I mean, one thing that you often say is that in times of uncertainty, space technology actually outperforms. And we've seen it across our funds, but this was very true during the second quarter on the public markets. So you had companies like Rocket Lab and Planet and Black Sky, 4x outperformed the Nasdaq, which was already up in a very rallying period.

Hello everyone. Welcome to Space Capital Headquarters here in New York City. I'm Chad Anderson here with Justus Kilian, and we are here to talk to you about Q2 and our Space IQ report, which we've just published. So what we normally like to do to kick things off is to talk a little bit, give a little bit of a backdrop of what's going on in the macro financial capital markets, to give you a sense of what is impacting the space economy. Again, as you know, venture capital is a key source of capital for early stage space companies. So what's going on in the financial markets, the stock markets is impacting venture capital as well, so this is all important context.

Chad Anderson:

And as we look at 2025, the capital markets are really evolving in unexpected ways. So the VIX, which is a measure of stock market volatility, is the highest that it's been since the 2020 COVID pandemic. There was a lot of optimism, if you remember back in Q1, about liquidity, rebounding, revitalization of the IPO markets, which was really sort of stalled by global tariff tensions, which slowed economic activity across the globe. So that is important reshaping of the narrative. However, there were signs of life that emerged in Q2, especially like right towards the tail end of Q2 despite market turbulence.

Chad Anderson:

So US public markets hit new all time highs as investors are piling into volatile stocks. So a big swing, optimism in Q1, a bit of a pullback in Q2 and then a lot of fear and a lot of volatility as to what was going on in the global markets. And then we really closed out a big swing back to close out Q2 with a lot of, I'd say irrational exuberance that we felt it's reminiscent of the SPAC craze and the zero interest rate period of 2021.

Justus Kilian:

I mean, one thing that you often say is that in times of uncertainty, space technology actually outperforms. And we've seen it across our funds, but this was very true during the second quarter on the public markets. So you had companies like Rocket Lab and Planet and Black Sky, FOREX outperformed the Nasdaq, which was already up in a very rallying period. So it was pretty interesting to see that sort of translated into the public market environment and some of that exuberance driving up prices.

Chad Anderson:

Absolutely, and that's in stark contrast what we saw back in 2021, where there was very little differentiation. And if you've been listening to these quarterly conversations, we were talking about that, how basically investors were painting space companies with a broad brush. Today there is differentiation. We're finally starting to see that pull through and we're starting to see the outperformers separate from the pack, which kind of leads us into conversation about the public markets. So this late June rally was fueled a lot by AI excitement, expectations of what the Fed is going to do with interest rates, easing at least temporarily trade tensions. All of this is pushing the three major US stock indices to all-time highs. And this has reignited the IPO market. So interestingly, newly public

stocks logged their fastest first-day gains in over three years. So we've seen three tech companies broadly across tech that have raised more than \$50 million or more this year, doubling on their debuts.

Chad Anderson:

But if you look back at history, it's a bit of a cautionary tale. So 90% of IPOs that double on day one deliver negative returns over three years. And a few breakout companies become long-term winners as we were just talking about, Rocket Lab being chief among them. But many fall short of expectations, even with some collapsing into bankruptcy, again, as we've seen over the last few years. So Voyager went public in Q2, and I think it's worth talking about how this company epitomizes this exuberance. So the company went public in June, \$144 million in revenue growing at just 6% year over year, losing \$66 million, yet it secured a \$1.8 billion IPO valuation that leapt to roughly \$3.2 billion after an 82% first-day jump. So with a mid-single-digit growth and losing half of every dollar of sales a 20X multiple is really extraordinary. So this combination of meager revenue, hefty losses, low growth, and outsized valuation makes this company a clear outlier.

Chad Anderson:

By comparison, we've got a couple of comps here. Profitable peer, Carmen Holdings went public earlier this year. They listed at three to 4X sales and even after doubling it trades near eight and loss-making Planet Labs debuted at 25X before compressing to 8X. So I think history shows that lofty multiples collapse without rapid top-line acceleration. It's hard to see where that rapid top-line acceleration comes from. I think we're going to see this outlier valuation start to retrace as the IPO euphoria fades, and we're already starting to see that, there's been a major correction. The IPO investors made out like bandits, but the price has only declined since then.

Chad Anderson:

So I think a little bit of a gut check there. I mean there's a lot of excitement about the space economy, and rightly so. This is a once in a generation opportunity for investors, but unfortunately, I think this is going to be another example of why specialist expertise is required and the ability to read financial statements and understand the underlying business fundamentals, because what's really going to take companies through in the long term. I got a few other things to talk about, but what's on your mind, Justus in Q2?

Justus Kilian:
I mean, are we going to dive into private markets
Chad Anderson:
Definitely.
Justus Kilian:
Yeah.

Chad Anderson:

Okay. So probably one of the big ones is around Europe. So this has got to be one of the key talking points here. A lot of geopolitical tensions are fueling a surge in government and private spending across Europe as the continent races to build sovereign solutions. The big steps forward in Q2 were around

NATO members have pledged to raise defense budgets to 5% of GDP, which is significant for a lot of these European countries. They have launched a new European Competitiveness fund, which is focused on resilience, defense, and space. Those are the three key things that they've highlighted. So really a focus on a lot of the companies in the space economy.

Chad Anderson:

And one thing that I found really interesting was that a lot of this is driven by the US and the White House's shifting positions on the longstanding diplomatic relationships. And one European small-side executive at an event said that Trump is the best business developer on our team, which I think really helps to paint the picture. So in Q2, we saw funding for European startups increase. I'm sure you've seen this as well. We've sized all of that up and you can see a lot of it's into German companies, UK, and Spain actually, a pretty good mix across infrastructure and applications. And this is also across industries, satellites, launch space stations, and logistics. So not just in satellites and launch, but also getting into emerging industries, which is new for the continent as well.

Justus Kilian:

Yeah, I mean there's a couple notable transactions ISAR in the domestic launch capabilities, mission-critical for what they're building there. And then more on the application side, Helsing was able to bring in a large round to sort of build their new prime capability domestically as well. So yeah, following a similar playbook to what's happening in the US, but know on-shoring that capability to ensure access to space and critical capabilities for the front line and any increased tensions.

Chad Anderson:

And interestingly, this didn't hit in Q2, but it was announced in Q2 with the French president saying that he's going to invest \$1,000,000,006 into UTELSAT, which is really seen as Europe's best hope to compete with low earth orbit constellations like Starlink and Amazon's Kuiper. So they're going to be the company's largest shareholder, which basically it has become nationalized. There's a lot of consolidation as well as they look to compete. SES secured approval in the quarter for its 2.8 billion Euro acquisition of INTELSAT, which is creating this really interesting multi-orbit GEO/MEO capabilities, again to challenge Starlink and Kuiper. Something to look forward to in Q3. I mean the big three defense contractors in Europe, Airbus, Leonardo, and Thales Alenia are all considering joining forces and merging their space businesses again to compete at a greater scale and really creating a regional heavyweight.

Chad Anderson:

So a lot is happening in Europe. This is definitely an area to watch, but again, starting from a pretty small base, and I think we talked about this last quarter, and I think it continues through this quarter, that it is going to be difficult to only focus on European made solutions. 80% of their military hardware is still imported and a lot of that is from the US. So it's an uphill battle, but there's a lot of momentum building in Europe, which is definitely going to be an area to watch going forward.

Justus Kilian:

I mean, one of the challenges that they face is their capital markets are just fundamentally shallower than what we have developed in the United States. And so it's important to have these governments stepping in and making these direct investments to help sort of fill the gap and anchor, but it ultimately means sort of a less dynamic ecosystem. They're sort of taking big bets on one or two hopeful winners that can play out. And so when you look across the rounds that recently closed, I mean you can see at

the scale, it's a third or half of similar companies in the United States, and there aren't many of those companies or multiple of those companies. There's sort of one that's breaking out and the hope and sort of the market development rests on their shoulders. And so it is much more concentrated. It's much more of a winner-take-most opportunity there.

Chad Anderson:

Interesting market dynamics. It'd be interesting to see how this plays out to the rest of the year.

Chad Anderson:

So SpaceX, Q2 was a really interesting quarter for SpaceX. I mean, they started off on the front foot, the Pentagon replaced ULA, their longtime leading provider of security missions launches was replaced. SpaceX is now the favorite and has the majority of contracts. The company is printing money. They've been really tight-lipped publicly about their financials, but Musk came out on social media and said that they're making almost \$16 billion in revenue, which is larger than NASA's budget. Google parent Alphabet had an \$8 billion markup in their financials based on their 2015 investment in SpaceX. So you can see investors making a lot of money. I mean if it's showing up on Alphabet's financials, that is meaningful, the revenue is meaningful. And so the company started off the quarter on the front foot, but then I think most conversations have focused on the fallout, the very high profile, very public fallout between Musk and Trump, which could impact SpaceX's access to government programs like the Golden Dome Initiative, which is proposed and is starting to come together.

Chad Anderson:

So unfortunately, I think that for all that momentum that we saw in the first part of the quarter, I think a lot of the focus is on that and also on Starship, which had a couple of mishaps, FAA class mishaps in Q2, which brings the mishaps to four consecutive in 2025. I think we expected to see Starship, based on the progress they were making, it looked like even as soon as last year that it was going to come online and be operational mid 2025, but it looks like that's going to take a little bit longer. Maybe things will come together faster and they'll start to work through some of these issues faster and more in line with how we've seen it in the past now that Musk is done with his time at the White House and is focused more on his companies and SpaceX. We'll have to see how that plays out, but it certainly seems like there is a chink in the armor and an opportunity for competitors to either take a breath or make some moves forward with the company that has been the dominant player over the last 10 years.

Justus Kilian:

Yeah, I mean the rapid unscheduled disassemblies that ended the quarter for us, whether it be Starship 36 or SN9, they're clear hiccups in the company's trajectory. With Mars being such a clear focus and a clear priority for the company to get there, it's making that window feel a little bit farther away. There's still a ton of milestones that need to be hit. They haven't deployed really anything out of the ship while in orbit, need to demonstrate on orbit refueling, there's still a lot of important technical questions around that. So while the team and the company has been incredible at productizing and capturing value across multiple market segments, it's really like there almost isn't anywhere that SpaceX can't dominate, it does feel like in the last quarter there was a little bit of a hiccup or stutter step. And there's a growing conversation that competition is needed, competition is welcome, competition is a priority, and so it's going to be really interesting to see how Rocket Lab and Blue and some of these other folks really ramp up.

Chad Anderson:

It's hard to get your head around how significant this is and what this means because we've never really been here before. A program of this size and scale that is doing things so transparently and out in the public. Everything is recorded, we're watching everything live. They're bringing us along for the journey. This is definitely a test program, so failure is par for the course. So there's a bit of that. There's a bit of are we just seeing more of it because of how hyper transparent the company is? Because Northrop, I believe they had a solid engine rocket blow up in Q2. They had a mishap. This is old tested technology that we've been flying for a long time. And so even an incumbent that's been doing it for decades and has a lot of experience and they're flying technology that is known and exists, even that has mishaps.

Chad Anderson:

And then you put that on the scale of Starship and how revolutionary this vehicle is, everything from the materials to the size to the ambitions, everything about it, like the full and rapid reusability, all of this is new. So you kind of have to put things into context and think they tested a lot of the initial systems and they made a lot of progress in the first part of this test program. And then you see they had a rough six months. I mean, it's hard to put that into context, I guess is what I'm saying. How significant is that? Is this really a blip or is it something more systemic that's happening? And it sort of feels like a little bit of cut them a break, but at the same time it'd be great to see them get back to the pace of progress that they were at previously.

Justus Kilian:

I think there's a clear answer to that question in some of the architectures that new startups are looking to build and how they're designing their capability to work with Falcon IX architecture, highly stackable satellites and could be expanded in terms of mass and volume when Starship comes online. And so you do see that across multiple companies, a bit of a hedging effect here where they're just like, "We're building for today, we're thinking about tomorrow." But yeah, there's a lack of, I think, participants willing to go all in on Starship.

Chad Anderson:

And as we've said many times in our space IQ reports and on these videos, competition is good. It's better for everyone. It's nice to have options and price competition and all those things. So that's SpaceX. And a little bit of collateral damage from the Musk Trump fallout, the White House's 2026 budget proposal delivers deep cuts to both civilian and national space security programs. So NASA is facing down its most severe budget squeeze since the Apollo era. The White House's proposal goes from \$25 billion to \$19 billion, cutting half of the science mission directorate, reducing its workforce by a third. This is pretty significant cuts to NASA. Interestingly, the then nominee, Jared Isaacman, to lead NASA agreed with a lot of that sort of philosophy that there was a lot that could be cut at NASA. You could do a lot more with a lot less leveraging commercial capabilities and cutting out a lot of the bureaucracy.

Chad Anderson:

So it was actually quite a surprise to see the nomination abruptly pulled when there seemed like there was so much alignment between the White House and the nominee. So that's unfortunate. And then civil and defense space ecosystems are deeply interconnected. And representative George Whitesides, who was previously chief of staff at NASA and ran Virgin Galactic for a long time and now a congressperson in California is talking about how the civil and national security side are deeply

connected and that weakening one undermines the other. Which is really interesting when you think about where we are in a geopolitical situation that we are today and the fact that the NRO has been leaning so heavily on commercial capabilities to provide high resolution, high revisit satellite imagery to power the US intelligence agencies. But then they are talking about cutting their budget by a third.

Chad Anderson:

They came out in 2022, they awarded the largest contracts ever to Maxar, Black Sky, and Planet basically saying, "We're getting all this really great value from commercial companies. They're doing it better, faster, cheaper. We really want to lean into this." It's billions of dollars in contracts over 10 years, big program. And then now they're talking about cutting that back in a time when geopolitical tensions are on the rise and a lot of different countries and geographies investing heavily into their capability. It's kind of difficult to see how this fits in with national security priorities. So the CEO of those companies are pushing back and we'll have to see where that ends up. But that's definitely an area to watch in the second half of this year.

Justus Kilian:

Yeah, I mean I think beyond the NASA cuts, it's a deeper cut to research and development across academia and our ability to invest in sort of pioneering technologies. The combination of that and NASA cuts I think is a real red flag for the space economy. It's really concerning, particularly in the face of China continuing to execute and ramp up their capabilities at incredible scale. They recently launched, I think 12 satellites of a plan, 2,800 constellation, the Three-Body constellation I think they're calling it. And it really is to demonstrate on-orbit compute, it's got next generation EOS sensors, inner satellite links, edge computing. They're not slowing down. They're really embracing the cutting edge technology, pioneering pushing. And so that's unfortunate at this sort of moment when the US is almost ceding a little bit of that capability.

Chad Anderson:

Yeah, really like a red queen moment where you have to run just to keep up with what's going on.

Chad Anderson:

So those were kind of the big ticket items that we're happening this quarter. There's a bunch of other really interesting stuff going on. Emerging industries had a big quarter, which is always fun to look at because this is coming from a small base. But if you think about the space economy as a whole, you've got launch 9% of what's going on, you got satellites, which is 90% of what's going on. A lot of the value in the space economy is in satellites. And then really one to 2% is emerging industries, and this is space stations and logistics and orbital servicing and manufacturing orbit, lunar markets, that sort of thing. And so it's always really interesting to see a high number of deals get done when a significant amount of capital goes into these companies because who are these people that are investing in these really risky markets with risk squared? It's like you're not just investing in this startup, but they're also dependent on another startup and then maybe even another startup. So thinking about emerging industries, anything come to mind that stands out?

Justus Kilian:

Yeah. It was a record quarter for logistics and so there's a number of interesting things within logistics. The transporter mission had a number of space tugs on board, and so multiple companies demonstrating that capability. One very clear breakout is Impulse Space who raised a very large series C

round \$300 million. And so that team continues to execute incredibly well. Their MiraCraft on the Leo Express II has really outperformed. They revealed some of the tanks for Helios and they announced a big contract with SES multi-launch agreement. So that's a really, I think, powerful proof point that even in a Falcon IX architecture, there is real demand. Starship architecture could take that demand to a whole new level. So that one was really interesting. And then space traffic management space situational awareness. You want to touch on that?

Chad Anderson:

Yeah, just quick on your point, one of the reasons why impulse is so interesting is because you've never seen a deep tech company scale this fast. It's pretty wild to see and it's a testament to what an incredible team can do in a short period of time. And also it's important because we don't see a lot of series C and D rounds in the space economy. A lot of companies that you see, a lot of startup companies, and they're raising seed capital, they're going on to A, going on to B. And we have graduation rates in our report across the technology layer so you can see how these companies are graduating from seed to A to B, but then when you get to C and D, the population is really small because this is a new category, 10, 15 years old on the heels of SpaceX.

Chad Anderson:

A lot of those companies that were doing well or a lot of companies that got out in front of their skis a little bit too far ended up going public prematurely in 2021. And so we haven't seen a lot of really strong, solid fundamental companies getting to C and D. And so it's really great to see a company like Impulse with real contracts and real demand for what they're doing get to this point.

Justus Kilian:

In this quarter, there was multiple examples of that. Impulse is a great one. And one thing that really stood out to me, it's not obvious in the report, but if you sort of look a little bit deeper in it, you can see that VCs were the primary driver of that capital for the quarter, and it's actually the most capital they've deployed since 2022 and going back into the 2021 days of the frenzy. And so VC sort of leaning into the opportunities in the space economy I think is really important. It's not coming from strategics, it's not coming from crossover investors. It really is like the broader VC community interested in those opportunities.

Chad Anderson:

Yeah. And then to get to your point specifically, so around logistics. So we've seen there's a lot of interest in space traffic management, understanding where things are in orbit, then coordinating activity in orbit to be more efficient and enable safe operations. And this is a global phenomenon. So we've seen the early companies were in the US, but we were also seeing a lot of European investment into space, situational awareness, space traffic management. Obviously the big news to close out the quarter right at the final day of the quarter was that the White House's budget proposal cuts the tracks program, which was the Office of Space Commerce, setting up a platform to be the source of record to manage where things are in orbit and to communicate to industry and governments and everyone else and to be that source of record. But this was kind of fundamentally flawed from the beginning because private industry is already doing this.

Chad Anderson:

Kayhan Space is a great example. They are a company in our portfolio that has built this platform already, you can buy it off the shelf. So that is very antithetical to the American way of doing business, which is if the US government does not build a solution to compete directly with industry, Kayhan is a great solution that's available. Now you can subscribe to that service, and so it doesn't really make a whole lot of sense for the government to be building a competing solution. So in our opinion, this is a step in the right direction, and it's not like the information's not available, just go and get a license.

Chad Anderson:

We are close to time. Anything else that really sticks out that we should cover this quarter? I got one that's really interesting I think. So applications has been the technology layer that has been hardest hit by this market correction of the last few years. The correction after the zero interest rate period in 2021 has been really difficult fundraising environment, particularly for SaaS companies, software applications that are leveraging infrastructure, whether in space or anywhere else across tech. Q2 was the second-highest quarter in the past three years for applications, which is big. And a lot of that is driven by defense applications. It was Anduril had a monster round-

Justus Kilian:

\$2.5 billion.

Chad Anderson:

... in Q2. And if you remember in Q1, their chief strategy officer came out very publicly and said, full stop, "Anduril is a space company." And you can see all the different programs, national security defense related programs that they're getting involved with that leverage space technology. So I think that's also really important. So I mean, there's a lot of really great signs in the macro and the public markets and in the private markets that are pointing to a really interesting second half of 2025. And it'll be great to be following this and to come back to you in Q3 and talk to you about what we see. So yeah, I think with that, we'll call it a wrap. Thanks very much for sticking with us and we look forward to seeing you again in Q3.