Creating Conditions for Long-Term Infrastructure Investment: A Framework for Governments and Asset Owners[1]

Bridging a global infrastructure investment gap of nearly $15 trillion by 2040 requires governments to create stable macroeconomic, legal and regulatory environments that lower the cost of capital and foster long-term partnerships with institutional investors such as pension funds, whose patient capital and aligned interests can drive sustainable infrastructure development and deliver stable returns for beneficiaries while supporting societal progress.

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The Scale of the Challenge

The world faces an investment gap of staggering proportions. Estimates suggest close to $100 trillion is needed globally by 2040 to meet basic infrastructure requirements. Traditional government funding sources are increasingly constrained by elevated debt burdens, with many developed countries carrying debt-to-GDP ratios exceeding 100% following pandemic era fiscal expansion. The gap between infrastructure needs and investment at current trend is expected to be as high as $15 trillion[2].

1 Disclaimer: The views expressed in this article are those of the authors and do not necessarily reflect the views or policies of ICPM or any organization they are affiliated with.

2 Figures from Global Infrastructure Outlook (Global Infrastructure Outlook - A G20 INITIATIVE)

The Role of Pension Funds in Infrastructure Investment

Pension funds are increasingly recognised as important sources of long-term capital for infrastructure and other real assets. However, despite potential alignment in duration and objectives, investment in these sectors remains below potential. Allocations to infrastructure assets vary significantly across countries, with Australian and Canadian funds leading as pioneers in infrastructure investing since the early 1990s and maintaining the highest asset allocation to infrastructure globally. These allocations are often concentrated in a few countries and sectors rather than globally diversified. This reflects differences in regulatory frameworks, investment governance structures and the maturity of infrastructure investment markets, with the bulk of allocations concentrated in a handful of developed countries, while many emerging markets remain largely excluded from pension funds' infrastructure portfolios.

The Importance of the Cost of Capital

The cost of capital is a crucial consideration when making long term investment commitments such as allocations to infrastructure assets. It acts as the financial equivalent of gravity, an ever-present force that pulls down on every investment opportunity. For institutional investors like pension funds this represents the minimum return they must achieve on average to justify taking money away from safer alternatives and committing it to a particular investment for years or even decades. For institutional investors, assessing the cost of capital involves evaluating the risk-adjusted return they require to commit funds to a project or asset. This includes compensation for credit risk, liquidity, political and regulatory uncertainty, as well as macroeconomic volatility. The higher the perceived risk, the higher the return investors will demand, thereby raising the cost of capital for the issuer. This principle underpins investment decisions across asset classes, from equities to infrastructure to sovereign debt.

Key Principles for Mobilising Private Sector Capital

Though cost of capital assessment for specific assets combines analytical rigour with subjective judgment, certain fundamental principles should inform both institutional investors' allocation strategies and government policies designed to mobilise private sector capital to bridge the investment gap. These are outlined below.

Macroeconomic and Political Stability

Macroeconomic and political stability serve as fundamental drivers of the cost of capital because they directly determine the predictability of future cash flows and the probability that contractual agreements will be honoured over multi-decade lifespans of many infrastructure projects. For example, Germany has a history of macroeconomic and political stability, while Argentina has experienced recurring cycles of economic volatility, currency crises, and political upheaval that have created

a challenging environment for long-term institutional investment. As a result, a toll-road project in Germany would be expected to carry a significantly lower cost of capital than an equivalent project in Argentina. Importantly, macroeconomic stability also affects the risk premium embedded in government bond yields, which serve as a benchmark for required returns across asset classes including infrastructure. Additionally, macroeconomic stability also creates the conditions for the development of robust capital markets leading to more efficient pricing of risk, liquidity, and long-term financing, all of which are essential for attracting institutional investment at scale. Finally, policy changes that reinforce positive institutional factors can stabilise currencies, enabling access for foreign investors and effective hedging against exchange rate volatility.

Rule of Law

The strength and independence of a country's judicial system fundamentally affect infrastructure investment risk premia. In markets like the United Kingdom or Australia, investors can rely on impartial courts to enforce contracts and protect property rights, allowing for lower required returns. Conversely, in jurisdictions where legal systems are perceived as corrupt or politically influenced, institutional investors demand significantly higher returns to compensate for the risk that contractual agreements may not be honoured or that disputes may be resolved through political rather than legal processes. In some emerging countries policy may be "locally stable" in specific areas to attract foreign capital, while the wider policy realm remains highly uncertain creating mixed messaging for potential investors. Even within OECD countries, concerns about rule of law can emerge. For example, Poland's recent judicial reforms and Hungary's changes to court structures have raised questions among international investors about potential political influence over commercial disputes, leading to increased risk premia for infrastructure investments in these countries. Developed countries may risk becoming complacent about their reputation as reliable destinations for investment, as evidenced by the actions of Norway in the late 2010s. In a landmark case, the Norwegian Supreme Court upheld a government decision to cut gas pipeline tariffs by 90% in 2018. This ruling was met with strong objections from investors who felt the change was unlawful and raised concerns about the stability and predictability of the investment climate.

Stable and Predictable Regulatory Environment

Regulatory certainty is paramount for infrastructure investments that often span decades. Countries like Denmark and the Netherlands have established transparent, consultation-based regulatory frameworks that provide investors with reasonable visibility into future policy changes. This predictability allows institutional investors to model cash flows with greater confidence, reducing their cost of capital requirements. In contrast, markets with frequent regulatory reversals or opaque decision-making processes, such as changes to renewable energy feed-in tariffs or unexpected infrastructure taxes like France's "windfall tax" in 2022 force investors to build substantial risk premia into their return expectations. Spain's and Italy's retroactive cuts to solar subsidies in the 2010s and Turkey's frequent changes to power sector regulations serve as cautionary examples that have led

institutional investors to demand higher returns from these markets, potentially making infrastructure projects economically unviable.

Licence to Operate for Private Sector Parties

Social acceptance and political legitimacy of private infrastructure ownership significantly impact investment risk. In some European markets, well-established traditions of private utility ownership create broad public acceptance, while in others, private infrastructure remains politically controversial. Institutional investors must factor in the risk of nationalisation, forced asset sales, or punitive regulation driven by public opposition. Countries that have successfully built bipartisan support and consensus around the role of private capital in infrastructure, often through transparent procurement processes and clear public benefit demonstration, enable lower cost of capital by reducing political risk premia that investors would otherwise demand. On the other hand, political opposition to private infrastructure can create investment risks. The UK water sector exemplifies this challenge, with decades of private ownership attracting scrutiny over executive pay, dividends, and service quality, and recent political debates on renationalisation unsettling investor confidence. Crucially, some corporate behaviours, such as leveraging regulatory gaps for financial gain, have contributed to public criticism and calls for reform. Both regulatory decisions and corporate actions have shaped risk and debate in the sector, highlighting the need for robust governance and effective oversight.

Sustainability and Systemic Risks

The integration of sustainability risk factors into cost of capital frameworks has fundamentally transformed infrastructure investment evaluation, moving from peripheral consideration to core financial analysis. Institutional investors now routinely apply differentiated discount rates based on climate transition pathways and may demand higher returns from coal-fired power plants facing potential stranded asset risk while accepting lower returns from renewable energy projects with more predictable regulatory support and operational longevity. This shift reflects a sophisticated understanding that traditional financial metrics alone cannot capture the full spectrum of risks facing 30-year infrastructure investments in an era of climate change, demographic shifts, and evolving social expectations. A pension fund investing in coastal infrastructure without considering sea-level rise, or in fossil fuel assets without modelling energy transition scenarios, could expose beneficiaries to predictable losses.

Alignment of Interest Between Government and Private Sector

Successful infrastructure partnerships require governments to view private investors as genuine long-term partners rather than sources of short-term revenue extraction. Countries like Australia and Canada have developed sophisticated public-private partnership frameworks that create win-win structures, sharing risks appropriately between sectors and maintaining long-term relationships. The Sydney

Desalination Plant, the Sydney Metro project and the Canada Line rapid transit project in Vancouver stand out as examples of successful public-private partnerships with transparent contractual arrangements and well-calibrated risk-sharing mechanisms that closely align the interests of public and private stakeholders.

When governments consistently demonstrate a commitment to fair risk allocation, draw on lessons from past projects, and refrain from opportunistic renegotiation for political purposes, institutional investors are able to apply lower discount rates, making more infrastructure projects economically viable. On the other hand, countries can damage investor confidence through opportunistic behaviour. Italy's attempts to renegotiate highway concession terms with Atlantia following the Genoa bridge collapse and France's windfall taxes on energy companies during periods of high profits show how established democracies can still create uncertainty that raises the cost of capital for infrastructure investments when governments prioritise short-term political gains over long-term partnership stability.

The Impact of Cost of Capital Drivers

Altogether, the factors shaping the cost of capital for infrastructure investments, from macroeconomic stability and rule of law to regulatory predictability and social acceptance, are much more than academic concepts. They are the invisible architecture determining which critical infrastructure projects get built and which ones remain trapped in feasibility studies. For institutional investors managing trillions in retirement savings and sovereign wealth, these factors could translate directly into the difference between achieving target returns for beneficiaries or falling short of long-term obligations. For policymakers, understanding these cost of capital drivers offers a roadmap for making their countries more attractive to institutional capital without compromising sovereignty or public interest.

Building a Credible, Collaborative and Long-Term Framework

The countries that have successfully attracted large-scale institutional infrastructure investment didn't typically achieve this through financial engineering or subsidy programs, but by building credible, long-term frameworks that give investors confidence in contractual integrity and collaborative partnerships.

In the coming days, the International Centre for Pension Management (ICPM) will publish a detailed guide offering a practical framework to align public goals with institutional investors' realities. The guide, written by senior executives and academics from ICPM's network of global pension funds, is designed to help governments and agencies (i) understand how institutional investors assess risk, control, and policy stability, (ii) design partnerships that align with investors' fiduciary realities, and (iii) build a stable regulatory, legal, and institutional environment conducive to institutional investment.

Building a strong and collaborative framework between governments and institutional asset owners is particularly powerful when the asset owners possess both the long-term investment horizon that matches infrastructure lifecycles and the patient capital necessary for such ventures. This is naturally the case for pension funds, who act, not as distant, impersonal investors, but as stewards of the retirement savings of millions of individuals. Pension funds exist to provide their members with the

promised benefits in retirement and this purpose drives a fiduciary obligation to act in the best financial interests of their members. Infrastructure can offer stable, inflation-protected returns over the long term which align well with a pensions fund's purpose and obligations, whilst also being rooted in tangible assets that underpin the functioning and prosperity of society. This alignment fosters a virtuous cycle that can help to lower capital costs and deliver sustainable, long-term outcomes for both members and society as a whole.

The Way Forward

As governments worldwide face infrastructure funding gaps measured in the trillions, the choice is clear: either build the collaborative frameworks that enable lower cost of capital and greater private sector participation or accept that infrastructure development will remain chronically underfunded. The power of compound returns means that countries reducing their infrastructure risk premia can unlock materially more private capital to transform their development prospects while offering institutional investors the stable, long-term returns their beneficiaries need.