Principal Real Estate

SPECIAL BULLETIN #1 | DATA CENTRES

# An emerging opportunity here to stay

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### At a glance – The data centre opportunity:

- Exponential growth: The worldwide volume of data, currently estimated at more than 50 zettabytes, will more than triple by 2025.
- Broad demand: Consumers, corporations, and data-intense technologies are driving demand throughout European markets.
- Stable income: Long-term leases, limited supply, and credit-worthy tenants have led to steady returns in both up and down markets.
- Accelerating secular trend: Beyond the pandemic environment, data centres are poised to continue rapid growth.

Once seen as a niche sector within real estate, data centres have come to the forefront as real estate investors recognise how the surging need for data storage and processing is creating demand for high quality data centre real estate. As businesses, consumers, and new technologies use ever-increasing amounts of data, these facilities have become the cornerstone of the information economy.

While COVID-19 social restrictions have increased the focus on data centre demand, the reality is these facilities have long provided critical infrastructure to support the global economy's dependency on data. And as the worldwide volume of data doubles every few years, the dependence on these facilities will only rise.

Today, the network of data centres providing needed infrastructure to support European economies is presenting traditional real asset investors a unique opportunity. Data centres, with both growth and defensive attributes, have proven resilient in economic downturns and in periods of economic expansion. This, along with a compelling risk/return profile and high barriers to entry, makes the industry an attractive opportunity for long-term investors.

## Trends supporting data storage and processing

The most notable trend underscoring the importance of data centres is the exponential growth of data usage. It's expected that the number of global internet users will rise to 5.3 billion in 2023, up from 3.9 billion in 2018.[1] In Europe, internet access penetration rates average 90 percent, compared to less than 50 percent penetration in 2004.[2] The worldwide volume of data, currently estimated to be more than 50 zettabytes (ZB), is forecasted to increase to 175 ZB in 2025.[3] For context, one zettabyte equals one trillion gigabytes—enough data to stream the entire Netflix catalogue *three million times*.[4]

This explosion in data growth is being driven by individual and business needs. Consumer and corporate users have developed higher service expectations that include around-the-clock accessibility and faster connectivity speeds. Advances in artificial intelligence, virtual reality, and machine learning are also driving data usage. As these technologies become increasingly prevalent and advanced, more data storage capacity and processing power will be needed. And the introduction of 5G mobile services will only accelerate this need.

Of course, this exponential growth doesn't directly lead to exponential growth in the requirement for data centre space. Advancements in the semiconductor industry mean more computing power can be packed into the same space. While this slows the growing need for more data centre space, it doesn't end it altogether. Rather, Principal believes these advancements will help advance data centre growth in the medium term, a point we'll explore further in a later bulletin.

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[1] Cisco, 9 March 2020, Annual internet report (2018-2023)

[2] Eurostat, household internet access in EU-15, 2004-2019

[3] International Data Corporation (IDC), 2018

[4] UC Berkley, https://datascience.berkeley.edu/big-data-infographic/ 2013

## Broad sources of demand

To better understand the data centre opportunity for investors, it's important to consider the three main types of tenants: enterprises, colocation providers, and cloud service providers.

Enterprises include corporations that rely on in-house data centres because they can't outsource their infrastructure due to security requirements or other proprietary needs. Colocation providers offer infrastructure on a smaller and more scalable level, allowing users to access high-quality data centres without the large upfront costs, an approach common with small- and medium-size businesses. Cloud service providers, the fastest growing data centre segment, use a shared infrastructure to allow customers to outsource data storage. In Europe, the largest of these tenants are Google, Amazon, and Microsoft.

Data centre tenants tend to be clustered around Europe's core markets—Frankfurt, London, Amsterdam, Paris, and Dublin (FLAP/FLAP-D). The largest market is London, which—with about 711 megawatts of commissioned capacity—represents approximately 41% of total capacity in the FLAP markets.[5] The need for high bandwidth and low latency networks has led data centre users to areas with access to both reliable and affordable power and connectivity. Regulatory requirements and power accessibility have also driven data centre demand beyond the FLAP-D markets to places such as Madrid and Zurich, with large population centres, access to affordable power, and abundant fibre connectivity. These markets are quickly maturing and comprise a growing number of end users.

## Increasingly attractive investment characteristics

Many characteristics of data centres make them appealing investments. First, because of the customisation needed for data centre tenants, as well as the costs associated with relocating data infrastructure, tenants tend to prefer longer leases, typically in excess of 10 years. This offers investors exposure to cash flows from high-quality credit tenants at higher yields than most other property types, helping to secure longer-term income streams for investors.[6]

Second, the capital and knowledge required to build and manage a data centre—not to mention the difficulty in finding ideal locations—creates high costs for new entrants. This has constrained supply and created high barriers to entry. Third, as uncertainty about the impact of loose monetary policies persists, data centres can offer inflation protection. That's because most leases are linked to inflation with generous cap and collar terms, making them particularly attractive for long-term investors concerned about protecting cash flows and liability matching.

Fourth, industry lease standards require tenants to restore the property and its equipment to original conditions at the end of the lease, with severe penalties attached to any violations. This provides an additional assurance the property will remain an attractive investment over time.

Finally, because data centres are highly specialised, knowledgeable debt providers can improve returns by recognising the different traits within the industry. With the current low cost of capital in Europe, more loan term structures will broaden the debt market and help enhance returns.

Taken together, these factors have created stable, continuous income—particularly for institutions aiming to fund obligations by matching income and liabilities. These factors also make data centres a strong portfolio diversifier, especially in light of elevated asset correlations.

## The data centre opportunity: here for the long-haul

In addition to the long-term benefits of investing in data centres, the pandemic has accelerated trends in the data centre world with corporates re-assessing their IT infrastructure, boosting the number of cloud and colocation tenants. As the sector institutionalises, building portfolios of triple net data centres in this environment could lead to interesting dynamics as larger investors and funds update portfolio allocations to include these assets. Regardless of the ultimate impact of these short-term factors, we believe data centres are a proven investment poised to add value beyond just the near term.

Data centres will continue to face challenges, such as strict zoning requirements or power constraints in established markets. For investors, these challenges can make sourcing more difficult and limit the scope of investment opportunities. However, even as uncovering the ultimate impact of the pandemic will take time, it's clear in this "new normal" that data centres are becoming more critical.

The essential role of data in our lives is a secular trend that will continue to accelerate, making data centres an increasingly important consideration in a diversified portfolio.

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[5] CBRE, European Data Centres, Q3 2020

[6] CBRE, Savills, Principal Real Estate, July 2020

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