

JEFF MENZ & CASEY MILLER

Data Centers: What is driving the surge in demand and how can insurance investors benefit?



GUEST Q & A

Stewart: Welcome to another edition of the InsuranceAUM.com podcast. I'm Stewart Foley. I'll be your host. Today's topic is investing in today's data center sector with Jeff Menz and Casey Miller, both Managing Directors of Portfolio Management at Principal Real Estate Investors. Guys, thanks for joining us. Thanks for taking the time.

Jeffrey: Thank you.

Casey: Thanks.

Stewart: Okay. So, we'll start this one off the way we start them all. With two guests, we've got to go fast. But start us off, Jeff. Where did you grow up? What was your first job? And what makes insurance asset management so cool?

Jeffrey: Yeah. Thanks, Stewart. I grew up in a small town north of Des Moines, Iowa, in Huxley, Iowa, a farm boy. I didn't grow up on the farm, but my grandparents were both farmers, so a lot of my first jobs were actually on the farm walking beans, and de-tasseling corn. I guess my first official real job was working at a marina driving a little jon boat around, shuttling people from the dock out to their boats.

So, what makes investment management and the insurance business exciting is we offer solutions to clients. I work with a number of separate account clients that have different needs and different goals, and trying to find solutions for them and help them meet their goals is what gets me up and excited every day.

Stewart: That's awesome. Casey, how about you? Where'd you grow up? What was your high school mascot? And what's a fun fact?

Casey: I grew up in very northern Iowa, a small town called Lake Mills, similar to Jeff's farming community, good salt of the earth people. My first job was at the local grocery store bagging groceries. My high school mascot was the Bulldogs, Lake Mills Bulldogs. And a fun fact. Boy, that's an interesting one. I'm going to come back to that one, Stewart. I need to think through a fun fact for you.

Stewart: Hey, one fun fact is if this is your first podcast, there's a fun fact.

Casey: There you go. We can use that.

Stewart: There you go. So, today we're talking about data centers. And it's a really interesting asset class, particularly given everything that's going on around data and AI right now. Right? So, I want to start with you Casey. What is a data center? Because I think I know what it is, but sometimes I'm proven wrong. And what is driving demand right now?

Casey: Great question. A data center is really something that's evolved substantially over last probably 10 or 20 years. It used to be, when I first started at Principal 24 years ago, a lot of the data centers were in a closet. They were servers that were in a closet. That's migrated. Eventually, they moved to the basement of the building or a space that was less functional in your office building. Today, they really are, most of them are standalone buildings. It's a facility that houses a

very complex network of computer systems that are used to, not only store, but also compute and process critical applications. Really, everything that we do electronically goes through a data center. So, what's driving demand? It's anything from that storage, which is where the origins of a data center started back then to today, it's compute. Everything that you do mobile-ly or 5G or through new applications, like AI, you mentioned, or the newest technologies of driverless cars, all of that information runs through a data center. It's computed in the data center and then returns to you as the user.

Stewart: That's really interesting. And so, Jeff, when I think about this market, who are the tenants that are driving the demand today?

Jeffrey: Yeah, we really break that up into three different classifications of tenants. We call one sector the hyperscale tenant, another one the enterprise, and a third one the co-location. We'll explain each one in a little more detail. So, the hyperscale is, by far, the largest and fastest-growing tenant group for data centers. These are large technology companies, like Amazon, Google, Microsoft, that require vast data processing and storage requirements, and they provide these cloud services to their customers. These tenants typically demand large standalone facilities that are clustered together with numerous other buildings in a large campus. An enterprise user are organizations that operate their own data centers, often Fortune 500 companies. These are companies that have chosen to maintain control over their systems and data rather than using the hyperscale cloud provider. Generally, these are smaller requirements and are often housed facilities with other similar tenants. And then, the third classification, co-location, that can be defined as either a cloud or standalone enterprise user, but generally on a much smaller scale.

So, by far, the largest and fastest-growing segment of data center demand has been in the hyperscale use. This really took off during COVID as the hyperscale tenants really struggled to keep up with the increasing demand. Traditionally, they had tried to self-build to meet their own demand, but during COVID, the demand accelerated and many of them were facing supply chain issues. So, they started to look for alternative solutions, such as third-party leasing. Casey touched on some of the reasons for the increase in demand. 5G technology, people heard of Internet of Things, all the devices that we have today have chips in them and they talk to each other, driverless cars, and artificial intelligence. Those are many of the reasons why there's been such a huge demand and growth in the data center sector.

Stewart: And, Casey, when I'm looking at this as an asset owner, what are the important considerations that I should be aware of when I'm deploying capital in the data center sector that may be different from other sectors?

Casey: Great question. I think a few of the considerations that investors should look for, first and foremost, is the infrastructure needed. So, without power and without fiber, no matter how hard you try or how much money you have, you won't have a data center. So, you need to make sure that the critical infrastructure is either in place or available. And then, secondly, maybe behind that, is the importance of an operator. Whoever your operator is, is important in all of your real estate investments, but maybe more so here, given that it's so specialized, and the long-term nature of these contracts with these hyperscale users. It takes years and years and years to build up the trust that's required in order for them to lease from an operator. So, I think those are probably three of the biggest differentiators from the main "food" groups of real estate investments.

Stewart: Are most of these data centers, I'm assuming, self-contained? They've got to have power backup and redundancy and cooling because cooling is a huge deal in these things. And it's not like I can go out and buy a warehouse and turn it into a data center. Are these things mainly purpose-built?

Casey: They are. And depending on the market that you're at, we have seen conversions from warehouses into data centers, but that's really just in those very infill locations where buying that piece of real estate gives you access to power and fiber, and then essentially the building is rebuilt. I wouldn't necessarily say it's torn down, but perhaps a building is built within a building and all of that redundancy that you talked about, all of those critical systems, backup power, all of the cooling systems are in place in order to call it a data center.

Stewart: And Jeff, when we think about this, everybody's talking about the economy slowing and whatnot. And you've seen credit card balances go up and rates keep creeping higher. And the slowing in the economy, I don't know, it seems like we're talking ourselves into it just about, right? So, how does that projected slowing impact the data center sector, if at all?

Jeffrey: What we have seen is that, with the slowing economy, these enterprise users, those Fortune 500 companies I noted, will, oftentimes, shrink their capital budgets. And what that does is push more of their data center needs to the cloud and hyperscale users. So, this outsourcing of their data center needs is less capital intensive and shifts this line item to an expense so that it can more easily control that item as the need for data storage and/or computing may change. The other thing that we've seen with a slowing economy, indirectly, we think that this will benefit the sector because it should relieve some supply chain issues, which have been a real challenge. We're already seeing some signs of this as less demand for some of the equipment needed in data centers is a little easier to get. There's more construction workers as less construction is going on in other sectors. So, that has been an indirect benefit, as well, from the slowing economy. We expect that will continue, but the need for data processing and storage just continues to grow, and we don't see that being impacted by a slowing economy.

Stewart: And I guess when we come back, Casey, we mentioned AI a couple of times. Certainly, it's a big topic and impacting the insurance industry, the investment industry, and many, many other industries. How does AI impact the data center sector from your perspective?

Casey: Again, a great topic. One that's getting a lot of attention right now, especially in the news. We think that AI is going to have a substantial impact on the data center industry even though it's been around for years. I think it dates back to the 1950s when they first started to train machines to replicate human behavior. It's just now getting to the level where it's starting to take an impact on data centers. You hear about ChatGPT or Generative AI products, which are creating all the buzz, and the deployment of that technology is going to require substantial data center use.

And the amount of power that it takes, the amount of computing power that it takes, really, to perform that artificial intelligence is going to put great demand on data centers. That's after, like Jeff mentioned, the Internet of Things. You can't go buy today a washing machine or a dishwasher or a refrigerator that's not hooked up to the internet. All of that information is being stored in a data center somewhere. So, what's already a very tight market, we believe, is going to become even more constrained from a supply standpoint. And I think that's why you're seeing those large hyperscale users trying to lease as much space as they can right now.

Stewart: And so, if I'm an insurance CIO at a large shop, and I'll ask a couple of different ways here. Is there a duration range that I should be thinking about as an insurance investor? Can I relate this back in a duration sense? Can you give me a sense of that? I mean, as we all know, the P&C folks are going to be looking in the curve a little bit more than the life folks who are looking out the curve a little bit more. How does it fit there?

Jeffrey: Yeah, I don't know if when people are looking to invest in data centers is necessarily trying to match up a liability internally, but the one thing that is appealing to investors in the data center sector is that normally the lease durations, at least for the hyperscale tenants, is in that 15, sometimes 18-year range. So, you're really buying a long-term bond lease to arguably some of the best credit in the world. And typically, there's some rent bumps associated with the lease. So, I think, as an investor, you can easily get your arms around what the cashflow situation should look like over the next 10 to 15 years and you're buying a long-term bond, if you will.

Stewart: And can I get access to this market if I'm at a mega shop, call it a hundred billion or more? And how do I get access to it if I'm at a smaller shop? I'm just talking now about deal structure. And am I going to have an SMA with you? Or how does that work?

Casey: Yeah, I think that you can. In both scenarios, you can get access to it. It's becoming more difficult because the size of these deals have grown exponentially. What used to be a big deal, now today, it's probably 10 times larger than that. So, there's various fund offerings, people who are putting together funds that both parties could access. I think there's probably only a handful of large insurance companies that can go out and write a check for a single asset of this. And maybe they don't want that single asset exposure, single tenant. A lot of times they are single tenants. They don't want that all tied up in one asset. So, perhaps a diversified fund or an SMA program with a developer and an operator is probably the better way to go. That's probably where we're seeing the most attention right now.

Stewart: And you can achieve diversification much easier for a given price point, for lack of a better term.

Jeffrey: Yeah. Stewart, just to give you a sense of what Casey was referring to, I mean a typical data center today that we would be deploying for a hyperscaler would be maybe around 40 megawatts. And a building of that size would be

around \$550 million of cost. So, if you're going to be able to get 50% leverage, you're talking about \$250 million roughly in one asset. And if you're looking for some diversification, you want to have multiple assets, you can see the scale needed grows pretty quickly.

Stewart: That gets exactly to the question I had. Thank you. So, a wrap for each of you. Casey, what is the takeaway you'd like our audience to come away with from this podcast today? And then, I'll come to you, Jeff, and then I've got one fun question for you guys on the way out the door.

Casey: Yeah, I think for me the takeaway is that, when you drill down into it, the demand for data centers is here to stay. Unless you believe that we are going to shut ourselves off and technically go off the grid, put our phones away and put our computers away, the demand for data centers is here. Investors worry about the technological advancements. And I think, again, when you understand the investment thesis, we're not responsible for that technology change. We're responsible for providing power, fiber, and cooling, and essentially the premise behind that has remained constant for the last 20 years. So, the tenants are responsible for all of that technological change, and they pay for that. What we provide to them is fairly constant, and we believe it's a long-term investment theory.

Stewart: That's a great wrap, Casey. Thank you. Jeff, what's your takeaway for today?

Jeffrey: Yeah, I mean, following up with Casey suggested, I would echo what he's saying. I mean, this is a sector that is somewhat in its infancy. We've been involved in it for 15, 16 years, and it has evolved over that timeframe, but we feel like the runway is very significant and the sector is just, again, in its infancy and will continue to mature, and there's a lot of great investment opportunities on the horizon.

Stewart: That's terrific. So, I've learned a bunch about this sector today and I appreciate you both teaching our audience, as well. I've got a fun one for you out the door. We usually provide optionality, but in this case we'll just let one of you answer one and one of you answer the other. There's two questions, and they go like this. Number one, what's the best piece of advice you've ever gotten or given? And two, who would you most like to have lunch with, alive or dead? All right. So, Casey's thinking. Jeff, which one do you want?

Jeffrey: I'll go with the lunch or dinner. I mean, being in the investment business, I've always thought it'd be really cool to meet Warren Buffett and have a lunch with him, have a Coke and a cheeseburger.

Stewart: I love it.

Jeffrey: I think that'd be great.

Stewart: I love it. That's great. Actually, he's been named before, so maybe we can pull something off here. Casey, how about you? What's the best piece of advice you've ever gotten or given?

Casey: I think the best piece of advice that I've ever gotten or given was that good news needs to travel fast and bad news needs to travel faster. Communication is key. And sometimes it's not always fun, but when you're talking with your investors or with your tenants, whoever it is, you can't be afraid of those hard conversations.

Stewart: Fantastic. Thanks so much. I've learned a lot today. We've been joined today by Jeff Menz and Casey Miller, both Managing Directors of Portfolio Management at Principal Real Estate. Guys, thanks for being on.

Casey: Thank you, Stewart.

Jeffrey: Thank you.

Stewart: If you have ideas for a podcast, please shoot me a note at podcast@insuranceaum.com. Please rate us, like us, and review us on Apple Podcast, Spotify, Google Play, Amazon, or wherever you listen to your favorite shows. My name's Stewart Foley, and this is the InsuranceAUM.com podcast.

Principal Financial Group and Insurance AUM Journal are not affiliated.

Important Information

This discussion is for informational and educational purposes only and should not be relied upon as a forecast, research or investment advice, a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. Opinions expressed are subject to change without notice. References to specific securities, asset classes and financial markets are for illustrative purposes only and should not be relied upon as a primary basis for an investment decision. Rather, an assessment should be made as to whether the information is appropriate in individual circumstances before making an investment decision.

Investing involves risk, including possible loss of principal. Potential investors should be aware of the risks inherent to owning and investing in real estate, including value fluctuations, capital market pricing volatility, liquidity risks, leverage, credit risk, occupancy risk and legal risk. All these risks can lead to a decline in the value of the real estate, a decline in the income produced by the real estate and declines in the value or total loss in value of securities derived from investments in real estate.

Potential investors should be aware of the many risks inherent to investing in real estate, including: adverse general and local economic conditions that can depress the value of the real estate, capital market pricing volatility, declining rental and occupancy rates, value fluctuations, lack of liquidity or illiquidity, leverage, development and lease-up risk, tenant credit issues, circumstances that can interfere with cash flows from particular commercial properties such as extended vacancies, increases in property taxes and operating expenses and casualty or condemnation losses to the real estate, and changes in zoning laws and other governmental rules, physical and environmental conditions, local, state or national regulatory requirements, and increasing property expenses, all of which can lead to a decline in the value of the real estate, a decline in the income produced by the real estate, and declines in the value or total loss in value of investments in real estate. Direct investments in real estate are highly illiquid and subject to industry or economic cycles resulting in downturns in demand. Accordingly, there can be no assurance that investments in real estate will be able to be sold in a timely manner and/or on favorable terms.

© 2023 Principal Financial Services, Inc.

Principal®, Principal Financial Group®, Principal Asset Management, and Principal and the logomark design are registered trademarks and service marks of Principal Financial Services, Inc., a Principal Financial Group company, in various countries around the world and may be used only with the permission of Principal Financial Services, Inc.

Principal Asset ManagementSM is a trade name of Principal Global Investors, LLC.

Principal Real Estate is a trade name of Principal Real Estate Investors, LLC, an affiliate of Principal Global Investors.

MM13270 | 10/2023 | 3163958-062024