

Episode 4 - GROWTH: AI, Innovation and Power Demand

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MANDY

Hi, I'm Amanda Hale, and, once again I am joined by my colleague Andrew Newson, and we welcome you back to the next episode of our Industry Perspectives podcast series.

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ANDY

To recap, last time we discussed various influences on growth in financial markets through the lens of conflicts, supply chains and resilience.

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In this episode, we are again joined by our industry experts. Nathan and Rob, where we will expand on our growth discussion,

This time looking at AI, innovation and increased power demands.

Okay, so let's shift gears. Let's talk for a few minutes about the emerging AI revolution.

What effect is that likely to have on growth and inflation? And do you expect these effects to be more effective in AI producing countries like the United States, China, and South Korea? Or will the effects be felt more broadly?

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NATHAN

Oh my, there is a lot there. Let me unpack that in two dimensions, is one kind of the dimension of time and how I expect the AI revolution, just in very high level terms, is likely to play out. And then a little bit across countries. And I'm sure then as I do that, that there'll be some insights that Rob will want to kind of throw in and flesh out some of my thoughts. And I'll try to be relatively brief on this. I think over the medium term, what AI is going to bring is higher levels of productivity. It will allow businesses to be more efficient, to produce more output with the same input, to produce the same input with, same output with fewer workers, with less hours embedded and at lower cost. And I think that that productivity gain that we're going to see is going to be at least as great as what we saw with the internet revolution in the late 1990s and continued in the 2000s. And candidly, it's fuelling to me like it's an even larger, more transformative economic proposition with AI.

So I think that's where we're headed. And that will mean almost inevitably faster growth, most likely higher wages, more tax revenue rolling in to the Treasuries, coffers in the US Treasury and finance ministries around the world, which could help with fiscal policy, and likely reduced inflationary pressures as well. At the moment, what we're seeing though is not yet that productivity gain. It takes a while. You need that investment to accumulate. You need to build out networks of capital, of expertise, of applications and of users before you get to the productivity. But what we're seeing at the moment is this massive investment, and that is lifting economic growth in the United States and a number of Asian economies.

So for the moment, it's more about investment and demand. Over the medium term, it's going to be about productivity and supply. And then the other dimension of the question is, will it proliferate globally? My answer to that is categorically yes. That it will proliferate. That this is powerful technology and has the capacity to be transformative in countries essentially universally.

But the challenge is not all countries are going to be AI producers. I think the United States and the Asian countries are way out ahead on that. But all countries can be AI adopters. And that means firms investing in AI to do their businesses more efficiently. I think that's where we'll head. It won't seem any of these benefits I described of increased productivity and efficiency and stronger growth likely to proliferate. And then finally, that's my vision.

Are we going to see some challenges and some potential potholes along the way like we did as we were adopting the Internet technologies where we saw bubbles and mispricing and challenged absolutely. So I do think there can be some market challenges. But, Rob, this is a huge topic. What have I missed? What do you disagree with?

04:16

ROB

Well, you haven't missed a lot. I actually concur with everything you said. I often like to look at the Internet revolution as a comparison to this. But with the caveat that this late innovation cycle is probably even more meaningful than what we saw back in the Internet. And you know actually, the world's been developing artificial intelligence for a long time and has been developing machine learning for a long time. But the next phase of this, the generative AI, the agentic AI phase of this, is going to be quite profound. And I don't think this is a fantasy anymore or just us being optimistic.

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ANDY

So, how do you see this unfolding?

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There are direct applications. This is a reality. The question is, how will it proceed from here and how will it grow? If you look at the innovation cycle, as Nathan was alluding to, the adoption cycle might take longer than most people think. But let's think about what happened in 1999. The U.S. had its first budget surplus ever, actually. It's first in its only budget surplus in its long history or short history, depending on if you're maybe a European, you think of this as a short history. But in the U.S., it was the one time they had a budget surplus.

And I remember actually asking Larry Summers back in the day, or not back in the day, but not too long ago, why, how did you get to a budget surplus? He told us that it was two things. Yes, there was a minor tax increase from President Clinton at the time, but the extraordinary amount of tax revenues that came as a result of the internet innovation were profound. Now, our fiscal deficit is a lot larger today than it was then, and so it'll be a lot more challenging. But we're looking, you know, if adoption takes over and you do get the labor productivity benefits that Nathan is alluding to, then there's quite a good chance that this is a revenue builder for the U.S. And while I don't think it'll have that same effect where we would get to a budget surplus, I do think that it could have a meaningful effect on the fiscal side of things.

But I think we're still, you know, a few years away. Nothing goes in a straight line. We have some, you know, challenges in terms of control, security and risk involved in the development of this. That has to really be, you know, you have to see a more conscientious decision on the parts of governments and the industries that are producing AI to come together on that. We're starting to hear more about autonomous AI working on its own to hack systems simply because it was asked to. So, you know, we do have to be careful about that, but the impact that it could have on the economy could be very profound. And so, you know, there's also it's also part of the U.S.-China rivalry. I mean, you know, there's development going on all over in both countries and around the world. The other thing I would say is there are exponential effects to this. I know there was a lot of concern around what it would do to the software industry. And the perception was that it was going to destroy the software industry.

But it also makes, as one economist told me, it makes mediocre software developers really good software developers.

And I think I'm sure that a lot of software developers are looking at the tools now and going, wow, the amount that I can produce in terms of software with AI is going to be a lot. And so I think it's also going to improve these industries in a really accelerated manner. You know, so we'll start to see these things hit over a long time. I'm an optimist when it comes to job growth.

And Nathan did a very extensive piece on this. And I think it's worth highlighting that in major innovation cycles, there's always been a concern that there was going to be massive job loss. If you look at headlines in 98, 99, it was all about massive job loss. And we saw a lot of that concern over the prior couple of years here. And, you know, I would highlight everybody to go see a movie with Spencer Tracy and Katherine Hepburn called "Desk Set," which was filmed in 1957 in which Spencer Tracy was bringing a piece of hardware, you know, a mainframe computer into a media firm that was going to produce all the research that Katherine Hepburn's human research team was going to use. And so, you know, just the idea that they based a movie on this would show you what kind of concerns they had back in 1957 over a mainframe computer. So these things have been going on. But as Nathan will point out, it really has, and all these innovations have never really caused any job loss. It's actually caused more jobs to be created. And we still are unaware of what those future jobs might be like, you know, but they'll be related to AI. And I don't think you're going to see the same significant amount of job losses that everybody's anticipating. I think there are pockets where, you know, certain things may be eliminated, but I don't I think it's going to lead to a positive job growth also.

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MANDY

Yeah, that's something that we do hear mentioned a lot, the implications of AI for employment.

Nathan, do you have any thoughts about whether AI adoption will throw many of us out of work, do you think?

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NATHAN

Well, I broadly echo what Rob has said, maybe just fleshing out one or two additional thoughts there.

Historically, you can go back and look at these episodes. And I love his reference to the Hepburn Tracey movie from 57.

You go all the way back to the early 1800s, and it was the Luddites that were worried that the advent of the machine was going to mean there wasn't there wouldn't be any jobs. And if you told someone 150 years ago that only a few percent of people would be employed in agriculture, it would say, well, you're going to have massive unemployment. But what has happened is, as you introduce new technologies, new technologies generate a huge swath of new employment. And that's kind of the reality is if we think about the jobs that we're doing today and the way that employment is allocated across the economy, some of those jobs are going to be eliminated and replaced by AI.

And that's where some of that productivity and efficiency I was describing are going to come from. But by the same token, I agree.

But it is a leap of faith. And it's a leap of faith that's worked in the past.

But I agree that AI is going to create more jobs in new sectors. But we don't know what they are at the moment. It's hard to envision them. So it is it is scary. And I think it does leave one kind of in a place of asking, yeah ok, it worked in the past. But is there something unique about AI that cuts more deeply into the competitive advantages of human beings? There was the case with those other technologies.

And I lean towards saying, no that that model we've seen work and some jobs destroyed, others created. Another mechanism through which jobs are created is that new technologies generate massive new income and wealth in the economy. And people spend that. And that supports services and other kinds of spending. And that also generates employment. So on balance, it's created more jobs. I think that will happen again. I hope that will happen again. But until we actually live through it, there's no way to know for sure.

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ANDY

Rob, there was a research update around the S&P and the fact that the AI impact. The fact that the AI influence cluster had jumped from 20 to 55 percent over the last couple of decades. If things do go south, then it's going to go south from a growth perspective quite quickly. And obviously where the US goes, other markets will probably follow, you know, very quickly.

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ROB

Right. I mean, I think that the market's been upgrading its earning forecast and rightly so, because so far the number of quarters this year have been a strong earnings quarters. I mean, we've seen strong earnings.

There's an argument around kind of a circular investment process that's going on within the industry where you have a lot of tech companies investing in tech companies, et cetera. But I still think that that's part of the normal growth process. Right. We'll go through a period of large CapEx investment. And by most estimates on the equity side, that investment, that CapEx investment should continue for years to come, actually. So we don't see this as the end of the investment cycle quite yet. At the same time, I think that what could turn the market is whether the market has any impatience about adoption and demand.

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MANDY

Are there any areas which might present a problem to this?

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ROB

We are challenged with some areas where we need it in the digital economy. We need more power and we need more chips. We need the things that are supplying the growth of the industry. Those things are in demand right now. And there are challenges, as I mentioned, on the power grid because we don't right now have enough power to really power up what we're going to need in terms of AI demand. There's also the cost of AI needs to be managed efficiently and effectively. And I think that's being pursued all the time. And we've seen some effects of that, some small marginal effects of that right now. So there are the challenges. But again, I think the adoption demand side has to happen for the continued growth to happen. Now, there is evidence that demand is picking up. There is actual evidence that labor productivity is improving now. I would say, for me, I don't know if Nathan agrees, but I would say, for me, those signs are earlier than I would have expected.

However, you know, would the market get impatient? Would they really want to see these effects really soon? Or are they willing to be patient and continue to conduct the investment that's needed, the CapEx that's needed for us to fully deploy AI and its effects? And remember, we're still in this, as you pointed out before, this U.S.-China rivalry.

And we're really in an arms race as well.

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MANDY

Thanks both, and that is a good place to pause as we have reached the end of our second discussion on growth in financial markets.

But there is still plenty to unpack on this topic of growth.

So stay tuned for our next episode, with Nathan and Rob, where they will be discussing trade, inflation and balance sheets.

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This podcast was recorded on 11 August 2026.