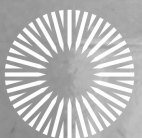




# UNLOCKING THE POTENTIAL

## THE RAPID RISE OF DATA CENTRES IN THE DIGITAL AGE

Specialty real estate sectors have historically helped enhance returns and improve portfolio diversification by providing exposure to secular growth trends not captured by traditional real estate sectors. One of the widely recognized specialized property types that has seen substantial growth in recent years are data centres. In this article we share valuable insights about this highly specialized, but vast market, which is benefiting from the growing digital economy. We also highlight some of the public Real Estate Investment Trusts (REITs) that are active in this space.



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INVESTMENTS

# Understanding Data Centres

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Data centres provide the infrastructure to allow society and enterprises to connect to the digital world, serving as the intermediary between the user, application, and data. Given the collection and use of data within organizations, companies will either choose to have onsite data centres, outsource to a third party, or employ a hybrid model. For many corporations, governments, telecommunications carriers, digital media and content providers, cloud providers, and financial and educational institutions, third-party data centres allow companies to preserve their capital and expand capacity as the business grows. They are also great for companies whose data storage requirements are not substantial enough to justify an onsite facility.

There are three types of data centres: retail colocation, enterprise wholesale, and hyperscale. Retail colocation data centres are designed for companies that do not require a lot of space or power, while providing a rich ecosystem of tenants and a high level of connectivity. Enterprise wholesale data centres typically provide businesses with larger scale data centre solutions, typically by floor or by building. Hyperscale data centres provide customers with vast computing, networking, and storage requirements, such as large cloud service providers, internet, and technology companies like Google, Amazon, Microsoft, IBM, Meta, and Apple.

There is also discussion surrounding the anticipated edge data centre revolution which aims to provide faster connectivity and lower latency. This would involve setting up smaller data centres, which are closer to end users and applications, to enable the processing power requests of the 5G network and the associated applications.

## The Capital-Intensive Nature of Business

Data centres are expensive to build and require significant maintenance and management. Owners are typically experienced developers or partner with experienced landlords with a proven track record and capability to invest a substantial amount of capital into the asset. For instance, a 100-megawatt (MW) data centre, may cost upwards of \$850 million, with increasing cost pressures due to inflation, as well as a lack of available land and power.<sup>1</sup>

The actual building and designing of data centres itself are also complicated, due to tenant requirements such as power and cooling capacity, power usage effectiveness, building security, and network connectivity. Once the data centre building is completed, operators are responsible for installing the infrastructure, which typically includes fiber optic communications equipment, data halls, power subsystems, uninterruptible power supplies, backup generators, ventilation and cooling systems, fire suppression systems, and network infrastructure.

## Market Demand Drivers and Potential Risks

The data centre market is growing due to technological drivers such as the Internet of Things (e.g., smart homes, appliances, watches, fitness trackers etc.), artificial intelligence (“AI”), and growth in the use of cloud storage. There is also the expectation that future use of autonomous cars will lead to far greater data storage needs. Additionally, the nature of the data centre lease structure itself drives market demand, as investors are attracted to their embedded fixed annual escalations, which allow for long-term income growth potential.

Despite its attractiveness as an asset, some potential risks associated with the data centre market, include new supply (although the rise in construction costs have moderated this risk more recently) and slower-than-expected IT spending growth and data centre outsourcing.<sup>2</sup>

## The Positive Impact of AI Fundamentals

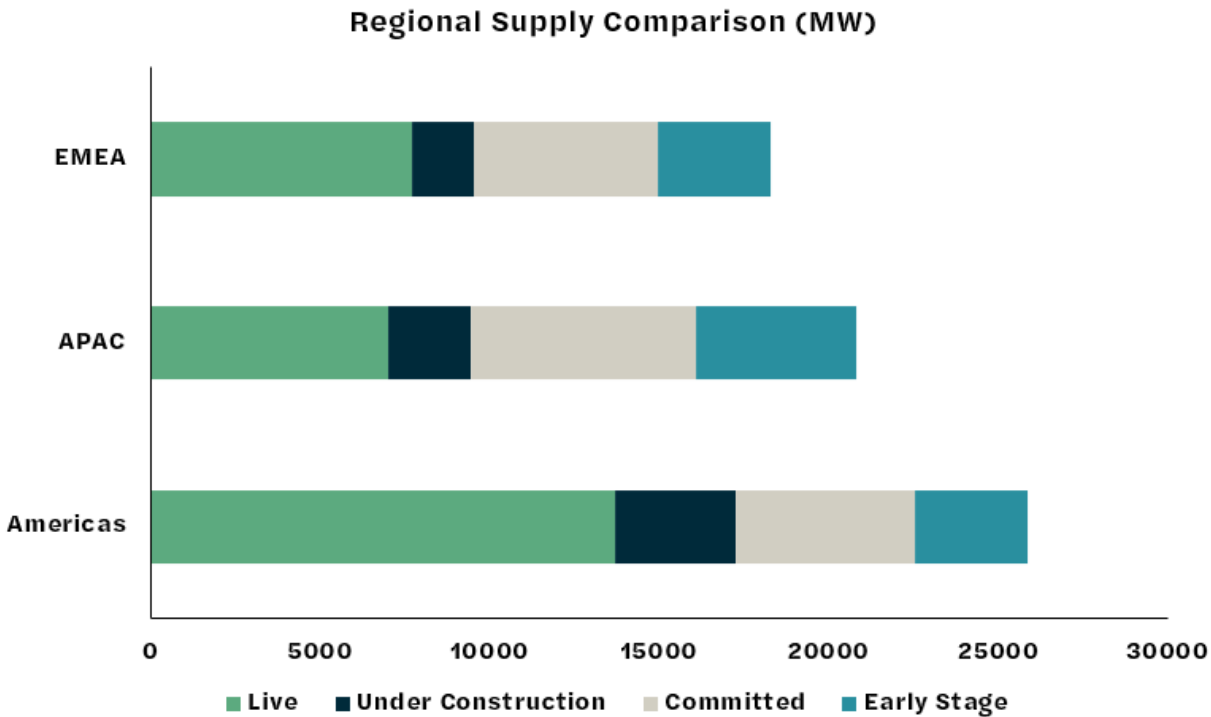
AI is poised to make a significant impact on data centre fundamentals in the coming years. This will lead to a surge in demand for data centre space to support generative AI workloads, which involve the generation or creation of new content using AI technology. By 2026, AI software expenditures is expected to reach approximately USD \$700 billion, which should have a positive influence on future revenue growth<sup>3</sup> To accommodate the growing demand for generative AI workloads, there will likely need to be an expanded number of data centres within cloud-availability zones, particularly in hyperscale centres.

## Market Profile

According to P&S Market Research, the data centre market was valued at USD \$263 billion in 2022 and is expected to grow to USD \$602 billion by the end of 2030.<sup>4</sup>

As highlighted on the next page, North and South America (the “Americas”) represents the largest market by power capacity totaling 48% of the supply of power with 13,702 MW followed by Europe, Middle East, and Africa (EMEA) at 27% (7,714 MW), and Asia-Pacific region (APAC) at 25% (7,010 MW)<sup>5</sup> The U.S., specifically Northern Virginia is the largest data centre market in the world with over 2,500 MW of capacity.<sup>6</sup> Well established markets such as Northern Virginia, Beijing, London, Singapore, Tokyo, Frankfurt, etc. have grown tremendously over the years from having access to superior connectivity and power availability. As of late, we are beginning to see developments sprout in new markets as










well as emerging markets. This is due to well-established markets experiencing constraints in power and land availability. APAC is expected to eventually overtake the EMEA region in total power capacity because APAC is still largely underdeveloped relative to its population size with demand for power poised to expand rapidly in countries such as India, Vietnam, Thailand, and Indonesia.



Using a data centre market cap weighted index, data centres have outperformed the FTSE EPRA NAREIT Developed Index since May 2005, generating a 15.4% annualized return in comparison to the FTSE EPRA NAREIT Developed Index which returned 4.8%.<sup>7</sup> We estimate that the data centre REITs currently trade at a -21% discount to their forecasted net asset value per share with an average implied cap rate of over 6.2%.<sup>8</sup>

## Mergers and Acquisitions

High investor demand to gain exposure to the data centre market has led to elevated merger and acquisition activity with five public companies going private over the last few years:<sup>9</sup>

Announcement	Company	Acquirer	Value (USD \$B)	TTM EV/EBITDA
October 2019			\$8.4B	21x
June 2021			\$10B	35x
November 2021			\$10.1B	29x
September 2021			\$15B	24x
May 2022			\$11B	24x

Going forward, we anticipate greater demand from investors for the remaining public data centre REITs with a total equity market capitalization of approximately USD \$142 billion.<sup>10</sup>



Additionally, there are other REITs with data centre exposure that include:





# Conclusion

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Data centres offer a critical network infrastructure, allowing us to connect and communicate throughout the digital world. This makes data centres an attractive investment opportunity for those looking to diversify their investments and benefit from a growth-oriented sector. The data centre sector is at a stage where it is transitioning to a new chapter of large-scale data growth throughout North America, Europe, and Asia, as the IoT, AI, and cloud computing, continues to drive increasing data storage and computing requirements.

#### Sources:

1. Green Street DC, 2021.
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3. B of A Global Research, IDC, 2023.
4. P&S Market Research [www.psmarketresearch.com](http://www.psmarketresearch.com).
5. DC BYTE Presentation, April 2023.
6. Cushman and Wakefield Global Data Center Market Comparison, 2023.
7. Data sourced from Bloomberg as of 09/30/2023.
8. Internal Valuations as computed by Hazelview Securities Inc. as of 09/30/2023.
9. Reuters, October 2019; Reuters, June 2021; Reuters, Nov 2021; Bloomberg, November 15, 2021; and Digital Bridge, December 6, 2022.
10. Data sourced from Bloomberg as of 09/30/2023.

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