

Infrastructure Insights:

**Data Centre Financing –
Evolution and Structures**

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Introduction

Data centres are a foundational component of modern digital infrastructure, underpinning the operation of cloud computing, digital services and data driven applications across virtually all sectors of the global economy. As digitalisation has accelerated, demand for data centre capacity has risen steadily alongside the expansion of cloud adoption. More recently, the rapid emergence of artificial intelligence workloads has introduced a further – and more intensive – source of demand, materially increasing overall capacity requirements and challenging the ability of developers and operators to keep pace.

In parallel with this structural growth, data centres have evolved into a core infrastructure asset class, sitting at the intersection of real estate, energy and digital connectivity. Their value proposition therefore spans multiple asset classes: they combine the physical characteristics of industrial property, the long term, utility like features of infrastructure assets and exposure to underlying technology demand through the provision of compute and data capacity. This hybrid profile has attracted significant capital from sponsors, infrastructure funds and institutional investors

seeking both stable cash flows and growth exposure. While they may resemble conventional industrial buildings, data centres are highly specialised, capital intensive facilities that integrate resilient power systems, advanced cooling technologies, high capacity fibre connectivity and sophisticated physical and cyber security measures.

Reflecting both the scale and urgency of investment required, McKinsey estimates that approximately \$6.7 trillion of global capital will be needed by 2030 to meet projected demand for data centre infrastructure. While this investment requirement is global, EMEA is expected to account for a meaningful share – likely in the order of 15–25% – reflecting strong demand across established European hubs and emerging growth markets, albeit within a more constrained development



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environment. As operators seek to expand capacity in response, financing is playing an increasingly pivotal role in enabling continued development and supporting the sector's long term growth trajectory. Against this backdrop, and given the scale of capital and liquidity required, it is increasingly important for loan market participants to understand the evolving dynamics of data centre financing and the implications for structuring, risk allocation and execution.

Brief History

In their early years (through the late 1990s and early 2000s), data centres were commonly financed on a conventional basis. Individual assets were typically smaller in scale, often owner-occupied or developed for a specific corporate user. Funding was most commonly provided through sponsor balance sheets, corporate credit facilities or traditional real estate loans secured against the physical property.

A more fundamental shift began with the emergence of the cloud computing business model in the mid-to-late 2000s. The launch of Amazon Web Services in 2006, followed by the entry of other major cloud providers in the years that followed, transformed demand for digital infrastructure. As cloud adoption accelerated during the 2010s, large-scale infrastructure increasingly moved away from enterprise ownership towards

specialist data centre operators capable of delivering significant power, connectivity and operational expertise. These operators were frequently backed by private equity and infrastructure investors, reflecting growing recognition of data centres as a distinct infrastructure asset class.

The impact of this transition unfolded gradually. While hyperscale cloud platforms expanded rapidly in North America, large-scale hyperscale deployments in Europe, the Middle East and Africa remained relatively limited until the late 2010s, with the majority of hyperscale leasing activity occurring during the 2020s. As asset sizes increased, customer relationships evolved and revenue streams became more predictable and contract-based, the sector began to attract a broader range of lenders and investors. These developments laid the foundations for the increasingly sophisticated and structured financing solutions that characterise the market today.

Evolution of Financing Approaches

As the sector matured, lenders became increasingly comfortable viewing data centres as a bankable asset class. This was driven by longer-term customer contracts – particularly with hyperscale customers, often with investment-grade credit ratings – greater transparency of recurring revenues and improved availability of operational data.

Financing structures evolved accordingly. While real estate financings remain common, particularly for smaller assets or early-stage developments, larger transactions increasingly display characteristics associated with infrastructure or project finance, with lenders primarily placing reliance on project revenues. As operators expanded their platforms, lenders

also became more willing to finance portfolios rather than individual assets. In more mature markets, in particular in the United States, this evolution has been more advanced, with a deeper pool of institutional capital and more established project finance-style structures.

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Current Market Landscape

— Overview of Financing Structures

The European data centre financing market now spans a broad spectrum of financing solutions, reflecting differing stages of development, risk profiles and business models. The composition of lenders varies accordingly – at one end, private credit providers are willing to finance higher risk assets (such as AI-focused data centres supported by shorter-term customer contracts), while at the other, institutional investors tend to focus on portfolios of stabilised assets backed by hyperscale customers.

Real Estate Finance

Some lenders approach data centre financings through a real estate finance lens, historically placing significant emphasis on the value of land and physical assets rather than on operational performance or cash-flow generation. While structure, tenor and pricing are often influenced by the extent of pre-letting, risk assessment typically focuses on asset value and sponsor strength.

Real estate-style financing remains particularly suited to land acquisition and early-stage development where no customer contracts are in place, as well as certain pre-let single-asset projects.

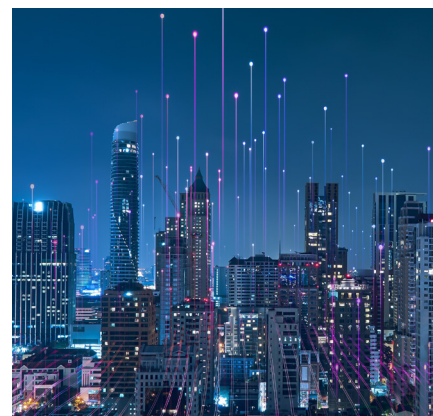
Project Finance

Project finance remains a cornerstone of large-scale data centre development, particularly where assets are supported by long-term offtake arrangements. In a single-asset structure, financing is typically provided to a special purpose vehicle on a limited-recourse basis, with lenders relying primarily on project revenues. Bankability is usually underpinned by one or more long-term contracts, often with

hyperscalers, although co-location facilities have also been financed this way, albeit less frequently.

During the construction phase, a key focus for lenders is ensuring that completion risk is appropriately allocated and mitigated before relying on operational cash flows. This is commonly achieved through sponsor completion guarantees, fixed-price and date-certain EPC wrap arrangements, milestone-linked drawdown conditions, or a combination of these measures, designed to ensure that cost overruns, delays and completion shortfalls do not compromise debt repayment. Once construction risk has been satisfactorily mitigated and the facility reaches operations, the financing generally transitions to a more traditional limited-recourse profile.

Lenders will typically require a comprehensive security package covering the shares in the project company, the project site and related real property interests, project bank accounts, material contracts (including customer contracts), receivables, insurances and, where permissible, key operational permits and licences. Security may also extend to major equipment



and other project assets. As with other infrastructure financings, the effectiveness of this security package can be influenced by practical constraints, including restrictions on granting or enforcement of security over customer contracts.

Project finance of multiple development assets builds on the same principles but introduces additional complexity. Lenders must assess whether a default at one project should trigger drawstops or cross-defaults across the portfolio, depending on the relative importance of the affected asset. Financial covenants are typically tested at portfolio level, enabling risk to be distributed across multiple assets.

Blended Financing Structures

In some cases, financings are deliberately structured to evolve over time. A common approach is for a development-phase data centre to be initially financed using a real estate structure, with built-in flexibility to transition to an infrastructure-style regime once a qualifying customer contract has been secured.

Such structures allow the financing to reflect the asset's changing risk profile as it moves from speculative development to contracted operations. The transition may trigger changes such as the release of sponsor guarantees, adjustments to covenant packages or revised cash-flow controls, aligning the financing more closely with long-term operational risk.

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Borrowing Base Facilities

Borrowing base facilities have more recently appeared in the European data centre market, drawing on structures long used in the United States. These umbrella financings support a pool of data centre assets, allowing projects to be added or removed over time.

Debt capacity adjusts dynamically as the pool evolves, with availability linked to asset value, development stage and operating performance. Loan-to-cost or loan-to-value ratios may vary depending on whether projects are in early development, under construction or stabilised.

Equipment Financing (GPU Financing)

Traditional data centre financings typically focus on the “shell” – land, buildings and core infrastructure – while customers own and operate their IT equipment (GPUs, servers, racks). AI-focused data centres increasingly deviate from this model, with developers often owning both the underlying data centre infrastructure and the computing hardware, and offering services through models such as GPU as a Service or Compute as a Service.

This materially increases capital requirements and has given rise to a range of ownership and financing structures. In some cases, a single developer owns both the data centre infrastructure and the underlying hardware. In others, ownership is separated, with a dedicated asset-owning entity acquiring the GPUs and leasing them under a “bare metal” arrangement to an operating company, which in turn provides compute services to end customers such as AI platforms. The operating company may itself own the underlying data centre infrastructure or, alternatively, obtain capacity under a separate colocation or services arrangement with a third-party data centre operator. In some structures, the data centre infrastructure is owned by an affiliate, with the operating company accessing the

infrastructure pursuant to an intra-group lease or services arrangement.

Given their different risk profiles and technological life cycles, the data centre infrastructure and the compute hardware are frequently financed separately in order to optimise leverage and align debt tenors with the underlying assets. The financing of hardware carries distinct risks – particularly hardware obsolescence and rapid technological change. As a result, equipment financings are typically structured with shorter tenors – often up to five years – and amortisation profiles aligned with hardware refresh cycles. Chips, servers and racks are commonly used as collateral, with conservative leverage reflecting technology risk. Where financing of the hardware relies on revenues generated under customer contracts and access to third-party or affiliated data centre infrastructure, lenders may also require contractual protections – including direct agreements, step-in rights and other arrangements relating to key customer and infrastructure contracts – in order to preserve access to the underlying revenue streams.



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HoldCo-level Portfolio Financing

Once a platform reaches scale, HoldCo level portfolio financings are commonly used to refinance multiple project level financings, simplifying debt management by consolidating lender groups and relying on aggregate cash flows rather than asset level controls. While more closely resembling corporate lending than classic project finance, these structures often retain project style features, with scale and diversification acting as key credit drivers.

Subordinated debt is also increasingly used to support data centre capital structures. This may take the form of structurally subordinated financing provided at HoldCo level, sitting behind asset-level senior debt and secured by equity interests in the underlying project companies, or contractually subordinated financing at borrower level, ranking behind senior lenders pursuant to an intercreditor arrangement. Structurally subordinated facilities may support either a single asset or a portfolio of assets, whereas contractually subordinated debt is more commonly used in single-asset financings.

Where multiple layers of financing coexist within the same platform – such as a (senior) HoldCo-level portfolio financing alongside subordinated debt – intercreditor arrangements can become a significant feature of the capital structure.

Larger platforms also frequently adopt ‘DevCo / YieldCo’ structures, separating development phase assets from stabilised, income generating assets. Development phase assets sit within a DevCo funded by higher risk capital, while operational assets are held at YieldCo level and appeal to institutional investors seeking stable, long term cash flows, facilitating capital recycling as assets stabilise and are refinanced at lower cost.

Capital Markets Solutions

Capital markets financing is expected to become an increasingly important source of funding for the data centre sector, particularly as project sizes and overall capital requirements continue to expand beyond the capacity of traditional lending markets alone. While capital markets activity in Europe has historically been limited compared to the United States, the market appears to be approaching an inflection point as sponsors seek access to deeper pools of long-term capital and a broader investor base.

Project bond issuance, in particular, is expected to play a growing role in financing large-scale developments and refinancing operational assets. In the United States, the market has already demonstrated the viability of construction-phase bond financings across both investment-grade and high-yield formats, supporting increasingly large and complex data centre projects. Although much of the recent high-yield issuance has been concentrated among former cryptocurrency mining operators transitioning to AI and data centre infrastructure, established developers and operators are now also accessing the bond market, indicating a broadening of investor acceptance of the asset class.

As the European market continues to mature, project bonds may offer an attractive complement to traditional bank and private credit financing, particularly for larger hyperscale campuses and multi-phase developments. The ability to access significant volumes of capital at longer tenors may be particularly valuable in regions such as the Nordics, where abundant power availability and large-scale development opportunities are driving substantial investment activity. Over time, the emergence of a more active project bond market could further diversify funding sources, improve refinancing options and support the continued scaling of the European data centre sector.

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Securitisations

Europe has recently seen its first data centre securitisations. While still at an early stage, these transactions demonstrate the potential for capital markets solutions where portfolios are of sufficient scale and concentrated within a single jurisdiction. Regulatory fragmentation and differing rating methodologies remain challenges, although greater consistency is emerging.

Credit Tenant Lease (CTL) Financings

CTL financings rely on long-term net leases to creditworthy tenants, with lender risk concentrated on tenant credit rather than asset operations. While capable of supporting attractive terms, CTLs remain niche, as most hyperscale arrangements assign operational responsibility to the owner rather than the tenant.

Recent Trends and Underwriting Considerations

Recent developments have sharpened focus on several key themes, which are increasingly central to lender underwriting.

Power Availability

Power availability has become the most significant constraint on development and financing, with grid connection timing and capacity often decisive for project viability. Grid congestion in established data centre hubs is now a critical underwriting consideration, not only influencing transaction structuring but also accelerating a shift towards new and emerging locations. In particular, there has been a growing development of so called “tier 2” markets – secondary cities and regions that offer comparatively greater power availability, more flexible planning regimes and lower land costs. While these locations may lack the established connectivity and ecosystem of traditional hubs such as Frankfurt, London, Amsterdam, Paris and Dublin (known as “FLAP-D”), improvements in network infrastructure and latency have narrowed this gap, making them increasingly viable for certain workloads. As a result, both developers and lenders are placing greater emphasis on the trade off between access to power and the relative maturity of the location, with tier 2 markets becoming an increasingly important part of location and investment strategies.



AI

AI has become one of the most significant drivers of data centre investment and financing activity, accelerating demand for capacity and attracting a growing number of new developers, operators and capital providers into the sector. This growth is driving substantial development of both AI inference facilities, which support consumer-facing AI applications and are typically located close to end users, and AI training facilities, which can be developed in regions with abundant, low-cost power, including the Nordics. While both asset classes are benefiting from strong current demand, lenders are increasingly distinguishing between them in underwriting. Inference-focused facilities are generally viewed as benefiting from more durable demand and greater flexibility for alternative cloud and hyperscale uses, whereas the long-term demand profile for dedicated AI training facilities remains less certain and their specialised nature may limit repurposing options. As a result, financiers are placing increasing emphasis on asset location, customer quality, utilisation assumptions and the adaptability of facilities to evolving technology and demand trends.

Customer Contracts

There is also an increased focus on the strength and structure of customer contracts and lease arrangements. Lenders typically place significant weight on long-term agreements with creditworthy counterparties, such as hyperscale tenants, which provide strong visibility and stability of cash flows. However, in the context of AI-focused data centres, some lenders are increasingly willing to underwrite shorter-term contracts with so-called “neocloud” providers, whose business models and credit profiles differ from those of established hyperscalers. While this reflects evolving demand dynamics and the rapid growth of AI workloads, it also introduces additional underwriting complexity and risk, meaning that such structures are generally approached with greater caution and more conservative assumptions.

Sponsor and Developer Quality

Sponsor and developer quality is also becoming an increasingly important differentiator in lender underwriting. While strong demand for data centre capacity has attracted significant volumes of capital and numerous new market entrants, financing terms continue to vary materially depending on the experience, operational track record and scale of the sponsor and developer. Established platforms with proven delivery capabilities, long-standing customer relationships, diversified portfolios and demonstrated operational performance are generally viewed as presenting lower execution and business risk, often benefiting from greater leverage, more flexible covenant packages and broader financing options.

Scale

Scale is another defining trend. Larger campuses benefit from economies of scale but introduce additional complexity around power procurement, phasing and capital deployment, all of which require careful assessment. As platforms mature, developers are also increasingly able to refinance at holdco level, supported by diversified and stabilised income streams.

Cooling

Cooling requirements are also becoming an increasingly important underwriting consideration, particularly as AI workloads drive significantly higher rack densities and heat generation than traditional data centre applications. Access to efficient and sustainable cooling solutions can have a material impact on operating costs, energy consumption and overall project viability. This has contributed to growing interest in jurisdictions such as the Nordics, where naturally cooler climates can reduce cooling requirements and improve energy efficiency. Combined with abundant renewable energy resources, this can enhance both project economics and sustainability credentials.

ESG

Environmental and sustainability considerations have become embedded in underwriting, with energy efficiency, renewable sourcing and water usage now forming a core part of lender due diligence. These considerations are increasingly aligned with established frameworks such as the LMA Green Loan Principles and Sustainability-Linked Loan Principles, which provide a reference point for structuring and assessing sustainable financing in the sector.



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Debt Diversification

A further defining feature of the current market is the diversification of debt sources. Against the backdrop of significantly increased capital requirements, sponsors and developers are drawing on a broader mix of financing options to fund development pipelines and platform growth. Traditional bank lending is now complemented by infrastructure debt funds, private credit, institutional capital, capital markets solutions and, in some cases, asset-backed or equipment-specific financings, particularly for AI-driven projects. Export credit agencies (ECAs) and development finance institutions (DFIs) are also playing an increasingly important role in certain transactions, particularly where projects involve significant procurement of equipment from ECA-eligible jurisdictions or where projects are located in emerging markets where DFI participation can help mobilise private capital and enhance bankability. This increased diversity of lenders also requires a more nuanced understanding of differing credit appetites, return expectations and structuring requirements. Each category of capital brings distinct approaches to risk allocation, covenant packages and tenor, making it increasingly important to seek alignment of financing structures with the specific requirements and preferences of the relevant lender base.



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Documentation

From a documentation perspective, there is no one-size-fits-all approach to data centre financings. The wide variety of asset types, revenue models and risk profiles means that financing documentation remains highly bespoke.

The documentation used is heavily dependent on the underlying structure – whether real estate, infrastructure, project finance, portfolio, equipment finance or a hybrid approach – as well as the level of development risk, the type of customer and technological exposure. In practice, documentation frequently blends concepts from multiple precedent frameworks to reflect the commercial reality and risk profile of the transaction.

Future Outlook

Data centre financing in Europe has evolved rapidly alongside the sector itself. The shift from a niche real estate segment to a core infrastructure asset class has driven increasingly sophisticated financing solutions capable of accommodating scale, technological change and long-term operational risk.

While challenges relating to power availability, grid access and sustainability are likely to persist, demand for digital infrastructure remains resilient. At the same time, rising capital requirements are prompting sponsors and developers to draw on a broader and more diversified range of financing options to fund development pipelines and platform expansion. This is expected to drive continued diversity in financing structures and a further broadening of the lender base.

Against this backdrop, the combination of increased funding needs, refinancing requirements and greater structural complexity underscores the importance of market participants maintaining a clear understanding of evolving financing approaches, lender requirements and risk allocation. Greater alignment and transparency across the market will be key to supporting efficiency and liquidity. The LMA will continue to work with market participants to facilitate this process.

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To learn more about the LMA's work to support efficiency, liquidity and transparency in the EMEA loan markets, please visit the LMA's website:

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