Research @ Citi Special Markets Edition: Boom or Bubble? The AI Debate

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Transcript:

Opening Teaser: (00:00)

Research @ Citi Markets Edition

Dirk Willer (00:04)

Welcome to a special edition of Research @ Citi Markets Edition. I'm your host, Dirk Willer, Citi's Global Head of Macro.

Today I'm joined by another Markets Edition host, Scott Chronert, our U.S. Head Equity Strategist, who's my co-host for this program. It's great to have you here, Scott.

Scott Chronert (00:18)

Thanks Dirk. Looking forward to it.

Dirk Willer (00:20)

Joining Scott and myself is our special guest, Heath Terry, Citi's Global Head for Technology and Communications Research. Welcome, Heath.

Heath Terry (00:28)

Hi Dirk. Thanks for having me.

Dirk Willer (00:30)

This program is being recorded at 8.30 a.m. on Nov. 18, 2025. Our subject today is AI and the equity outlook, which is a topic that Scott and I have differing views on. So let's get to it.

On the Global Macro side, we believe that we are in a bubble right now. This is based on a framework that we developed that is mostly price and return space, which essentially says that if something is up by more than two standard deviations against the long-term trend in real terms, we call it a bubble.

And that captures 1929, it captures 2000, a bunch of other times as well. And it triggered earlier this year.

Now, if you use this methodology, the interesting thing is that you're supposed to buy the equity market whenever it triggers. So, it's a bullish thing other than in 1929. In all other episodes, the market went straight up for a reasonably long time. So there is a question: What does it even mean to be in a bubble, if you're bullish anyway?

But the interesting point is that whenever you do enter bubble territory, you tend to give back the gains you make during that bubble territory, either fully or at least to a large, significant extent. Which doesn't make us bearish right now, but which means we think one needs to be carefully trading it and have some hedges in place.

But Scott, you focus much more on your work on forward-looking earnings estimates and have a different perspective on the question. Where are you coming out?

Scott Chronert (01:52)

This is really obviously a very timely topic, and we've been characterizing this more as a boom than a bubble. What's the differentiation through my lens, which is going to be more fundamentally based?

Bubbles, I'm going to tend to argue, occur when you see PEG ratios increasing, where the valuation increase runs ahead of where the fundamental trajectories are taking us. Currently, what we're looking at is, PEG ratios for many of these mega-cap growth companies have actually compressed over the past couple of years. My point here being that earnings growth expectations have been persistently up and to the right, and the trend for those fundamental growth drivers looks fairly sound at this point.

So in that context, the negative connotation that comes with “bubble” I think is potentially misleading and doesn't give as much credence to some of the underlying trajectories that are in place.

“Boom” tells us something similar: Hey, we've got something going on here. There's a massive amount of spending that's going on by AI enablers, creators, and at the same time users that ultimately we think will be game-changing fundamentally and for productivity measures at the core index level.

Now, I get it: Booms will bust. That goes hand in hand. But we're in my view still some time away from having that concern. In the meantime, we talk about persistence of fundamental growth drivers, which we feel pretty strongly about. But then we have to be aware of magnitude of those growth drivers, and what can happen is that the expectations can run ahead and then at other times below that underlying growth trajectory.

A lot of our work tells us — whether it's traditional valuation, whether it's implied growth, whether it's the positioning work that we do — that we're fairly euphoric. You can get to a period such as right now where the market has run ahead of something that we'd consider fair value.

This aligns with our ongoing year-end target for the S&P 500. It influences how we're thinking about the out year. But the bottom line is that I think in this boom context, this is a trend that we still want to be associated with and on from a longer-term perspective.

Dirk Willer (03:55)

Scott, can I just push back a little bit? I mean, the reason why we focus on price more than forward earnings is, of course, that you can have a bubble in earnings too, right? So yes, of course if MVA grows 40% for many, many years, the market will grow into its valuation. But historically, I think if you rely on either price-based bubble measures or you rely on CAPE, which really smooths out the earnings growth over the last 10 years, then you have a much more dangerous situation, right?

So how do you respond to the idea maybe the bubble is not just valuations that we're supposed to look out for, but it could be in earnings?

Scott Chronert (04:31)

Yeah, that's a really good point. I want to push it away from the ongoing discussion around the Mag-7, which is approximately 35% of the S&P 500 Benchmark Index. But what I would say as a point of differentiation on this, is that in my 42 years of doing this, I think we're looking at a fairly once-in-a-generation setup.

The nature of these companies, the cash-generation capability that they've been showing, the underlying business structures of these companies, in my view, is somewhat different than what we were dealing with back in the tech bubble and probably even prior to that. GFC, a little bit different discussion. I'm not even sure we can call that a bubble going into it, other than maybe areas of the housing and debt markets.

But my point here is that the underlying nature of these companies is generational. What it's been doing in terms of over the past couple of years, you've seen productivity enhancement unfold as these companies' business models, the way we like to describe them, hit maturity, where you get ongoing revenue growth that has very high operating leverage as a function of the gross margin, set up for these companies that's translating into very, very impressive free cash generation.

So the ability to fund a lot of this growth out of free cash is impressive. Now, I get it. There's a storyline unfolding right now as it pertains to, “yeah, but now you're starting to put on debt.” That certainly does begin to change the dynamic. But what I'm going to fall back on here is that the underlying business premise for many of these companies that are associated with the AI boom and spend out are not solely contingent on the AI spend itself, which is different than what I think we were dealing with back in the tech bubble.

Dirk Willer (06:10)

Great. Thanks, Scott.

I'm a little bit more skeptical, but let's go to Heath because he has the fundamentals at his fingertips that we were just discussing, and in the end how long this boom or bubble lasts depends on how the capex cycle plays out and even more so on whether the AI companies are actually able to make money on that investment in a time frame where the market still feels good about it.

So Heath, over to you. You've made the case for a long and strong capex cycle — very compelling case I would say, but of course the question marks that have recently arisen around OpenAI and how a company with, I think, $13 billion in revenues can support $1.4 trillion in orders for its vendors.

So give us your perspective about the capex cycle in general, about the role OpenAI plays, and what we need to see for this to continue.

Heath Terry (06:56)

Sure. I'll start with the mistake that I think a lot of people make when looking at these kind of cycles, and that's looking at forward earnings, looking at really any estimate of forward growth that's based on sell-side consensus numbers.

You know, the reality of it is — and I say this having been a sell-side analyst for 25-odd years — the reality of it is, analysts are terrible at predicting accelerating growth. Particularly during cycles like this, we tend to vastly underestimate the kind of growth that we're going to see during these cycles, during these transformative technologies.

So you get people looking at forward numbers and saying, “Well, the valuations are too high relative to this historical metric, the valuations are too high.” And the reality of it is that in most cases, the valuations aren’t too high — your numbers are too low.

And that's what we've seen so far during this boom, as Scott referred to it. And we think you're going to continue to see that for a number of years as we go through the steep part of this S-curve of adoption that we're in.

Really easy example: You mentioned the capex cycle that we're in. This time last year, consensus was estimating capex at roughly $186 billion. We're going to finish the year at near $400 billion. So, we were off by nearly the factor of 2x in terms of the size of the spend this year.

Going into next year, you look at where consensus estimates are, around $600 billion. That's probably being underestimated. Certainly, the further-out years are being underestimated. And so, when we think about the scale of what we're talking about here, the scale of this investment in AI, and more importantly, the returns that this investment in AI is generating, because while we can look at sort of the unprofitable companies like OpenAI as sort of the outlier in this space, as Scott referenced, this is a cycle that's really being driven by incredibly well-funded, balance-sheet-rich companies like Microsoft and Amazon and Google and Facebook that have yet to even touch the cash on their balance sheet for this cycle.

We're still, with all of the capex that's being spent across the entire industry — so including OpenAI, including Oracle, companies that have had to tap into other sources of capital — we're still only spending about 76% of the operating cash flow that this industry generates on capex. So this is still a very healthy environment.

Now, that has changed to a degree over the last six weeks, and it's changed very rapidly as we've gone from this industry being more or less 100 percent driven by those four companies and the balance sheets and cash flows that they have to becoming increasingly reliant on some of these smaller, more tertiary players. Companies like Niveus and CoreWeave and Caruso, they don't have anywhere near the balance sheet or the operating history of Microsoft, Google and Amazon.

So that does raise the risk factor, the fact that we are starting to see debt come into play here, $80 billion worth in investment-grade debt raised in a couple of weeks. Amazon just did a big deal yesterday. And then you've got a number of companies that are reliant on venture funding to build out what they're trying to do in this space.

So there are risk factors. We have clearly moved into a different part of the cycle as we've gone into this less-equity-funded piece of this. But even taking that into account, this is still very much being driven by four companies with very strong balance sheets and very strong cash-flow profiles.

Dirk Willer (10:25)

That's a very fair point. I guess on OpenAI specifically, though, there is a question, and I think there was a Journal article saying that I think 65% of the increase in profitability is offset by the loss in OpenAI for the hyperscalers or something to that effect.

Heath Terry (10:39)

Yeah, that's not an accurate number at all.

Dirk Willer (10:50)

But talk to us a little bit about profitability. Because that's in the end the crux of the argument. I mean, there are many of these large language models around. They all seem to be fairly similar, probably with little pricing power for these things. How can we get this ROI that the market needs and how quickly will we get it, do you think?

Heath Terry (11:07)

It's like we don't learn anything through these technology cycles. How many years did we complain that, quote unquote, Amazon doesn't make money? We spent 20 years talking about the fact that, quote unquote, Amazon doesn't make money, Amazon doesn't make money. And for 20 years, Amazon took massive amounts of incremental profitability, put it back into their business, investing in infrastructure, investing in new business lines, and built one of the five largest companies in the world off of a strategy that is very intently focused on taking the profitability that you have and investing it back into your business to crush your competitors, to develop new revenue streams, to create optionality for your company.

And so, the idea that these companies don't make money? It doesn't matter if they don't make money. It matters whether or not they *can* make money.

And we certainly see in these AI-driven business models that these companies *do* make money. Look at the return on invested capital at Amazon, Google, Meta, Facebook, since they have started investing in AI. You've actually seen that return on invested capital increase over that period. So these are clearly profitable investments that they're making.

If OpenAI is successful — and there's certainly no guarantee of that — they are in a very competitive position that a lot of newer companies haven't had to face. I'll keep using Amazon as an example, but when Amazon started for the first 10 years of their existence, none of the major competitors in their space really took e-commerce seriously. Walmart didn't take e-commerce seriously. Best Buy didn't take e-commerce seriously. Barnes & Noble didn't. And so they were able to build up and grow into what they've become in an environment without a lot of very serious competition.

That's not the case for OpenAI. OpenAI, really from the day ChatGPT appeared, has drawn in competition from some of the most powerful companies in the world. And so there is no guarantee that OpenAI is going to be successful here, but the AI technology is going to be successful here. And if OpenAI is not successful in exploiting that technology, Microsoft, Amazon, Google certainly will be.

Scott Chronert (13:08)

If I can just pick up on that for a second, Dirk, this is an interesting pivot point for me because we're talking about, let's call it a structural bull case for U.S. equities. And the way we've sorted the S&P 500 is that roughly half of the index weight is, let's call it "AI affected." But I've got the other half of the index as well.

And part of this discussion, in terms of structural drivers, has to go down the path of, "I'm going to discard CAPE." Why? Because I think I've got a major chunk of the U.S. economy via the S&P 500 other 50% that is going down the AI usage path. And I think what we still haven't been able to get our heads around is the aggregate influence this is going to have on broader productivity. If I'm right, the way this is going to play out is by using AI-related tools — I don't care what business you are, whether you're a mining company or a bank, let's say — the point here is that you're going to be able to optimize your business operations in some way, shape, or form that should over time lead to lesser earnings volatility than would otherwise have been the case.

If that's true, then my endgame here ends up being that you pay a higher through-cycle valuation for said companies because of lower earnings volatility. And ultimately, what happens is that the marketplace pays a higher terminal value because of the increased confidence and persistence of fundamentals over time.

So all of this is a longer-term unfolding playbook. It's going to come back to how we measure the investment in AI. You're going to have the hyperscalers, yes, but I don't know that I'm seeing capex ramps away from the AI influence that are really distorting other fundamental inputs right now.

So I think we're still in a very early phase in terms of the rest of the world adopting AI techniques and getting to a point where they really do become productivity-enhancing for their underlying businesses.

Dirk Willer (14:58)

That's a very fair point. I can obviously see there could be a rotation from the AI enablers to the users, though the S&P is so tech-heavy that that rotation, not clear what that does to the overall index.

But just to get back on the Amazon point, I think it's also a very strong point. But of course, Amazon was down 95% in 2000, right? I mean, I think it doesn't protect you. And if the market doubts the profitability, you can't have meaningful drawdowns, even though the story in the end is borne out and it works. So I think both things can happen.

Heath Terry (15:29)

Yeah, there's no question. This is not going to be the first technology cycle we go through in a straight line. There will be volatility. There will be variability through all of this. We've had a number of drawdowns already.

We've had DeepSeek moments. We've had MIT reports that have drawn the technology into question. And then we get more information, and we get more data, and we continue to progress along toward what the ultimate endgame in this is all going to be.

And so, we're not for a second suggesting that there is no reason for doubt or no reason for volatility around the space. We're just suggesting that we know where this ends up.

Dirk Willer (16:05)

Great, thank you very much. To quickly summarize, we are still broadly constructive on U.S. markets. In the macro team, we are probably a little bit more worried about an overshoot that will unwind at some stage, while on the fundamental side, we are less worried about that issue and more focused on the longer-term outlook for the AI revolution and what it means for markets.

Heath, thank you very much for joining us today.

Heath Terry (16:27)

Thanks, Dirk. Thanks, Scott.

Dirk Willer (16:29)

This episode was recorded on Nov. 18, 2025, and I'm your host, Dirk Willer.

Scott Chronert (16:33)

And I'm Scott Chronert.

Dirk Willer (16:35)

For more details about what we talked about today, Citi clients can check out our reports on the Citi Velocity portal. And if you enjoyed the podcast, please leave us a review on your favorite podcast platform.

Scott Chronert (16:46)

Also, be sure to be on the lookout for our other podcast series, Research @ Citi, which focuses on a different macro theme every week. You can find all of the episodes for that series on this same channel.

I'll be back next week with another edition of Research @ Citi Markets Edition.

Dirk Willer (17:01)

And the macro strategy team will be back in two weeks. Stay sharp!

Disclaimer (17:05)