Gadjo Sevilla, and Jacob Bourne

The Daily: GenAI's economic impact, part 1—the economy, Amazon's AI investments and ChatGPT in the physical world

Audio

On today's podcast episode, we discuss what happens when GenAI hits the turbo button on economic growth, the next major shift AI is going to create, and the biggest concerns regarding an AI-powered injection of this magnitude. "In Other News," we talk about why Amazon is pouring more money into AI company Anthropic and what happens when ChatGPT steps into the physical world. Tune in to the discussion with our analysts Jacob Bourne and Gadjo Sevilla.

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Episode Transcript:

Marcus Johnson:

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Jacob Bourne:

Even if AI both eliminates and creates jobs at the same time, well then there's still a social disruption that needs to be addressed, and if it happens very quickly, then there's even more disruption that needs to be addressed more quickly, and there's probably not a good framework to do that.

Marcus Johnson:

Hey, gang, it's Monday, April 22nd. Gadjo, Jacob and listeners, welcome to the Behind the Numbers Daily, a eMarketer podcast made possible by Walmart Connect. I'm Marcus. Today, I'm joined by two folks. Let's meet them. We start with our technology analyst based in California. It's Jacob Bourne.

Jacob Bourne:

Hey, Marcus. Thanks for having me today.

Marcus Johnson:

Hey, fella. Absolute pleasure. Thanks for being around. We're also joined by someone else who covers technology, one of our senior analysts based in New York City. It's Gadjo Sevilla.

Gadjo Sevilla:

Hey, Marcus. Happy to be back.

Marcus Johnson:

Yes, sir. Thank you for being here. Today we're talking about how GenAI could disrupt the economy, but we start with today's facts. Question here gents, is which athlete has made the most money ever, total net worth? What do you think?

Gadjo Sevilla:

Michael Jordan.

Jacob Bourne:

I was going to say the same thing. Yeah.

Marcus Johnson:

Bang. Well played. Michael Jordan. Yeah. So all these numbers were inflation adjusted, and he has made nearly $4 billion since turning pro in 84. Any guesses on second place? No.

Jacob Bourne:

It's a tough one. There's so many of them.

Marcus Johnson:

Tiger Woods.

Jacob Bourne:

Okay. Oh, yeah. That make sense. That make sense.

Marcus Johnson:

He's way behind in second though with a respectable 2.7 billion to Michael's four.

Jacob Bourne:

It's golf. Right.

Marcus Johnson:

Yeah. Yeah. Golf is making more money than I thought. Soccer star Cristiano Ronaldo is third with $2 billion, but there are 16 athletes that are worth over a billion dollars according to Sportico. NBA players have the most entries on the 50 highest paid athletes of all time lists with 12.

Gadjo Sevilla:

But that includes endorsements, right? It's not just,-

Marcus Johnson:

Yes.

Jacob Bourne:

Right.

Marcus Johnson:

Not just on, yeah, on court earnings. No. Most, I mean, a good amount of that is endorsement, but Roger Federer, who hasn't played tennis in a number of years, made $95 million in just year just from endorsements. And so yeah, a ton of that is in deals. I'm still waiting for my phone to start ringing for those. Hold my breath. Anyway, today's real topic, GenAI's economic impact on the economy.

In today's episode, first in the lead, we'll cover how the rise of GenAI will shock the economy. Then for another news, we'll discuss why Amazon has put even more money into AI company Anthropic and what happens when ChatGPT comes out of your computer and into the real world. We start, of course, with the leads. It's a two-part series, and we're talking first gents about how GenAI will be impacting the economy. Tomorrow, we'll talk about how it will be impacting jobs, but let's talk about the economy first. So S&P Global think that GenAI will be a net positive for labor markets and the global economy, saying it will enable sizeable productivity gains, amplify job creation, and stimulate investment in technologies that enable humans to measure what they cannot naturally, yielding more inclusive and sustainable development than ever before. But the question for you guys is how big of an impact are you expecting GenAI to have on the economy? And let's get a scale going here. So out of 10. Gadjo.

Gadjo Sevilla:

Seven out of 10 in the next five years, and that's,-

Marcus Johnson:

Okay.

Gadjo Sevilla:

Considering the US economy is dependent on a lot of service-based industries. There's also real estate, professional services, and those are easy fits for AI adoption right now. There's also agriculture manufacturing. That could take a bit longer to have an impact on those

industries, but we're seeing the technology sector. They've experienced a lot of transformation. AI helps write code, they use it to develop games, and now it's being used to create convincing audio and video content.

Marcus Johnson:

So seven out of 10 for Gadjo. You mentioned a number of ways or number of different parts of the economy and how they've been affected. The digital economy, which obviously hasn't been around forever, it's a pretty new piece of the economy, accounts for 10% of US GDP according to the US Bureau of Economic Analysis and the Internet Association. So that's, I mean, you think about how much of a revolution that's been, and it now accounts for 10% of US GDP. So Jacob, where do you land in terms of GenAI's impact to the economy?

Jacob Bourne:

Yeah, I mean, if we're just looking at over the next five years, I'm going to go with a 5.5, but certainly the longer out you look, the higher the impact is going to be. And I think there's just a number of factors and we don't yet know how they're going to play out, how much this is going to spur innovation in other industries, how many jobs AI will create versus how many will it destroy, and of course, the regulatory environment as well, which there are a lot of unknowns in terms of what governments are going to do to regulate AI.

I think the biggest factor though is how much energy generative AI in particular uses. And it's enormous. And I think what we're going to see is if in the absence of some major breakthroughs in sustainable energy solutions and energy efficient data centers, it's going to be a big limiting factor for generative AI to be adopted as much as tech companies would like. I mean Arm, which is a major chip maker, Arm's CEO recently said that AI could consume up to 25% of the US's electricity supplies by 2030 if things don't change, which is, I mean, that's astronomical. And if that were the case, you would see that it's not quite as profitable as companies are hoping today. So I think that's the big wild card in all this, is how can they make generative AI consume less electricity?

Marcus Johnson:

Yeah. Yeah, because most people don't even use it yet, do they?

Jacob Bourne:

Right.

Marcus Johnson:

I mean, it talks about a lot, but only a fraction of companies using it. In February, only 5% of American firms of all sizes said they used it. 7% plan to adopt it in the next six months. And there's huge discrepancies by sector as well. 17% of firms in the information space, including tech and media use it versus 5% of healthcare companies and 3% of manufacturers. So just thinking about when all those companies come online, most companies seem to be in the pilot stage. A poll of large firms by Morgan Stanley found during 2023, the share with pilot AI projects grew from 9% to 23%, but that's still less than a quarter of companies that are even piloting this thing. So there are some numbers in terms of the dollar value impact to the economy.

McKinsey's latest research estimates that GenAI could add the equivalent of two and a half to four and a half trillion dollars annually, and they ran over 60 scenarios to see how much it will add. That isn't really hard to wrap your head around what that even means. That's the equivalent of India's entire economy, which is the fifth largest in the world. So it's like just throwing that on top of what we already have. In terms of investment dollars, GenAI investment dollars, over $29 billion was invested in GenAI companies last year according to research firm, PitchBook. $20 billion would be the entire total value of Delta Air Lines. And that was just last year. So it's only just getting started. Gents, I wonder what you think about this, the idea of what the next major shift is going to be because of GenAI. The Economist was saying, according to one paper, the computer explains over half of the shift in demand for labor towards college-educated workers from the 70s to the 90s.

Then you had the rise of working from home prompted by the pandemic and video conferencing that changed the daily rhythms of white-collar workers and asking could GenAI prompt similarly profound changes. The article was noting from The Economist, technological breakthroughs can take ages to pay off, noting that the average worker, the average company, needs time to get used to new ways of working. And the productivity gains from PCs didn't come until at least a decade after they became widely available. Most executives think it will take at least two years to move beyond the hype around AI. According to a BCG survey and research by consultancy Oliver Wyman concludes that adoption of AI has not necessarily translated into higher levels of productivity yet. What you make of comparing this revolution to some of the ones that have come before it, and when we can really expect things to take shape?

Jacob Bourne:

I mean, I certainly think the gravity of generative AI is on par with those other technological revolutions of the past, and it could be even more so depending on how advanced it gets. I don't currently think, right today that it's at the point where it's really capable of replacing those jobs at all, but it could get there. It could get there faster than we expect. And I think the thing about generative AI that makes it different is that it really does mimic human intelligence in a number of ways, and it can do so many different things. And so that's why I think it could potentially surpass the internet, for example, in terms of revolutionary impact. It's also hard to say though how exactly it's going to play out. I mean, our economy is one that's based on people working, and if you don't have people working or not working nearly as much, then that's, I mean it's a huge issue and we don't have a good answer for what that future looks like.

Marcus Johnson:

Yeah.

Jacob Bourne:

So just because it's there, it doesn't mean that it's going to have this kind of massive impact overnight, and I think it's probably going to play out more slowly over a number of years to decades. Even if we were to see an artificial general intelligence, for example, happen in the next five years, I don't think that necessarily means that it's going to be immediate change overnight.

Marcus Johnson:

Right. Right. AGI being the next iteration of GenAI. I mean Gadjo, the pushback to that would be adoption, it takes time, but adoption of GenAI could happen. I argue, you could argue is happening faster than things like the smartphone, which maybe is a okay decent reference point given how much that transformed the world. Today, 90% of Americans over 12 years old have a smartphone. So everyone, pretty much. In 2009, so this is two years after the smartphone category was invented by Apple's iPhone one, 18% of folks were using them. It took seven years after the iPhone came out to cross the 50% mark, half of the country using them. You compare that to GenAI. Just two years time, 30% of the country will be using it versus 18% for the smartphone like we had. And also the fact that it doesn't cost hundreds and hundreds of dollars to gain access to this piece of technology. So what do you make of how fast this could all happen?

Gadjo Sevilla:

It's not just going to be fast. I think it's going to be global. So unlike the smartphone that relied on cellular service,-

Marcus Johnson:

Oh, interesting.

Gadjo Sevilla:

It only got better with 3G, 4G. Some countries are just getting 5G as we speak, but generally most people can access the internet, generally speaking, and so they do have access to AI. And OpenAI is already making overtures to other countries. They've produced a GDP 4.5, I think that's fluent in Japanese. So it's not going to be concentrated, not initially. The playing field is likely going to be more level than it was with previous revolutions including the smartphone.

Marcus Johnson:

So how much could AI actually boost the economy? There was a brilliant piece by Dylan Matthews of Vox noting in 2020, AI researcher Ajeya Cotra said, AI will soon be powerful enough to drive a surge in economic growth of 20 to 30% a year. And a colleague, Tom Davidson conducted an in-depth investigation into the potential for AI to supercharge growth and concluded that per capita economic growth rates as high as 30% per year resulting from AI were plausible this century that is. How does that compare to current GDP growth? The US averaged a little over 3% economic growth per year since World War II. Since 2000, growth has been closer to 2%. So from three to two per year. Last year, US economic growth was 2.5%.

So if Miss Cotra and Mr. Davidson are accurate, we'll be talking about annual growth that's 10 times what we experienced last year, 10 times as fast. Put another way, 30% growth implies the economy would double in size every two and a half years. So based on current growth levels, the US economy won't double for 35 years. So it's speeding everything up so, so much. Final question here, gents, is what's your biggest concern regarding this kind of an AI powered injection into the economy? Gadjo, start with you.

Gadjo Sevilla:

So I think the biggest one for me would be AIs inherent bias. So that could play a role in automated processes as they're used across more areas like HR, people management. I mean, this is the glue that holds businesses together. And sort of relying on AI to that extent in a multiplied manner, you risk losing the human component. That could result in less equitable decisions across the board.

Marcus Johnson:

So I mean, to push back a bit here, Jacob, people can argue are the concerns are overblown. Neil Irwin of Axios was citing Mary Daly, president of San Francisco Fed who said at the University of Chicago, Booth Monetary Policy Forum, "There's no technology I'm aware of that ever reduced employment on net, but it significantly disrupts the allocation of that employment and who wins and who loses from the new technologies." She goes on to argue, "The typical process by which a new technology is incorporated into business ops is first by replacing mundane tasks done by humans, then augmenting the work of humans, then leading to new types of jobs entirely, or what might be different with AI as those three things could happen all at once." So are these concerns about how much AI could affect the economy overblown?

Jacob Bourne:

I don't think that they're overblown and especially not in relation to the threat of mass job losses. I mean, I think to a certain extent we're already seeing some job losses related to AI already.

Marcus Johnson:

Yeah.

Jacob Bourne:

And of course the argument here is, well, then it frees people up to do more creative tasks, but generative AI is creative, so that's the other thing about it. And it's getting more advanced as time goes on as well. AI might also not eliminate jobs entirely, but it might negatively affect compensation, which also, would be a big issue for the economy as whole.

Marcus Johnson:

Yeah, that's a good point. I'll leave you guys with this. Try and look at what that level of growth that we were talking about, 20 to 30% per year GDP growth. What does that even mean? Mr. Matthew's, Vox article. Think if invention was on the most extreme steroids imaginable, Mr. Matthew says, "Imagine everything humans have achieved since the days when we lived in caves, wheels, writing, bronze and iron smelting, pyramids, the Great Wall, ocean traversing ships, mechanical engineering, railroads, electricity, photography, film, recorded music, laundry, machines, TV, the internet, and phones. Now imagine accomplishing 10 times that much in 25 years, in the next 25 years." And I was thinking to myself, maybe we will need Neuralink to help us process all this invention.

Jacob Bourne:

I think it's important to note too that this economic growth, it's theoretical, it's on paper, right?

Marcus Johnson:

Good point.

Jacob Bourne:

And I think that the sustainability issue around generative AI is a huge factor that shouldn't be ignored. I mean, if you look at fossil fuels for example, that was a massive economic catalyst too. But then over time, well, people became aware of a huge downside. With generative AI, there could be in addition to the energy intensiveness of it, which is a huge issue related to sustainability, there's also just unknown effects that could fly under the radar, that could have an impact on society and the economy as a whole that people don't really understand fully. And it might be something that we kind of look back on 20 years, 30 years down the road and say, oh, that economic progress seemed like it was this dollar amount, but actually here's these downsides that kind of chip away at that positive impact.

Marcus Johnson:

Could look very different in practice. In tomorrow's part two episode, we'll talk more about GenAI and how it affect jobs more specifically, but that's all we've got time for for the lead. Time for the fourth quarter of the show today. In other news, Amazon invests more in AI company Anthropic and what happens when ChatGPT enters the physical world?

Story one, Amazon is investing close to 3 billion more dollars in AI startup Anthropic bringing Amazon's total investment to 4 billion. Anthropic was started in 2021 by a group of researchers from ChatGPT maker OpenAI, and offer an AI assistant called Claude. Karen Weise of The New York Times notes that the Amazon investment in Anthropic is not just a simple equity stake like Microsoft's investment in OpenAI, it includes gaining access to AI systems and commitments to provide computing power. She also says a key part of the partnership is that Anthropic agreed to build its AI using specialized computer chips designed by Amazon. But Jacob, the biggest takeaway of this extra $3 billion investment from Amazon is what?

Jacob Bourne:

I mean, I think it's just the latest sign of the major financial resources that the big tech companies are putting into AI development, which includes investing in the leading startups that just due to their size and stage, could have an innovative edge over the bigger companies. And I think the flip side of that is that these AI startups also are highly financially independent for their survival on investment, including big techs investment into them, especially the cloud giants. I mean, Anthropic doesn't just need the money. It also needs the infrastructure which Amazon is providing, and that really points to the advantage that Amazon, Google, and Microsoft specifically have in this race.

Marcus Johnson:

Yeah, yeah. It's a record investment from Amazon. Joseph Pisani of The Wall Street Journal, pointing out that this is Amazon's largest investment in another company since it was founded nearly 30 years ago. And this is twice as much as Google has invested in Anthropic. Story two, how the AI that drives ChatGPT will move into the physical world, writes Cade Metz of The Times. He notes that Covariance, a robotic software startup is designing technology that lets robots learn skills much like chatbots do. Mr. Metz explains that Covariance goal is to help robots understand what is going on around them and decide what they should do next as humans talk to them the way they do ChatGPT. What could possibly go wrong? Gadjo, what do you make of ChatGPTs coming into the physical world?

Gadjo Sevilla:

So I think it's going to be a while before we see,-

Marcus Johnson:

Thank goodness.

Gadjo Sevilla:

Robots in the physical world running ChatGPT, but we are seeing it coming into AI devices. So I think that's going to be the more low cost, more consumer focused way to adopt AI. So we're talking about Humane smart bin. Meta has the Ray-Ban sunglasses and Rabbit has their R1 device, which all offer limited, but key AI functionality in a personal device. Right. And while early reviews show that many of these products are still undercooked and they don't work very well, I think you're going to see a greater push in this direction as companies try to productize this and make it someone that most consumers can afford and experience.

Marcus Johnson:

That's all we've got time for for this episode. Tune in tomorrow for part two of the GenAI's economic impact series where we'll be covering whether the concerns about AI driven mass unemployment are warranted. Thank you so much to my guests for today. Thank you to Jacob.

Jacob Bourne:

Thanks Marcus. Thanks Gadjo.

Marcus Johnson:

And thank you to Gadjo

Gadjo Sevilla:

Marcus, Jacob, it's been a pleasure.

Marcus Johnson:

Yes, indeed. I'll see you gents tomorrow. Thank you to Victoria who edits the show, Stuart and Sophie who help out with the podcast. And thanks to everyone for listening in. We hope to see you tomorrow for the Behind the Numbers Daily, an eMarketer podcast made possible by Walmart Connect.