

High-Coupon Credit for Data-Centre Developers: What Lenders Want

How high-yield private credit underwrites Gulf data-centre development, and how a sponsor who understands the pricing of each risk block can compress the coupon

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ABSTRACT

Background. Data-centre developers in the Gulf increasingly finance construction with private credit at double-digit coupons, and many sponsors read the coupon as a judgement on their sector rather than as a decomposable price. **Objective.** This paper explains, from the lender's side of the table, how a private credit committee underwrites a Gulf data-centre development loan: how the coupon is built from identifiable risk blocks, how the security package and structural features substitute for what cannot be priced, and which sponsor actions compress the coupon and by how much. **Approach.** The paper develops a risk-block decomposition framework grounded in the theory of credit rationing, secured lending and project finance, and applies it to a reference project calibrated to current market terms: a USD 500 million, 60 MW development financed with USD 325 million of five-year private credit at a 15 per cent all-in coupon. All base-case calibrations are recorded in a single register and drawn from transaction practice in the region. **Findings.** The double-digit coupon decomposes into a base rate plus premia for development, construction, offtake, power, sponsor and enforcement risk, together with an illiquidity premium. Verifiable risks are priced in the coupon; unverifiable risks are absorbed through security, covenants and cash control. Contracted offtake of sufficient tenor, a credible construction wrap and enforceable offshore security are the largest compressible items, with a combined effect of 400 to 600 basis points on market terms. **Implications.** Sponsors can engineer their own pricing by sequencing de-risking actions before launch; credit funds can defend premium pricing only on blocks the sponsor cannot remove.

Highlights

- A 15 per cent coupon prices six separable risk blocks, not the data-centre sector
- Lenders price what they can verify; what they cannot verify they take in structure
- Contracted offtake matching debt tenor is the largest single compressible premium
- Staged de-risking compresses the coupon by 400 to 600 basis points
- A fundable sponsor pack answers the credit committee before it convenes

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Keywords: private credit, data centres, direct lending, project finance, security packages, covenant design, Gulf Cooperation Council, coupon pricing

This paper is an educational and structural analysis prepared for research purposes. It is not investment advice, an offer, or a solicitation. It contains no client information.

1. INTRODUCTION

A data-centre developer in the Gulf who takes a construction financing proposal from a private credit fund in 2026 will typically see an all-in cost of debt in the mid-teens: a cash coupon in the low teens, original issue discount, perhaps a payment-in-kind toggle, an equity kicker, and a security package that reaches into every contract and account the project owns. The first reaction of many sponsors is indignation. The asset class is the most discussed infrastructure theme of the decade; hyperscale demand is visible to everyone; the sponsor's own conviction is total. Why, then, is the debt priced as if the project were distressed?

This paper argues that the question is badly posed, and that reposing it correctly is worth several hundred basis points to the sponsor. A double-digit coupon on data-centre development debt is not a verdict on the sector. It is the sum of prices attached to specific, identifiable risk blocks: development and permitting risk, construction and delivery risk, merchant or short-tenor offtake risk, power availability risk, sponsor balance-sheet thinness, and jurisdictional enforcement uncertainty, plus a premium for the illiquidity and complexity of the instrument itself. Each block is priced, structured around, or declined on its own terms. A sponsor who understands how the credit committee decomposes the loan can remove several blocks before launch and materially compress the coupon. Conversely, where a block cannot be removed, the lender will take payment in structure rather than price: covenants, collateral, cash control and step-in rights. Understanding that exchange rate, between coupon and structure, is the second half of the sponsor's education.

The paper is written primarily for the sponsor: the data-centre and digital-infrastructure developer or operator in the Gulf who will borrow from international private credit, direct-lending and special-situations funds. It is written secondarily for those funds, who will recognise the framework and may find the sponsor-side articulation useful in their own origination conversations. The arithmetic throughout is anchored to a single reference project whose base-case calibrations, drawn from the author's transaction experience in the region, are recorded in Section 4 and Appendix A.

1.1 Research questions

The paper addresses three questions.

- **RQ1.** How does a private credit committee decompose a Gulf data-centre development loan into risk blocks, and how is each block priced in the coupon or absorbed in structure?
- **RQ2.** What does the full security and structural package of a high-coupon data-centre financing consist of, and what economic function does each element serve?
- **RQ3.** Which sponsor actions compress the coupon, in what sequence, and by how much?

1.2 Contributions

The paper makes four contributions.

1. It provides, to the author's knowledge, the first working-paper treatment that maps the classical theory of credit rationing, secured lending and project finance onto the specific case of Gulf data-centre development credit, written from the sponsor's decision perspective. 2. It formalises a risk-block decomposition framework in which the coupon is an additive stack of premia and the structure set is the lender's response to unverifiable residual risk, and states five testable propositions derived from it. 3. It presents the security package and the structural features of high-coupon deals qualitatively but in operational detail: what each instrument is, why the lender wants it, and what it costs the sponsor to give. 4. It offers a coupon-compression playbook with the pricing effect of each de-risking action stated as a market range, allowing a sponsor to sequence pre-launch work by return on effort.

1.3 Roadmap

Section 2 reviews four strands of literature and closes with five propositions. Section 3 sets the institutional context: why high-coupon private credit is the marginal lender to Gulf data-centre development. Section 4 defines the framework formally and records the base-case calibrations. Section 5 is the core analysis: the underwriting, block by block, with the security package and structural features. Section 6 turns the analysis around into the sponsor's playbook. Section 7 tests the sensitivity of the conclusions. Section 8 discusses implications for sponsors and credit funds and compares the Gulf with the United States and Europe. Section 9 states limitations and future research, and Section 10 concludes.

2. LITERATURE REVIEW AND PROPOSITIONS

Four strands of literature bear directly on how a private credit fund underwrites a data-centre development loan. Each is reviewed briefly, and each subsection closes with its implication for Gulf data-centre credit.

2.1 Credit rationing and information asymmetry

The foundational result of Stiglitz and Weiss (1981) is that when lenders cannot observe borrower quality or actions, the interest rate itself becomes a screening and incentive device, and beyond some threshold lenders ration credit rather than raise price, because higher rates attract worse borrowers and induce riskier behaviour. Jensen and Meckling (1976) supply the underlying agency logic: levered equity holds a call option on the assets and gains from risk-shifting at the lender's expense. Myers (1977) adds the debt-overhang result: risky debt outstanding can cause equity to pass up positive net present value investment, which matters acutely for a development-stage borrower whose value is almost entirely growth options. Diamond (1984) shows why delegated monitoring by an intermediary is efficient, and Diamond (1991) shows why reputation-poor borrowers must begin with monitored, expensive credit before graduating to cheaper arm's-length debt. Holmstrom and Tirole (1997) formalise the requirement that the borrower retain enough capital at risk to make diligence credible: outside finance is limited by the pledgeable share of returns. Myers and Majluf (1984) explain why informed sponsors prefer debt to dilutive equity even at high coupons, which is precisely the situation of a conviction-rich, capital-poor data-centre developer.

Implication for Gulf data-centre credit. A first-time or thinly capitalised Gulf data-centre sponsor is the textbook Diamond (1991) borrower: no repayment reputation, high information asymmetry, and value concentrated in unobservable execution ability. The theory predicts exactly what is observed: monitored, covenant-heavy, expensive credit as the entry product, with the coupon rising in the unverifiable component of risk until, beyond a point, the lender declines rather than prices. The sponsor's task is to convert unverifiable claims into verifiable facts.

2.2 Secured lending, collateral and enforcement

Collateral in this literature is not primarily a recovery asset; it is an incentive and screening device whose value depends on what it fetches when seized. Hart and Moore (1994, 1998) model debt as a contract defined by the creditor's right to seize assets when payments stop, and show that debt capacity is bounded by the liquidation value of collateral in the creditor's hands, not in the borrower's. Shleifer and Vishny (1992) add the market-equilibrium point: when a borrower defaults, the natural buyers of its specialised assets are usually distressed too, so liquidation values are procyclical and specialised collateral supports less debt than its book value suggests. Aghion and Bolton (1992) reinterpret the whole package as an allocation of control rights contingent on performance: default is the trigger that shifts control from equity to creditors. Townsend (1979) and Gale and Hellwig (1985) supply the costly-state-verification logic behind standard debt: a fixed claim plus the right to inspect and seize in default economises on verification costs. Djankov, McLiesh and Shleifer (2007) show

empirically across countries that private credit deepens where creditor rights are stronger and enforcement more predictable. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) provide the broader legal-origins backdrop.

Implication for Gulf data-centre credit. A data centre is close to the Shleifer-Vishny worst case as physical collateral: highly specialised, expensive to repurpose, and saleable mainly to other data-centre operators whose appetite is correlated with the defaulting borrower's condition. Where onshore enforcement is slower or less tested, the effective collateral value falls further. The theory therefore predicts that lenders will engineer around the asset: share pledges enforceable offshore, assignment of receivables, and control of cash, because contractual collateral that can be enforced predictably is worth more than physical collateral that cannot.

2.3 Project finance and non-recourse debt

Esty (2004) frames project finance as a response to precisely the agency and underinvestment problems above: a standalone entity with contractually allocated risks, concentrated debt, and high leverage made feasible by verifiable cash-flow contracts. Brealey, Cooper and Habib (1996) emphasise that the essence of project finance is the allocation of each risk to the party best able to bear it, with the financing structure as the enforcement mechanism. Smith and Warner (1979) provide the costly-contracting view of covenants: covenants exist because they cheaply constrain the specific behaviours that transfer value from creditors to equity. Bolton and Scharfstein (1996) analyse how the number of creditors and the design of default rights trade off strategic default deterrence against inefficient liquidation, which speaks to why development loans are typically provided by one fund or a small club rather than a syndicate.

Implication for Gulf data-centre credit. A data-centre development sits between corporate credit and classical project finance. When offtake is contracted with a strong counterparty for a term matching the debt, the project-finance technology applies almost fully and pricing converges towards infrastructure levels. When offtake is merchant or short-tenor, the central verifiable contract is missing, the technology degrades, and the loan is priced as a hybrid: project-finance security with high-yield economics. The coupon gap between those two states is, in effect, the market price of the missing contract.

2.4 Private credit, direct lending and covenant design

The modern private credit market descends directly from the monitoring logic of Diamond (1984) and the covenant analysis of Rajan and Winton (1995), who show that covenants and collateral are complements to monitoring: they give the informed lender both the incentive and the trigger to act early. Park (2000) shows that concentrating the debt in a single senior informed lender maximises monitoring incentives, which is the structural signature of direct lending. Denis and Mihov (2003) document empirically that the lowest-quality and least-reputed borrowers select into non-bank private debt, the middle into bank debt, and the strongest into public bonds, confirming Diamond (1991) in the cross-section. In this literature the direct lender's product is not money but underwriting intensity: bespoke diligence, bespoke covenants, milestone controls and a relationship in which waivers and amendments are negotiated bilaterally and priced.

Implication for Gulf data-centre credit. The marginal lender to a Gulf data-centre developer is a fund whose economics require both a high contractual return and demonstrable downside protection, and whose comparative advantage is exactly the bespoke monitoring the borrower type requires. The sponsor should therefore expect covenant intensity and information rights far beyond bank practice, and should read them not as distrust but as the mechanism that makes the loan possible at all.

2.5 Propositions

The review yields five propositions that organise the remainder of the paper.

1. **Proposition 1 (decomposability).** The double-digit coupon on Gulf data-centre development debt prices a bundle of separable risk blocks rather than a sector-level judgement; where a block is verifiably eliminated before signing, its premium is negotiable away. 2. **Proposition 2 (price versus structure).** Risks the lender can verify and quantify are priced in the coupon; risks the lender cannot verify are absorbed in structure, through collateral, covenants, cash control and contingent control rights, and beyond a threshold of unverifiability the lender rations rather than prices, consistent with Stiglitz and Weiss (1981). 3. **Proposition 3 (enforcement-weighted collateral).** The coupon-reducing power of a security package increases with the redeployability of the collateral and the predictability of its enforcement; in the Gulf, contractual and offshore structural security carries more pricing weight than onshore physical mortgages. 4. **Proposition 4 (offtake primacy).** Contracted offtake from a creditworthy counterparty with tenor at least equal to the debt is the single largest compressible premium, because it converts a merchant development into a receivables-backed credit and restores the project-finance technology. 5. **Proposition 5 (credible sponsor support).** Sponsor-level support instruments, completion guarantees, cost-overrun facilities and contingent equity, substitute for balance-sheet thinness at a defined price, and their pricing effect depends on the verifiable credibility of the support rather than its nominal size.

These propositions are developed operationally in Section 5, converted into the sponsor's playbook in Section 6, stress-tested in Section 7 and discussed in Section 8.

3. INSTITUTIONAL AND MARKET CONTEXT

This section explains why the marginal lender to Gulf data-centre development is a high-coupon private credit fund rather than a bank, and what features of the Gulf environment shape the underwriting.

3.1 The AI demand shock and the developer population it created

The rapid growth in demand for artificial-intelligence training and inference capacity has changed both the scale and the population of data-centre development in the Gulf. Governments in the region have made digital infrastructure a stated policy priority, hyperscale cloud and AI firms have publicly announced regional ambitions, and land, power and capital have been directed towards the sector. The demand shock has done two things to the borrower population. First, it has pulled forward projects of a size that the region's developers have not previously delivered, so that even experienced sponsors are operating beyond their track record. Second, it has attracted new entrants: real-estate developers, family groups, telecommunications spin-outs and first-time platforms, many with thin balance sheets relative to project size and no history as borrowers of institutional scale. Both effects raise the unverifiable component of credit risk exactly as the theory of Section 2 describes, and both push the borrower towards the monitored, expensive end of the credit spectrum.

3.2 Why banks are not the marginal lender

Regional and international banks do lend to Gulf digital infrastructure, but predominantly to a narrow slice: operating assets with contracted cash flows, government-linked sponsors, or corporate facilities to investment-grade groups. Development-stage lending to independent sponsors sits poorly with bank constraints for several reasons. Construction-phase project risk consumes regulatory capital heavily and sits awkwardly in bank risk frameworks when the offtake is uncontracted. Banks are institutionally cautious about asset classes without long regional default histories. Internal single-name and sector concentration limits bind quickly when individual projects are large. Credit processes calibrated to amortising, covenant-standard facilities adapt slowly to milestone-drawn development debt with bespoke controls. None of this means banks are absent; it means that for the specific product a development sponsor needs, a large, fast, flexible construction facility against a partly merchant asset, the bank is rarely the marginal price-setter. The marginal lender is the

international private credit, direct-lending or special-situations fund, and the pricing conventions of that market, absolute-return targets, original issue discount, call protection and equity participation, follow it into the sector.

3.3 Enforcement considerations across GCC jurisdictions

Creditor enforcement in the Gulf requires careful, jurisdiction-specific analysis. The GCC states have invested substantially in creditor-friendly reform: modern insolvency statutes, moveable-collateral registries, and, in the United Arab Emirates, common-law financial free zones, the Dubai International Financial Centre and the Abu Dhabi Global Market, whose courts apply familiar commercial law and whose judgments interact with onshore courts through defined gateways. At the same time, several practical realities shape lender behaviour. Enforcement of security over onshore land and buildings can involve procedures that are slower and less tested for this asset class than lenders would like, and foreign ownership of onshore real property is restricted in various ways across jurisdictions. Precedent for the enforcement of security over an operating data centre, as distinct from generic commercial property, is thin everywhere in the region. Court-supervised reorganisation regimes are young, and the behaviour of local courts in a contested, large-scale infrastructure insolvency is not yet richly evidenced. The rational lender response, predicted by Proposition 3, is not to abandon security but to relocate it: hold shares of the project company through a free-zone or offshore holding structure whose pledge is enforceable in a predictable forum, take assignment of contracts and receivables governed by English law, and control cash through accounts held with institutions and in places where account security is routine. Enforcement uncertainty is thereby transformed from an unpriceable block into a structured one, at some residual premium.

3.4 Power as the binding physical constraint

In most Gulf markets electricity is generated, transmitted and sold by state-linked utilities, and large new connections are allocated through utility and government processes rather than through a liberalised market. For a data-centre developer this converts power from an operating cost into a development risk: the project's viability depends on a grid connection and a supply arrangement whose timing and terms rest on administrative decisions. Tariff levels for large industrial users are, in general, internationally competitive, and several jurisdictions offer credible renewable or clean-energy supply structures, which matters to hyperscale tenants with sustainability commitments. But from the lender's chair the question is narrower: does this project hold an executed, unconditional connection and supply arrangement for the load it needs, on dates consistent with the construction schedule? Until the answer is yes, power availability is a distinct risk block with its own premium.

4. DATA AND METHODOLOGY

4.1 The risk-block decomposition framework

The framework prices a development loan as an additive stack and treats structure as the residual absorber. Formally, the all-in coupon c on a data-centre development facility is written as

$$c = r + \sum_k p_k + m,$$

where r is the risk-free-plus-funding base rate for the tenor, p_k is the premium attached to risk block k , and m is a margin for the illiquidity, complexity and origination cost of the instrument. The risk blocks k are: (i) development and permitting, (ii) construction and delivery, (iii) offtake and revenue, (iv) power availability, (v) sponsor balance sheet and track record, and (vi) jurisdiction and enforcement. Each premium p_k is decreasing in the verifiable de-risking evidence the sponsor supplies, bounded below by zero when the block is

fully contracted away, and defined only up to the lender's verification frontier: where evidence cannot make residual risk quantifiable, the lender does not raise p_k further but instead demands structure, s_k , drawn from the set of security, covenant, cash-control and support instruments, or declines. The sponsor's optimisation is to spend pre-launch effort and money on the blocks where the ratio of premium reduction to de-risking cost is highest, subject to the structure set remaining acceptable to its equity.

Three clarifications define what the framework does and does not do. First, it is an organising device for negotiation and preparation, not an econometric model: the premia are market ranges observed in transaction practice, not coefficients estimated from a dataset. Second, additivity is an approximation; in reality blocks interact, and Section 7 examines the interactions that matter. Third, the framework prices a single senior secured development facility; mezzanine tranches, preferred equity and vendor financing are outside scope.

4.2 The reference project and base-case calibrations

All arithmetic in Sections 5 to 7 refers to one reference project, Project Falcon, an archetype constructed to represent the current generation of Gulf data-centre developments; it is not a real project and resembles no specific transaction. Table 1 records the base-case calibrations, drawn from the author's transaction experience in the region and prevailing market convention; Appendix A repeats and extends the register. Every number appearing later in the paper traces to this table.

Table 1. Base-case calibrations for the reference project (Project Falcon)

Parameter	Base case
Project	60 MW IT load campus, single Gulf jurisdiction, 24-month build
Total project cost	USD 500 million (all-in, including land rights and fit-out)
Senior debt / LTC	USD 325 million / 65 per cent loan-to-cost
Tenor and repayment	5 years, interest only, bullet with cash-sweep step-ins
Coupon (all-in 15.0 per cent)	12.0 per cent cash plus 3.0 per cent PIK; OID 2.0 points
Base rate	4.0 per cent (five-year benchmark)
Stabilised revenue / EBITDA	USD 130 million / USD 72 million per year at 95 per cent utilisation
Utilisation ramp (base)	40 / 70 / 90 / 95 per cent in operating years 1 to 4
Utilisation ramp (downside)	25 / 50 / 70 / 80 per cent in operating years 1 to 4
Cash debt service	USD 39 million per year (12.0 per cent cash on USD 325 million)
DSRA	6 months of cash debt service, funded at first drawdown
Recovery value, completed asset	60 per cent of total cost (USD 300 million) in distressed sale
Recovery value, pre-completion	35 per cent of cost spent to date

Source: author's analysis.

The coupon build-up, six block premia summing with the base rate and margin to 15.0 per cent, is introduced with Figure 1 in Section 5 and recorded in Appendix A. The coupon-compression ranges of Section 6 are likewise recorded there.

4.3 Method of analysis

Section 5 walks the credit committee's decomposition block by block, stating for each block what the lender asks, what evidence answers it, and whether the residual is priced or structured. The worked example computes loan-to-cost, debt service cover through the ramp, a downside utilisation case and a recovery analysis, using only Table 1 inputs. Section 6 inverts the mapping: for each de-risking action available to the sponsor, it states the block addressed and the pricing effect the action carries in current market terms, with the ranges internally

consistent with the Figure 1 build-up (an action cannot compress a premium by more than the premium it addresses). Section 7 varies the calibrations one at a time and jointly. The method is transparent and reproducible from the register; because no public dataset of Gulf data-centre private credit terms exists, the calibrations rest on transaction experience and market convention rather than econometric estimation, a point developed in Section 9.

5. HOW THE LENDER UNDERWRITES

5.1 The decomposition at committee

Development-stage data-centre facilities in the Gulf currently price at all-in coupons of 14 to 16 per cent for a thinly capitalised sponsor with partly merchant offtake, and the credit paper that supports such a loan is organised in a recognisable way. The committee memorandum does not debate the sector; the sector view is settled in a paragraph. It decomposes the transaction into the six risk blocks of Section 4, prices each block that can be priced, assigns structure to each residual that cannot, and tests the whole against three quantitative gates: loan-to-cost, debt service cover through the ramp, and recovery on the worst day. Table 2 summarises the decomposition as the committee sees it; Figure 1 presents the author's decomposition of a representative 15 per cent all-in coupon into its components.

Table 2. The lender's risk-block decomposition of a Gulf data-centre development loan

Risk block	What the lender asks	How it is priced or structured
Development and permitting	Are land rights, zoning, building permits and environmental clearances executed and unconditional?	50 to 100 bp while conditions remain; unpermitted projects are declined, not priced
Construction and delivery	Who wraps price and date, with what liquidated damages, standing on what balance sheet?	150 to 300 bp unwrapped; fixed-price date-certain EPC compresses it; milestone draws and retentions absorb the residual
Offtake and revenue	What share of capacity is contracted, with whom, for how long, on what termination terms?	200 to 400 bp for merchant or short-tenor revenue; receivables assigned; uncontracted revenue swept
Power availability	Is there an executed, unconditional connection and supply arrangement matching the build schedule?	50 to 150 bp until executed; executed power documents are a condition precedent to first draw
Sponsor balance sheet	Who funds cost overruns and delay interest, and can that party be compelled to perform?	100 to 200 bp for a thin sponsor; completion guarantee, overrun facility, equity funded first
Enforcement and jurisdiction	Where does the lender stand on the worst day, and in which court does it stand there?	75 to 150 bp for onshore-only security; offshore share pledge, English-law contracts and account control compress it

Source: author's analysis.

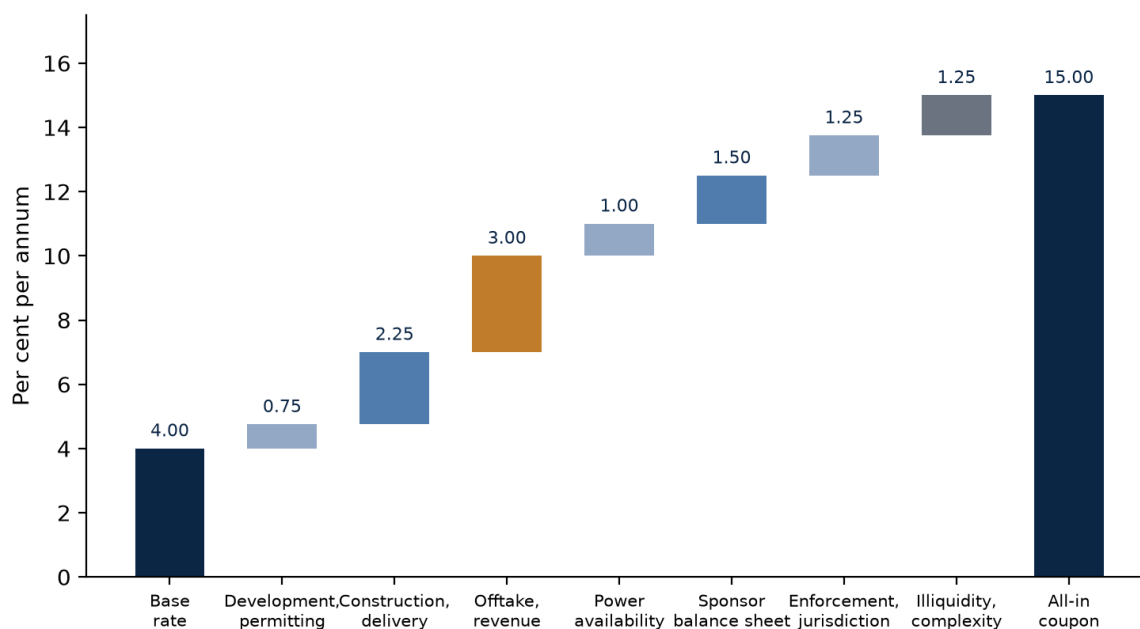


Figure 1. Decomposition of a representative 15 per cent all-in coupon on Gulf data-centre development debt

Source: author's analysis.

Two features of the decomposition deserve emphasis before the blocks are examined individually. First, the base rate and the illiquidity margin, together 5.25 percentage points in Figure 1, are not negotiable by the sponsor: they are the cost of the money and of the bespoke, buy-and-hold instrument through which it arrives. Everything above them, 9.75 percentage points in the representative build-up, is block premia, and each block premium is negotiable against evidence. Second, the block premia in Figure 1 are the residual premia after standard structure has been applied. The lender does not price a naked merchant project at 300 basis points of offtake premium; it prices at 300 basis points a project whose uncontracted revenue is already caught by a cash sweep and whose receivables are already assigned. Structure is in the price, which is why giving structure away cheaply is a sponsor error examined in Section 6.

5.2 Block by block

Development and permitting. This block behaves as Proposition 2 predicts at its extreme: it is barely priced at all, because it is barely priceable. A committee cannot quantify the probability that a zoning variance arrives or that an environmental clearance is granted; it can only verify whether these events have happened. In practice the block is handled with conditions precedent rather than coupon: land rights executed, master-plan consent issued, building permit granted, all before first draw. A residual premium of 50 to 100 basis points appears where minor conditions remain open on a defined timetable. Where material permits are outstanding with no defined path, the lender declines, and the sponsor who shops an unpermitted project to twenty funds is not conducting a process; it is educating the market against itself.

Construction and delivery. The committee's question is not whether the sponsor can build a data centre; it is who stands behind price and date, and with what money. The strongest answer is a fixed-price, date-certain engineering, procurement and construction wrap from a contractor of substance, with liquidated damages for delay sized to cover debt service during the overrun period and performance security in the form of bonds or parent guarantees. Gulf construction markets can deliver this answer, but at a price in the EPC margin, and sponsors frequently self-perform or split packages to save that margin. The lender prices the difference: an unwrapped or multi-package structure with interface risk carries 150 to 300 basis points against a fully

wrapped one, and in addition attracts tighter structure, milestone-based draws certified by the lender's technical adviser, retention accounts, and a contingency line that the sponsor funds first. Long-lead equipment is a specific committee concern: generators, switchgear and cooling plant have extended delivery times, and a credit paper that shows executed supply agreements with staged payments and security over equipment in transit reads very differently from one that shows quotations.

Offtake and revenue. This is the largest block, the heart of Proposition 4, and the place where the data-centre asset class divides in two. A campus fully leased to a creditworthy hyperscale or sovereign-linked counterparty, for a term at least as long as the debt, on terms where termination requires making the lender whole, is an infrastructure credit: the loan is underwritten to the counterparty's covenant and the premium collapses towards zero. A merchant campus, built to specification in anticipation of demand, is underwritten to a market forecast the committee cannot verify, and carries 200 to 400 basis points together with the heaviest structure in the package: assignment of all offtake receivables, revenue accounts under lender control, a full cash sweep on uncontracted revenue, and covenants restricting the terms on which future capacity may be let. Between the two poles sit the common intermediate cases, anchor leases over part of the capacity, shorter-tenor agreements with strong renewal economics, and reservation agreements that are firm in commercial intent but soft in legal force. The committee reads these documents with care, because the label matters less than three clauses: the termination rights, the credit standing of the actual signing entity, and the conditionality between the offtake and project milestones. A reservation agreement terminable for convenience compresses nothing.

Power availability. Power is underwritten as a binary with a schedule attached. The committee asks for the executed connection agreement, the load allocation, the supply tariff structure and the energisation dates, and tests them against the construction programme. Until those documents exist, the block carries 50 to 150 basis points and, more importantly, the lender will not fund: executed power documents are a standard condition precedent, because a completed shell without energy is the worst collateral in the sector. Where the documents exist but energisation dates sit close to the ready-for-service date, the committee prices the mismatch through the ramp profile of the model rather than the coupon, and protects itself with a longer-funded interest reserve.

Sponsor balance sheet and track record. The committee is candid about what it is underwriting here: the probability that the project reaches completion without the lender having to fund the gap or enforce. A sponsor with a thin balance sheet relative to a USD 500 million programme cannot absorb an overrun, and Proposition 5 states how the market solves this: support instruments substitute for equity depth at a defined price. The instruments are examined in Section 5.3; the pricing logic is that credible, funded, enforceable support, a completion guarantee from an entity with verifiable net worth, an overrun facility that is committed and conditions-light, contingent equity held in escrow, removes 75 to 125 of the 100 to 200 basis points this block carries, while unfunded comfort, letters of intent, and guarantees from entities whose accounts the lender cannot diligence remove nothing. Track record operates the same way: a delivered first phase, even a small one, converts execution ability from claim to fact, which is the Diamond (1991) graduation mechanism operating within a single sponsor's life.

Jurisdiction and enforcement. The committee does not ask whether the Gulf is creditor-friendly in general; it asks where this lender stands on the worst day with this security. As Section 3.3 set out, the answer is engineered: shares of the project company held through a financial free-zone or offshore holding company and pledged under instruments enforceable in a predictable forum; project documents and receivables assigned under English law; accounts held where account security is routine; and direct agreements giving the lender cure and step-in rights before a counterparty may terminate. With that architecture in place the block carries 75 to 150 basis points, reflecting residual onshore interface risk; without it, several funds will simply not lend, which is Proposition 2's rationing margin appearing in practice.

5.3 The security package

Figure 2 maps the package as a system of control points. Its logic is worth stating once, plainly: the lender is not collecting assets, it is collecting the ability to take over a viable project quickly, or to be paid to go away. Every element serves one of those two ends.

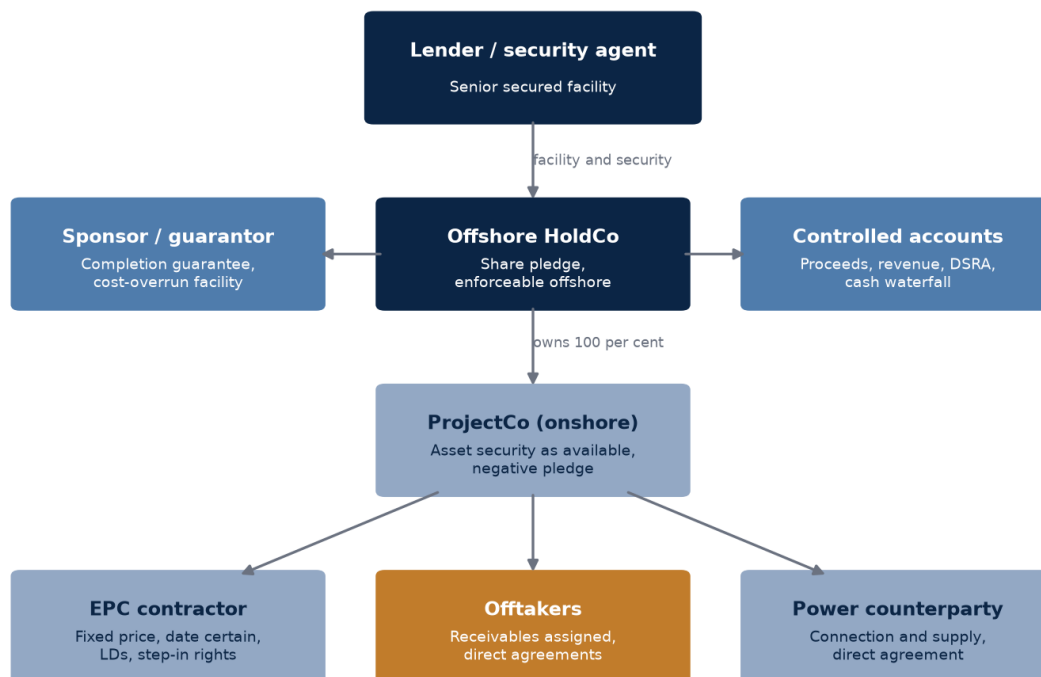


Figure 2. The security package of a Gulf data-centre development financing as a system of control points

Source: author's analysis.

Share pledge over the holding company. The single most important instrument in the package. Enforcing it transfers the entire project, contracts, permits, accounts and all, in one step, in a forum the lender trusts, without touching onshore asset enforcement. This is Proposition 3 in operation: the pledge is valuable because its enforcement is predictable, not because shares are intrinsically good collateral.

Assignment of offtake receivables and project contracts. Revenue is intercepted at source: offtakers are notified to pay into charged accounts, and the material project documents, EPC, offtake, power, operation and maintenance, are assigned by way of security so that an enforcing lender inherits the contractual fabric of the project rather than a building.

Direct agreements and step-in rights. Each material counterparty agrees to notify the lender of defaults, to hold termination for a cure period, and to accept a lender nominee stepping into the sponsor's position. Step-in converts the lender's remedy from liquidation, where Shleifer and Vishny (1992) losses live, to continuation, which for specialised collateral is where nearly all the value is.

Completion guarantee and cost-overflow support. The completion guarantee obliges the sponsor or an acceptable affiliate to fund the project to completion or repay the debt; the overrun facility pre-commits the money that promise requires. Together they close the gap that loan-to-cost measures cannot: a 65 per cent day-one LTC is meaningless if a 15 per cent overrun arrives with no funded answer.

Debt service reserve account and cash waterfall. The DSRA, funded at first drawdown with six months of cash debt service on the Table 1 calibration, buys the lender time and the sponsor tolerance during the ramp. The waterfall sequences every operating dollar, operating costs, senior interest, DSRA replenishment, then a distribution test, and the test typically holds distributions locked until cover exceeds a threshold sustained over two test dates. Cash control is the everyday face of the security package: enforcement is rare, but the waterfall works every month.

5.4 Structural features of high-coupon deals

The economics of the facility extend well beyond the coupon, and the sponsor should model all of them together as an internal rate of return to the lender, because that is exactly how the lender models them.

Original issue discount. Facilities of this type are issued at 97 to 98, two to three points of OID. On a five-year bullet this adds roughly 40 to 60 basis points to yield, funds the lender's fee economics, and, importantly for the sponsor, is money the project never receives but must repay.

Payment-in-kind toggles. A 12 per cent cash plus 3 per cent PIK structure, as in Table 1, matches the instrument to the ramp: the project pays what its early cash flow can carry and accrues the rest. Toggling additional interest from cash to PIK is typically permitted once or twice at the borrower's election, at a premium of 75 to 200 basis points on the toggled amount. PIK is not lender generosity; it is deferred claim growth, and the recovery arithmetic of Section 5.5 shows its cost.

Equity kickers and warrants. Where the committee cannot get comfortable to its return target on coupon alone, it takes 2 to 5 per cent of fully diluted equity in warrants, or an exit fee calculated to similar effect. Kickers convert lender scepticism into lender participation, and a sponsor negotiating one should trade it explicitly against coupon rather than treating it as a costless sweetener.

Prepayment protection. Non-call periods of 18 to 24 months, followed by call premia stepping down, 103, 102, 101, or a make-whole during the non-call window, protect the lender's minimum multiple on invested capital. For the sponsor this is a central negotiation: the entire logic of Section 6 is to refinance this facility once de-risking is complete, and call protection is the price of that option.

Milestone-based draws. The facility funds against certified construction progress, with each drawdown conditional on the technical adviser confirming milestones, budget adequacy to complete, and the absence of default. Draws are the lender's live monitoring instrument, Rajan and Winton (1995) made operational: the lender's real power is not the right to accelerate but the right to stop funding.

5.5 The underwriting arithmetic

The three quantitative gates are now applied to the reference project of Table 1.

Loan-to-cost. USD 325 million against USD 500 million of cost is 65 per cent LTC, the upper end of current market practice for a partly contracted development. The committee reads LTC as the sponsor's skin in the game in the Holmstrom and Tirole (1997) sense, and it reads the equity funding schedule with equal attention: equity funds first, in full, before the first debt draw.

Cover through the ramp. Table 3 and Figure 3 show debt service cover through the four operating years of the base case and the downside. Cash debt service is USD 39 million throughout (12 per cent cash on USD 325 million; the 3 per cent PIK accrues). In the base case the project covers cash service from operating year 2 and reaches 1.85 times at stabilisation. Operating year 1 does not cover, by design: the shortfall is carried by the DSRA and the funded interest reserve, which is why both exist. In the downside, utilisation 15 to 20 points lower throughout, cover crosses 1.0 times only in year 3 and the DSRA is drawn twice; the facility survives,

but every distribution test fails and the sweep traps all surplus cash. That downside surviving is the committee's actual test: the base case establishes the return, the downside establishes the loan.

Table 3. Debt service cover through the ramp for the reference project

Operating year	Utilisation, base	EBITDA, base (USD m)	DSCR, base	Utilisation, downside	DSCR, downside
1	40 per cent	18	0.46x	25 per cent	0.28x
2	70 per cent	45	1.15x	50 per cent	0.79x
3	90 per cent	63	1.62x	70 per cent	1.21x
4	95 per cent	72	1.85x	80 per cent	1.44x

Source: author's analysis. Cash debt service USD 39 million per year; PIK accrues.

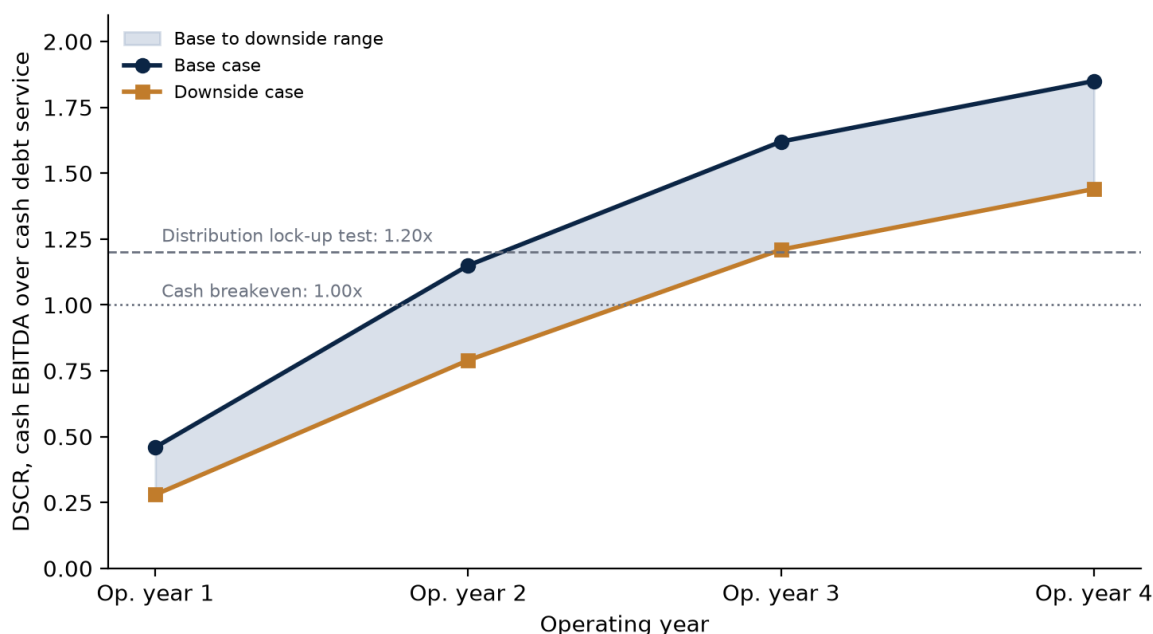


Figure 3. DSCR ramp for the reference project, base case and downside

Source: author's analysis.

Recovery on the worst day. Two default points are tested. Post-completion: by the end of operating year 2 the claim has grown with accrued PIK to roughly USD 355 million; a distressed sale of the completed, energised campus at 60 per cent of cost realises USD 300 million, a recovery of about 85 per cent, acceptable for the return on offer. Pre-completion: with 60 per cent of the budget spent, USD 195 million is drawn, and a stalled, unenergised shell realises around 35 per cent of the cost incurred, roughly USD 105 million, a recovery near 54 per cent. The gap between those two numbers explains most of the structure in this paper: completion support, milestone draws, step-in rights and the power conditions precedent all exist to keep the lender out of the pre-completion default state, where a specialised, incomplete asset meets the full force of the Shleifer and Vishny (1992) problem.

6. THE SPONSOR'S PLAYBOOK

Section 5 described the underwriting from the lender's chair. This section turns the same framework around: if the coupon is an additive stack of block premia, then the sponsor's capital-markets strategy is a portfolio of de-risking actions, each with a cost, a duration and a pricing effect, to be sequenced by return on effort. This is Proposition 1 applied as strategy.

6.1 Which actions buy what

Table 4 sets out the principal de-risking actions and the pricing effects they carry in current market terms. The ranges are bounded by the Figure 1 build-up: an action cannot compress a premium by more than the premium it addresses, and no combination of actions reaches the base rate plus margin floor of roughly 5.25 per cent, because that floor is the price of the instrument, not of the project.

Table 4. The coupon-compression playbook: de-risking actions and their pricing effects

De-risking action	Risk block addressed	Pricing effect
Signed offtake with a creditworthy counterparty, tenor at least equal to the debt	Offtake and revenue	200 to 300 bp
Fixed-price, date-certain EPC wrap with liquidated damages from a contractor of substance	Construction and delivery	100 to 150 bp
Executed grid connection and power supply agreements matching the build schedule	Power availability	50 to 100 bp
Completion guarantee plus a funded, committed cost-overrun facility	Sponsor balance sheet	75 to 125 bp
Offshore holding and security structure with English-law documents and account control	Enforcement and jurisdiction	50 to 100 bp
Reduce loan-to-cost from 65 to 55 per cent	Cross-cutting	50 to 100 bp

Source: author's analysis. Effects are not fully additive; see Section 6.2.

The single most consequential row is the first, as Proposition 4 states. A pre-let to a hyperscale or sovereign-linked tenant, on a term matching the debt with lender-friendly termination provisions, does not merely compress a premium; it changes which funds can bid. Infrastructure-debt capital that will not look at a merchant Gulf development will compete for a contracted one, and competition does the rest of the pricing work. The realistic combined effect of executing the top four or five rows before launch is 400 to 600 basis points: the difference between borrowing at 15 per cent and borrowing at 9.5 to 11 per cent, which on USD 325 million over a five-year life is of the order of USD 65 to 95 million of interest, several times the cost of every de-risking action on the list combined.

6.2 Sequencing and interaction

The actions are not fully additive, and their sequence matters more than sponsors expect.

- **Power before offtake.** No serious tenant signs a lease against unallocated power, and no lender prices a lease conditional on power as a firm lease. The grid connection and supply agreements are therefore the first milestone, even though their direct pricing effect looks modest in Table 4: they unlock the row above them.
- **Offtake before EPC finalisation where possible.** A signed anchor tenant changes the specification risk in the EPC and lets the sponsor buy the wrap for the right building. Sponsors who lock the EPC first sometimes pay twice, once for the wrap and again for the variations.
- **Structure early, not late.** The offshore holding structure and English-law document architecture cost little if built before the first contract is signed and a great deal if retrofitted across executed onshore agreements. This row should be completed before any term sheet is requested.
- **Interaction discount.** Executing the offtake row shrinks the pricing effect of the LTC row, because a contracted project supports higher leverage at the same coupon; conversely, in a merchant financing extra

equity is the strongest remaining lever. A sponsor should treat Table 4 as a menu whose prices move as items are ordered, and re-quote the market after each major milestone rather than negotiating the end-state coupon at the start.

6.3 The fundable pack

Credit committees see many Gulf data-centre proposals and fund few. The difference between a pack that gets priced and a pack that gets a polite decline is consistent, and it is not production values. A fundable pack answers the committee's questions before they are asked, in the committee's own order.

1. **The project on one page.** Location, IT load, cost, funding plan, schedule, offtake status, power status, in numbers, on page one. Committees distrust packs that open with the AI demand narrative; they have read it. 2. **The risk-block self-assessment.** The strongest signal a sponsor can send is a candid table in exactly the form of Table 2: each block, its current status, the evidence available in the data room, and the closing plan for what remains. It tells the lender the sponsor knows how it will be underwritten. 3. **Executed documents, not summaries.** The pack links to the executed land, permit, power, EPC and offtake documents. Every claim in the deck that is not supported by a document in the data room is treated by the diligence team as false until proven, and the tone of the whole process follows. 4. **A lender-ready model.** Monthly through construction, quarterly through ramp, with the DSRA, waterfall and sweep mechanics built, and a downside case the sponsor ran on itself. A model with no downside case tells the committee the sponsor has never imagined one. 5. **The support package, pre-committed.** Evidence of the completion guarantee and overrun facility, with the financial statements of the entities standing behind them. Proposition 5 in documentary form: credibility, not size.

The unfundable pack is the mirror image: narrative-led, document-light, single-case, with power described as being in advanced discussions, offtake described as a strong pipeline, and the sponsor's support described as available if required. Nothing in that sentence can be verified, so, by Proposition 2, nothing in it can be priced.

6.4 Negotiation priorities

Once term sheets arrive, sponsors habitually negotiate the coupon and concede the structure. The framework says to do nearly the opposite.

- **Trade coupon for call flexibility first.** The refinancing after de-risking is where the sponsor's value is created; eighteen months of non-call at 15 per cent costs less than three years of it at 14.5 per cent. Model the all-in cost across the realistic refinancing date, not the headline rate.
- **Protect the equity's operating room.** The covenants that hurt in practice are rarely the financial ratios; they are the consent rights over leasing terms, budget variations and change orders. Negotiate materiality thresholds and deemed-consent timelines while goodwill is high.
- **Concede information, not control.** Monthly reporting, technical adviser access and account visibility are cheap to give and build the relationship that waivers later depend on. Board seats, golden shares and approval rights over the business plan are not.
- **Size the kicker against the coupon explicitly.** Ask for the pricing grid both ways, with and without warrants, and decide with the equity model open. A 3 per cent warrant package on a successful project routinely costs more than 100 basis points of coupon would have.
- **Pre-agree the de-risking ratchet.** The most valuable clause a development borrower can win is a margin ratchet keyed to verifiable events: signed anchor lease, energisation, completion, each stepping the coupon down 50 to 150 basis points. It writes Table 4 into the contract and removes the need to refinance to capture early de-risking.

6.5 Common failure modes

Five patterns account for most failed processes. First, launching before power: the process stalls in diligence and the sponsor returns to a market that has already seen the deal. Second, treating the coupon as the deal: accepting a headline rate 100 basis points lower in exchange for three years of call protection and a heavy kicker, then discovering the all-in economics at the refinancing. Third, the uncommitted guarantee: sponsor support drafted as comfort rather than obligation, which the committee prices as absent. Fourth, over-shopping: sending the pack to twenty funds simultaneously, which converts a negotiation into a market rumour. Five or six well-chosen counterparties, run in two waves, preserve both tension and confidentiality. Fifth, hiding the weak block: diligence always finds it, and a committee that finds an undisclosed weakness re-prices not just the block but the sponsor.

7. SENSITIVITY AND ROBUSTNESS

The conclusions of Sections 5 and 6 rest on the Table 1 calibrations. This section examines how they move when the calibrations move, identifies the worst case, and states what evidence would falsify the paper's claims.

7.1 Utilisation ramp

The ramp is the single most powerful driver of the credit case. Slowing the base ramp by one year, so that the project reaches 70 per cent utilisation in operating year 3 rather than year 2, pushes cash breakeven out by a year, requires the interest reserve and DSRA to carry roughly USD 21 million of additional shortfall, and moves the year-2 DSCR from 1.15 times to about 0.85 times. The structural response is mechanical: a larger funded interest reserve, a longer distribution lock-up, and, at the pricing level, roughly 50 to 100 basis points on the offtake block. The compression logic of Section 6 is unaffected; indeed a slower expected ramp raises the value of contracted offtake, strengthening Proposition 4.

7.2 Power cost and availability

Because Gulf power tariffs for large users are competitive and broadly stable, the sensitivity that matters is availability, not price. A tariff 20 per cent above the base calibration compresses the stabilised EBITDA margin from 55 per cent towards 50 per cent, taking stabilised DSCR from 1.85 times to about 1.68 times, uncomfortable but survivable. A six-month slip in energisation, by contrast, is equivalent to a six-month construction delay on a completed building: interest accrues, no revenue offsets it, and the pre-completion recovery arithmetic of Section 5.5 applies for longer. This asymmetry justifies the underwriting treatment of power as a condition precedent rather than a priced risk.

7.3 Base rates

A 100 basis point move in the five-year base rate passes through the stack one-for-one and moves the all-in market range from 14 to 16 per cent towards 15 to 17 per cent, or 13 to 15 per cent in decline. Nothing in the decomposition changes: the block premia are spreads, and the compression playbook operates on the spreads. What does change is the refinancing calculus, since the sponsor's exit assumes a cheaper market exists at completion; a sustained rate rise narrows the compression prize of Section 6.1 from both ends.

7.4 Construction delay and cost overrun

A six-month delay with a 10 per cent overrun, USD 50 million, is the standard joint stress. The overrun facility and completion guarantee absorb the cost; the delay consumes the interest reserve and one DSRA cycle. The facility survives if, and only if, the support instruments are funded and enforceable, which is why Proposition 5

insists on credibility rather than size. Re-running the recovery test at the delayed completion date shows the claim, with additional accrued PIK, at roughly USD 370 million against an unchanged completed-asset value of USD 300 million: recovery falls towards 81 per cent, and the lender's tolerance for further PIK toggling falls with it.

7.5 Recovery values

The completed-asset recovery calibration of 60 per cent of cost is the load-bearing number in the downside. At 45 per cent of cost, recovery on the post-completion default falls to about 63 per cent, and a committee holding that view will not lend at 65 per cent LTC at any coupon; it will lend at 50 to 55 per cent LTC, which is rationing by advance rate, exactly as Proposition 2 predicts. Sponsors should therefore read aggressive advance rates offered by less experienced entrants as a signal about the lender, not about the asset.

7.6 The worst case: the stranded shell

The named worst case combines the bad tail of each block: construction completes six months late and 10 per cent over budget; the anchor prospect signs elsewhere; energisation slips behind an administrative queue; the sponsor's support entity proves unable to fund the second half of its overrun commitment; and enforcement must proceed while the asset is unenergised. In that state the project is a stranded shell: claim near USD 370 million, realisable value near USD 105 to 150 million, recovery of 30 to 40 per cent. The purpose of naming the case is to observe that every structural element in Section 5 exists to cut one strand of it: power conditions precedent make the energisation strand impossible at first draw; funded support removes the guarantee strand; milestone draws cap the exposure if construction stalls; and the offshore pledge keeps the enforcement strand short. A financing in which all five strands remain live should not proceed at any coupon, for either party.

7.7 What would falsify the claims

The paper's claims are falsifiable in three ways. Proposition 1 fails if observed pricing does not respond to block-level de-risking, that is, if fully contracted, fully wrapped, offshore-structured projects borrow at the same coupons as merchant ones of similar size. Proposition 3 fails if onshore-mortgage-only structures price inside offshore-pledge structures for comparable projects. Proposition 4 fails if tenors and counterparties of offtake prove irrelevant to pricing once utilisation forecasts are controlled for. The author's transaction experience is consistent with all three propositions, but a systematic test awaits the data discussed in Section 9.

8. DISCUSSION

8.1 Implications for the sponsor

Three implications follow for the developer. First, the coupon is a diagnostic, not a destiny. A 15 per cent quote is the market telling the sponsor which blocks remain open; read as a work list rather than an insult, it is among the most useful documents the sponsor will receive. Second, sequencing beats negotiating. The 400 to 600 basis points available in Table 4 dwarf anything achievable through competitive tension alone, and most of it is earned before the first term sheet, in the order set out in Section 6.2. Third, expensive debt taken early, structured with a short non-call and a de-risking ratchet, is often the value-maximising path: it is the Diamond (1991) graduation strategy executed deliberately, using the private credit market as the reputational on-ramp to infrastructure pricing. The alternative, waiting for cheap debt that requires a track record the sponsor does not yet have, cedes the market window to competitors willing to pay for speed.

8.2 Implications for the credit fund

For the lender, the framework carries a warning and an opportunity. The warning: coupon premia attached to blocks the sponsor can remove are temporary, and a portfolio underwritten to 15 per cent for five years will experience refinancing at month 20 unless call protection is priced as the core of the return, not an accessory. Funds should underwrite to the multiple across the realistic refinancing date and treat the ratchet of Section 6.4 as a retention tool: a borrower who can step down inside the facility has less reason to leave it. The opportunity: the durable premia in the stack are those attached to what cannot be contracted away, complexity, speed, monitoring intensity and enforcement engineering. Funds that invest in regional enforcement capability, standing offshore structures, tested documentation, local counsel depth, hold a genuine moat, because Proposition 3 says that predictable enforcement is precisely what converts an unlendable jurisdiction premium into a priced one. Funds that merely import a coupon from another market's deals hold nothing.

8.3 International comparison: the Gulf against the United States and Europe

The same decomposition applies in the United States and Europe, with the weights rearranged. In the United States, deep bank, term loan B, asset-backed securitisation and infrastructure-debt markets mean that a contracted hyperscale development rarely reaches private credit at all, and the private credit share of the market concentrates in genuinely merchant, speculative or special-situations projects; the offtake block dominates pricing, while the enforcement block is negligible because creditor rights are tested and collateral markets are liquid. Power availability has, however, risen sharply as a premium in several United States markets, where interconnection queues now play the role that utility allocation plays in the Gulf. In Europe, permitting and power constraints in the established metropolitan markets push the development and power blocks up, enforcement varies by member state but within a familiar range, and bank appetite for contracted assets is strong, so private credit again prices the uncontracted margin. The Gulf's distinctive features are the thinness of the sponsor population relative to project scale, the administrative rather than market-based allocation of power, and the enforcement engineering premium, all three of which are narrowing as the market matures. The structural prediction is direct: as track records accumulate, as free-zone security structures become standard, and as regional banks build sector experience, the Gulf stack will converge towards the United States shape, with offtake as the dominant block and the rest structural. Sponsors borrowing today at 15 per cent are, in effect, paying the market's tuition for that convergence; the ones who understand this paper's framework pay less of it.

9. LIMITATIONS AND FUTURE RESEARCH

The paper's limitations are stated plainly. First, the framework is calibrated from transaction practice rather than estimated from a dataset: no public sample of Gulf data-centre private credit terms exists, loan documents are private, and the market is young enough that any sample would in any case be small and selection-biased towards announced transactions. The premia and compression ranges are therefore the author's market view, disciplined by internal consistency, not econometric estimates. Second, the additive stack is an approximation; Section 7 treats the principal interactions, but a formal model of correlated blocks, in particular the joint behaviour of ramp, power and refinancing risk, is beyond this paper's scope. Third, the paper prices a single senior secured facility and abstracts from the capital structures now emerging around the asset class, mezzanine tranches, preferred equity, equipment financing and securitisation of contracted receivables, each of which redistributes the blocks rather than removing them. Fourth, the treatment of GCC enforcement is deliberately qualitative and general; any live transaction requires jurisdiction-specific legal advice, and nothing here substitutes for it.

Future research follows from each limitation. A loan-level database of regional digital-infrastructure credit terms, even a modest one assembled under confidentiality, would allow the propositions of Section 2.5 to be tested directly, in particular Proposition 4's claim that offtake tenor and counterparty quality dominate pricing. A structural model of the development loan as a compound option, in which the lender's milestone draws are sequential option exercises, would formalise Section 5.4. Comparative work on enforcement outcomes across the region's free zones as insolvency case law accumulates would sharpen Proposition 3 considerably. Finally, as the first generation of Gulf data-centre facilities season, refinancing outcomes will reveal how much of the compression prize sponsors actually captured, the natural test of Section 6.

10. CONCLUSION

This paper set out to answer three questions: how a private credit committee decomposes a Gulf data-centre development loan, what the security and structural package consists of and why, and which sponsor actions compress the coupon.

The answers form a single argument. A double-digit coupon on data-centre development debt is not a judgement on the sector; it is the sum of prices attached to six identifiable risk blocks, development and permitting, construction and delivery, offtake, power, sponsor depth, and enforcement, stacked on a base rate and an illiquidity margin that no sponsor can negotiate away. The committee prices what it can verify and takes structure for what it cannot: share pledges enforceable in predictable forums, assignment of receivables, direct agreements and step-in rights, completion and overrun support, reserve accounts and cash waterfalls, milestone-based funding. The high-coupon toolkit, original issue discount, PIK toggles, equity kickers, call protection, is the same exchange conducted in the currency of return rather than control.

For the sponsor, the practical content of the paper is the inversion of that underwriting. Power first, because it unlocks everything above it; offtake second, because it is the largest compressible premium and changes which lenders can bid; the construction wrap, the funded support package and the offshore security architecture behind them; the fundable pack that answers the committee in its own order; and a negotiation that trades coupon for call flexibility and writes the de-risking ratchet into the contract. Executed in sequence, these actions compress the coupon by 400 to 600 basis points and, more importantly, convert the sponsor from a price-taker educated by term sheets into a counterparty that prices its own risk.

For the credit fund, the same framework identifies which parts of today's return are durable, the premia on complexity, speed, monitoring and enforcement engineering, and which parts are a wasting asset that refinances away as sponsors learn. Both sides of the table are better served when the decomposition is explicit. The coupon is a price list. This paper has tried to print it legibly.

DECLARATIONS

Funding. The author received no external funding for this research.

Conflicts of interest. The author is the managing partner of an independent capital advisory firm that advises managers and allocators on transactions of the type discussed in this paper. No client information has been used, and no live mandate is referenced.

Data availability. The paper uses no proprietary dataset. The base-case calibrations used in the exhibits are recorded in Section 4 and Appendix A.

Disclaimer. This paper is an educational and structural analysis. It is not investment advice, an offer, or a solicitation of any kind.

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APPENDIX A. BASE-CASE CALIBRATIONS

The table below records the base-case calibrations used in the exhibits, drawn from the author's transaction experience in the region and prevailing market convention. Every number appearing in the body of the paper traces to a row in this register.

Table A1. Base-case calibrations

Item	Calibration
Project scale	60 MW IT load; USD 500 million total cost; 24-month build
Senior facility	USD 325 million; 65 per cent LTC; 5-year interest-only bullet
Coupon structure	12.0 per cent cash plus 3.0 per cent PIK; all-in 15.0 per cent
OID and fees	2.0 points OID (market range 2 to 3 points)
Base rate	4.0 per cent, five-year benchmark
Coupon build-up: development and permitting	0.75 per cent (market range 50 to 100 bp)
Coupon build-up: construction and delivery	2.25 per cent (market range 150 to 300 bp)
Coupon build-up: offtake and revenue	3.00 per cent (market range 200 to 400 bp)
Coupon build-up: power availability	1.00 per cent (market range 50 to 150 bp)
Coupon build-up: sponsor balance sheet	1.50 per cent (market range 100 to 200 bp)
Coupon build-up: enforcement and jurisdiction	1.25 per cent (market range 75 to 150 bp)
Coupon build-up: illiquidity and complexity margin	1.25 per cent
Stabilised revenue and EBITDA	USD 130 million; USD 72 million (55 per cent margin) at 95 per cent utilisation
Utilisation ramp, base case	40 / 70 / 90 / 95 per cent, operating years 1 to 4
Utilisation ramp, downside	25 / 50 / 70 / 80 per cent, operating years 1 to 4
EBITDA, base case, operating years 1 to 4	USD 18 / 45 / 63 / 72 million
EBITDA, downside, operating years 1 to 4	USD 11 / 31 / 47 / 56 million
Cash debt service	USD 39 million per year
DSCR, base case, operating years 1 to 4	0.46x / 1.15x / 1.62x / 1.85x
DSCR, downside, operating years 1 to 4	0.28x / 0.79x / 1.21x / 1.44x
DSRA	6 months of cash debt service, funded at first drawdown
Distribution lock-up test	1.20x DSCR, sustained over two test dates
Recovery, completed asset	60 per cent of cost (USD 300 million); claim with PIK circa USD 355 million; recovery circa 85 per cent
Recovery, pre-completion	35 per cent of cost spent; at 60 per cent spend, USD 105 million against USD 195 million drawn; recovery circa 54 per cent
Worst case (stranded shell)	Claim circa USD 370 million; value USD 105 to 150 million; recovery 30 to 40 per cent
PIK toggle premium	75 to 200 bp on toggled amount
Equity kicker	2 to 5 per cent fully diluted, in warrants or exit fee

Call protection	18 to 24 months non-call; premia stepping 103 / 102 / 101
Compression: contracted offtake, tenor at least debt tenor	200 to 300 bp
Compression: fixed-price date-certain EPC wrap	100 to 150 bp
Compression: executed power documents	50 to 100 bp
Compression: funded completion and overrun support	75 to 125 bp
Compression: offshore security architecture	50 to 100 bp
Compression: LTC reduced from 65 to 55 per cent	50 to 100 bp
Combined realistic compression	400 to 600 bp
De-risking ratchet steps	50 to 150 bp per verified event

Source: author's analysis.

APPENDIX B. LENDER DILIGENCE CHECKLIST

The checklist below sets out the contents of a fundable sponsor pack and the questions a credit committee will put to it. A sponsor who can tick every line before launch will run a faster process at a tighter coupon; a sponsor who cannot should treat the open lines as the work plan.

- **Corporate and structure.** Group chart showing the offshore holding company and onshore project company; constitutional documents; shareholder and intercreditor arrangements; confirmation that the share pledge can be granted and enforced in the proposed forum.
- **Land and permits.** Executed land title or long lease; master-plan and zoning consents; building permit; environmental and civil defence clearances; a schedule of any conditions outstanding with responsible party and date.
- **Power.** Executed grid connection agreement with allocated load and energisation dates; power supply arrangement and tariff structure; any clean-energy supply documentation relevant to tenant requirements; evidence the dates reconcile to the construction programme.
- **Construction.** Executed EPC contract with price, date, liquidated damages and performance security; contractor financial statements; technical adviser's review of programme and budget; long-lead equipment supply agreements with payment and title terms; contingency and its funding source.
- **Offtake.** Executed leases, capacity agreements or reservation agreements with the actual signing entities identified; counterparty credit information; termination, conditionality and assignment provisions; the leasing plan for uncontracted capacity.
- **Financial model.** Monthly construction phase and quarterly operating phase; funding cascade with equity first; DSRA, waterfall and sweep mechanics; base and downside cases with the drivers stated; the sponsor's own sensitivity table.
- **Sponsor support.** Completion guarantee and cost-overrun facility in agreed form; financial statements of the supporting entities; evidence of committed funding for both.
- **Security.** Draft security package list: share pledge, receivables assignment, account charges, direct agreements, insurances and reinsurance cut-through where relevant.

The committee's questions follow the same order. Who owns this project and where do I enforce? Is every permit in hand? Is the power real and on time? Who wraps price and date, with what money behind the wrap? Who pays me, for how long, and what lets them leave? What happens when the budget breaks, and who funds it? What do I recover on the worst day, completed and uncompleted? A pack that answers these in its own table of contents signals a sponsor who has been through the process before, which is itself worth basis points.

APPENDIX C. GLOSSARY OF KEY TERMS

Cash sweep. A covenant directing some or all surplus cash flow, after operating costs and scheduled debt service, to prepay or collateralise the debt, typically applied to uncontracted revenue in merchant or partly merchant financings.

Cash waterfall. The contractually fixed order in which project receipts are applied: operating costs, senior interest, reserve account replenishment, and only then, subject to tests, distributions to equity.

Completion guarantee. An undertaking by the sponsor or an acceptable affiliate to fund the project to completion, or repay the debt, if the project cannot complete from its own resources.

Cost-overflow facility. A committed line, from the sponsor or a support provider, available to fund construction costs above the base budget; the funded counterpart to the completion guarantee.

Debt service reserve account (DSRA). A charged account holding, typically, six months of debt service, funded at first drawdown and replenished through the waterfall, which carries the project through revenue interruptions and the early ramp.

Direct agreement. A tripartite agreement between lender, borrower and a material project counterparty in which the counterparty agrees to notify the lender of defaults, observe a cure period before terminating, and accept lender step-in.

Debt service cover ratio (DSCR). Cash flow available for debt service divided by debt service due in the same period; in this paper, cash EBITDA over cash interest, since the facility is interest-only.

Equity kicker. A lender's participation in equity upside, usually warrants over a small fully diluted percentage or an exit fee of equivalent value, taken where coupon alone does not meet the lender's return target.

Loan-to-cost (LTC). Senior debt divided by total project cost; the development-stage analogue of loan-to-value, and the committee's first measure of sponsor capital at risk.

Make-whole. A prepayment amount equal to the present value of the interest the lender would have received through the non-call period, charged when the borrower repays during that period.

Milestone-based draws. Disbursement of the facility in tranches against certified construction progress, with each draw conditional on adviser confirmation that remaining funds suffice to complete.

Offtake agreement. The revenue contract of the project: in data centres, a lease, powered-shell agreement or capacity agreement with a tenant, whose tenor, counterparty and termination terms drive the credit.

Original issue discount (OID). Issuance of the loan below par, for example at 98, so that the borrower receives less than face value but repays face value; economically, prepaid interest and fees.

PIK toggle. A borrower option to pay a portion of interest in kind, capitalising it into the principal claim rather than paying cash, usually at a premium rate on the toggled amount.

Share pledge. Security over the shares of a holding or project company; enforcement transfers control of the entire undertaking in one step and is the cornerstone of Gulf digital-infrastructure security packages.

Step-in rights. The lender's contractual right, under a direct agreement, to assume or nominate a replacement for the borrower's position in a project contract in order to preserve the project as a going concern.