

Exchanges at Goldman Sachs
The Next Tech Battleground:
Online Gaming & the Metaverse
Jung Min, co-COO of Global Technology,
Media and Telecom (TMT) and co-head
of TMT in Asia Pacific Ex-Japan, Investment
Banking Division, Goldman Sachs
Allison Nathan, Host
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Allison Nathan: This is Exchanges at Goldman Sachs, where we discuss developments shaping industries, markets, and the global economy. I'm Allison Nathan, a senior strategist in Goldman Sachs Research.

Today, we're going to take a closer look at a sector of the economy that's poised to become the next big battleground for big tech: Gaming. To do that, I'm joined by Jung Min, co-head of the Technology, Media, and Telecom group at Asia Pacific ex-Japan in our Investment Banking Division. Jung, welcome to the program.

Jung Min: Thank you. Glad to be here.

Allison Nathan: Let's start by setting the stage for where the gaming industry is today. Video games have been around for decades. They've provided entertainment for children and adults. All of us have our favorites and have grown up and watched their evolution. But the popularity of gaming has sharply accelerated. In fact, the gaming industry is now larger than the movie and music industries combined. So just how big is the gaming industry today?

Jung Min: So it depends, you know, of course which sources you use and exactly how you define it, but you're right. The games industry is almost twice as big based on the numbers that I've seen compared to music and movies combined. And it's starting to approach \$200 billion, which would put it about in the same category as pay TV, you know, which includes cable, streaming, etc. So it's close to the largest category in entertainment.

Allison Nathan: When you think about what the main drivers are behind the interest we've seen from investors, let alone the general public, what's driving that? What are the factors?

Jung Min: Yeah, so it's interesting. The first games IPO I worked on was Glu Mobile. And I remember at that time it was a relatively smaller company at that time. And we got lots of questions from investors saying the problem with games is that I can't tell which games are going to be hits. So you've got some of the same dynamics as you have in movies where, in order to bet on the right games company as an investor, I've got to believe that this games company is much better at picking and developing hits versus other companies. And that just seems very hard to figure out and count on.

And then since then, the games business has become much more attractive. So number one, instead of being a one-time payment for a game, as was the case for consoles and frankly as was the case for mobile games at the beginning, now you've got live operations. So you have a game that is launched. Users start playing it. They may pay for things upfront. Most often they actually won't pay for anything upfront. And then they buy things as they play the game. And the game keeps changing over time, so it's not one game put out at one point in time. It's a game that adds new features, new worlds, new kinds of content over time. And so players play it for a much longer time. So

now we've got games that last 10-plus years in certain cases.

The other thing is something that I just touched on, which is more sometimes actually recurring, so it can be subscription, but certainly because of this in-app purchase dynamic, it's games that can monetize the play or monetize a user over a longer period. And if you really look at a portfolio of games, companies are basically able to predict how the game is going to perform in terms of revenue. And therefore they can optimize their investment into the game and ultimately the profitability of the game. So that's made games I think much more attractive to investors because now, instead of trying to figure out which games company is the best at picking hits, it's not quite like software where it's very predictable or relatively more predictable. But investors do feel like, if I buy into a company that has a large and diverse portfolio, then that company is going to be relatively predictable compared to the past in terms of its financial performance.

And I do think that's why other companies have found games to be more attractive, too. So when I think of larger companies that have multiple businesses, whether that's a

Microsoft or that's a Sony or the largest games companies in the world, a Tencent, when they think about where should I allocate capital, where should I allocate people? The games part of their businesses has become much more attractive over the past, say, five-ish years, maybe going back seven or eight years, because of these financial characteristics that make the financial performance of games much more predictable.

Allison Nathan: Consolidation has been a big trend in the industry. We've seen Interactive's acquisition of Zynga. We had Microsoft's announced acquisition of Activision. Talk a little bit about that and what the implications are for the sector.

Jung Min: Sure. So mergers and deals have definitely been a part of the industry for a while. And I do feel like there's been a pickup in that kind of activity more recently. Sometimes it has been consolidation, meaning bigger companies buying each other. Two games companies combining into each other. But actually I think in a lot of the cases — and I would actually argue in terms of the important deals, in even more than half the cases — a lot of these deals have been companies entering a new area.

So I mentioned before a console games company deciding I need to be in mobile, so I'm going to buy a company that has a mobile game. Or I'm going to buy a larger company that has multiple mobile games. And so in a lot of ways I think it's been about games becoming bigger as an overall category. But then within that category there being different areas or types of games, genres, etc., and the different players in games using M&A to enter new markets. And ultimately I think that's been good for competition.

Certainly from a user perspective, you can play on mobile, you can play on the PC, you can play on console, you can play for free, you can pay upfront if you want to, you can subscribe, etc. So a lot of M&A activity which has introduced new companies into newer parts or areas of the overall games market I think has actually created increasing competition amongst the different players.

Allison Nathan: And so if we think about what types of deals are seen the most in gaming, what do they look like today?

Jung Min: Sure. So we've been seeing a number of different kinds of deals for a while. So I think one of the most common deals for a while has been strategic minority investments. So this would be like Tencent's 40% stake in Epic. And there have been a number of the bigger games companies that have always invested into the smaller studios. That's one category.

The second one I think, which has been happening maybe even at an accelerated pace, is bigger games companies deciding I need to fill out my portfolio. So I've been big in console games, but I don't really have a mobile games business so I want to buy a leading mobile games business. That was Zynga and Take Two. Take Two bought Zynga to do that.

The other thing that I think has happened quite a bit has been diversification. So console buying mobile is also diversification, but also companies saying, 'I've got one or two franchises, and I want to buy a third or a fourth or a fifth franchise so that I've got a very well-diversified portfolio.' And increasingly, diversity is also measured in terms of global businesses versus single-country businesses or single geographic region businesses.

Allison Nathan: You spoke about the need for gaming companies themselves to get larger, but why has this sector become so strategically important for the large tech companies? I mean, they have a lot going on, but they really seem focused on gaming at this point.

Jung Min: Yeah. So there are many reasons, but maybe I'd bucket them into a couple of areas. First, I do think it's about games becoming financially more attractive. So what we talked about earlier in terms of the move from one-time payments to monetizing over time and games becoming financially more predictable. And I think that's a really important part of it because if you're outside of games or if you're one of the bigger tech companies that's only partly present in games, the fact that games is financially more predictable and a more attractive business to your own investors is certainly going to be a key ingredient in games becoming more strategic.

But I think that even more interesting and kind of the fun set of rationales to think about is this idea of the next Internet. Microsoft CEO, Satya Nadella said something -- I'm going to paraphrase it a bit -- but he basically said games give us the permission to build the next Internet.

And so when you think about what happened in the client server area, what happened in the Internet 1.0 era in the '90s, then what happened with mobile, there are these big, big shifts that can happen because of new enabling technologies and the products and services that those technologies create. And I think right now we're at the beginning of this moment where the big tech companies feel like we may be at the beginning of building the next Internet, as Satya put it. And that next Internet is going to make use of blockchain technologies, of cryptocurrencies, of NFTs, all of these things that are kind of buzzwords but also real things. And I do think that one of the -- I don't know if you would call it an application or a part of the next Internet -- but one of those things is going to be the metaverse. And as big tech companies think about what is the next big thing that could really move the needle, even if I'm a \$2 trillion company or even if I'm a \$3 trillion company, games is the pathway into this quote/unquote next Internet. And so it's become very, very strategic for them.

Allison Nathan: And if you think about the introduction of the metaverse and the shift into Web 3.0, that seems like the most natural transition for the gaming industry. But

Web 3.0, it's in the future; it hasn't happened yet. So what do you think will make it succeed?

Jung Min: So I'm going to stick to this kind of consumer part of Web 3.0. And we will use the metaverse to talk about it. I think in order for it to really work and for games to be a pathway in there, we need to see created digitally and in the metaverse in these games, a lot of the things that make things work in real life. You know, it's useful to think of an example here. If I buy a painting, it's actually not that hard to make copies of it, right? Regardless of how great the painting is. It might be some painting from 500 years ago, but there are lots of artists that can make copies of that painting. But in the real world, there's a way to -- mostly there is a way to validate whether I have the original real painting versus a fake painting. And because of that, there is a way in which, in the real world, society or the people that I know will tell me, 'Oh, Jung, you don't actually have the real one. You have the fake one. Don't hang that on your wall at home and expect me to be impressed by it because that's just the fake painting, not the real one.'

Now, when I think about the metaverse and the consumer side of things working and when we think about this NFT example, if there is a metaverse or if there is a game where I want to be present and I know people that I want to interact with are also present, my friends are there, people that I want to impress are there, or people that I just want to share this experience with are there in this particular game or metaverse, and that world can enforce what kinds of NFT, you know, which art is the real one.

So only Jung is allowed to display this NFT of this piece of art because in this world we don't have any fakes because we can use blockchain technology to figure all of that out. When those kinds of worlds start existing and those real-life characteristics that say this is real, this is valid, and you can have security in knowing that it's valid, then I think we see these metaverse or Web 3.0 type technologies or enabled content and goods taking off and becoming really valuable in the real world to real people.

Allison Nathan: But if you think about how this new technology, metaverse, Web 3.0, you know, how will they change the shape of the gaming industry itself? And what

is the appeal for companies and people to really shift their technology into the metaverse and Web 3.0 applications?

Jung Min: So I think it's impacting things in multiple ways. So one area where it's really had an impact is games companies deciding I need to be bigger or I need to have bigger and better game portfolios. I need to be able to fund more R&D. I need to be able to create not just the games but maybe provide some of the supporting features and characteristics in order to take games into the future, the next Internet, the metaverse. And I think that is sort of a secondary attribute of games companies merging with each other so that they're bigger and have more scale and are able to make those investments.

And certainly if you listen to Bobby Kotick, he commented on some of those things. He said, "You know, when I look into the future, there are things that I want to invest in as I see increasing competition."

So whether it's two games companies merging. Or combining with another games company that has a lot of other business, it's motivating CEOs to think about where the future is going to be and whether they're set up to get

there on their own or whether they need to take strategic actions and in some cases sell themselves in order to get the company into the right position.

If you look back at the past, every time we've had one of these transitions, it has meant that new platforms get created. So there are new companies that become important companies of that particular compute era or that era of the Web at the time. New monetization models get created. And then ultimately, what happens on the consumer side can also really impact what happens on the enterprise side because of the consumer adoption of certain technologies that have applicability on both the consumer and enterprise side.

You know when I think about desktop era, there wasn't actually an app store, right? You had Windows and Office coming from one company, Microsoft. You had many, many software developers that needed to make sure their applications work with Windows, or one of the other operating systems- ultimately Windows was obviously the most important operating system. But there wasn't so much the idea of a Windows app store that Microsoft controlled and that everybody had to sell their software

through, it was more that the software had to be compatible with Windows. But the software companies had different ways to sell. Now there are problems with this too: security compatibility, etc., etc. Then we get to the Internet era-- you know 'web one' let's call it. Since everyone's talking about 'web 3' with advertising and search- search became very important to find things on the Internet. And then that meant search advertising became the important monetization model and that very much disrupted the model that that Microsoft had of selling the OS certain applications and then lots of developer tools. And then we get to the mobile era and Apple and Google obviously have their app stores. And that became very different- all of the mobile applications need to go through those app stores. So, if you look at those three different periods, you see the different monetization models, which platform companies were the most important.

If games is the path to the next Internet, there are going to be new platform companies that become more important. Some of them might be the old platform companies, but different companies will become more or less important in that new world. And there will be new monetization models, too. That's why I think in some ways, beyond the

regulatory evaluation of these things, that's why I think, in the industry and ecosystem, lots of companies are thinking about is the app store model going to be the model for that next Internet? Is there going to be something different? What role can we play as companies in shaping what that looks like in the future? And I think that's all related to this idea that there is going to be a next Internet and that games are going to be an important way to get there.

Allison Nathan: And if we think about this blockchain-based gaming world in which gamers play against others in a virtual world, it makes me think about what are the possibilities of this technology? Are there broader applications beyond just gaming?

Jung Min: I do, I do. And I think there are lots of things that might happen outside of games. Games is kind of the pathway there, but it's not the only thing. You know, an interesting anecdote that I'll tell you is soon after Mark Zuckerberg made that announcement about Meta, there were a couple of companies -- and I don't mean, you know, next-gen tech companies, startups, but many decades-old companies -- that asked us for help in thinking about the metaverse and kind of being introduced to the

right people at Facebook, or Meta, in order to figure out how they could take their businesses into the metaverse into the future. It's not quite here yet, but they were certainly thinking about it as something that they wanted to think about.

So if companies that have been around a long time and that sell physical goods, large physical goods, want to figure out how they can market and sell their products to consumers in some future metaverse, that tells you commerce could be a big part. Both digital commerce, commerce of digital goods or services, I mean, but also of real-world products could be a big part of the metaverse and the future there. That also means payments will be important. How payments works in the metaverse will be very important.

I think a lot of what we think of as happening online or on mobile, those things can move into the metaverse. And then there'll be probably new things that we're not thinking of that can only exist in the metaverse that will also happen beyond games themselves.

Allison Nathan: This seems to be a somewhat dystopian and frankly a bit depressing trend. You know, it really worries me that individuals might be more willing to spend money in the virtual economies than in the real economy. So talk to us a little bit about what are the long-term pros and cons from a societal perspective of these developments.

Jung Min: So I'm probably a little bit more optimistic than you are or at least your question, but I definitely see that we've definitely gone through an era where we see tech doesn't solve everything by itself, right? And clearly there are problems with how people use technology in the desktop, Internet, in the mobile era, and there will be problems with how people use technology in the metaverse, too, right?

Security is an issue in the metaverse. How do people feel safe in the metaverse? That's going to be an issue. So there are those kinds of things that we have to watch out for. But I do think that, if we're balanced about it, ultimately it will be a big plus because, just like the Internet and communication has made the world economy function better, it's made global GDP certainly grow, it gives opportunities to people in geographic places and

lower tiers or lower income levels in the economy different opportunities as well. I think that, if we use it in the right way, it will be an opportunity. And, you know, who am I to judge whether an NFT of a painting should be worth more or less versus a real-life, you know, quote/unquote, real-life painting. I think that's something that we all get to decide together. And if that's the case, I'm generally an optimist because I'm generally an optimist about people.

Allison Nathan: And so how far do you think we are away from this next iteration of gaming?

Jung Min: You know, for it to be really big, we probably are maybe somewhere like 10 years away. Certainly at least 5 years away for it to be big. But when we were all sitting in 2006, before iPhone, we just didn't realize it but we were at the very beginning of mobile. And that in retrospect happened very, very quickly. So I think not a lot of investors are buying metaverse stocks just yet, but I do think the tech companies that are both public and private right now are clearly investing into that kind of future and figuring out what their place in that future is going to be and how they're going to win in that future. And I think that's why you're seeing this increasing focus on games,

too, from games companies but also tech companies in general.

Allison Nathan: This has been absolutely fascinating, Jung. Thank you so much for joining us.

Jung Min: Thank you.

Allison Nathan: That concludes this episode of Exchanges at Goldman Sachs. Thanks for listening, and if you enjoyed this show, we hope you subscribe on Apple Podcasts and leave a rating and comment.

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