exposures where I would say it's companies that are more broadly benefiting from the infrastructure investment. So an example like that would be Rexel, which is an electrical distributor. So this is a very cheap undervalued stock that we've owned for many years with small exposure to data center capex spending, but I sometimes like to remind people if you have only 5% of your business in one end market and all of a sudden that end market starts to grow 150% year-over-year, it is a material revenue driver now. So we have a couple of examples of businesses like that that had relatively small exposure relative to their overall revenue base, but it started growing so rapidly that they kind of became AI winners. So that's the way we've been positioned from the beneficiaries perspective. What we've been doing in our portfolios is we've directionally been starting to rotate out of some of these direct beneficiaries as those stock prices have appreciated closer to our estimate of fair value and we've been redeploying into cheaper opportunities.

Andy: I was going to say that you would have thought given the sort of commentary of markets there aren't that many direct beneficiaries today where their valuations are still particularly attractive. Therefore, potentially an area that would be very interesting to talk about would be that second bucket that you mentioned — those more contrarian investments today, the ones that the market has deemed are, you know, AI losers for want of a better phrase. So where do you see that the market has really thrown the baby out with the bathwater so to speak, and we're actually uncovering those attractive opportunities now?

Dan: Yeah, it's funny because I think that definition seems to change every day. And I think that was particularly acute during the last quarter where there were some new product introductions by Anthropic where you're seeing 10% stock price declines across an entire sector because the definition of an AI loser — I'm using air quotes here — started to broaden out, even if in certain cases it was very short-lived. But so you know I'll discuss some of what we're seeing, but I do think it's important to caveat that the market gets creative at times and the perceptions can shift quickly. Now where we've seen the biggest valuation dislocations are really in a group of businesses that I would refer to as business services. So think about staffing companies as one example. So Randstad or Robert Half would fit into that category and there's a little bit of business model disintermediation risk that people are concerned that the technology could pose a risk to the actual business of staffing, and also just broader employment disruption. So that's one example. Another one is IT services and — if you'll permit me — I'll spend a little bit of time talking about one in particular.

Andy: Please do.

Dan: So Cognizant is actually our largest holding right now of companies that I believe have been thrown into this AI loser bucket — this bucket of stocks that people perceive to be at risk for disruption from AI. And Cognizant is one of the leading IT services players globally. The big risk that people perceive around their business model is basically that AI is going to displace the need for labor to implement technology. That's the crux of it. In all historical technology adoption cycles, the IT services providers have really benefited from changing technology. And the reason for that is fairly simple — deploying new technology at scale across most companies is hard and it's expensive and typically you want professionals, you want professional technologists, to help do that. So we're looking at Cognizant today and this is a company with a very good long-term history, an industry with a very good long-term history of growth. Cognizant more recently had — it had some company specific issues that we think they've now overcome and are starting to grow along with the best-in-class peers in the space. So we think they're taking share in the IT services market and the stock has derated to trading under 10 times forward earnings if you exclude the net cash that's sitting on its balance sheet. So that tells me that the market believes that this company is going to structurally shrink going forward even though every other technology cycle the IT services providers have been beneficiaries, and at the

core the bet that we're making is AI — if it's going to get implemented at scale it's going to be done by professional technologists, which frankly seems like a fairly sensible bet. And when we speak to everybody in the industry and we speak to the potential Fortune 1000 clients, you gain more and more conviction that that's the more logical base case and it's not priced for that. It's priced for decline.

The other thing I think is funny about this is, you know, going back to the point — the point I made earlier that, you know, in order for a lot of companies to adopt some of these AI applications, you have to clean up your data and move to the cloud. So some of these are just very core business lines for a company like Cognizant. The negative case that you hear sometimes now is well there's going to be this one more wave of work. They're going to get companies ready for this or maybe implement some of the AI technology and then you won't need the people anymore after that. So we'll be done. We're going to get one more wave they can ride and then they won't have a business anymore after that. On the other side of it, it's gone because then the machines will do everything for you. You know, you take the solution out of the box, you plug it into your system for a complex Fortune 1000 company and it runs itself, or they implement it for you and then it's going to run itself and they'll be cut out of the equation.

Zooming out with a little bit of history, the first time I am aware of that negative case being made for the IT services business was Y2K. So the thought at that point was we can't see the demand driver after this wave of converting everybody from two digits to four digits.

Andy: Yeah. On the dates in their computer systems and after that's all been modernized, then what are these companies going to do?

Dan: And I will tell you, it has been a wonderful 25 years for the IT services companies after the Y2K work ended. And I suspect that there will be more work for professional technologists to do in the next cycle, not less work. That's the bet that we're making.

Andy: I guess the 2026 equivalent of that bearish view, you know, in that people within all these businesses are just going to vibe code their way out of whatever problems they have and we're never going to need IT services again.

Dan: Yeah, that's exactly right. And I think one, you know, one key point when we look at the, you know, opportunities like this is the starting point on valuation really matters, right? So if you're paying a very rich multiple for a business, you need the earnings to grow in order to generate an okay return over the long term. When you have something that's already priced for death, the outcome just needs to be better than death. So the risk-reward calculus really changes when you have such an attractive starting point. So the way that we're thinking about this — you know, going back to an earlier point I made about, you know, investing with humility — is we don't have to know exactly what the outcome is going to look like, but we're trying to find places

where we think the gap between the valuation and the most likely business outcomes looks really wide and in our favor. So something that historically always benefits from technology cycles, and do all the people that we're speaking to in the industry believe that this wouldn't be different and the potential clients that we're speaking to in the industry believe this won't be different, but it's priced for a decline. That to me looks pretty attractive.

Andy: Certainly. And something you said earlier made me think, you know, it's been a wonderful — the markets of the last quarter have been very wonderful for any kind of students of behavioral economics or behavioral finance because you've seen basically AI be lumped on top of what might already been a bearish view. And you mentioned the staffers and so from that perspective, it is just — it's just another reason for things to become too cheap and too unloved and have an attractive entry point. And it does seem there's quite a lot of businesses today where, you know, the outlook may have already been negative potentially for a cyclical reason. And it's just layered on as another reason to be even more bearish on those stocks.

Dan: I think that's exactly right. You bring up a really important point which is once there's a narrative out in the market that the variable that's going to cause pressure on the business is the technology change, if pressure materializes for any other reason then the market starts to extrapolate that this must be caused by the technology change. So staffers I think are one good example of that where there was definitely a cyclical problem within staffing and, really, was it — it was quite simple coming out of the pandemic there was a lot of labor hoarding and on the other side of that you're seeing pressure in volumes. In IT services it was a bit of a similar dynamic — you, during the depths of COVID and the period right after that there was a lot of pressure for companies to digitize their businesses so spending increased rapidly in the Fortune 1000 for a lot of these digital applications and now all of a sudden companies have pulled back in part because they don't know yet how to adopt some of the AI applications, right. So there's some cost savings that are available today on basic implementation which is getting passed along and the investment wave to implement the new technology hasn't actually started yet, so that's causing a little bit of pressure in the short term, but frankly not that much — these businesses aren't starting to shrink rapidly in IT services or anything like that. They're still producing quite reasonable results. But that has created a little bit of pressure and people are extrapolating that some of these cyclical dynamics mean that there has to be this structural pressure that could never be overcome. And you know, again, when you have that priced in and you have reasonable probability of a better outcome, some of these opportunities start to look attractive.

Andy: We can just come back to your third bucket, which was everybody else I think you said. So if we just zoom out a little bit again, you know, most people agree that most companies are going to be affected by AI in some way — some ways we can think about now, some ways we probably can't even think about now. You know, how do you broadly think about the incumbents versus the disruptors in today's market?

Dan: Yeah. Now, this is an issue that you're generally thinking about regardless of whether there's a technology change happening in the world. So it's always important to assess a company's competitive advantage. Are they spending enough money to compete as the markets are evolving? Because the world's never a stagnant place. So that's just the starting point of how you'd assess these companies. It's certainly heightened right now given the fact that companies are trying to figure this out and understand how they can use AI to their advantage. But typically when you have a technology change like this, what we found is there's often times this narrative that the new technology is going to sweep away the old guard and these new business models are going to come in and just completely disrupt everyone else who used to own that business. And that's rarely the way it plays out in reality. And what you sometimes find is some of the largest, most advantaged players are the ones that are actually well positioned to capture the efficiency gains from the new technology. And some of that is because they have other advantages in their business that allowed them to get to that point. Some of it could just be scale advantages like they're the ones able to deploy the capital to benefit from this and they can adopt it earlier. So, you know, we're — really the key point is we're always thinking about these issues and they're company specific, and we think that's where we tend to really excel, is looking at controversial situations and applying them to the company specific outcomes. And this is no different.

Andy: So in the software sector specifically — want to think about value traps there, you know — how do you distinguish between a genuine opportunity and a value trap in the software space? And it's a very broad question, and I'm thinking your previous answer made me think a little bit about, you know, potentially the likes of Microsoft and things in 2013-14 when they were the scaled incumbent then.

Dan: Mhm.

Andy: But today, how are you going about working out whether things are value traps or not in software specifically?

Dan: This is certainly becoming a more topical area at the moment and one question I've gotten a lot is software stocks are down a lot. That must mean that they're all in deep value territory now and Pzena must be gearing up for large software investments. And I think the answer is it's a bit more nuanced than that. Now stock prices are down materially but the starting point on valuation for the group overall was certainly not depressed before this pullback, to put it mildly. So, you know, we looked at a very simple metric — we just looked at enterprise value to sales for the space over a long period of time — and what you saw before this pullback was the group had actually gotten quite expensive relative to its history, and you can understand the reason behind that. So the market was viewing these companies as offering both stability and growth. So these are deeply entrenched businesses that companies can't rip out and there's structural growth behind it. So stickiness plus growth. Therefore, the sector overall is entitled to generate very high margins. Now, you've maybe heard this term people have used like the rule of 40 — the rule of

40 meaning a mature software business should earn a 40% margin, or if it's not earning a 40% margin yet then it must be growing at 20% with a 20% margin. So the sum of the growth plus the margin should be 40%. So there was this optimism baked into this asset class that these were all sticky growth businesses entitled to very high margins in perpetuity. And now with AI, there's some questions around whether that premise was right and how broadly that premise should have been adopted.

And I've heard two sides of the argument. So on one hand, I've heard some smart investors in the software space make the case that for the right software companies, their product is just as sticky as it's ever been. And if you used to have a rule of 40, now AI is going to make the software development process cheaper. And it's now a rule of 60. It's just as sticky of a business as it was except the margins are going to go even higher than what you used to think. And the other side of the coin is, because the cost of software development is declining now with AI, the barrier to entry is down and these businesses are not nearly as sticky as we used to think they are and the valuations need to change to reflect that. So that's the debate that's going on in the market. And you know, you're asking how do you distinguish between value opportunities and value traps in the space? And the short answer is I don't know. We haven't figured that out yet. So we're starting to look at some of these companies. But really the instinct that we all have is the entire sector wasn't all entitled to some, you know, magical margin rate. It's going to be company specific. And that's especially true now in a world where the cost of developing the technology is declining. It's going to be very company specific and you have to look at all these opportunities and understand what's different about each company and think through a pretty wide range of outcomes.

So, you know, we're starting to do research where, you know, I think a couple of my colleagues are off to San Francisco this week — if I have the dates correctly — to meet with some companies and do research. We think it makes a lot of sense for us to better understand what's going on in the world and to look to see if we can find some opportunities in the space. However, we're going to do it very carefully because if you have an asset class that not too long ago was quite expensive, the first stocks that are likely to screen as being undervalued — I would argue you might be more prone to a value trap — because they probably had a company specific issue before AI started to change the dynamic. So we're just trying to be very mindful of that.

Andy: Okay. Yeah, it's so fair to say, broadly speaking, you know, we have seen share prices come off a fair bit in some cases and that certainly makes headlines, but as you say, the valuations were very high to start with. So potentially this is an area where it'll pay to be patient potentially.

Dan: That's right. And we're looking for those company specific opportunities like we always do, but we're maintaining some caution as we do it. That's the way I would frame it.

Andy: Fantastic. I want to switch gears a little bit now and talk about what we're doing at Pzena. So on the podcast previously — the one I mentioned earlier in December '24 — talked about using generative AI in some of the early stages of research, things like scanning for transcripts, you know, across an entire sector, you know, just generally for saving time. I listened back to that podcast and the quote that stuck with me from that episode was when Matt Ring, who's our director of research, said, "As long as people are running businesses, we're going to need people to analyze those businesses." Now I don't want to be accused of leading the witness here, but from where I'm sitting, you know, I've seen a lot of copy from firms on the street touting AI as you know nothing short of revolutionary, frankly, when it comes to their research processes. And, you know, granted we do work in an industry that's prone to hyperbole. But with that in mind, you know, at Pzena I think there's two questions and the second is probably more important than the first — you know, where are we starting to use AI today and where are we investigating the use of AI in the research process? Potentially just as importantly, or even more importantly, where don't we use AI?

Dan: It's a great question. So I think in terms of where we are using AI, it's a lot of the applications that you would expect. So we're looking at and already using several different tools like AlphaSense and ChatGPT for business co-pilot — we're using those tools to help us locate and summarize information. And you already referenced it, but there is some real value in terms of helping people get up to speed very quickly on a new topic. It's another source to find information faster, and those tools are great and we're using them. We're experimenting with some other tools as well, such as Claude and Excel for automating some financial modeling type applications. We haven't yet found those to be transformative for us, but I think it's important that we keep experimenting with every option that's out there and make sure we're not missing opportunities. And we'll continue to do that.

And where we're not using it is to make investment decisions, very simply. Nothing about our core philosophy has changed. We don't think that's something that's going to be replicable with any kind of automation or machine anytime in the near future. There's a lot of human judgment and understanding that goes into some of those decisions and the assessment of a company's strategy. We don't see that changing. And even with some of the physical automation points, I always like to remind people of this because we get this question a lot — like, can't you have the AI just build all the models for you in the future and do a lot of the physical work that people have done internally? And I always like to remind people I can actually make it even more efficient than that. We don't need AI to build the models for us. We can just download the models that other people have already built. The brokerage firms have been posting their models publicly online for the last — I think about as long as I've been in this business. So for the last 20 years we haven't needed people to physically put numbers into Excel for us within our team. The benefit of building a model is something different. It's to help us develop the intellectual capital to understand how a business works, make an assessment of what a risk-reward outcome could look like across various business outcomes based on our understanding of how the business

works. So there's benefits to doing some of this physical work that have nothing to do with that actual physical output that we could have already automated away 15 years ago had we chosen to, and we've chosen not to do it because it helps us with our own understanding.

So we're going to make sure that we're as efficient as we can be and that we're using all of these tools. But I think you have to be really careful not to outsource too much. I actually think that's as much of a risk as falling behind in terms of getting the information. And really the way that we invest, you know, an information edge is not necessarily the thing that we're looking to exploit. For us, it often tends to be more about depth of understanding, taking a longer term perspective and being thoughtful around the price you're paying today and the risks in the business versus the long-term business outcomes. I think that's something that's going to be quite hard to automate in the future. So, you know, we're always using things, and I'll offer one more historical perspective which is it's not new that we have technology tools that help us. So I think this would have been before my time but I think if 50 years ago you asked a value analyst what's your process for underwriting a new investment, I think it would have started with requesting the annual report by mail. So we've already been in a very different place with much more automation than this industry had several years ago, and this will be no different — there'll be new tools that will help alleviate some of the bottlenecks, and the insights that drive investment decisions are, I think, for us not going to change materially.

Andy: When I started out in this business, there was still one — saw I worked with that still did his models by hand. Still refused to put them in Excel. So you're right. And actually a point you made there I think is a really important one, which is it's the — that doing the work manually is very very important to getting to the right conclusion. I think where you see a lot of the proponents of how it's going to change the work dramatically is often that it's going to take, you know, take up a lot of the work that other people might have done in the past. And I think that, you know, the scale that Pzena has in its research team is kind of crucial. It's really, you know, a true edge in this business. Another point you just made me think of — this is sort of analogous — is I read a study around the amount of information that people retain when they take meeting notes themselves and write them down and write them up versus when they use AI tools to take those notes, weeks and months later. And, surprise for us, it's dramatically lower. And I think it's a similar point where if you're not doing that work, it's very difficult — you know, a) you can't assess it and b) actually you don't remember it anyway. So there's a lot of value in the process.

Dan: You know, I agree and I often make this point even about something much simpler, which is physical meetings. And I remember when Zoom first started getting adopted more broadly, there was a question of do people need to travel anymore to visit with management teams that you're investing in? What's the benefit of an in-person meeting when you can see them on Zoom? I said, "Well, let's see if six months from now how much we remember the interactions of back-to-back Zoom meetings versus an interaction when somebody travels to see you in person." So I do think that's a really important point.

Andy: Yeah, I agree. It makes me think next time Dan we should do this in person.

Dan: I would love to.

Andy: I'll continue your — thank you. This has been — I've really really enjoyed recording this episode. Before I let you go, I wanted to end on something a little bit more light-hearted. And I want to ask you about what's the kind of coolest or most interesting thing — and that's coolest in the nerdy sense — that you've seen or read this quarter that you'd like to share with our listeners.

Dan: Sure. You know, I read a lot and I'll take it to something that's not directly work-related just because that's mostly what I'm reading is on topics like the ones we've been discussing today. But you know, earlier this quarter I had the opportunity to attend an event where Condoleezza Rice — who's former US Secretary of State — was interviewed in a fireside chat type environment and it was fascinating. And you know, not for any particular political reason, but just from a historical perspective, there are all kinds of topics she discussed that were just so interesting to me. Some of it was, you know, discussions around the details of the attempts she made to negotiate lasting peace in the Middle East, and some of her broader perspective on, you know, the neoconservative worldview and whether that's still relevant given how much things have shifted today. So there were all kinds of interesting topics that were discussed there. And I'll just share one that I think was a major takeaway that I had that I found pretty inspiring, actually — she talked about her own life, and you know, despite everything that's happened and all the negative headlines we see out in the world that seems like people on all parts of the political spectrum are struggling at the moment, to put it, just with a lot of the geopolitical uncertainty, and she still has quite an optimistic worldview. And when you asked her what drives that, you know, she talked about her own life experience — that she was born in Alabama during a period where racial segregation was still a reality in her hometown. And she went through the experience that her father had trying to be able to vote for the first time, and what an unbelievable challenge that was for him to get to register to vote. It was such a struggle. And then in her lifetime going from that to being sworn in as Secretary of State and being sworn in by Ruth Bader Ginsburg, actually. So that to me was an amazing kind of aha moment — the way that she described it — that, you know, the world can get rocky at times and things can feel challenging, but when you zoom out and you look at the longer term path of progress, it's a pretty encouraging picture. And you know, that colored her optimistic worldview despite all the challenges that we're seeing at the moment, and I thought that was a really interesting and inspiring thing. So I quite enjoyed that one.

Andy: That's amazing. And I think that's the perfect way to end the podcast on a very uplifting and inspiring note. So Dan, thank you very much for joining me today. That was fantastic.

Dan: Thank you.