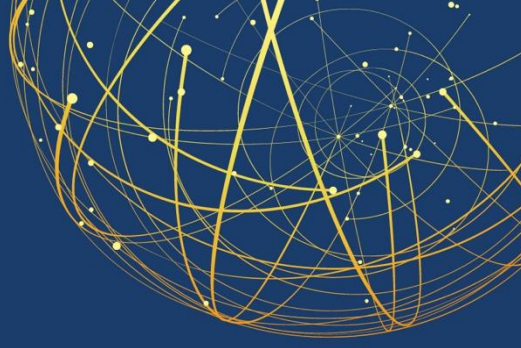

THE PRODUCTIVITY SHOCK: IS AI REWRITING THE GLOBAL GROWTH MODEL?

Announcer 02:03

Please welcome Senior Director, Business and Program Development at the Milken Institute, Shikha Jan.

Shikha Jain 02:16

Good afternoon everyone, and welcome. It's wonderful to see you here. The Milken Institute Global Conference is our flagship annual convening, bringing together leaders across health, finance, business, technology, philanthropy, and public policy. For nearly 30 years, this conference has focused on translating both local and global disruption and innovation into practical solutions that advance a more sustainable, equitable, and resilient future. This year feels different. We're meeting in a moment of rapid change, persistent uncertainty, and profound opportunity. And yet, we hope in the conversations you hear in these rooms, and just as importantly in the hallways, deeply reflect this year's theme, “Leading in a New Era.” What makes the global conference truly unique is the community in this room. It's where individuals with the capital and influence to change the world connect with those whose expertise, creativity, and lived experience who are actively reinventing business and society. As we navigate an increasingly fragmented world, it's not lost on us that you come here to spend time with both similar and dissimilar thought leaders. We encourage you to fully engage this community, to listen generously, challenge assumptions, and leave this conference not just informed, but equipped to inspire effective change. The question before all of us is simple, yet urgent. How will you lead in a new era? And as many of you have heard repeatedly over the past few years, and probably a lot of panels, you can't sit out AI. Today's lunch session, "The Productivity Shock: Is AI Rewriting the Global Growth Model?" will explore the journey from AI adoption to transformation, to end-to-end efficiency. What does that evolution mean for the boardroom, the workforce, and the energy ecosystem? Where and what are the implications for both human and financial capital as AI reshapes how value is created and sustained? We're thrilled to have this distinguished panel with us here today, and we look forward to a candid discussion led by David Steinberg. Before we begin,

I'd like to thank those who make our work at the Milken Institute possible, our global conference underwriter and sponsors, and year-round strategic partners. Enjoy.

Announcer 04:49

Before we begin our program, please turn your attention to the screens as we take a moment to appreciate our sponsors. We thank the following organizations for their support, allowing us to achieve our mission of accelerating progress on the path to a meaningful life.

Please welcome the panel on "The Productivity Shock: Is AI Rewriting the Global Growth Model?" moderated by David Steinberg, co-founder, chairman, and CEO, Zeta Global.

David Steinberg 07:07

Well, we might have the biggest panel in the history of Milken here, so we'll make it work. When I opened the AI panel Saturday morning, which might've been the first panel, I made a joke. I said, "If we played a drinking game that every time somebody said the words AI, we did a shot, we would be very drunk by the end of the week." The truth is, we'd probably be dead based on how this is going, but here we are for yet another one. Listen, after massive productivity increments at the dawn of the information age—talk about the computer and then the internet—we've gone through the last few years of really stalled productivity growth. As we look at AI, is AI going to be a step change as it relates to productivity, or is it going to be just another jump? In the first quarter of this year, we grew two percent. I don't know how much of that was infrastructure investment, but I bet it was a lot. And as we think about that, that's good, not great. In this very same conference, in this very same room three years ago, all we could talk about was an aging population, and we would never have enough people to do all the jobs we needed to do. Does AI solve that problem? When you think about it, are we entering the next industrial revolution, or is this just another growth driver? Going back in technology—I won't go back as far as fire, even though I think my kids think I was alive for that—but let's start with the Gutenberg printing press, the telephone—I'm sorry, the telegraph, the telephone, the computer, and then the internet. In all cases, they changed everything that followed. But in all cases, the lag from the investment cycle of technology to when the productivity increments and the real value creation happened was much longer than we really expected it to be. If you look at the dot com era, yes, we had a lot of capital chasing a number of companies, some of which made it, some didn't. But the ones that embraced it are Amazon, Apple, JPMorgan Chase, Meta, and Walmart. When you think about where we're going, we have an incredible panel today to help us try to figure out what is coming next. Now, they changed the seating order on me, so my notes are going to have to move around a little bit. But Vlad, we're going to start with you. You framed AI as a capital cycle, not just a technology shift. Where are we today in that cycle, and how should investors think about the massive increment in investment versus when are we going to see realized productivity gains?

Vlad Barbalat 09:53

Well, first of all, David, thanks to being here with you, with all of you and my co-panelists. Look, I think your opening remarks were spot on.

David Steinberg 10:01

That's good.

Vlad Barbalat 10:02

Yeah. Unlike the aging population, which is no longer relevant. I guess I would say, when I think about the brackets of where we may be in this cycle, I would hope that we're all pretty clear that this is beyond the "is this real" part. I think we're all convinced that this is real. I don't think we are at the other extreme of the spectrum where you would say there's clearly silly things going on, speculative forces, and activity that just doesn't make sense. Therefore, we're probably somewhere in the middle, which could probably be described as if we build it, they will come. And that is more or less where I think we are. Now, I would say when I look back, and you've mentioned some of this, when I look back at history, whether you're looking at the Industrial Revolution, you could talk about railroads, electrification, or the internet. Rarely do you look back and say, "We ultimately didn't build enough."

David Steinberg 11:00

Right.

Vlad Barbalat 11:01

What we do say is exactly what you referred to, is perhaps we built in a way that didn't align with the timing of the benefits emerging. And of course, when that happens, there will be financial players, largely, that suffer the consequences of that gap. But then I look at the CapEx budget of, say, The Magnificent Seven, and you see that at more than half a trillion, in fact, it's about $700 billion for 2026. All the commentary points to—

David Steinberg 11:28

—That's one year, right?

Vlad Barbalat 11:29

—That's one year—points to even more next year. And what's really different about this enormous sum of money, too, and this is important, is that it's going towards hard assets. Now, if you look back on the last 20 years, that is very different. Most of the R&D and CapEx spend has gone towards software and things that do not stand on ground, not hard assets. So this is really important, and that's really different. And then on the productivity part, I would also point out that I think it's really a diffusion problem even today. The technology that's available to all of us today is already dramatically better and dramatically more capable than the way most people utilize it. So diffusion takes time. It's hard to predict, but we do know that AI is being adopted at the fastest pace ever. All the large language models show those adoption curves—really, really encouraging. Final thing I'll say, how do I see this in reality? I see it from three different vantage points at Liberty Mutual. One, from the insurance angle, we are a commercial and specialty writer, and so as I mentioned, these hard assets, there's an enormous protection gap that insurance balance sheets have to fill given the nature of these assets. Number two, as an investor, we invest at all five layers of Jensen's layer cake. So that's another vantage point. And finally, a really important one, I see it in the way we do work. I see it in the way our operations are evolving, how people's work is evolving, and that makes me very optimistic.

David Steinberg 13:01

Wonderful. Nico, very few companies have benefited more from this infrastructure cycle than you guys at NVIDIA. When you think about infrastructure and how it's being treated as a long-lived, cash-generating asset, what do you think is necessary to convince investors of that and come along? Is it the next electricity? Is it the next internet?

Nico Caprez 13:26

Yeah. Thank you, David, and thanks for having me here. I really think we need to see that AI is essential infrastructure. And the reason that is, is as you say, we build roads, we build telco infrastructure, we build water infrastructure. And every single country who built it, they attracted talent, they retained talent within their nations, within their countries, and the same is happening as we speak with AI infrastructure. And you can very clearly see it because every single GPU, as you said, if we build it, they will come. There is not enough GPUs right now available. Every single GPU is lit up and fully functional. And essentially, three years ago, we've seen the ChatGPT moment, and that was a chatbot. Then a year later, we had the reasoning moment, where you could essentially send off a prompt and go drink a coffee and come back five minutes later, and the answer was much better. This year, we've experienced the ChatGPT moment of digital agents. OpenClaw, the Lobster moment, which addresses all digital labor essentially, but it's on the surface. And if you think about the total GDP globally, which is roughly $100 trillion, then you can think of how much has AI really touched as of today. And if you now think of this $100 trillion, how much is digitally produced? Then let's just pick our favorite number, which could be 20 percent, and the other 80 percent is essentially atoms. Meaning the ChatGPT moment of physical AI, of robots that we keep talking about, has not really happened. If we go outside, there are self-driving cars. But nobody has really said, "Oh, wow. Yeah, this is the moment that self-driving cars now will change how we travel." Right? And the same happens with robots in factories. We see all these robots that are folding laundry, et cetera, and that entire 80 percent of the global GDP has not been addressed yet by AI. And that goes back also to the five-

layer cake—which AI is much more than ChatGPT, than Claude. It's going to proliferate across this $100 trillion of global GDP, and that's where really the opportunity lies. And that's where we need, across this entire five-layer cake, to invest in every single layer. We need to build out energy infrastructure. NVIDIA, we put purchase orders on our upstream supply partners to make sure that the chips will be there. And then we work with our NVIDIA cloud partners to make sure that these GPUs and these AI factories are operated to the best performance. And then we have the model builder and the applications that are being built on top. So that's the full five-layer cake. And as you see, without addressing all these five layers, it's going to be very hard to address this $100 trillion of GDP opportunity.

David Steinberg 16:49

Well, if you look at the internet, it's probably touching far greater than 20 percent of GDP. So I don't think 20 percent sounds like too much. Lara, when you think about what you guys do at Deloitte, what distinguishes organizations that are successfully translating artificial intelligence from just sort of what I call roadmap AI into real productivity gains as an organization?

Lara Abrash 17:15

Yeah. I'm probably not going to say anything that's going to be shocking, but we are not seeing companies doing all of this at the same time. One is that there's clear alignment that they're enabling AI to drive a strategy. Too often I hear clients talk about: Where is our AI strategy? It is an enabler to driving your strategy. So having clear alignment of value creation and how AI can play a role, that's number one. Number two, clear alignment between key stakeholders like your board, your investors, your employees, and the management team about what you want to do. And things like risk tolerance, and not having the management team be so wound up that the board is telling them, "You need to hit your numbers, but we also want to see an immediate ROI." So real alignment about what is expected. Focus on the enablers to AI, things like data and infrastructure. Far too many times we see companies focused on that at the time they're trying to drive use cases, and if you don't have the bones of the house, you can't build the house. Focus. Taking bigger bets. Building credibility, not trying to do it a million ways. We see, again, a lot of clients trying to do it in every part of their organization and then sitting back and not having anything coming out of it. Change management. Probably this could be at the very top of the list. The inability to articulate how AI is going to be driven into an organization and make the lives of everybody better, their experience better. A lot of organizations don't talk about—it's a black box—they're scared to talk about it because it could come up with a question about what happens to the workforce. And employees fill the void. If you don't talk about it, they're going to fill the void, and they are the number one person in the organization to actually help you unlock the value of AI. They know their area better than anybody.

David Steinberg 19:12

So don't hide this from your employees.

Lara Abrash 19:15

No. And be honest. If you don't actually know what the implications are, tell them. Be a trustworthy leader. Don't be a leader that says, "Nothing's going to happen. Nobody's going to get fired," or not talk about it because you're scared to. Really, adoption is a major, major—and if you have resisters in an organization, it'll really get in your way. Lack of focus on the workforce and making sure you're really thinking about how does AI actually impact the daily work. And then continuous improvement, having this built into the fabric of your culture, that it's not just a use case that exists and goes away, but ultimately, the entire organization is rallied around, "This is who we are, this is our ethos, and we're all going to get on the board." And that's not easy when you have people that are anywhere from 60-something years old to 20. But you have to work on that, and that's why change management is super critical.

David Steinberg 20:04

That's great. Really helpful. Marcelo, you are an exceptional operator and investor, which is not something that often comes together. When you think about the fact you've invested in many companies that are dealing with foundational AI and so on and so forth, right? You've got execution and you've got investment. What are CEOs and investors getting wrong today as they think about AI?

Marcelo Claure 20:31

Thank you. So it's good to see you again.

David Steinberg 20:33

Yeah. We only know each other 30 years.

Marcelo Claure 20:35

Yes. And I would say that most people don't truly understand the magnitude of change that is coming, right? I look at investors who talk to many different operators. I like to divide AI into three pieces. First, where we're living today, right? The agentic age in which we're all going to have super agents, and we're going to have incredible efficiencies. We're going to grow our sales. We're going to make our business incredibly more efficient. But then the second piece I call the science AI, and that is for the first time we're talking about potentially doubling our lifespan or health span. So what happens if that actually happens, if directionally that is correct? All of our business are going to change in a pretty drastic way. I was talking to one of your insurance colleagues the other day, and they say if we price an annuity wrong and people are going to live 10 more years, and if all we do is life, we go bankrupt. Right? And then we haven't even talked about physical AI. The fact that we're all going to have a humanoid robot making our lives easier. The fact that cars are going to be autonomous. The fact that factories are going to run without people. So

the rate of change, I think, is going to be immense, and I call these predictable surprises. We try to avoid them, and we try to say, "Hey, let's see how this plays out." And I think the great leaders are the ones that are taking a step forward and actually changing their businesses. I look what are investors pricing wrong? I said we've all done a great job of pricing what I say the AI factory. We've done great at pricing power. Every utility stock is up. We've done great at pricing semiconductors. Every semiconductor company is up, or at least the good ones. We're building data centers like there's no tomorrow. LLMs' valuations are through the roof. We never imagined the valuation of Anthropic, OpenAI, and so on. I think the next phase is going to be pricing the companies that know how to deploy AI. The everyday businesses that detach from their competition because they utilize AI as a competitive advantage. If you believe what McKinsey says, right? Let's believe on McKinsey for a minute, right? They say that the economic impact will be about $8 trillion. That's a big economic impact, and 70 percent is going to go to incumbents. So to me, the next wave of investing is going to be investing in companies that have the ability to apply AI to basically turbocharge their businesses. Investors, I think they're going to have to price that. What are operators getting it wrong? The proof of concept, the pilots, the timid approach, let's try this, where you let the CIO run. This is a CEO-led initiative. What I do, my trade is simple. I buy cash flow businesses, I apply AI to them, I turbocharge them, and I make them detach from the competition.

David Steinberg 23:20

Yeah. We're in violent agreement, as usual. Yeah, we believe the companies that embrace AI are going to be the ones who win if they have differentiated data and differentiated relationships. Ali, I'm not sure if we're conflicted because my bar mitzvah money that my grandfather gave me is still sitting with you guys to this day. I only found that out when you guys found me and said there was an account. So I was like, "This is great." But in all seriousness, we're having the same productivity debate they were probably having in 1871 when the Industrial Revolution started the first time. Are we seeing this step function in growth, or are we just seeing another sort of smaller macro impact?

Ali Dibadj 24:07

So, Janus Henderson was formed 92 years ago, so not quite during your bar mitzvah time. But we certainly have—

David Steinberg 24:15

—Are you calling me that old? No. Oh my god—

Ali Dibadj 24:19

—Hopefully your money's grown with us. But look, we—

David Steinberg 24:21

—We did great.

Ali Dibadj 24:22

—we've seen a lot of these cycles, and I think all of us have seen it. And just to pick up on a little bit of your introduction and a little bit of what Marcelo is saying as well, what we're seeing is likely a repeat of what we've seen elsewhere. But we have to think about it. So you mentioned electricity. We talked about how long that takes to impact the way people operate. Look, it took 40 years to actually take out electricity and then change everything around it. But there are other examples. Railroads, which we certainly invested in back in the day at Janus Henderson. You could argue that railroads took something like 45, 50 years as well.

David Steinberg 24:53

Right.

Ali Dibadj 24:53

You can talk about the internet, which you'd argue 20 or 30 years. You can talk about, however, other changes that were quicker changes, like antibiotics, as an example. That took maybe 10 to 15 years. Now, the pattern recognition that's within this is that the more systemic a change, the longer it takes, right? The more specific it is, like antibiotics, you can get them in the system and you go, and that's not as big of a problem. Not as big of a change. This, I think we all agree, and probably everybody in this room who's come to join us for lunch agrees that this is a foundational change to the way things operate. So there's going to be a long-term shift here. It's not going to happen overnight. There will be cycles to this for sure along the way, but it's going to be a long-term change. The more general it is, the longer it takes. Now, just to build, Marcelo, on your point, I think what we're finding more and more as investors at Janus Henderson, and we've done this again through cycles, is that you have to pick your spots in terms of where to invest and focus on the companies who are actually fundamentally doing AI transformation. Not just lip service to AI, and going to your point as well, not just lip service to AI, but actually changing their processes. And again, that's not an overnight thing. That's not deploying an AI tool to everybody and saying, "Go have fun." That's actually looking at what your value add is as a company, and then transforming that through AI, through these tools that we have. So all this to say, look, I do think that it is a fundamental change, but we shouldn't be worried about the productivity gains not coming yet. I do think if you're really going to get to the productivity gains, it's got to be a systemic change that takes some time.

David Steinberg 26:28

And Rob, to build on that. Your sort of narrative, which I've been fortunate enough to hear many times, is software is shifting from a tool to actually doing things, whether it's with agents or it's the software itself. How is that going to change productivity, labor markets, with software and agents actually doing things for us versus being a tool for us?

Rob Heyvaert 26:53

Yeah. First, I have to quantify who I am. I don't dress like one, but I'm a plumber, so we invest in infrastructure, technology infrastructure, that supports the financial services industry. And from that lens on, I think we have tremendous opportunity. And also—I'm an engineer by background—so when people say software is dead, AI is software and vice versa. So I'm kind of—

David Steinberg 27:17

—Of course—

Rob Heyvaert 27:17

—Intrigued by why people always say that something's going to happen to certain industries without having a deep knowledge of what it actually means. In my humble opinion, the whole notion of the power of AI applied in a complex industry like ours has endless potential. There is no doubt that, and you put a timeframe on it, you can put 5 years, 10 years. It's not about the Einstein model coming out of the LLMs. It's how can we create a better financial product and how can we deal with the execution of that product, the risk, the clearing, the settlement, and how we can create transparency, and I would say hyper-personalization. There's a to-be state for financial services where it's not product silo, and it's not all centralized, and there's reconciliation issues. And 80 percent of what a financial institution does, it controls instead of focusing on the client, because it has this unbelievable complexity. And these models are not going to solve that complexity. So what I see as an opportunity, and by the way, it's clear, crystal clear, that we could run the financial system with 15 percent of the people that are in the financial system today. Half of the financial system works off inefficiencies that live today. I think there's going to be pushback because I would not recommend these massive layoffs in this industry because it's going to take a very long time to take these books of records, to take that safe, secure system we've built, which is working, but it'd have a massive impact on labor. It also will make financial services even more profitable, and it will change the way it provides capital, it provides liquidity. So I think it is probably what we have been waiting for in our industry, quite frankly.

David Steinberg 28:55

Well, and it is interesting, right? Because if you look at the companies that adopted the internet going into the dot com world, it wasn't most of the startups that won. It was companies like JPMorgan Chase,

companies like Walmart, companies like Apple, companies like Amazon came out of it, Meta came out of it. But these were the ones who adopted the technologies and won versus the groups that ultimately were the startups in the world. Rob, follow-up question. Let's zoom out for a second. Let's think about a macro level. Does AI expand economic—that's easy for me to say. Does AI ultimately expand economic opportunity broadly, or does it further concentrate it to certain countries or companies as you think about that?

Rob Heyvaert 29:47

Personal opinion, broadly. Of course there will be a couple of winners and in most industries you'll see three leading providers in certain things, three of those, three of those, three of those. But I think the democratization of all this, you should not underestimate. I think the entrepreneur is at the center again, and I know Jensen was quite optimistic last night when he said that, but everybody can be an entrepreneur. And I would say it lowers the bar and it increases—I think it's an enormous force for good, and we have a role to play. Governments have a role to play. We as individuals have a role to play. But I think it's super powerful, so I'll be in the former camp, not the latter.

David Steinberg 30:23

That's great. Ali, I mean, when you think of Janus, you think of ubiquity, right? You are one of the most important money managers, investors on the planet, and you're in the process of going private in a privatization. You talked to me briefly about how you see this as an opportunity to really transform your business using AI. What does that look like for a company that's been around, obviously, from my bar mitzvah 92 years ago? And when you think about it, what does that look like?

Ali Dibadj 30:56

Yeah. So, thanks for raising the question. We are, as a firm, very excited and energized about the go private transaction. It's a go private transaction that is partnering with Trian, so operational excellence, and General Catalyst, particularly technology, but AI experience. But importantly, we have other partners that are working with us on this. So for example, QIA Sovereign Wealth Fund, MassMutual, SHK in Asia from a distribution and product development perspective, and a bunch of other partners who typically don't talk publicly but are really part of this journey of ours. And yes, we want to improve the business, and AI is a very, very big leg of improving the business. In fact, I'd argue we're one of the kind of early adopters in the asset management world of real AI transformation. And what we've learned, very much to your question, is that there's a lot of time being spent—and we've done that a little bit today even—on the efficiencies of AI, the cost savings of AI, the productivity gains of AI. But that's number three out of three for us in terms of priorities. For us, AI can be and is being used within Janus Henderson, and I'm sure other places as well, to actually focus on the client lens. How can we deliver better things for clients? So what we've done in terms of what it looks like, to your question, we've really done three things. The first one is we've been very diligent on identifying what precisely we deliver to our clients. For us, it's delivering returns on your bar mitzvah money. It's returns—

David Steinberg 32:24

—Thank you—

Ali Dibadj 32:25

–Outperforming for benchmarks, right? That's what we need to do, is really investment outperformance. Now, again, to be fair, we're blessed with our assets under management, 65-75 percent of it over one, three, five, ten, pick your number.

David Steinberg 32:37

How many assets? What's your assets under management?

Ali Dibadj 32:40

So about half a trillion dollars.

David Steinberg 32:40

That's it?

Ali Dibadj 32:41

Yeah. Well, and hopefully growing. That's it for now. But 65 to 75 percent of our assets under management outperform the benchmark at any period of time that you pick, which actually is better than almost everybody else out there. Right. Now, to be fair, let's use AI to turn that into 70 percent or 80 percent or 85 percent, because that's the first thing that our clients want from us, is that performance. That's number one. Number two is, okay, now that we have the product that we can deliver for our clients, how do we do that at the right time, to the right client, with the right messaging? And again, using AI to deliver that by targeting and using other information out there and doing things that we couldn't do before to focus on that. And then only third out of those three is the efficiency element to it, the cost savings element, et cetera. Because from our point of view, look, our clients are folks like you, they're pension plans, they're literally 75 million people around the world who rely on us on their retirements. And they don't care if our margins go up two percent.

David Steinberg 33:34

Right.

Ali Dibadj 33:34

They don't. They care if we deliver a better product for them.

David Steinberg 33:37

Right.

Ali Dibadj 33:37

And so that's a lesson for us in terms of our AI transformation that we think from an investment perspective, because we're an investment house, we can invest for AI transformation in others as well, a little bit as Marcelo's explaining, to deliver real impact on the societies. And that's our plan is. But again, we're the first example of this, I'd argue, of AI transformation in our industry.

David Steinberg 33:59

That's great. Really interesting. Marcelo, we have talked over the years that execution generally separates the winners from the losers, right? When you think about what's going to separate companies that are turning AI into a real P& L benefit from those that do not? That's one question. But then from the outside, how do we tell which ones are going to be the winners and which ones are going to be the losers here?

Marcelo Claure 34:25

Who knew that, right? I think first we got to understand that AI, in my opinion, is going to be an existential crisis for many, or an exponential opportunity for both. For people who choose to adopt it. My first business was, I was the largest mobile phone distributor in the world. I moved one of every six cell phones on the planet.

David Steinberg 34:48

We were one of your big clients.

Marcelo Claure 34:50

And I lived something that's unique that applies to this, and that is, a lot of us remember a company called Nokia, 70, 80 percent market share of the world's mobile phone. And I remember visiting Finland and speaking to a CEO of Nokia and telling them, "Hey, my customers are saying that they want smartphones." And that person looking at me and telling me, "They should just go home and play with a computer. Phones were made only to speak." Three years later, there was no Nokia anymore. I remember having lunch with the CEO of, I can say now, CEO of BlackBerry, the day that the iPhone launched in Barcelona. I said—

David Steinberg 35:31

—It was the day after CES—

Marcelo Claure 35:33

—I say, "What do you think about this?" I said, "Oh my God, who's going to be the imbecile who's going to want to type—

David Steinberg 35:39

—I was there—

Marcelo Claure 35:39

—in a piece of glass?" And I think a lot of that is happening in AI. It's a bubble. It's never going to hit me. Let's see where it comes and all that. And I think a lot of companies are going to be up for a rude awakening, and a lot of companies are not going to exist. The ones—I look at this, it's so transformational. But the ones that are playing the wait and see game, they might not be around. Right? So that's an important to watch. I'm lucky. I'm the largest independent shareholder of T-Mobile. We grabbed two struggling companies, Sprint and T-Mobile. We put them together, and today we happen to be the world's most valuable telecommunications company. I'm a board member, I'm a large shareholder, I'm an activist. I push my management team. And we started doing some amazing things with AI, right? If you listen to the latest OpenAI Developers Conference, we're by far the most successful implementation of a customer service redesign. As a telco that has 140 million customers, we get 300 million calls. What if I tell you that through IntentCX, we have eliminated or contained 75 percent of our calls?

David Steinberg 36:46

Wow.

Marcelo Claure 36:46

You do the math. 225 million phone calls that don't happen anymore. Moving from reactive customer service to proactive customer service. What does that mean? We fix issues as they happen. You don't need to call us. Starting to think of implementing a CM of one, having an agent monitoring you day in and day out, every second, to make sure we're providing you the right service. We want to create a customer for life. Building a network utilizing AI, that now we have the world's best network at the lowest available cost. Starting to put GPUs at the edge of our network so we can provide zero-latency compute or zero-latency inference, and we create a new business model for the physical AI, and so on. So you want to be looking at companies where CEOs are the chief AI officers, where they take this, where they don't think this is a bottoms up. This is from the top. And the last thing I will do is, and this talks a little about what you're saying, is the worst mistake people can make is to do this 100 proof of concepts and so on. You choose three or four big initiatives. You tie them to the P&L.

David Steinberg 37:56

So focus is important here.

Marcelo Claure 37:58

Tie them to your P&L. You do traditional transformation with the transformation office, and you do performance and change management every day. And if you identify those companies, there's a reason why we trade at a completely different multiple than any other telco in the world. We've done this over and over with different companies. And what I did now is I bought a private equity company, and now we're buying companies, and we're applying AI in the upper middle market to be able to do the exact same thing that I've seen my management team execute at T-Mobile.

David Steinberg 38:27

That sounds like quite a value unlock to be doing that. Lara, as you think about AI, it's really going to, in many ways, democratize expertise, which, of course, is sort of your business. How does leadership differentiate itself and turn this into a benefit versus a problem? Yeah.

Lara Abrash 38:47

And by the way, on your phone, there's probably some doomsday of professional services blog.

David Steinberg 38:53

We love professional services. We're all in.

Lara Abrash 38:55

I read them all the time. I love them. So we talk about being human-powered, AI-enabled. And there is intense focus right now on the technology, trying to understand which LLM is the best, what use case is the best. And for us to really tap into the expertise in what's going to happen, organizations really have to be much more focused on human centricity and how do they enable their workforce to actually leverage the technology. As opposed to understanding what AI is, many organizations are trying to create a tech-savvy organization. What you really want to be thinking about is what are the qualities that the human being brings today and into the future that's going to superpower the technology, and what aspects of the technology are going to superpower the human being? And this is, in my opinion, it's a threat to many businesses. But it's a bigger threat if a business thinks that ultimately we're going to do this without humans. There are a lot of complications to creating a workforce of a future, upskilling a workforce that may not be able to do this today. But those are the early things that people need to be focused on. And for me, just maybe as a human on this planet, I think we get our meaning and purpose from the work we do. And I don't want to see us have another time in our generation or multiples of generations where we just let this pass by. There are so many things that we look back on and say, "Well, what were they thinking about?" We are in that moment now. If we actually want a workforce to continue to thrive into the future, we can't just eradicate the workforce. We actually have to shape the future, and that's what leaders do together. We have to think about what is it that the human will bring in the future. Entrepreneurialship, creativity, EQ. There are so many things that trust comes from humans. It doesn't mean everything. We also aren't going to stop what the technology does. But I think we all together be thinking about this future being human-centric and ultimately how does the human become better because of technology, not eliminated.

David Steinberg 41:07

I think trust is so important in this circumstance. I think it's such a good use of that word. Nico, software is improving on the same hardware that companies are buying, right? So it used to be when you wanted the next generation of software, you'd have to buy the next generation of hardware, right? You guys are back ordered probably for 10 years on your current chipsets. You're not so worried about this. But as companies look at longer life of infrastructure where they can run better and better software, how does that change the depreciation cycle or the way they should think about investment in that?

Nico Caprez 41:45

Yeah. I think I really like the audience here in the room, and the reason for that is because you all know how to use Excel, right? And Excel is pretty easy. You plug in a few numbers and you pull across, and it spits out a number. And because AI is such a novel thing, there's not enough data. Everybody talks, we don't have enough data to underwrite AI infrastructure. And the great thing is that we have now much more data and that we see actually a lot of players participating in creating products that see AI infrastructure as a true asset class. And that's incredible to see because it helps everybody, especially investors here in the room, to think about not only their Excel models, but the actual technology. And the reason this is fundamentally different is also a lot of people talk to us and say, "There was a futures market for barrels of oil and airplanes and things like that." And you mentioned software improvements. And this is really important because oil barrels have not really improved in performance for the last, I don't know how many years, but quite a few. And our Hopper generation that is in the market now for four years roughly, has improved 4X. And this is possible because we have CUDA, and we have CUDA that is backwards compatible with all our hardware that we ever launched. CUDA is something that we implemented and gave a promise to the entire ecosystem 20 years ago, to keep all the hardware always backwards compatible and up and running. And therefore, there's this natural discussion around depreciation, and today everybody uses roughly six years' depreciation cycles. However, from our partners, we hear that Hoppers are now being recontracted at higher prices for another four years. So the first stint was four years. Now you have another four years. You're already at eight. And then another phenomenon that I think is important for you all to understand is that when we first started to build AI infrastructure, these AI factories got rented out as wholesale for long-term contracts. And now the more participants enter this market, the more GPUs they want, the more access to tokens they want, and there is no tokens being manufactured that are essentially offered on a short-term basis. There is a few, and now we see that the players who can rent out these GPUs on a short-term basis can capture a much higher margin, much higher prices, and therefore your Excel that you started a few months, weeks ago, is completely irrelevant. And therefore, that's the beauty of what we see right now happening in the market. Much more data being collected. And I think because you all know Excel so well, I also think, especially because all you as investors, you know a concept which is really important to understand at this point in time when it comes to AI infrastructure, which is opportunity cost. No Excel will ever tell you about opportunity cost. And we talked before about if you build it, they will come. And obviously an Excel model, if you make certain assumptions, will tell you not to build it, depending on the assumptions. But it also has never told you the opportunity cost if you never built it. And now the people and our partners who built it, they see actually a completely different model to the first version they ever saved in their folder, which is so great. And we'll continue to improve our software and our hardware. It will continue to be backwards compatible, and we'll work with our partners in the industry to bring new product and more data to the market such that everybody can participate and—

David Steinberg 45:50

—Well, it is interesting, back to what Marcelo was saying about the launch of the iPhone. If you think about it, the iPhone that I first got, I got it probably 30 days later. They weren't giving them out that day, unfortunately. Got very hot if you used it more than a couple of hours. The battery only lasted a few hours. And the one thing we've never really evolved in is battery technology. So today, the iPhone you carry is 1,000X faster, never gets hot, can last all day. That's because the chip makers have made the chips disperse less heat and consume less energy. I'm sure NVIDIA is spending a lot of time on that right now, which is going to make—I remember the first website I ever built cost $10 million, and the server was as

big as a car. Today, a blade server could probably do 10X more. So the question is, we've got this historic infrastructure buildup, right, into electricity, into hosting centers, into all of these different things. How do we determine, are we going to need all of this, right? Or is it not enough? And how are we going to understand, is this a misallocation of investment and we'll look back in five years? Or are we way under-investing?

Vlad Barbalat 47:03

Yeah. I'd say there's probably three, maybe buckets that I would look at. One, and the two of you just actually discussed, I think you said 10-year backlog. I know you were joking, but if I think about something that is the utilization rates are very high, the demand continues to overwhelm supply. That feels like a check on the "we need more of this" front. Right. And so monitoring utilization I think is quite important. Number two, pricing power. So you mentioned chips being used for an additional four years, trading at a higher price. Again, that feels pretty good, as opposed to a situation where pricing power is such that the supplier is having to lower prices because the demand isn't there. So check number two. And then the other really important component to this, as always is the case, is how are these investments, how is this CapEx being funded? And what's very, very unique about this funding cycle is that, at least up to now, it has largely been funded by the free cash flow coming out of the hyperscalers. This is not, at least yet, a debt-funded CapEx cycle.

David Steinberg 48:17

Which is a very different thing than—

Vlad Barbalat 48:19

—Very different—

David Steinberg 48:19

—the dot-com.

Vlad Barbalat 48:20

Fundamentally different.

David Steinberg 48:21

Yep.

Vlad Barbalat 48:22

These are real companies putting their earnings into this build out with the obvious consent of their shareholders, their boards, in fact, a push from them. So between those three things, I think this is a very differentiated cycle. We will inevitably see more debt enter, both because the size of the CapEx required is dramatic, but also because these pristine balance sheets can actually afford debt. And I'm sure the CFOs of these companies are looking, what is the optimal capital structure? How do they maximize their financial return? And we're going to see more debt. So still sticking to my middle innings.

David Steinberg 48:59

So for the last few minutes, I'm going to try to get faster answers out of everybody, so I'll ask everybody to work with me. As a follow-up, do you think we're getting ahead of the economic impact of AI, or are we behind the economic impact of AI?

Vlad Barbalat 49:15

I think that's a really hard question, and maybe the way I'll—

David Steinberg 49:17

—It's your question—

Vlad Barbalat 49:18

—Yeah. I guess the way I'll try to answer it is, look, markets tend to be, or markets are forward-looking. In every case, whether it's the public market or the private market, you're ultimately trying to assess what is the forward trajectory of a company, and you're trying to put a multiple on that, depending on the kind of industry and the kind of volatility of the earning stream. And so if I was to just pause for a second and say, if I can get this room to believe that AI as a whole is going to shift the trajectory of earnings for, say, the S&P 500 company universe by 2-3 percent upward, doesn't seem that much of a stretch given all the things that you guys have discussed. Two to three percent, put a multiple, you choose 15, 20. Well, guess what? That drives the market dramatically higher.

David Steinberg 50:04

Yeah.

Vlad Barbalat 50:04

And so without being very specific on any particular industry, the winners and the losers, I think it's not unreasonable to continue to believe that that trajectory will shift up, and therefore the market will put a value on it. And there's debate back and forth, but I think we're in that process right now.

David Steinberg 50:23

Great. Nico, one of the things I love—I've read some of your papers—is everybody's talking about how we are consuming so much energy. But you believe that AI might solve that problem. How do you think that sort of AI can giveth and taketh as it relates to energy consumption?

Nico Caprez 50:42

Yeah, it is really interesting, and I think not well understood yet. But the grid is really laid out for peak spikes. And because AI factories, because there's so much software in it, because there's so much AI working on these workloads, we can actually balance these workloads and make sure that there's no peaks that are being created by AI factories. And because of AI, because of reducing and smoothing these peaks, we can actually work together now with the grid operators to enter into different contracts that allow the grid operators to provision more power and keep less power behind, just in case, for reserve. So that's how we use AI.

David Steinberg 51:27

Great and good fast answer. Lara, as we think about human capital in an AI world where we're investing almost all of our capital now into AI versus human capital, what are we getting wrong there?

Lara Abrash 51:40

Yeah. I'll build off a little bit of what I just shared a few minutes ago. We did a survey. Once a year, we do a state of AI survey of thousands of companies. Only 7 percent of the companies that are integrating AI into their organizations are actually investing time in how to evolve their workforce. And that is probably by far the biggest mistake. I talked a little bit about change management, but if you're not getting super granular with how will this actually change the way the organization does what it does and how an individual's day looks, you're not going to capture the benefits of the AI. You're not going to understand the productivity gains that you want to get. You're not going to be liberating hours. And you also aren't going to evolve the skills. So our assessment is, some of the biggest issues we see are people are hyper-focused right now on

technology and use cases and building for tomorrow, but ultimately not thinking about how they have to bring their organization along, and that they're the ones that are ultimately going to be using the technology. And if you don't train them to use the technology and figure out what they don't have to do anymore because of the technology, you're not going to get the value of it. That's great.

David Steinberg 52:51

Marcelo, you have said you believe up to 70 percent of all economic value will be captured by existing companies that adopt AI versus the new companies that are building it. What are a couple of verticals that you think are really ripe for that, and where will we see that?

Marcelo Claure 53:10

So there are a lot. First, I want to thank the audience. I'm blown away. About 80 percent of people are paying attention and only 20 percent are looking at their phones.

David Steinberg 53:18

That's all because of you, Marcelo.

Marcelo Claure 53:19

But that's fantastic. So thanks to this great audience and to the great colleagues that I have next to me. AI will disrupt every country, every industry, every function. Areas that I love, that I'm passionate about, is education, right? We just bought the largest for-profit university in the UK, and it's incredibly ripe for disruption. We've been teaching people or kids, people who go to university—the exact same way for the last 500 years, 2,000 years—and we basically treat everybody like they have the exact level of knowledge and the exact level of intelligence. That is wrong. Right? Today with AI, you can micro-personalize the way you're going to teach every single student. If you're good at math, we're going to teach you at a different level. If you are challenged, we're going to bring you up to speed. And the world is changing at that speed, and whenever you're able to do that to your students, you're starting to develop a more qualified student. Right? So I think education is going to be fascinating, not only from a private equity and do things better, but I think AI is also going to be the equalizer in a lot of places in education, right? We all have the most intelligent tool sitting on our smartphone. Right? In the world of education, we're going to be able to pass that on, on a global basis. In the world of healthcare, today you have the ability to diagnose a patient, prescribe a treatment, and treat them with a smartphone way better than your primary care physician. We have a company called K Health. We operate inside most of the leading hospitals in the world. And what is going on right now is we diagnose patients at a much better ratio than doctors. So now we pass that information to doctors so doctors can validate our findings, and doctors are now becoming empathetic

individuals who deliver the news. So I love education, I love healthcare, which are two gigantic sectors of our GDP.

David Steinberg 55:21

Yeah. Certainly number one and probably number three GDP-wise. Right? Ali, 75 million customers, half a trillion under management. If we're not in a bubble, what should we be talking about? What should investors be thinking about as it relates to what are the right questions today?

Ali Dibadj 55:44

Yeah. Look, I think it's pulling from a little bit of what everybody said on the panel, actually, and to your introduction. The question is, where will the value accrete? Where will the value shift to? That's really what people need to be asking. And again, us at Janus Henderson, your firm, other firms, are looking at the differentiation between who's winning and who's losing in a new environment, in a new paradigm of AI. That's all about the AI transformation that companies are undergoing. And again, this is not brand new. We've seen this in other cycles as well. It's always the application of that technology who are the end winners. Now, to be fair, and Nico talked about this, and Vlad too, about the current need that we have for hardware, as well as power grids and everything else. That doesn't mean that that isn't something useful. In fact, you have to have that to then be able to apply the robotic tech.

David Steinberg 56:31

Most tech cycles start with infrastructure.

Ali Dibadj 56:33

In fact—

David Steinberg 56:34

—That's just 101—

Ali Dibadj 56:35

That's exactly right. But in the end, it's the application of those that really, I think, broaden things out, to your point, Rob, and actually allow real value to occur. And that's what we're very much focused on. Again,

I don't think we're in a bubble yet, but as soon as the supply and demand imbalance happens, yes, you're going to get there, and you often do get there. We think we're years away from that at this point, but it's how you apply AI, the AI transformation. That's where the value comes from, and that's where a lot of us are thinking about.

David Steinberg 57:02

That's great. Rob, you have framed this as a speed race in a capital-constrained world. How narrow is the window, and what is going to separate those who move fast from those who move slowly?

Rob Heyvaert 57:20

I think speed is extremely important. Not necessarily to experiment and be the first one to spend as much money as possible on irrelevant projects, but you fundamentally have to rethink your business. And certainly, if you're in between and you have certain jobs that are not necessarily the end product is with you, you have to fight for your relevance. And I think what is happening to the me-too software companies is they're probably no longer relevant if AI gets applied in a very consistent way. So I would argue that the complex workflows, proprietary data, anything that has books and records, to really go and build a new infrastructure, those will win. And those will be very profitable—call them AI companies—and there will be software losers. There are also softwares that will be able to transform themselves and become that player. But it is today you're having these conversations about creating new products within our industry, and you can't be just a fast follower, which I would've said two years ago. Now it's time for action and really bring the value to your clients, or they're just going to go away. And they'll have one more renewal cycle, but they will take you to the cleaners and you'll be having half of the revenue that you thought you were going to have. But more importantly, they're getting ready to embrace this new world. And this is about rewiring the holistic industry versus incremental change and cost efficiency. And that imagination, that beginner's mind imagination that you need to have to re-architect where you are at the benefit of the client, of the individual, we ain't seen nothing yet, in my humble opinion.

David Steinberg 58:51

That's great. With the one minute and 53 seconds we have left, I'm going to go right down the aisle. We're going to use a baseball analogy because Lara used it in our CEO round table yesterday. Are we in the first three innings, the middle three innings, or the bottom three innings of a baseball game as it relates to the AI revolution?

Vlad Barbalat 59:11

You had my answer before. Fourth inning.

David Steinberg 59:13

Fourth inning. So that would be the middle third. Keep going.

Nico Caprez 59:16

Still in the wardrobe.

David Steinberg 59:17

Wardrobe. We're not even dressed.

Lara Abrash 59:20

I said bottom of the third.

David Steinberg 59:21

Bottom of the third.

Marcelo Claure 59:22

First pitch.

David Steinberg 59:23

First pitch. I love it.

Ali Dibadj 59:25

I think you're spring training. Not even there.

David Steinberg 59:27

Just getting started.

Ali Dibadj 59:28

Getting started.

Rob Heyvaert 59:29

First pitch. Same. Yeah.

David Steinberg 59:31

Well, this is great. Well, we believe that there are going to be two types of companies. There are going to be companies that adopt AI and thrive, and companies that don't, that we will not be talking about in five years. I hope that everybody enjoyed the panel today. The speakers, I think, did an incredible job with as many people as we had. Thank you.

Announcer 59:57

Thank you for attending our lunch program. Be sure to utilize the mobile app to stay up to date on the latest programming changes.