WORLD ECONOMIC FORUM

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Infrastructure Investment Policy Blueprint

Prepared in collaboration with Oliver Wyman

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Preface

The World Economic Forum is pleased to release *Infrastructure Investment Policy Blueprint* – a practical set of recommendations for governments on attracting private capital for infrastructure projects while creating clear social and economic value for their citizens.

The importance of infrastructure as a key driver of economic growth, competitiveness and social well being is well established. Yet, a significant number of promising infrastructure investments are currently not moving forward, something we can ill afford in an environment of slow economic growth. There is no fundamental scarcity of private capital – investors are frequently falling short of their target allocations. Despite infrastructure's in-principle attractiveness as an asset class and the reduced role of traditional financing, investors struggle to find opportunities that are globally competitive on a risk-adjusted return basis.

This contradiction – a shortage of deployed capital coupled with a surplus of supply – was discussed in meetings of the Global Agenda Council on Long-term Investing and at the World Economic Forum's 2013 Annual Meeting in Davos-Klosters, forming the genesis of the *Blueprint.* Subsequent discussions with key stakeholders exposed significant perception gaps between investors and governments, both in expectations for private investment and in understanding of investor mandates and preferences. However, they also revealed a strong mutual desire to increase collaboration and thereby drive positive outcomes through appropriate partnerships. This spirit of multistakeholder collaboration is underscored in the *Blueprint*, as the policies espoused neither give carte-blanche benefits to investors nor force private capital into unviable projects. Instead, the recommendations focus on attracting capital by undertaking thoughtful risk allocation and mitigation, enhancing understanding of counter-party needs, enabling an efficient and transparent transaction environment and developing a credible infrastructure pipeline.

Enhanced public-private collaboration and understanding are required more than ever, as recent regulatory and market movements have slowed the flows of infrastructure finance. Heightened capital constraints, the implementation of Basel III requirements and a diminished market for structured debt instruments have put significant pressure on long-term infrastructure project lending by commercial banks and shortened the duration of loans provided. Moreover, a combination of stretched government budgets and increasing infrastructure needs is conspiring to ever widen the infrastructure-funding gap. Yet the Forum is highly optimistic that, with the right collaborations and frameworks, this problem is solvable in a world of globally available capital.

The *Blueprint* is intended as a resource for policy-makers in an era when investors are "global shoppers" for infrastructure, and compare a potential investment to those in other countries and asset classes. For the sake of brevity, the *Blueprint* does not elaborate on factors that are important, but not specific, to infrastructure investment. For example, while stable rule of law, economic policy and robust anti-corruption procedures are important, they are applicable to all domestic- or foreign-investment decisions and therefore are not highlighted in this report. Moreover, the *Blueprint* does not attempt to outline all systems and tools for infrastructure development; it is by no means a comprehensive guide to developing and structuring public-private partnerships. It complements the tremendous work and intellectual capital developed on this topic by groups such as the World Economic Forum's Strategic Infrastructure Initiative, and the World Bank's Public-Private Infrastructure Advisory Facility, among others.

The *Blueprint* has been overseen by the Forum's Global Agenda Council on Long-term Investing, which is comprised of thought leaders from leading institutional investors and academia. Recommendations have been developed through interviews with Council Members and other investors, reviewed with select policy-makers and complemented by an in-depth review of existing literature. We wish to thank interview participants and Members of the Councils on Long-term Investing and Infrastructure for their invaluable support.

In this spirit, we view the *Blueprint* as the beginning of a productive conversation rather than an end in itself. We look forward to continuing to catalyse dialogue and work with governments, investors and other stakeholders on the role of private finance in public infrastructure. Ultimately, we hope that the *Blueprint*, through its practical advice and case studies, provides clear support to policy-makers as they continue the challenging quest of building and financing the engine of our world's productivity and economic growth – our global infrastructure.

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Executive Summary

Around the world, governments face an acute need for new or modernized infrastructure. The estimated shortfall in global infrastructure debt and equity investment is at least US$ 1 trillion per year. Many investors, particularly long-term ones such as pension funds, insurance companies and sovereign wealth funds, want to allocate more capital in infrastructure but struggle to find bankable projects. In short, a significant mismatch exists between the need for infrastructure projects and capital made available by investors. While both investors and political leaders can take steps to address this disconnect, the *Blueprint* focuses on how governments can enhance the viability of infrastructure projects and attract private capital for the public good.

Inherent to this task is a need to understand the perspective of investors, who assess infrastructure projects against a multitude of options in other asset classes and countries. In this context, countries with more effective regulatory environments and credible project pipelines will attract more investment at a lower cost. Fortunately, the most critical policies to interest private finance also tend to benefit society. This underscores a key point: governments can seek private investment while focusing on the ultimate goal of creating broader economic value and social benefits.

Based on interviews with prominent global infrastructure investors, specific actions for governments are recommended that fall into three categories:

1. **Infrastructure strategic vision,** which includes a project pipeline, a viable role for investors and communication strategy
2. **Policy and regulatory enablers,** which mitigate renegotiation risk and increase the efficiency of key processes
3. **Investor value proposition** at the individual project level, which focuses on maximizing value for governments and ensuring a competitive risk-adjusted return for investors

Infrastructure strategic vision. A clear infrastructure pipeline should be the first step for governments wanting to maximize investor participation in financing. A credible vision can mitigate frictions such as investor uncertainty and public scepticism, and trigger productive collaboration between governments and investors. Key components are:

- *Credible infrastructure pipeline.* Develop an ongoing project pipeline to enhance a market's attractiveness. A set of realistic, comprehensive opportunities instead of *ad hoc* procurements will enable investors to see value in building capabilities and expertise in a country.
- *Viable role for investors.* Prioritize projects for private-sector financing that are most likely to interest investors and achieve value for money for the public. Capital recycling, whereby existing brownfield assets are either leased or sold to raise funds for greenfield projects, should be considered.
- *Communication strategy.* Proactively address the benefits of, and public concerns about, private- and foreign-investor ownership in infrastructure, particularly by clarifying the difference between "ownership" and "control".

Policy and regulatory enablers. A supportive policy and regulatory environment must underpin any strategic vision. Investors frequently cite four main policy impediments:

- *Re-negotiation risk.* The strain on many government balance sheets, coupled with several recent high-profile regulatory decisions, has positioned political risk – and specifically renegotiation risk – as a critical concern for many investors in developed and emerging markets. An array of possible governance and contract mechanisms to reduce political and renegotiation risk are outlined in Section II, B1.

- *Procurement process.* Bidding for a public-private partnership (PPP) project is time-consuming and costly for investors. A lack of standardization is a major obstacle to an efficient process. A PPP Unit should be given the task of enhancing transactional capacity and efficiency on the government side, and of driving greater efficiency and standardization in the procurement process.
- *Permitting processes.* Regulatory and environmental permitting processes should be reviewed and streamlined, and, if possible, a lead agency should be appointed to manage the process and reviews of other agencies. Complex permitting processes that lack coordination and predictability will constrain investment even for the most financially attractive projects.
- *Tax policy.* Taxes should not systematically give advantage or disadvantage to certain types of investors. They also should be stable over time. The holistic impact of all forms of taxes should be assessed, based on the financial viability of projects.

Investor value proposition. Investors evaluate the risk-return of an infrastructure opportunity in relation to investments in other asset classes and jurisdictions. To develop a strong investor value proposition at the individual project level, governments should address three crucial issues:

- *Financial returns from the investor perspective.* Projects should be analysed from an investor's perspective to determine financial viability, support risk-allocation decisions, and benchmark risk-return compared with other investment opportunities. Governments should not expect investors to accept a lower return simply because a project has great social benefits. This is not to undermine the importance of securing public value; however, many investors are restricted by fiduciary duties and legislation to maximize risk-adjusted returns.
- *Risk allocation.* Governments should develop a standard methodology for allocating risks – a set of "guiding principles" to determine the level of risk allocation optimal to both deliver value for money and provide investors with an appropriate risk-return. In the current environment, the allocation of financing risk and demand risk are of particular importance. To manage financing risk, governments could consider alternative approaches to incentivizing transactions, such as credit guarantees. For demand uncertainty, risk-mitigation options could include availability-based payments and risk sharing.
- *Market sounding.* Market sounding with potential investors should be interactive and undertaken early in order to generate feedback on a project, learn more about investor preferences and determine refinements needed prior to the tender process. Market sounding must be carefully managed to generate useful information and prevent probity issues.

None of these recommendations is a solution in itself, but part of an interconnected framework. For example, a sound regulatory environment will not do much to attract investment if individual projects are financially unviable. Similarly, an appealing pipeline of opportunities will do little to generate interest in a market associated with significant renegotiation risk.

Moreover, each country is different, with varying political structures, economic development, infrastructure conditions and government capabilities. The *Blueprint* recommendations will not apply equally; rather, they should be prioritized according to a country's unique context and values. For example, some countries face an urgent energy shortage that necessitates near-term construction of new generation facilities. These governments should not delay project planning in order to completely reform their regulatory systems or complete robust strategic visions driven by lengthy consultation with stakeholders.

Finally, these recommended actions are deceptively simple to outline but considerably harder to implement. They may require a substantial build-up of expertise and capabilities within government, investment of significant political capital and engagement in the lengthy process of building consensus among stakeholders. All the while, government leaders have to balance infrastructure needs against other high-priority issues. Yet, the rewards are worth the labour. Even in a situation of significantly limited resources, by prioritizing the recommendations that are most relevant and feasible, governments can do much to attract quality long-term financing and set the foundation for future prosperity.

I. Infrastructure Investment Landscape

Infrastructure finance is a complex field, filled with numerous terminologies, multiple players and several concepts. As such, the Infrastructure Investment Landscape section aims to provide relevant background to the discussion. It focuses on such important themes as debt market dynamics and the unlocked capital of long-term investors, which are especially relevant to the *Blueprint* recommendations detailed in the Policy Recommendations section.

Infrastructure: Definitions and Stakeholders

Infrastructure is the bedrock of a nation's competiveness, prosperity and even social well-being. Yet around the world, a gap is growing between the acute need for new or upgraded infrastructure and the actual level of expenditure. The global investment shortfall in infrastructure is estimated to be at least US$ 1 trillion per annum.[1] While infrastructure requirements are huge, the finances of many countries are tight, thus limiting their ability to fund as much infrastructure as they have done historically. In such an environment, private financing can play a larger role and be a promising way forward.

The term "infrastructure" often can mean different things to different people. For governments and society, infrastructure typically refers to the physical structures [2] – roads, bridges, airports, electrical grids, schools, hospitals – that are essential for a society to function and an economy to operate. Governments face the challenge of assessing an infrastructure project not just by its standalone economic value, but also by its wider impact on multiple stakeholders and society.

"Infrastructure is the bedrock of a nation's competiveness, prosperity and even social well-being."

1 See Foreword in *Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships.* May 2013. Geneva: World Economic Forum.

2 Note: this definition includes economic and social infrastructure, and excludes both soft infrastructure (i.e., the public institutions required to maintain society, notably the legal and judicial systems, the education and healthcare systems, and the financial system), and industrial infrastructure (e.g., interconnecting roads within a large factory complex).

Investors evaluate an infrastructure opportunity in relation to other asset classes such as government bonds, equity markets and private equity. That is to say, investors are evaluating not just *how* but *whether* to invest in infrastructure at all.

The mixed incentives and divergent objectives of stakeholders illustrate the difficulty governments face in completing infrastructure projects. For example:

- **Public and local interest groups** are concerned about potential disruption to communities through construction, the impact on local employment options, who will benefit from the new infrastructure and the prioritization of certain projects.
- **Infrastructure users** are often apprehensive that changes may result in either higher prices or lower quality of services, especially for those services that previously were either "free" or paid by government funds.
- **Environmental groups** will actively seek to minimise potential negative environmental impacts, such as damage to local wildlife or waterways.
- **Civil servants** face mixed incentives – executing infrastructure projects or infrastructure policy reform can mean heavier workloads and restructuring of government departments, without commensurate credit and benefits for the completion of high-quality projects.

Finally, **government and political leaders** must balance spending on infrastructure, where the long-term benefits may only emerge after they have left office, against a variety of high-priority issues. Infrastructure projects often require collaboration across multiple government bodies, and affect stakeholders who do not yet have a voice, such as future generations. Navigating this complex landscape is not easy.

While investors realize that a project will involve multiple stakeholders and that the government has a difficult task, they view infrastructure through a different prism. For them, infrastructure is often an "asset class", where the primary focus is on the risk-adjusted returns of an individual project and its impact on the overall investment portfolio. A project's attractiveness is based on financial features that include:

- *Stable returns, reliable cash flows and low volatility.* Infrastructure projects are often a natural monopoly with high entry barriers. Once construction is completed and a demand pattern developed, project risks are low.
- *Portfolio diversification.* Returns show a lower correlation with other asset classes and the wider economy than other types of investments.
- *Hedge against inflation.* Concession agreements and regulatory models are frequently linked to changes in the inflation rate.
- *Ability to put large amounts of money to work.* For investors with deep pockets, the significant size of certain infrastructure projects can be very appealing.

Investors evaluate an infrastructure opportunity in relation to other asset classes such as government bonds, equity markets and private equity. That is to say, investors evaluate not just *how* but *whether* to invest in infrastructure at all. If a decision is made to invest in infrastructure, investors do not assess an infrastructure opportunity in isolation but against potential projects in other countries and jurisdictions.

Understanding an Infrastructure Investment Opportunity

Investors often categorize an infrastructure investment opportunity by the structure of its investment and payment, and the stage of the project's life cycle.

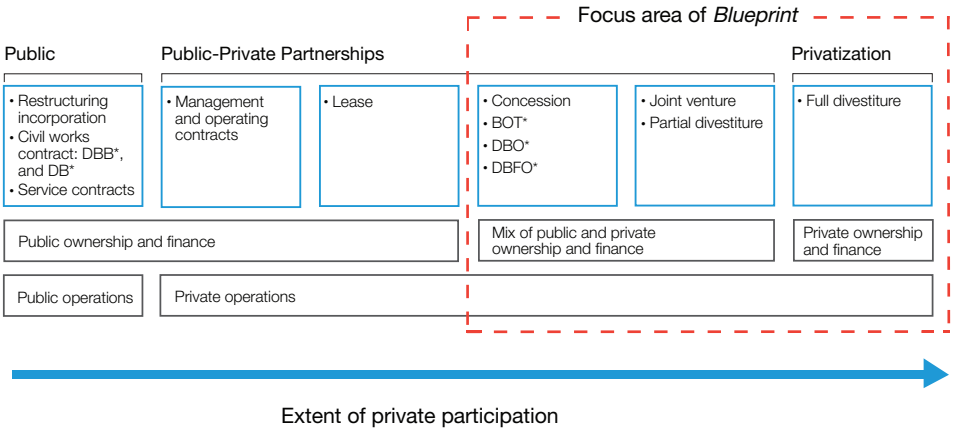
Private investment structures

Private sector involvement in infrastructure can take a variety of forms, from simple service contracts and public-private partnerships (PPPs) to full privatization.[3] PPPs include:

- *Management contracts.* A bundle of services – for example, the operations and maintenance of a motorway – is contracted out to a private operator for an agreed contract fee.
- *Leases.* A private company leases or acquires temporary ownership of the asset for a certain fee and takes full responsibility for operating it, assuming all or most commercial risks.
- *Concessions.* A private company raises the financing to (re-) design and (re-) build an asset in return for a limited period of full operating rights and maintenance obligations.
- *Partial divestiture or joint venture.* Either part of an asset is sold to the private sector, or the government and a private entity jointly fund a new asset.

In the *Blueprint,* the phrase "private investment" in infrastructure is used frequently. This is defined as the private sector providing some form of upfront investment as either equity or debt and receiving cash flow over time from the asset, which corresponds to the highlighted area in Figure 1. Privatization refers to an asset being sold to the private sector, with the private operator taking on all risks and rewards from operating the asset throughout its life cycle, and the government retaining regulatory powers.

Figure 1: Public-Private Partnerships: Delivery Mechanisms



*DBB – Design-Bid-Build, DB – Design-Build, BOT – Build-Operate-Transfer, DBO – Design-Build-Operate, DBFO – Design-Build-Finance-Operate

Source: World Bank PPP in Infrastructure Resources Centre. "PPP arrangements/types of public-private partnership agreements".

3 For a detailed overview of potential contract and partnership options, refer to Section 3.1 of *Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships.* May 2013. Geneva: World Economic Forum.

> **Greenfield projects are frequently defined as "higher risk", and brownfield projects as "lower risk". While generally true, this classification does not reflect the continuum of risk in different types of projects.**

Payment structures

Private investors finance infrastructure, but ultimately expect to recoup their investment, with an appropriate return, through either government payments or user fees.

User fees for infrastructure assets can be politically controversial and normally are determined through regulation or long-term contracts, such as a road concession that stipulates future toll-fee increases. Regulation is typically in the form of either a regulated asset base (RAB) or a price-cap model. In a RAB model, the regulator mandates a specific return on capital and then tracks and adjusts prices over time to deliver that return. In a price-cap model, the regulator sets prices and then indexes them, usually against a combination of inflation, less assumed efficiency improvements. This means that the owner is exposed to demand risk and both greater upside and downside. Prices are reviewed periodically – every one to five years, for example. As seen in the discussion on renegotiation risk (numbered B1 in the Policy Recommendations section later in the report), an investor's return can be highly dependent on the future decisions of the regulator and as such, the latter's independence and track record are important considerations in a regulated investment.

A "user pays" system tends to be more popular with investors because it directly links revenue to a specific financing structure and, in light of this transparency, can be more difficult for a subsequent government to modify. This system also can be beneficial from an economic viewpoint because it incentivizes consumers to use the service responsibly. However, the system is less popular with many users and politicians, particularly when applied to assets previously perceived to be "free". Moreover, when user charges are seen to be unfair or allowing investors to profit unfairly, the likelihood is higher that a future government will renegotiate agreement terms. To employ a "user pays" system, a government must assess whether the system can identify actual users easily and is cost-effective. It must also gauge whether charging users is politically possible, and whether open competition or regulated pricing will be the practice.[4]

Project life cycle

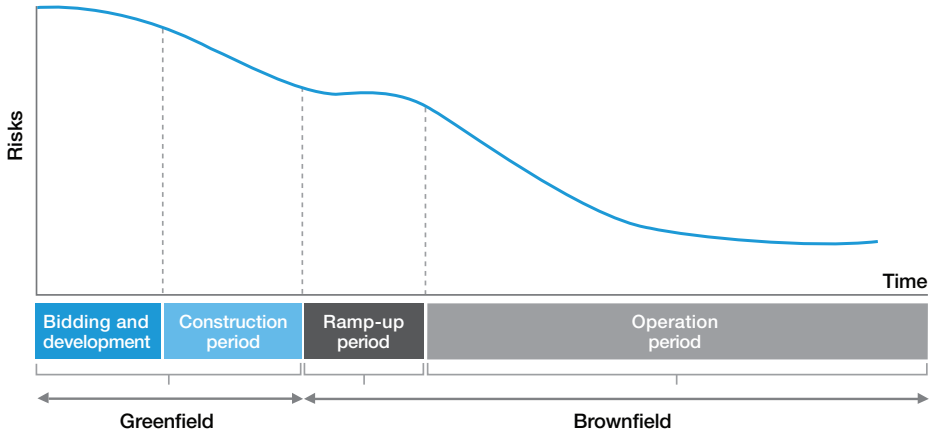
Infrastructure investments often are classified by the asset's stage of development. The two most common distinctions in projects are:

- Greenfield – new construction or the development of new infrastructure
- Brownfield – existing infrastructure assets that have been operating, and frequently have a demand history

Greenfield projects are frequently defined as "higher risk", and brownfield projects as "lower risk". Figure 2 shows the typical risk profile development of an infrastructure asset. While generally true, this classification does not reflect the continuum of risk in different types of projects. For example, a greenfield natural gas electricity generation plant in a developed market is likely to have relatively low levels of construction and technology risk, and can mitigate demand risk by hedging off-take prices and volumes through long-term power purchase agreements. The risk for this type of project is significantly lower than that of a greenfield project in a developing market with untested demand, or potentially even a brownfield project requiring a major technology upgrade.

4 For additional detail on assessing the most appropriate payment structure, see Section 2.3 of *Strategic Infrastructure, Steps to Prepare and Accelerate Public-Private Partnerships.* May 2013. Geneva: World Economic Forum.

Figure 2: Risk Profile Development of an Infrastructure Asset[5]



Source: World Economic Forum, for illustrative purposes only

Sources of Private Finance

The *Blueprint* is focused on the most critical policies to attract private finance to infrastructure. "Private finance" represents a diverse group of equity investors and debt providers,[6] with varying preferences and mandates. Figure 3 summarizes the key sources of private debt and equity finance.

Equity investment in infrastructure comes from various sources. Corporates are a major source, including those involved in the infrastructure sector, such as toll-road operators or electricity utilities, as well as those with a delivery role, such as construction firms. The capital expenditure of these listed companies is a key source of infrastructure finance. For example, the average annual capital expenditure of European utility companies is approximately € 35 billion (US$ 47.85 billion).[7] Publicly traded infrastructure funds (e.g., Macquarie Airports, which is listed on the Australian Stock Exchange) also provide capital for specific infrastructure projects.

Figure 3: Sources of Private Finance

	Equity			Debt		
	Listed equity or fund	Private fund	Direct	Capital markets	Private fund	Direct
Corporates			●	●		●
Long-term investors						
Pension funds	●	●	●	●	●	◑
Insurers	●	●	◑	●	●	●
Sovereign wealth funds	●	●	●	●	●	●
Endowments	●	●	◑	●	●	◑
Family office	●	◑		●	◑	

● Established source ◑ Some evidence

Source: Previous reports and research, World Economic Forum

5 The figure demonstrates conceptually the relative level of risk between the greenfield and brownfield stages of a project, assuming a stable regulatory and political environment. Political and regulatory risks can change the dynamics and lead to a higher relative risk level than shown, especially in the brownfield stage.

6 For simplicity, financing is segmented into "debt" and "equity" investors. In reality, the division is less clear. Any one investor can utilise both types of financing, and a number of different financing instruments can be employed to ensure an optimal financial structure. Many of these financing instruments, such as mezzanine debt or hybrid equity, lie in the middle of a continuum between debt and equity financing.

7 *A Very Hostile Political Environment: Have Governments Made the European Utility Sector Un-investable?* September 2011. London: Citi.

> **The *Blueprint* is focused on the active investment of long-term institutional capital because it represents the biggest source of untapped private finance for infrastructure.**

Unlocked Capital of Long-term Equity Investors

While corporations are vital sources of infrastructure equity, the *Blueprint* is focused on the active investment of long-term institutional capital because it represents the biggest source of untapped private finance for infrastructure.[8] The combined assets of pension funds, insurers, sovereign wealth funds and endowments total about US$ 50 trillion.[9] These investors continually do not meet their target allocations for infrastructure; a recent survey by Preqin, a London-based research and consultancy firm, found that 60% of infrastructure investors are below their target allocations.[10] An October 2013 survey of pension funds by the Organisation for Economic Co-operation and Development (OECD) placed infrastructure investment in unlisted equity at just 0.8% of assets under management,[11] demonstrating that overall investment is still limited.

Developing the right investment structures to unlock this source of capital is critical. Private infrastructure funds or direct investments are two common options.[12]

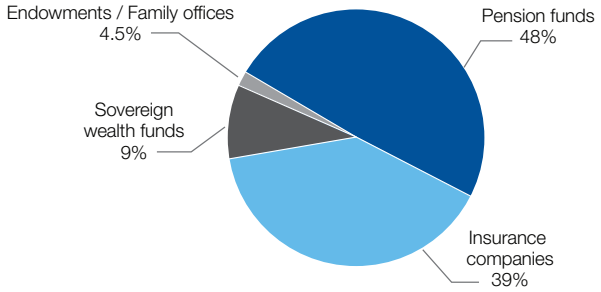
- *Private infrastructure funds.* Investors can be limited partners in a dedicated fund that invests directly in infrastructure. This approach allows investors to access diversified pools of infrastructure assets without the need to build in-house investment expertise or make large capital commitments. While an attractive source of funding for many investors and governments, this approach has a few shortcomings – private equity funds generally have a lifespan of five to ten years, a mismatch with the horizon of long-term investors and the underlying assets.
- *Direct investment.* Investors can buy equity directly in a specific project, which can give them greater control and visibility over an asset. Direct investment enables large players to put significant capital to work long term, and has the benefit of avoiding the fees and potential conflicts associated with investing through intermediaries. Direct investment requires substantial outlay in internal staffing and specific in-house governance and protocols. This can be a challenge, especially for smaller players.

Other models have emerged to facilitate direct long-term equity investment in infrastructure, in particular to help pension funds to pool their resources and increase direct investment. For example, the recently created UK Pensions Investment Platform (PIP) represents about 1,200 pension entities, with assets of £ 800 billion (US$ 1.3 trillion). It is designed to be an aggregated infrastructure fund "for pension funds, managed by pension funds". The UK PIP was modelled on Australia's IFM Investors,[13] which pools a range of "like-minded" global investors and invests them directly in infrastructure projects, with a view to generating long-dated, inflation-linked returns through its open-ended fund structure.[14,15]

8 It is worth noting, however, that many of the *Blueprint's* recommendations are equally relevant for attracting investment from corporations.
9 *Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships.* May, 2013. Geneva: World Economic Forum.
10 *Preqin Investor Outlook: Alternative Assets H2 2013.* September, 2013. London: Preqin.
11 *Annual Survey of Large Pension Funds and Public Pension Reserve Fund: Report on Pension Funds' Long-term Investments.* October, 2013. Paris: OECD.
12 Investors can also invest in infrastructure-focused corporate equity or listed funds; however they do not necessarily have the financial characteristics that many long-term investors seek. Moreover, investment in traded equity also does not directly unlock funding for infrastructure.
13 Previously known as Industry Funds Management.
14 *Annual Survey of Large Pension Funds and Public Pension Reserve Fund: Report on Pension Funds' Long-term Investments.* October, 2013. Paris: OECD.
15 Belt, B, Nimmo, J. *Catalyzing Pension Fund Investment in the Nation's Infrastructure: A Roundtable Discussion.* April, 2013. Washington DC: Milken Institute.

> **Debt providers are a vital part of infrastructure finance, making up 70-90% of initial project funding. Banks have undertaken the bulk of infrastructure financing, particularly in emerging markets where corporate bond and securitization markets are relatively undeveloped.**

Figure 4: Distribution of Global Asset Ownership by Investor Type, 2011[16]



Note: Omitted from the analysis are mutual funds and asset management divisions of banks and fund managers (private equity, hedge funds, etc.)

Source: Organisation for Economic Co-operation and Development; Foundation Center, National Association of College and University Business Officers; Overseas Development Institute; Deloitte analysis

The Evolving Infrastructure Debt Landscape

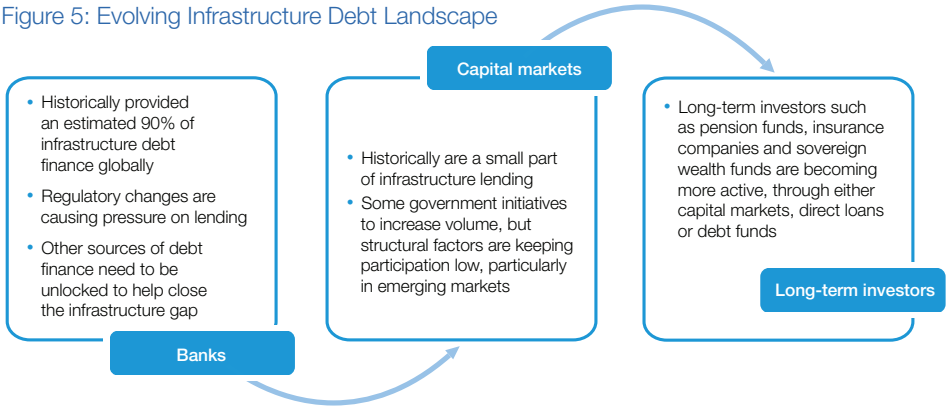
Debt providers are a vital part of infrastructure finance, making up 70-90% of initial project funding.[17] Debt financing is a weighty concern for governments, given the absolute magnitude of debt investment required versus equity. It is also a big concern for investors focused on equity investment, because a lack of debt financing can limit the opportunities available.

Historically, two primary sources of debt funding have been available for infrastructure projects: commercial bank debt and capital markets. As seen in Figure 6, banks historically have played a leading role, but regulatory constraints and financial pressures are restricting project lending and hindering infrastructure investment. To fill the void, markets and governments are looking to enhance capital markets and identify non-traditional lenders, such as pension funds.

Banks

Banks have undertaken the bulk of infrastructure financing, particularly in emerging markets where corporate bond and securitization markets are relatively undeveloped.[18] From 1999 to 2009, commercial banks provided an estimated 90% of all private debt,[19] with large banks in developed countries acting as a major source of financing to emerging markets.[20] However, the financial crisis and the regulations that ensued have been changing the banking system's role in infrastructure finance.[21]

Figure 5: Evolving Infrastructure Debt Landscape

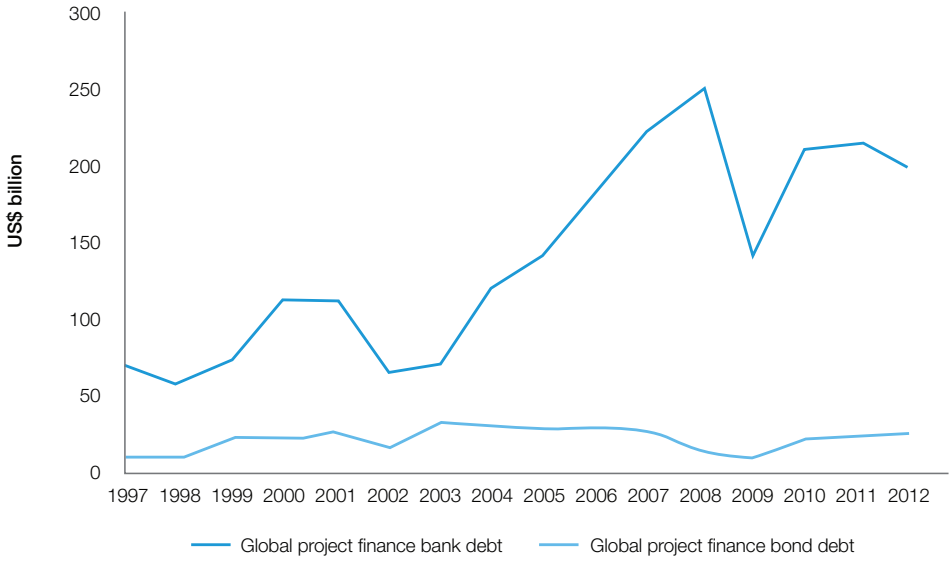


Source: World Economic Forum

16 Figure recreated as shown in Figure 3 in: *From the Margins to the Mainstream Assessment of the Impact Investment Sector and Opportunities to Engage Mainstream Investors.* September, 2013. Geneva: World Economic Forum.
17 Weber, B, Alfen, H. *Infrastructure as an Asset Class: Investment Strategies, Project Finance and PPP.* West Sussex, United Kingdom. John Wiley & Sons Ltd. Section 5.3.
18 Roxburgh, C, Lund, S, Piotrowski, J. *Mapping Global Capital Markets 2011.* August, 2011. McKinsey Global Institute.
19 *Paving the Way: Maximizing the Value of Private Finance in Infrastructure.* August, 2011. New York: World Economic Forum.
20 *Long-term Investing Financing for Growth and Development: Umbrella Paper.* February, 2013. World Bank. (Presented to the Meeting of the G20 ministers of finance and central bank governors.)
21 *Demand for Long-term Financing of Infrastructure: Issues Note (No 7) for Consideration by G20.* 2013. Coordinated by the World Bank Infrastructure Policy Unit, Sustainable Development Network.

> **Impending Basel III regulations will increase the capital charges against long-term infrastructure loans, decreasing their profitability; bank executives are increasingly wary of funding long-term, illiquid assets.**

Figure 6: Global Project Finance Bank and Bond Debt [22]



Source: Standard & Poor's 2013

Impending Basel III regulations will increase the capital charges against long-term infrastructure loans, decreasing their profitability; bank executives are increasingly wary of funding long-term, illiquid assets.[23] These challenges have caused banks to scale back infrastructure loans, raise lending rates [24] and – perhaps most critically for project finance – shift to shorter maturities.[25] Globally, project finance loans are estimated to have fallen by between 10% and 30% in 2012, compared with 2011.[26] Long-term bank debt is now harder to come by, [27] and the associated refinancing risk has led to greater caution from equity investors and governments.

Banks are still expected to provide the majority of infrastructure debt finance in the near- to medium-term. But it is clear that supplementary sources need to be cultivated, particularly those with the capability to provide long-dated loans.

International capital markets

International capital markets represent a largely untapped capital pool to boost the debt capacity for infrastructure development. Historically, infrastructure bonds form an estimated 10% of global private debt funding,[28] with most issuances limited to Europe or North America. An important prerequisite for accessing capital through bond markets is securing an investment-grade credit rating from an agency such as Standard & Poor's or Moody's. Certain investors, such as many pension funds, also require bond insurance (also known as monoline insurance) before investing in infrastructure bonds.[29]

22 *Inside Credit: Shadow Banking Looks Set To Capture A Larger Share Of Project Financing In 2013*. April 2013. London: Standard & Poor's Rating Services.
23 "BlackRock: Bridging the Gap – The Rise of Infra Funds in Privately Financed Infrastructure." Blackrock Infrastructure Debt Team. http://cfi.co/europe/2013/10/blackrock-bridging-the-gap-the-rise-of-infra-funds-in-privately-financed-infrastructure/, 2013.
24 Santos, A, Elliot, D. *IMF Discussion Note: Estimating the Costs of Financial Regulation.* September, 2012. Washington DC: IMF.
25 *Long-term Investing Financing for Growth and Development: Umbrella Paper*. February, 2013. World Bank. (Presented to the Meeting of the G20 ministers of finance and central bank governors.)
26 Wilkins, M. *Out of the Shadows: The Rise of Alternative Financing in Infrastructure.* March, 2013. London: Standard and Poor's Ratings Services. (Presentation delivered at the Infrastructure Finance Conference.)
27 "Banks are changing. That means other providers of capital must step forward, especially in Europe". *The Economist.* http://www.economist.com/news/leaders/21568388-banks-are-changing-means-other-providers-capital-must-step-forward-especially, 2012.
28 Inderst, G. EIB "Working Papers: Private Infrastructure Finance and Investment in Europe". February, 2013. Luxembourg: EIB.
29 *Paving the Way: Maximizing the Value of Private Finance in Infrastructure.* August, 2011. New York: World Economic Forum.

> **The changing finance landscape, including the rise in infrastructure debt yields *relative* to other fixed-income yields such as government bonds, has made infrastructure debt more appealing to certain investors.**

The decline of monoline insurers contributed to the sharp fall in infrastructure bonds immediately after the onset of the recent global financial crisis. Between 2007 and 2010, no capital market activity for infrastructure took place other than for some utilities and US municipal bonds. Bond volumes have since recovered to 2007 levels,[30] but still form a small component of total lending and are not yet a viable alternative to bank finance, particularly in emerging markets.[31]

Some predictions are for infrastructure bonds to fill the void created by infrastructure banks. But the success of infrastructure bonds depends on the wider functioning of debt capital markets. While global annual corporate bond issuances are now double pre-crisis levels, the market enforcement and supervision required for a thriving corporate debt market are weak in many countries, particularly those in Africa, the Middle East and Asia.[32,33] Local capital market development, with bond enhancements to mitigate credit risk and support ratings, will help to catalyse major capital flows into infrastructure bonds.

Long-term investors

The changing finance landscape, including the rise in infrastructure debt yields *relative* to other fixed-income yields such as government bonds, has made infrastructure debt more appealing to certain investors. Non-traditional lenders, insurance companies, pension funds and newly formed debt funds can be drawn to the stable revenue streams from infrastructure debt that would match their long-dated liabilities.

Investors have traditionally accessed infrastructure debt via capital markets. However, there is growing evidence of certain investors setting up internal teams to provide direct loans to projects;[34, 35] investing in infrastructure debt funds;[36, 37] or purchasing loans from banks on the secondary markets.[38]

It is estimated that almost 20% of all project finance lending in 2012 came directly from alternative sources and institutional investors.[39] As shown in Figure 8, insurance companies accounted for 7% of total project finance lending, and pension funds accounted for 3%. Fund managers, an alternative channel for pension funds and insurers, accounted for 8%.

30 Long-term Investing Financing for Growth and Development: Umbrella Paper. February, 2013. World Bank. (Presented to the Meeting of the G20 ministers of finance and central bank governors.)

31 *EIB Project Bond Credit Enhancement Proposal: Potential to Boost Projects' Credit Metrics to 'A' Rating: Special Report.* November, 2012. New York: Fitch Ratings.

32 *Capital Markets: The Rise of Non-Bank Infrastructure Project Finance.* 2013. London: PricewaterhouseCoopers.

33 Lund, S, Daruvala, T, Dobbs, R. *Financial Globalization: Retreat or Reset?* March, 2013. McKinsey Global Institute.

34 Wilkins, M. "Out of the Shadows: The Rise of Alternative Financing in Infrastructure". March, 2013. London: Standard and Poor's Ratings Services. (Presentation delivered at the Infrastructure Finance Conference.)

35 Bowman, L. "Institutional buyers jostle for position in new infrastructure debt market". http://www.euromoney.com/Article/3147852/Institutional-buyers-jostle-for-position-in-new-infrastructure-debt-market.html, 2013.

36 For example, the US$ 500 million mandate awarded by insurer Swiss Re to investor Macquarie to manage a portfolio of senior infrastructure debt.

37 For example, PensionDanmark's acquisition of US$ 350 million in infrastructure loans from the Bank of Ireland for 83.5% of the principal value. *The Rise of Infrastructure Debt: New Opportunities and Investor Interest.* February, 2013. London: Preqin.

38 The Governor and Company of the Bank of Ireland, *Deleveraging Plan Update,* http://www.bankofireland.com/fs/doc/publications/market-news-and-analysis/boi-deleveraging-plan-update-10bn1.pdf, 2013.

39 *Inside Credit: Shadow Banking Looks Set to Capture a Larger Share of Project Financing in 2013.* April, 2013. London: Standard & Poor's Rating Services.

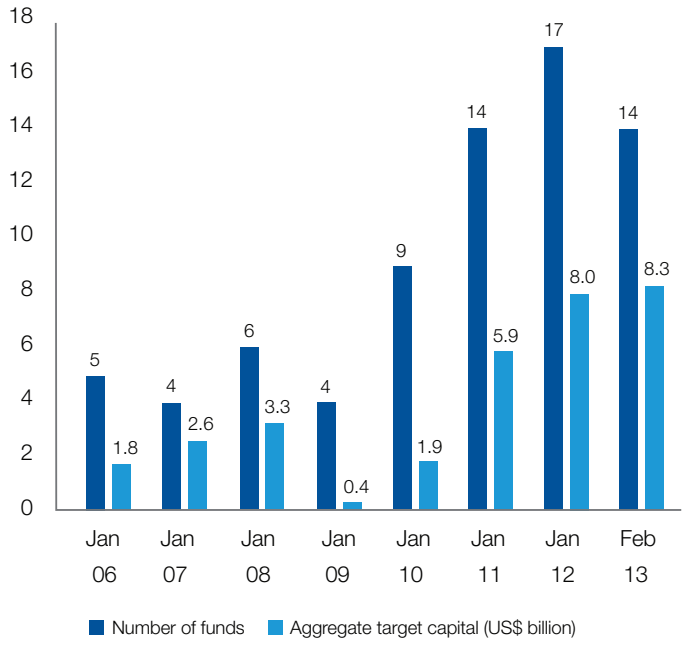
> **Despite recent growth, headwinds may hamper a rise in debt financing by long-term investors or private funds.**

Despite recent growth, headwinds may hamper a rise in debt financing by long-term investors or private funds:

- Infrastructure debt often is not linked to inflation,[40] which undermines a key reason for many investors' attraction to this asset class.
- Certain defined-contribution pension funds are restricted from relatively illiquid long-term debt investments.
- Direct investing in infrastructure debt is a specialized skill-set that requires investment in building internal expertise and capability.
- The Solvency II Directive could potentially increase capital requirements for European insurers for infrastructure debt investment, thereby making the latter financially unattractive.
- Material increases in non-bank lending may create systemic risk in the financial system, because disclosure requirements and regulations are much lower compared to those for bank loans or capital market bonds.[41]

The market is still uncertain about the role of long-term investors in debt financing. In a recent survey of 55 banks, asset managers and institutional investors by BearingPoint, an American consulting company, a majority of respondents forecast that banks increasingly would provide only short-term financing for the construction phase of an asset, selling the debt to institutional investors after the asset had established a track record.[42] Other investors view these head-winds as fundamental issues that could slow or limit growth in their debt financing.

Figure 7: Unlisted Infrastructure Debt, 2006 to 2013[43]



Source: Preqin Infrastructure Online

40 *Infrastructure Debt.* December, 2012. Frankfurt: Allianz. Available at http://www.infrastructuredebt.co.uk/en/Documents/Infrastructure Debt.pdf.

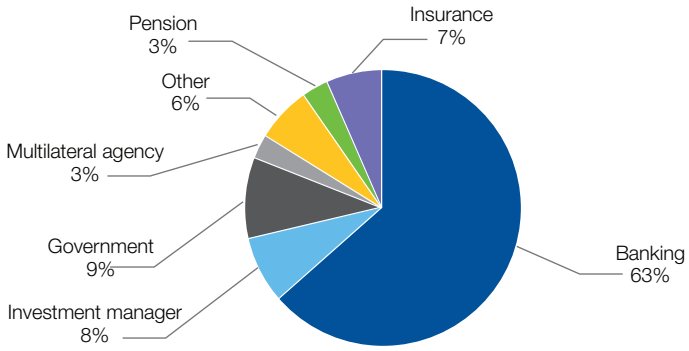
41 *Inside Credit: Shadow Banking Looks Set to Capture a Larger Share of Project Financing in 2013.* April, 2013. London: Standard & Poor's Rating Services.

42 "Insurers may fund more infrastructure, BearingPoint says". November, 2013. http://www.bloomberg.com/news/2013-11-07/insurers-may-fund-more-infrastructure-bearingpoint-says.html.

43 *The Rise of Infrastructure Debt: New Opportunities and Investor Interest.* February, 2013. London: Preqin.

> **Liability-constrained investors, such as insurance companies and defined-benefit pension funds, are interested in infrastructure because of its potential to provide lower-risk, inflation-linked revenue streams that match their long-term, annuity-type liabilities.**

Figure 8: Global Project Finance Volume by Funding Institution, Jan 2012 to Jan 2013 [44]



Source: Standard & Poor's

Investor and Government Preferences

Investors vary in their preferences and limitations regarding infrastructure investment.

Liability-constrained investors, such as insurance companies and defined-benefit pension funds, are interested in infrastructure because of its potential to provide lower-risk, inflation-linked revenue streams that match their long-term, annuity-type liabilities. As such, these investors tend to prefer brownfield equity investments in developed markets with established cash flows. Insurance companies, in particular, have an interest in infrastructure debt. Certain pension funds allocate finances to greenfield projects, provided they are compensated for the incremental risk. But on the whole they are less likely to favour projects with material construction and completion risks, and untested demand.[45, 46] Other investors are deterred from greenfield projects because they believe the inherent risks are not rewarded with an appropriate upside; the social nature of infrastructure means that an investor who does achieve outsized returns could later face political pressure or adverse regulatory rulings.

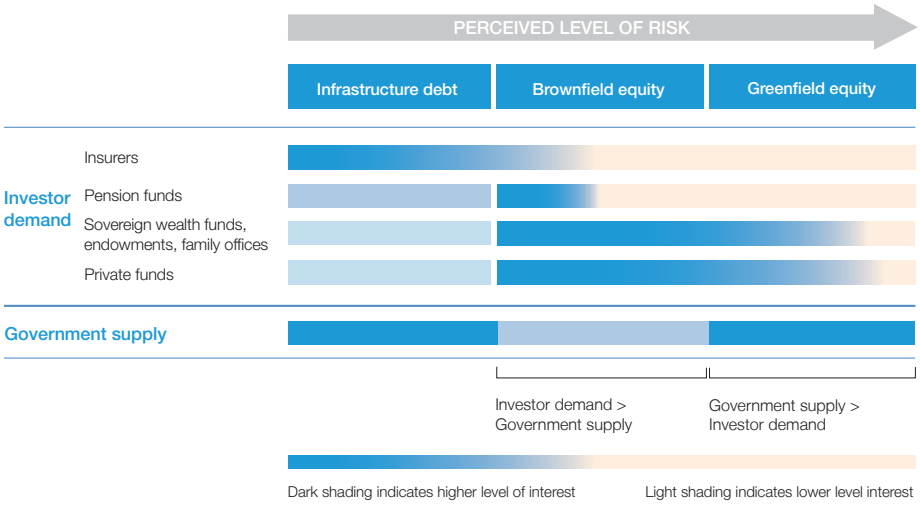
Asset-based investors such as sovereign wealth funds, endowments and family offices are considerably more likely to invest across the asset life cycle. A survey from Preqin found that 97% of sovereign wealth funds were open to greenfield investments.[47] Although mandates from their capital providers may restrict some infrastructure funds, others could have greater capacity for additional risk in greenfield projects. For example, Blackstone, an American private equity and alternative asset management firm, served as the lead investor in the construction of the Bujagali Hydroelectric Power Station in Uganda.[48]

Governments, on the other hand, tend to focus on greenfield projects, particularly as these are usually received positively by the public and can be positioned as sources of new jobs, services and growth. Moreover, in emerging markets with higher growth trajectories, the need for greenfield investment is appreciably higher than the stock of existing assets, so drawing finance to new projects is the top priority.

44 *Inside Credit: Shadow Banking Looks Set to Capture a Larger Share of Project Financing in 2013.* April, 2013. London: Standard & Poor's Rating Services.
45 Della Croce, R. *Trends in Large Pension Fund Investment in Infrastructure: OECD Working Papers on Finance, Insurance and Private Pensions, No 29*. November, 2012. Paris: OECD.
46 Inderst, G, Della Croce, R. *Pension Fund Investment in Infrastructure: A Comparison between Australia and Canada: OECD Working Papers on Finance, Insurance and Private Pensions, No 32.* July, 2013. Paris: OECD.
47 *Infrastructure Spotlight.* November, 2013. London: Preqin.
48 "Blackstone Commissions Hydroelectric Power Station in Uganda". Blackstone, http://www.blackstone.com/news-views/blackstone-blog/blackstone-commissions-hydroelectric-power-station-in-uganda, 2013.

Figure 9 illustrates the divergent preferences of governments and investors, and helps to underline why so much investor capital is not deployed even though so many projects lie unfunded.

Figure 9: Indicative Investor Preferences and Government Supply [49]



Source: Interviews with investors and governments, World Economic Forum

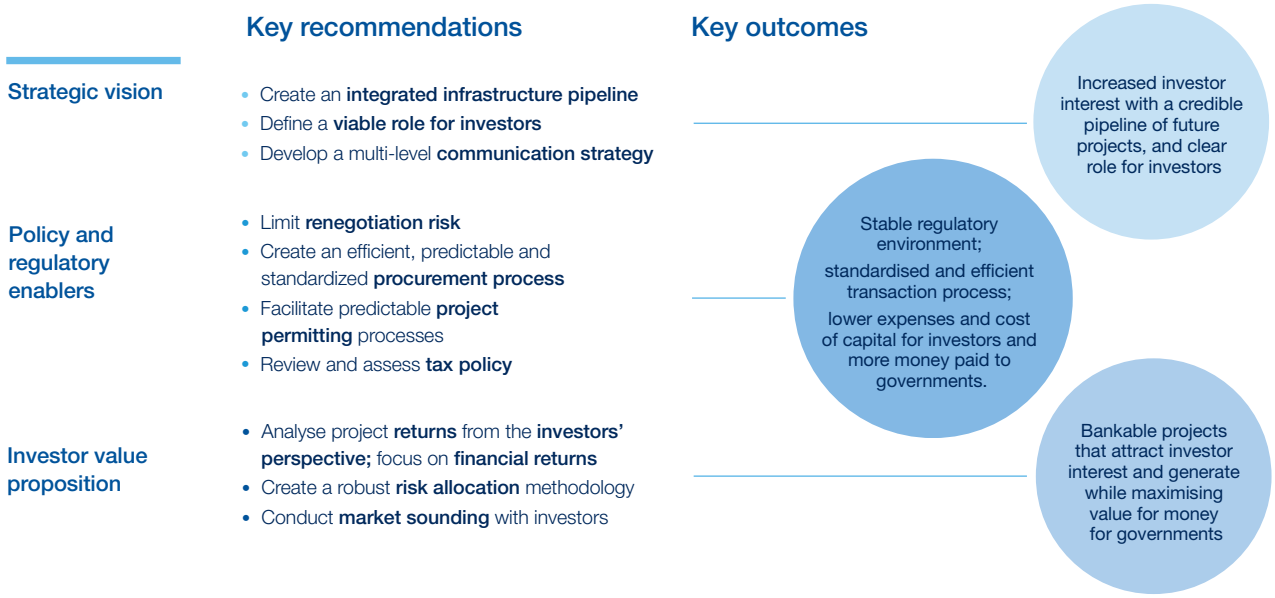
Yet real opportunity exists. The preferences in the illustration tend to be true generally, but heterogeneity exists *within* each investor category. For example, some pension funds are interested in the risk-return of greenfield equity investment, and others would invest more if transactions were structured to reduce construction and demand risks. In addition to the risk-return characteristics of an individual transaction, governments that provide a stable, predictable regulatory environment and create an infrastructure strategic vision are more likely to appeal to private capital across all potential types of investment. These policy issues are explored in depth in the remainder of this *Blueprint*.

49 The perceived level of risk shown in the figure is a simplification, and is meant to illustrate at a high level the preferences of different types of investors. A number of other factors influence the risk of a project beyond the state of development, such as the level of gearing, the political and regulatory regime of the host country and technology risk. These factors, among many other risks, have a large impact on the total perceived risk of a project.

II. Policy Recommendations

The *Blueprint* recommendations fall into three categories. First, policy-makers are advised to define and communicate a **strategic infrastructure vision** that aggregates and prioritizes a project pipeline, defines a viable role for private investors and sets out a communication strategy. Second, they should address critical **policy and regulatory** impediments to infrastructure investment. Third, each potential project and investment must show a clear **investor value proposition.** Figure 10 summarizes this framework. Subsections A, B and C discuss these three categories of recommendations, respectively. A checklist of all of the *Blueprint* recommendations is provided in the Appendix.

Figure 10: Policy Recommendations Framework



Source: World Economic Forum

> **A credible vision is much more than just marketing. It can eliminate frictions, such as investor uncertainty and public scepticism, and trigger productive collaboration between governments and investors.**

These recommendations address the main concerns expressed by leading investors across different countries and types of projects. No recommendation applies equally to every country, given the wide variation in political structures, economic development, state of infrastructure and government capabilities. Individual governments thus will need to create their own roadmaps to incorporate those suggestions that are the most relevant for them.

The recommendations are intended to provide an overview of the key issues for governments to address, instead of reviewing any topic in depth. Further discussion of the issues can be found in documents cited, such as earlier *Strategic Infrastructure* reports by the World Economic Forum.

A. STRATEGIC VISION

A strategic vision for infrastructure should be the first step for a government to maximize investor financing in infrastructure. This vision should describe the government's medium- to long-term infrastructure goals, along with the underlying economic and social rationale, and enable the prioritization of a pipeline of projects in the shorter term. A credible vision is much more than just marketing. It can eliminate frictions, such as investor uncertainty and public scepticism, and trigger productive collaboration between governments and investors. It ensures that a government makes the most of existing infrastructure, and that new infrastructure addresses clearly defined needs and is appropriately prioritized.

As part of a strategic vision, governments are advised to:

- Create a credible **infrastructure pipeline**
- Define a **viable role for investors,** and consider the value of brownfield capital recycling
- **Communicate** the potential value of, and safeguards around, private-sector involvement

These suggestions complement the framework for creating a strategic vision discussed in the Forum's earlier report, *Strategic Infrastructure: Steps to Prioritize and Deliver Infrastructure Efficiently and Effectively.*

Infrastructure Vision and Project Prioritization

The World Economic Forum's report, '*Strategic Infrastructure: Steps to Prioritise and Deliver Infrastructure Efficiently and Effectively,*[50] presents a detailed, robust framework and process on *how* a government can create an infrastructure vision and then prioritize individual projects.

The seven steps detailed in the report are:

1. Understand the current infrastructure situation
2. Formulate a long-term vision and medium-term goals
3. Prepare a list of infrastructure deficiencies that need to be rectified and identify potential solutions to address these deficiencies
4. Decide which potential solutions create the greatest impact in terms of economic growth, while considering social and environmental issues
5. Decide who should pay for the infrastructure – users or taxpayers
6. Finalize the prioritization of projects based on available cash resources (both government and private sector)
7. Move from planning to action. Publish and market the plan, ensure that the necessary policy changes are enacted and, for the selected projects, finalize the detailed preparation process so that "bankable" projects can be tendered

50 *Strategic Infrastructure: Steps to Prioritize and Deliver Infrastructure Effectively and Efficiently.* September, 2012. Geneva: World Economic Forum.

> **Bidders – particularly large institutions or consortia with broad skill sets and higher investment thresholds – will be more interested in a comprehensive set of opportunities than in *ad hoc* procurements.**

Recommendation: Create a credible infrastructure pipeline driven by a long-term vision

An ongoing pipeline of opportunities gives investors the confidence to build the necessary internal capabilities and local expertise. Bidders – particularly large institutions or consortia with broad skill sets and higher investment thresholds – will be more interested in a comprehensive set of opportunities than in *ad hoc* procurements. Given the tremendous due diligence costs of infrastructure transactions, a primary consideration for investors is whether an opportunity is one-off or will lead to repeat opportunities. Multiple opportunities can amortize the cost of building capabilities and expertise in a country across a portfolio of bids rather than assign it to an individual project.

An infrastructure project pipeline is a catalogue of individual projects that the government expects to execute in the short to medium term, and that should be prioritized according to a country's long-term vision. For example, a country's strategic vision might include creation of an integrated national freight network. Based on this desired outcome, immediate projects can be identified, such as specific rail corridors that require development or expansion.

The pipeline should offer enough detail to give confidence that the projects have undergone an appropriate level of initial due diligence. Project-level details of a pipeline should include:

- Description and current status
- Regulatory model
- Type of contract (e.g., concession, management and lease contract)
- Estimated start date and duration of project
- Estimated capital costs
- Lead and involved government agencies and permit approval requirements
- Key stakeholders

Smaller nations can be hampered in developing a credible infrastructure pipeline because of inadequate early stage project financing. Many potential bankable projects that could interest investors simply lack sufficient funding to move from the early concept proposal phase to feasibility studies and financial close. More systematic public-private collaboration in early stage financing can address this issue.

> **Smaller nations can be hampered in developing a credible infrastructure pipeline because of inadequate early stage project financing. More systematic public-private collaboration in early stage financing can address this issue.**

The Early Stage Project Financing Facility

For Africa, the World Economic Forum, together with Members of the Business Working Group of the Forum's African Strategic Infrastructure Initiative, has developed a new potential model for project preparation based on traditional Infrastructure Project Preparation Facilities (IPPF). In contrast to existing approaches, the proposed IPPF will be self-sustaining financially; it will generate returns for investors by recovering preparation costs of projects from their sponsors, plus a fee.

It will be structured as a joint public-private ownership model. The public sector will benefit from additional financial resources to prepare more projects more efficiently. Financial investors will be able to get involved early in the project pipeline to identify future investment opportunities, influence the design of projects at an early stage and generate additional business from the implementation of more projects.

For a pipeline to be successful, the government agency overseeing the prioritization and identification of projects must be aligned with those executing and funding them. For example, in large federalist countries with multiple layers of government, investment decisions are taken at the state, local or municipal level, or at least require their active approval. In such cases, the pipeline is typically best developed at a state or regional level, with the national role focused on coordinating inter-state projects, clearing roadblocks and promoting best practices.

> **A majority of investors interviewed for this report emphasized the importance of a clear pipeline of opportunities, although many expressed concern that governments – especially those from countries with a limited track record – might not follow through on execution.**

For example, the states in Australia develop, fund and execute the vast majority of infrastructure projects. Infrastructure Australia, a national infrastructure body, audits national infrastructure priorities and advises government ministries, local governments and various stakeholders.

A majority of investors interviewed for this report emphasized the importance of a clear pipeline of opportunities, although many expressed concern that governments – especially those from countries with a limited track record – might not be able to follow through on execution. The ultimate test of credibility is completing well-structured projects under an effective policy and regulatory environment.[51] But to enhance dependability in the short term, governments should gain buy-in of the vision and pipeline from a wide group of stakeholders, base plans on facts and evidence and enjoy some cross-party political support. Such an approach will make it likelier for future administrations to maintain and implement the project pipeline.

The recently formed West Coast Infrastructure Exchange in North America is an example of an innovative regional body that seeks to coordinate and build an infrastructure pipeline sourced from its member states.

The West Coast Infrastructure Exchange [52, 53]

The West Coast Infrastructure Exchange (WCX) is a partnership of the states of California, Oregon and Washington in the United States, and the province of British Columbia in Canada. Collectively, the region covered would be the fifth-largest economy in the world. Formed in 2012, the WCX aims to: create a standardized, consistent pipeline and marketplace for investors; improve coordination among member states; and offer technical advice to local governments to improve identification, analysis, procurement and execution of public-private partnerships (PPPs). This approach could be a potential model for other regional exchanges or even national and multi-country exchanges.

The WCX has identified crucial hurdles to long-term investing in infrastructure in the United States and Canada, including execution of a project pipeline, consistency of standards and processes within and between states, and coordination of government entities. After defining its mission and developing a vision for end-goals, the WCX has prioritized three focus areas:

- Pipeline and standardization – defining standards for private investment in public infrastructure and alternative project delivery, and using these standards to certify projects that follow best practices
- Technical capacity building – defining the mandate and approach to staff a team with technical capabilities that can advise government on evaluating, structuring and executing a PPP
- Pilot projects – working with local and state agencies to advance viable model projects and build momentum for wider adoption

Implementation will be iterative. Results from pilot projects and feedback from government and investors will be used to refine the exchange, and the pipeline built over time as the exchange proves its value. As the individual states build their own technical capabilities and experience, the WCX can adapt its needs for technical capability building.

In the United States, waiting for a national effort or even for WCX member states to submit long-term visions and pipelines would probably have been ineffective. By prioritizing the most vital issues, and working to iterate the approach, the WCX seeks to achieve faster results and build the marketplace.

51 Discussed in depth in Section B.
52 *West Coast Infrastructure Exchange Final Report.* November, 2012. Englewood: CH2M Hill.
53 *WCX: Framework to Establish a West Coast Infrastructure Exchange.* November, 2012. San Francisco: WCX.

> **An effective strategy can involve brownfield "capital recycling", in which the proceeds from the sale or long-term lease of existing brownfield infrastructure are used to fund greenfield projects.**

Recommendation: Define a viable role for investors, and consider the value of brownfield capital recycling

Governments that want to attract private investors must ensure that the infrastructure pipeline carves out a viable role for them. Not every project will involve private finance. To assess which projects would be most suitable for private sector participation, governments are advised to evaluate:

- **Value for money** [54] achieved across the full life cycle of costs from a public-private partnership (PPP) versus government funding – i.e., does this project benefit from private sector finance?
- **Infrastructure funding requirements** and government funding capacity – i.e., what is the type and amount of funding required from the private sector?
- **Long-term investor interest** in the market, specific projects in the pipeline and likely return requirements. This can include feedback from early market sounding – i.e., will this project attract interest from multiple bidders?
- **Governments' preferred projects** for private sector participation based on non-financial criteria – i.e., for what project is private sector participation most politically palatable?

Governments should then be able to identify a set of viable projects for the private sector. However, as discussed earlier in the Infrastructure Investment Landscape section, the expectations of governments and investors are not always aligned, reducing the number of possible projects for private investment.

For example, investors often prefer brownfield equity investments, while governments focus on debt and equity financing for greenfield projects. In such a situation, an effective strategy could involve brownfield "capital recycling", in which the proceeds from the sale or long-term lease of existing brownfield infrastructure are used to fund greenfield projects. As the latter develop, governments can recycle capital again to fund the next wave of infrastructure.

This strategy has the potential to unlock significant value, particularly because investors often place a value premium on brownfield assets. The brownfield recycling strategy also can enable the government and investors to develop a track record of collaboration and experience, which in turn can lead to greater interest in future greenfield projects. For example, the state of New South Wales in Australia has successfully deployed a capital recycling strategy, along with attracting capital for greenfield projects.

Restart New South Wales, Australia [55, 56]

It is estimated that the Australian government has on its balance sheet more than A$ 100 billion (US$ 89.23 billion) of commercially suitable infrastructure assets – some of which could potentially be used to encourage funding for new infrastructure.

The concept of "brownfield recycling" was implemented in the state of New South Wales (NSW), whose government created a capital fund, Restart NSW. The latter uses the proceeds of asset sales and dividends from public service delivery efficiency to invest in new infrastructure. Through this effort, the state government has eased taxpayer concerns, earned public acceptance for recycling capital and driven efficiency to fund new infrastructure.

54 For an in-depth review of the topic, please refer to *Strategic Infrastructure: Steps to Prioritize and Deliver Infrastructure Effectively and Efficiently,* September, 2012. Geneva: World Economic Forum.
55 *June 2013 National Infrastructure Plan.* June, 2013. Canberra: Infrastructure Australia.
56 *NSW 2013-14 Budget Papers*. June, 2013. Sydney: New South Wales government.

Initial asset restructuring projects in the Restart NSW programme have been highly successful. The Sydney Desalination Plant achieved a sale value of A$ 2.3 billion, while the 99-year lease of Port Botany and Port Kembla achieved a transaction price of A$ 5.1 billion. Proceeds will be put into the government's fund for new infrastructure, including new motorways and other regional projects.

Recommendation: Communicate the potential value of, and safeguards around, private sector involvement

A communication strategy is vital for an infrastructure project, given multiple stakeholders and potential public concern regarding private sector investment. Investors are highly sensitive to public opinion and stakeholder opposition because these can potentially derail a project or influence future political or regulatory decisions.

An effective communication plan, which should be focused at both the national and individual project levels, often determines a project's progress, as seen in Denver's "FasTracks" programme.

Denver's "FasTracks" Programme

In a referendum in 1997, voters in Denver in the United States rejected a measure to fund a massive expansion of the city's transit system, called Guide the Ride. But seven years later, Denver voters agreed to fund a redesigned and rebranded "FasTracks" programme – the largest voter-approved, all-transit expansion in the country at the time.[57] To win support, the city government had proactively engaged with the public and local businesses in the planning of FasTracks and clarified the benefits. It also hired a political consulting firm and conducted a US$ 3.5 million television ad campaign featuring Denver's mayor. A Citizens Advisory Committee was later established to provide input and advice on implementation to the board of directors of FasTracks.[58]

National infrastructure vision

The national infrastructure vision should be publicly available and should explain the infrastructure needed, its importance for the country and its relevance to individuals (beyond just macroeconomic data and forecasts). The vision also can highlight positive experiences from prior infrastructure concessions or PPPs, the benefits achieved and the mitigation of potential risks to the public.

Communicating the national infrastructure vision places an individual project in a broader, meaningful context. In the New South Wales capital recycling example, the government's clear strategy on proceeds earmarked for new infrastructure development made public acceptance of the individual transaction much more likely.

Project-level communication approach

At the level of an individual venture, governments should articulate and quantify the social returns and economic value gained from both the project itself and private sector investment. Moreover, it should be clarified not only that the public benefits, but also that the agreement is fair – that investors are receiving a reasonable return, but are not going to make windfall profits at the public's expense.

57 Thomasson, S. "Guest Post: Can the Feds Help Atlanta Rethink Its Failed Infrastructure Initiative?" Council on Foreign Relations Blog, http://blogs.cfr.org/renewing-america/2012/08/14/can-the-feds-help-atlanta-rethink-its-failed-infrastructure-initiative/, 2012.
58 http://www.rtd-fastracks.com/main_11, accessed 28 November 2013.

> **Clear communication on the difference between ownership and control can go a long way towards alleviating public alarm on many issues.**

Also helpful is identifying concerns about private involvement. Clear communication on the difference between ownership and control can go a long way towards alleviating public alarm on many issues. For example, private financiers often are minority investors, who have an ownership stake but typically do not operate the infrastructure project. Similarly, regulation – not ownership – determines service levels or user rates.

Governments and policy-makers should consider asking potential investors or the final investment partner to cooperate in designing a transparent, interactive communication strategy. They could seek feedback from investors on creative solutions to stakeholder concerns. As investors probably have been in similar situations previously, they can offer expertise and resources in this area; moreover, they have a vested interest in easing stakeholder apprehensions.

The communication process should focus on identifying key stakeholders, understanding their concerns and demonstrating how these will be addressed. The dialogue must be genuine. People should have an opportunity to explain their anxieties and, particularly for new projects, to influence a project's design; they should be able to take some level of ownership. This can be done through multiple avenues, such as town hall meetings, citizen's councils or online discussions.

Figure 11: Common Public Concerns about Infrastructure Development

General infrastructure development concerns	Private investor involvement concerns	Foreign investor involvement concerns
• Appropriate value, e.g., is the benefit of a multi-billion-dollar commuter transit line worth the cost? • Negative environmental impacts, e.g., on global warming, local waterways • Local economic and social disruptions • Lack of transparency, corruption	• Higher prices or user rates • Lower-quality services • Employee contract changes • Long-term stewardship of assets	• National security • Negative perception of the foreign investors' home country

Source: World Economic Forum

B. POLICY AND REGULATORY ENABLERS

A strategic infrastructure vision must be underpinned by an effective, transparent policy and regulatory environment. In discussions with investors, four topics clearly stood out as the biggest obstacles to infrastructure investment:

- Renegotiation risk
- Procurement process
- Permitting process
- Tax policy

B1. Renegotiation risk

The huge upfront capital costs and long-term nature of infrastructure finance means the life cycle of an investment typically transcends any government administration or individual regulator. Backers are therefore investing not only in the asset itself, but also in the stability of the political and regulatory framework, and in future administrations adhering to agreements. The continued strain on many government balance sheets, along with recent high-profile regulatory decisions, has positioned political risk, especially renegotiation risk, as a key investor worry in both developed and emerging markets.

In today's environment, investors are likely to be affected by subtle renegotiations or "creeping expropriations", whereby the accumulation of multiple small government or regulatory decisions can result in a significant loss of return.

Cases in Norway and Spain

Gassled of Norway is the world's largest offshore gas transmission system and effectively a state-regulated monopoly. In 2012, several investors bought a combined 45% interest in Gassled from oil and gas companies. A year later, the government proposed a 90% cut in tariffs for unbooked capacity, slashing the return that investors had expected when they entered the transaction. The government argued that the price-cut would still enable investors to get a fair return even as it helped the development of marginal gas fields.

In 2004, Spain promoted the development of renewable solar energy with a guaranteed feed-in tariff for a term of 25 years; the tariff was funded directly by the government. In 2009, the government tariff payment was over six times the market price of electricity and cost an estimated € 14 billion (US$ 19.15 billion) that year. Due to severe fiscal constraints, the subsidy was cut by 25%; this wiped out project equity holders and led to a write-down on the debt. Debt loads were typically 90%, as project risks were perceived to be low and the likelihood of receiving subsidies was perceived to be high.

Political risk can include events such as outright or currency expropriation, political violence and breach of contract. All these can be covered by private risk insurance, and emerging markets can engage with multilateral development banks (MBDs) to facilitate investor access to cheaper, quality-guaranteed risk mitigation instruments. These products can be indispensable for completing infrastructure investments, particularly in regions such as Latin America. Yet insurance is not free; the cost ultimately is borne by the taxpayer or investor. Moreover, not every political risk can be insured against. In today's environment, investors are likely to be affected by subtle renegotiations or "creeping expropriations", whereby the accumulation of multiple small government or regulatory decisions can result in a significant loss of return.[59] Such renegotiation risk is considerably harder, if not impossible, to insure against and remains a leading concern for investors.

In an environment of higher perceived political risk, investors will increase their required rates of return, thereby affecting the amount of private capital that governments can attract to infrastructure. For example, in 2003 the World Bank estimated that water companies in Brazil have a "regulatory risk premium" of 5% due to uncertainty regarding future decisions on water concessions. This 5% differential is significant; it results in a *35% decrease in sale prices for concessions* or, equivalently, a *20% increase in water tariffs.*[60] Given the difficulties of insuring renegotiation risk and its significant impact, practical governance structures to not just reallocate but also *reduce* renegotiation risk can be powerful catalysts for investment.

In an environment of higher perceived political risk, investors will increase their required rates of return, thereby affecting the amount of private capital that governments can attract to infrastructure.

Although the *Blueprint* focuses on recommendations for governments, investors also have tremendous power to minimize renegotiation risk. Investors who engage effectively with stakeholders and local communities, and ensure their investment returns can be justified from a public viewpoint, will do much to protect the longevity of their agreements. Investors that pay little heed to social welfare considerations can create a public perception that infrastructure concessions are about "privatizing the benefits while socializing the risks", and thereby encourage a backlash and renegotiation.

Recommendation: Consider governance and contract mechanisms to reduce the risk of renegotiation

Governments can consider several regulatory, legislative and contract mechanisms to counter financier concerns that investment terms may be re-traded ex post. Ultimately, however, the most effective way to truly minimize renegotiation risk is to design productive partnerships where both governments and investors clearly benefit, risks are allocated fairly and valid local stakeholder concerns are taken into account.

59 Sawant, Rajeev J. *Infrastructure Investing: Managing Risks & Rewards for Pensions, Insurance Companies and Endowments;* Wiley & Sons, 2010.
60 Guasch, J.L, Laffont, J.J., and Straub, S. "Re-negotiation of Concession Contracts in Latin America," World Bank Working Paper 3011, 27, March, 2003.

> **A clear and independent regulatory framework is the most powerful tool to reduce renegotiation risk and thus unlock more private capital.**

Regulatory framework

A clear and independent regulatory framework is the most powerful tool to reduce renegotiation risk and thus unlock more private capital. Contracts overseen by a regulatory system imbedded in general law, instead of standalone concessions, are less likely to be renegotiated.[61] Moreover, as discussed earlier, it is difficult for investors to insure themselves against regulatory decisions. As such, investors focus on a regulatory system's characteristics that increase the reliability and predictability of future decisions. These traits include:

- **Independent** and separated from political influence in decision-making
- **Explicitly considers the impact of decisions on the long-term investment climate**
- **Documented framework** of all considerations in setting prices with fixed periods of review; *ad hoc* reviews discouraged unless absolutely required
- **Full-time staff members** who can learn best practices in the marketplace and develop the expertise to balance the needs of government, users and investors

Regulatory structure also matters. While price-cap regulatory structures offer greater incentives for cost control, they also are more likely to result in renegotiations than the regulated asset base or RAB methodology that enables a narrower range of potential investment returns.

Legislative structure

An effective independent regulator with a track record of balanced decision-making is the optimal long-term goal, but is not necessarily a short-term option in some countries. Those with less-developed regulatory systems can consider other mechanisms to self-restrict their ability, and that of future administrations, to unilaterally amend agreements. Potential options include:

- **Provide explicit legal protection** from a changing political and regulatory environment. Chile's Decree Law 600 is an example.
- **Impose legislative hurdles** that self-constrain a government's ability to renegotiate terms by, for example, requiring a super-majority of legislative votes to approve any retroactive changes to the political and regulatory framework or renegotiate contracts. Government would retain the ability to make changes but should only be likely to do so in extreme circumstances.

Chile Decree Law 600[62,63,64]

Prior to 1973, the Chilean government did not have a strong track record on foreign investment, including several examples of expropriation. In 1974, a new government passed Decree Law 600 (DL600) to attract foreign investors – a revised form of which is still in place today. DL600 allows foreign companies investing more than US$ 50 million to opt-in to a tax and regulatory stability framework that most crucially provides that the framework in place at the time of the investment cannot be changed for up to 20 years. In exchange for this protection, the private company opting in is subject to a 42% tax rate instead of the typical 35%. By 2011, foreign investment valued at almost US$ 82 billion had materialized through DL600, representing over 56% of foreign capital entering Chile at that time. Although this happened before Chile's first concessions law in 1991 and was focused on foreign direct investment, it was critical in establishing Chile's reputation as a stable, attractive regulatory environment.

61 Sawant, *Rajeev J. Infrastructure Investing: Managing Risks & Rewards for Pensions, Insurance Companies and Endowments;* Wiley & Sons, 2010.
62 "What is DL 600?" Chile Comité de Inversiones Extranjeras (CIE) website, http://www.ciechile.gob.cl/en/dl-600/que-es-el-dl600/, accessed 28 November 2013.
63 *Creating an Attractive Investment Environment: Chile and Minera Escondida S.A.* Natural Resource Charter.
64 Hill, A. Foreign Infrastructure Investment in Chile: The Success of Public–Private Partnerships through Concessions Contracts. In *Northwestern Journal of International Law & Business,* 2011, 32:166-180.

> **Appropriate contract or concession design is critical to limit the possibility of renegotiation. Potential mechanisms include:**
>
> – **Profit sharing or return limits**
> – **Equity retention**
> – **Exemptions from future political and regulatory changes, or redress if future changes have a negative impact on the project**
> – **Dispute resolution framework that explicitly allows international arbitration**
> – **Well-defined termination payments**
> – **Appropriate incentive mechanisms**
> – **Payment structure**

Contract or concession design

Appropriate contract or concession design is critical to limit the possibility of renegotiation. Potential mechanisms include:

- **Profit sharing or return limits.** The social nature of infrastructure means a particularly high return for investors can provoke public resentment and political pressure to renegotiate. Contracts can be structured to cap investment returns, or enable profit sharing with the government after a certain rate of return has been reached. This enables governments to ensure that they participate in any windfall profits, and that future administrations are less inclined to change terms.
- **Equity retention.** Similar to profit-sharing mechanisms, the government's retention of an equity stake can guard against political backlash if the project performs particularly well. Joint participation in a project also can help to align the interests of all parties and result in a more collaborative approach. For example, the United Kingdom announced in December 2012 that it would act as a minority co-investor in future projects. The mechanism might bring additional governance complications, such as voting rights that the government as a minority shareholder then would have over operational decisions.
- **Exemptions from future political and regulatory changes, or redress if future changes have a negative impact on the project.** For example, in the case of a public utility, a contract may state that if a regulator caps rates below a specific level, the utility is entitled to a transfer payment from the government. Clear guidelines on appropriate compensation for certain regulatory or legal changes can make both investors and governments more accountable.
- **Dispute resolution framework that explicitly allows international arbitration.** For example, the investment contract may legally tie any disputes to be settled by an independent body, such as the London Court of International Arbitration. This is crucial when investors and governments are not from countries with Bilateral Investment Treaties, which give the former the right to submit investment disputes for international arbitration without reliance on local courts. While a private party may find it hard to oblige a government to go to international arbitration, an explicit clause can mean a dispute will be more likely to attract international attention and pressure from other governments.
- **Well-defined termination payments.** For example, Chile has used the Least Present Value of Revenues or LPVR methodology for several road projects – in early terminations, investors can be compensated for the difference between the winning bid and the revenue already received.
- **Appropriate incentive mechanisms.** Contracts should focus on operating and performance targets (e.g., for safety, environment and capacity) instead of investment inputs to ensure appropriate service levels for consumers. For example, in Latin America, the World Bank has found that infrastructure investment agreements where specific activities were mandated faced renegotiation 78% of the time, while in those concessions that contained operating and investment performance standards, renegotiation occurred in only 15% of the cases.[65]
- **Payment structure.** Governments may also agree to receive a concession payment in annual instalments, or receive a lump sum payment disbursed in instalments through a trust or escrow account. This annuity structure helps to create a sense of ownership by subsequent governmental administrations and reduces the chance of renegotiation.

65 Guasch, J.L, Laffont, J.J., and Straub, S. "Re-negotiation of Concession Contracts in Latin America," World Bank Working Paper 3011, 27, March, 2003.

Political risk mitigation can be achieved when MDBs either invest in or provide loans for a project. Since future lending and guarantees depend on current actions, governments have a strong incentive not to breach contracts with MDBs, compared to a single investor.

United Kingdom's Water Regulatory Framework

The United Kingdom (UK) privatized the water and sewerage sector in 1990. It created monopoly utilities that could finance infrastructure on capital markets, and established an independent regulator, known as Ofwat, to apply price-cap regulations, with price reviews every five years. Ofwat (or Water Services Regulation Authority) explicitly states that it needs to balance decisions, giving consideration to both the impact on customer bills and providing returns to investors, along with meeting various criteria for service and standards. Since 1990, the sector has seen more than £ 100 billion (US$ 163.68 billion) of private investment.

In 2009, Ofwat conducted a price review in the face of fiscal deficit concerns because of the financial crisis and upcoming 2010 general elections. Given the circumstances, Ofwat's determination was balanced. It fixed annual average customer bills across the UK water sector at £ 340 in real terms, and cut the real post-tax cost of capital, which drives the prices billed to customers, from 5.1% to 4.5%, reflecting capital markets in 2009. The UK water sector continues to have access to debt capital markets, has since raised £ 22 billion and still interests investors.

Recommendation: Developing countries can engage with MDBs to mitigate political and regulatory risks for investors

MDBs provide funding, political risk insurance and professional advice for economic and social projects in developing countries. The largest MDBs include those from the World Bank Group, along with regional development banks such as the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development and the Inter-American Development Bank Group.

Both governments and investors benefit from MDBs, providing the latter explicit political risk insurance. For example, the Multilateral Investment Guarantee Agency, the political risk insurance arm of the World Bank Group, offers Non-Honouring of Financial Obligations (NHFO) coverage to lenders for terms of up to 15 years, directly covering up to 95% of a government's unconditional payment under project contracts. Residual risk of 5% or more is retained by the private sector to encourage the investor to conduct due diligence of a country's political risk.[66] In addition to NHFO insurance, political risk covered by MDB insurance can include:[67]

- Currency inconvertibility and transfer restriction – losses resulting from an investor's inability to legally convert local currency to foreign exchange, when the situation has arisen from a government's actions
- Expropriation – when a government's actions reduce or eliminate ownership of, control over or rights to, the insured investment
- War, terrorism and civil disturbance – damage to tangible assets or total business interruption caused by politically motivated acts of war or civil disturbance
- Breach of contract – in the event the government breaches or repudiates a contract with the investor

Besides political insurance, political risk mitigation can be achieved when MDBs either invest in or provide loans for a project. Since future lending and guarantees depend on current actions, governments have a strong incentive not to breach contracts with MDBs, compared to a single investor. The close, long-term relationship of MDBs with government agencies means the former often are effective, independent mediators in the event of a dispute.

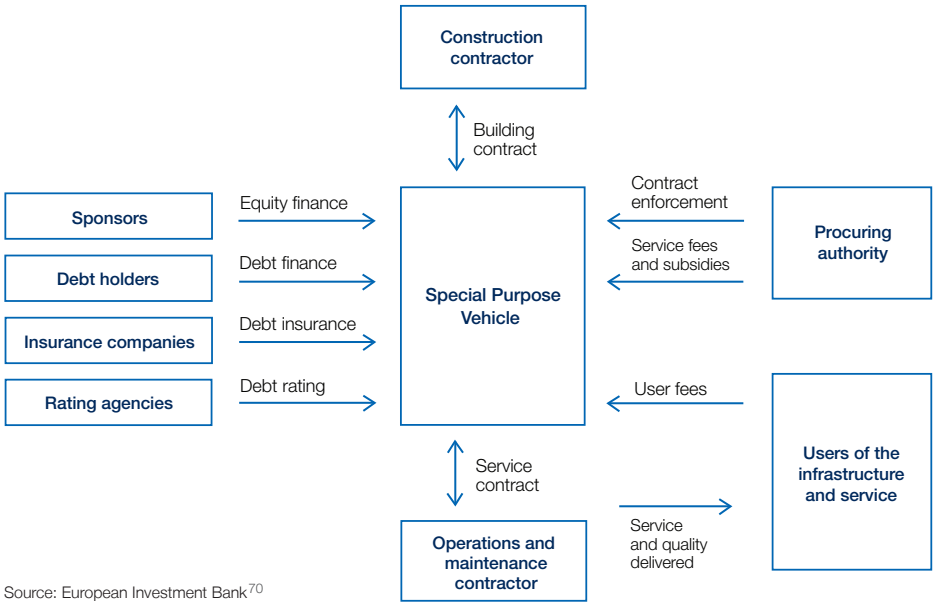
66 *MIGA Brief: Non-Honoring of Financial Obligations: Enhancing Credit and Increasing Access to Commercial Financing*. July, 2013. Washington DC: MIGA.
67 *Investment Guarantee Guide*. July, 2012. Washington DC: MIGA.

Multilateral Development Banks: Beyond Political Risk Insurance

Multilateral Development Banks (MDBs) can be important in promoting private sector investment in infrastructure beyond risk mitigation and financing. For a start, MDBs can help the overall investment climate for private sector participation by supporting the development of public-private partnership (PPP) policy, as well as legal and regulatory frameworks and institutions.[68] They also can encourage the development of local bond markets (particularly local currency bonds), which can provide a much-needed source of infrastructure debt, as discussed earlier in the Infrastructure Investment Landscape section.

MDBs also can help to manage conflicts of interest in PPPs, as the banks' objective to create long-term value in infrastructure development aligns with the interests of governments and investors. MDBs have less of a short-term focus on generating advisory fees than do other market participants, and can act as an essential bridge between the public and private sectors. As Figure 12 shows, governance structures for infrastructure projects are complex and require coordination of participants with potentially divergent interests. This complexity can be a major barrier for many investors. MDBs can coordinate the multiple stakeholders, promote greater transparency and information dissemination and limit the impact of conflicts of interest. In multinational projects, in particular, the supranational nature of MDBs positions them uniquely as "honest brokers" that can facilitate cross-border convergence of views.[69]

Figure 12: Infrastructure Project Governance Structure



Source: European Investment Bank[70]

68 Chowdhury, A, Orr, R, Settel, D. Multilaterals and Infrastructure Funds: A New Era. *In The Journal of Structured Finance.* 2009, 1-7.

69 Mutambatsere, Emelly, http://www.afdb.org/en/blogs/integrating-africa/post/; July 2013.

70 See Figure 3 in *EIB Papers: Public and Private Financing of Infrastructure: Evolution and Economics of Private Infrastructure Finance.* 2010. Luxembourg: EIB.

> **Bidding for a PPP project is time-consuming and costly for investors and governments. Delays and inefficiencies notably limit investor interest. A standardized process, as well as strong technical skills and capabilities, will ease many common deterrents to bidder interest.**

B2. Procurement process

Bidding for a PPP project is time-consuming and costly for investors and governments. Even an efficient process can take 18 months from the initial expression of interest to financial close, and cost a bidder more than 1% of total project capital costs. Delays and inefficiencies notably limit investor interest.

Recommendation: Task a PPP Unit with improving the efficiency of the procurement process by increasing standardization and predictability, and providing technical skills to line agencies

A specially tasked PPP Unit can be a highly effective mechanism to centralize transactional capacity within government and drive efficiency in procurement.[71] The unit should explicitly document and implement a consistent, transparent process that can be applied across multiple projects. Greater standardization and transparency will facilitate the participation of investors, especially those with large assets but relatively limited resources for the investment process.

The PPP Unit should promote standardization across the following aspects:

- Format and structure of bidding process documentation, such as submission and response templates for expression of interest (EOI) and request for proposal (RFP)
- Timing expectation for each phase of the process
- Legal and regulatory rules and interpretations
- Contract structures
- Terminology

A standardized process, as well as strong technical skills and capabilities, will ease many common deterrents to bidder interest such as:

- Poorly structured or unclear EOI and RFP documents
- Unnecessary information requests
- Material changes to the project structure or scope
- Failure to adhere to an agreed timeline
- Extended bidding stages (which should happen only if absolutely necessary, for example, due to changed market conditions or insufficient bids)

Centralizing transactional capacity enables the public sector to build expertise for implementing complex infrastructure agreements. This is important if infrastructure projects are usually executed at the local government or sector levels, where it is uneconomical to have full-time staff for infrastructure development if transaction flows are irregular. Enhancing public sector expertise and experience not only supports government officials in negotiations, but also enables them to identify appropriate transactions for private investment. As discussed later in the Investor Value Proposition section, increasing official familiarity with the market lowers the risk of wasting time and resources on a project that elicits little interest at the public bidding stage.

71 PPP Units often can have several other roles and responsibilities beyond the procurement process, e.g., serving as centres of excellence in PPP-related matters, PPP policy development and maintenance and contract management.

A PPP Unit can act as a trusted adviser for line agencies or local governments as they run a process, or can have the authority to execute a process itself. The latter option can be effective and prevent intra-government decision gridlock, but risks alienating officials in the line agencies responsible for implementing or overseeing the operations later.

A PPP Unit can act as a trusted adviser for line agencies or local governments as they run a process, or can have the authority to execute a process itself. The latter option can be effective and prevent intra-government decision gridlock, but risks alienating officials in the line agencies responsible for implementing or overseeing the operations later. Setting up an effective PPP Unit is not a simple task. Governments must invest time and resources to design a unit, ensure its authority and mandate are aligned, locate it in the appropriate ministry and find and retain high-quality staff that are properly compensated. The World Bank and Public-Private Infrastructure Advisory Facility or PPIAF, among others, provide guidance, expertise and detailed examples to manage some of these issues.[72]

Note on Standardization

Many investors and market participants interviewed expressed a desire for standardization of procurement processes and documentation at a regional, or even global, level. An example frequently cited was that of International Swaps and Derivatives Association agreements, which created a global standard in lieu of costlier *ad hoc* bilateral agreements. Investors and policy-makers interviewed noted that greater standardization would be particularly helpful for smaller infrastructure projects, where the high diligence costs relative to the total size of investment frequently make these projects unviable for investors. The issue is beyond the scope of this report, but the World Economic Forum supports continued dialogue on developing a set of common global or regional standards for public-private partnership transactions.

Partnerships British Columbia[73]

Partnerships British Columbia advises local agencies on a variety of services, ranging from project screening and analysis to procurement and post-financial-close monitoring. A wholly owned corporation of Canada's British Columbia (BC) province reporting to the Minister of Finance, Partnerships British Columbia weights private and public benchmarks equally when assessing compensation for staff. Advice is offered on a fee-for-service basis. In the financial year ended March 2013, the company had revenues of more than C$ 9.6 million (US$ 9 million) and around 40 full-time equivalent staff. Since its inception in 2002, Partnerships BC has participated in more than 35 projects with an investment value of about C$ 12.5 billion.

B3. Permitting process

The lack of coordination and clarity on regulatory approvals, deadlines and accountability is identified as a major hurdle to investment. Regulatory delays can add substantial cost to project execution and severely affect returns by delaying project completion and revenue collection.

Recommendation: Review and streamline regulatory and environmental permitting processes, and appoint a lead agency to manage and coordinate the process

Governments first need to understand the potential hurdles in approval processes. For example, an Australia Productivity Commission review of the upstream petroleum sector found that a single liquefied natural gas project could require up to 390 regulatory approvals, and that expediting regulatory approval for a major oil or gas project by one year could increase the value of its returns by up to 20%.[74]

72 For example, see: *Public-Private Partnership Units: Lessons for their Design and Use in Infrastructure.* October 2007. Washington DC: World Bank and PPIAF.
73 *Partnerships British Columbia Minister-Approved Annual Report 2012/2013*. 2013. Victoria: Partnerships BC.
74 *June 2013 National Infrastructure Plan.* June, 2013. Canberra: Infrastructure Australia.

> **For complex projects that involve many government approvals, a government should appoint a lead agency to coordinate efforts. When technically and politically feasible, governments can make reviews simpler by restricting the number of agencies involved.**

For complex projects that involve many government approvals, a government should appoint a lead agency to coordinate efforts. Key actions for the lead agency include:

- **Demonstrate a clear path to project execution,** for example, by developing a roadmap that lists the involved government agencies, approvals and sequencing of reviews
- **Mandate target or fixed deadlines** for various approvals, particularly critical deadlines that could, for example, halt construction if missed
- **Promote interagency agreements** that provide general principles for improving coordination, cooperation and information sharing
- **Resolve disputes** due to ambiguities and overlaps in authority
- **Limit duplication of effort** by promoting the sharing of information useful to different agencies and coordinating information requests so that similar requirements are in the same format and structure
- **Promote simultaneous approvals** when possible; agencies can often provide conditional approvals on all other requirements being met, without waiting to start their own approval process
- **Define points of contact** within each relevant agency, including both the lead group within the agency and an individual
- **Identify project champions,** such as political leaders with a vested interest in the project's success; they often can apply political pressure and break through political gridlock

Establishing a lead agency should be complemented with:

- Sufficient funding, resources and expertise within government agencies to meet deadlines. An agency otherwise might be forced to deny approval because appropriate diligence or coordination of other agencies was not completed in time.
- Authority to enforce deadlines and resolve disputes. If the lead agency is not granted formal authority, a mechanism should exist to efficiently resolve disputes.

When technically and politically feasible, governments can make reviews simpler by restricting the number of agencies involved. For example, Canada recently implemented a "one project, one review" policy to limit multiple, overlapping government reviews. It cut the number of federal departments undertaking environmental assessment from 40 to three, and introduced agreements with provincial governments that allow provincial assessments to satisfy federal requirements.[75] Such initiatives need to be well structured, because the public could perceive "streamlining" as reducing of controls and robustness of review.[76]

United States Federal Energy Regulatory Commission[77,78,79]

In 2005, the Energy Policy Act designated the Federal Energy Regulatory Commission (FERC) as the lead federal agency in the United States for review and compliance of interstate natural gas pipeline projects under the National Environmental Policy Act. FERC was given the authority to establish timelines for all government agency authorizations, which currently are set at 90 days after FERC issues its final environmental document.

75 "Harper Government Announces Plan for Responsible Resource Development". Natural Resources Canada. http://www.nrcan.gc.ca/media-room/news-release/2012/45/6148, 2012.

76 Davidson, A. "Ottawa to slash environment review role: Critics accuse Tories of 'abdicating' government's responsibility to protect environment". CBC News. http://www.cbc.ca/news/politics/ottawa-to-slash-environment-review-role-1.1158340, 2012.

77 *Pipeline Permitting: Interstate and Intrastate Natural Gas Permitting Processes Include Multiple Steps, and Time Frames Vary.* February, 2013. Washington DC: US Government Accountability Office.

78 *Interstate Natural Gas Pipelines: Process and Timing of FERC Permit Application* Review. July, 2013. Washington DC: Congressional Research Services.

79 *Expedited Federal Authorization of Interstate Natural Gas Pipelines:* Are Agencies Complying with EPAct 2005. December, 2012. Washington DC: Interstate Natural Gas Association of America.

> **Foreign investors are commonly taxed at higher levels due to specific legal provisions. This can considerably diminish competition and deter investment. Given the long-term nature of infrastructure financing, changes in tax policy over time pose a significant risk.**

The process is complex – it involves numerous federal, state and local agencies, as well as public interest groups and citizens. It has multiple steps. For example, the Army Corps of Engineers may need to authorize water crossings, or the Bureau of Land Management may need to grant permission to cross federal lands.[80]

However, the lead agency approach has been broadly successful. The average approval process takes less than 12 months, based on data from 2010 to 2012. FERC reacted swiftly to the shale gas boom by approving more than 40 billion cubic feet per day of capacity in 2008, more than double the amount approved in any year since 1996. Stakeholders view the process as consistent, because the FERC acts as a lead agency in coordinating multiple stakeholders, compared with intrastate approvals where there is greater variation.

In 2013, a FERC commissioner testified before the United States' Congress that "for the most part, people have been fairly satisfied with the process we have at FERC for new pipelines", although "it could be done quicker". Industry participants would probably agree that impediments exist that can be removed. For example, FERC requires final decisions from agencies 90 days after it completes the final environmental document, but it lacks an enforcement mechanism – which can contribute to delays. However, such flaws do not detract from the overall benefits of a lead agency promoting coordination.

B4. Tax policy

A complex topic with far-reaching public policy implications, tax law is specific to each country. This report does not propose any specific tax policy or incentive that can be applied globally. Governments should recognize, however, that tax policies designed to encourage investor actions – and the incentives or disincentives underlying those policies – can sometimes have unintended consequences and inconsistencies across similar types of investments and investors. Governments keen to grow private investment in infrastructure should consider certain taxation issues.

Recommendation: Ensure taxes do not systematically advantage or disadvantage certain types of investors and are stable over time

Foreign investors are commonly taxed at higher levels due to specific legal provisions. This can considerably diminish competition and deter investment.

Given the long-term nature of infrastructure financing, changes in tax policy over time pose a significant risk. Special taxes related to a specific project or industry can effectively be a form of renegotiation risk. Governments can consider mitigating this risk through tax stabilization or by guaranteeing a maximum tax rate for the life of the project.

Recommendation: Assess the holistic impact of all taxes on the project's financial viability

Besides income taxes, many other taxes can affect a project, including those for property, sales, capital goods and raw materials, as well as city, state and regional taxes. The aggregate level of taxes may be perceived as uncompetitive or inefficient. Governments therefore should review the total potential impact of a collective tax regime on infrastructure projects and investors.

Tax holidays or incentives are often used to attract investment in certain regions, facilities or geographies. Government should carefully consider the effectiveness and value of various tax incentives, and assess whether they are truly required.

80 Other agencies potentially involved include: National Park Service, the Minerals Management Service, Bureau of Reclamation, Bureau of Indian Affairs, US Forest Service, Department of Transportation, Environmental Protection Agency, US Fish and Wildlife Service, National Marine Fisheries Service, Advisory Council on Historic Preservation, Department of Energy.

> **Investors are "global shoppers" for infrastructure and rank investment opportunities based on risk-returns. In this sense, countries compete for investor capital in much the same way as investors compete for projects. A competitive risk-adjusted return is a primary motivation for investing in infrastructure. Governments should devise guiding principles for risk allocation that attract investors and maximize value for money for the public.**

C. INVESTOR VALUE PROPOSITION

Investors are "global shoppers" for infrastructure and rank investment opportunities based on risk-returns. In this sense, countries compete for investor capital in much the same way as investors compete for projects. A country's positive political and regulatory environment or credible strategic vision will be insufficient if a project is financially unviable. From the investor's perspective, a project should provide adequate returns for the associated risks compared with other available options. From the government's perspective, a project should provide value for money so that the ultimate risk-adjusted cost of transfer to the private sector is lower than if the government funded and developed the project itself.

Investors are drawn to a project with a clear investor value proposition – a project that is *financially competitive* and compatible with an *investor's risk appetite, capabilities and mandate*. To develop a strong investor value proposition, governments should:

- Analyse the project from the investor's perspective and benchmark the risk-adjusted returns
- Create a standard methodology and framework for allocating risks. Structuring of demand risk and refinancing risk are particularly important to investors in greenfield projects.
- Conduct market sounding with investors to collect feedback on the project and determine necessary refinements

C1. Financial returns

Recommendation: Analyse the project from the investor's perspective and benchmark the project's risk-adjusted returns

A competitive risk-adjusted return is a primary motivation for investing in infrastructure. This is not to undermine social and economic benefits, which are very important for the government and the public. These also may be important for an investor, as a project with a clear value to society can position the investor as a first-choice partner for a government. But the government should not expect the investor to accept a lower return because of a project's social benefits, given that the fiduciary duty of many investors is to maximize risk-adjusted returns. As such, the primary focus of a project's presentation should be on risk-adjusted returns.

Of course, private investors undertake their own financial analysis and forecasts. It is nonetheless important for the sponsoring ministry or PPP Unit to analyse the project from the private sector's view to evaluate the expected return profile. The project also should be benchmarked against global opportunities to assess its likelihood of attracting financing. Investors do not evaluate an infrastructure opportunity in isolation. Benchmarking therefore should consider infrastructure projects in not only other jurisdictions, but also other asset classes such as government bonds, equity markets and private equity.

C2. Risk allocation

Recommendation: Create a standard methodology and approach for risk allocation

Governments should devise guiding principles for risk allocation that attract investors and maximize value for money for the public. For example:

- Remember: no "free lunch". Investors will require compensation for greater risk. Government guarantees or mitigation instruments have either a direct or contingent cost in the future, and premiums must be paid to insure risks. The objective should be to maximize value for money; this is not necessarily achieved by transferring all risks to private investors.

- Allocate each risk to the party best able to most efficiently manage its likelihood and impact
- Ensure that the potential upside of risks is evaluated and allocated in addition to the downside (e.g., governments might wish to implement revenue-sharing mechanisms for potential sizeable outperformance)
- Share risks that are difficult for either party to manage, or where both can help to mitigate the likelihood and impact

Figure 13 provides a simplified overview of typical high-level risks for a greenfield concession project and an example of risk allocation to investors and government. If both owners are "ticked" for an individual risk, then it may be shared or the risk owner may vary depending on the individual project.

Figure 13: Simplified Illustrative Risk Allocation Matrix

			Potential risk owner	
Phase	**Risks**	**Example risk drivers**	**Investors**	**Government**
Design and construction	Project design	Inadequate planning, substandard design versus user requirements, lack of system integration, delayed construction permits	X	
	Financing and refinancing	Cost and availability of financing and refinancing, counterparty and government-sponsored risk	X	X
	Construction (overruns and delays)	Equipment and raw material costs, labour costs, construction firm and subcontractor expertise, complexity of project, long-lead equipment delays	X	
	Site	Availability of the site (land acquisition, right of way), quality of the site (geological conditions, contamination), zoning permits	X	X
	Environmental and social	Delayed permits, environmental constraints for construction and operation, stakeholder opposition, mitigation costs	X	X
Operational	Operations and maintenance costs	Labour costs, raw material inputs, poor design	X	
	Performance and availability	Operational efficiency, system underperformance, service interruptions, innovation risk	X	
	Demand risk	Lower demand than forecast, poor macroeconomic conditions, price elasticity	X	X
Across phases	Political and regulatory	Lack of currency convertibility, changes in laws/regulations, expropriation, termination, breach of contract	X	
	FX	Fluctuations in exchange rates	X	X
	Force majeure 81	Natural or man-made events e.g., earthquakes, flood, hurricane, civil war, riot, crime, strike	X	

Note: Grey shading denotes discussed in more detail.

Source: World Economic Forum analysis; Oliver Wyman; World Bank

The risk matrix is useful as a high-level communication tool and should be complemented by in-depth risk assessment and quantification efforts. The drivers for each risk should be identified. This will enable better quantifying of risks, clarify which party owns which risk drivers, and support risk-allocation decisions. For example, drivers of construction delay risk might include long-lead equipment delivery delays or design flaws. These risk drivers may have different owners, as well as different likelihoods and impacts.

81 Refers to primary risk owner; force majeure can typically be insured by a third party.

Governments should consider sharing financing risk when adverse credit markets hamper obtaining long-term debt funding for commercially sound projects, or when refinancing potentially becomes a major threat to the government. Risk sharing should not be regarded as a "free incentive", but should be seen in the context of cost-benefit and value for money.

Investors typically own risks related to project design, construction, and operational performance, reliability and costs. These risks tend to best managed and controlled by project sponsors. Political and regulatory risk is controlled by the government but ultimately owned by the project. As discussed earlier in the Policy and Regulatory Enablers section, the government can take steps to mitigate political risk but future administrations ultimately are able to renegotiate or change terms.

Many risks do not have a simple "one size fits all" solution. The specifics of an individual project and country, and the estimated size of the risk are key determinants. For example:

- Foreign-exchange risk is often owned by the investor, who may hedge the exposure, but not necessarily in all cases. For example, the Chilean government has compensated concessionaires if the peso loses more than 10% of its value against a hard currency (and vice versa if the peso gains more than 10%).[82]
- Land acquisition risks are often controlled and owned by governments, especially when they mandate a particular site for a project. For example, requiring the government to complete land acquisition before putting a project out to tender is standard risk mitigation in South Korea.[83] In other cases, the site of the project may be integral to design innovation – in which case the sponsor would incorporate that risk in the planning and own any potential upside from holding the real estate.

Investors often focus on financing and demand risks, particularly in an environment of subdued bank lending or unpredictable future patronage.[84] These specific risks are discussed in greater detail, alongside potential allocation and mitigation options.

Financing Risk

Securing debt financing at a reasonable cost typically has been the responsibility of the project sponsors and investors. Governments prefer to have a credit approval and a term sheet submitted with each bid for long-term financing. Bidders, on the other hand, may not be able to obtain financing over a long enough time horizon, and bond markets may not be robust or willing enough to accept the project risk. Alternatively, investors may be able to only obtain a shorter-term loan, which exposes the project to major re-refinancing risk. In this case, while the project technically owns the risk, bankruptcy due to refinancing could have major negative consequences for the government – delays in delivering needed infrastructure and the possibility that it would have to take over the project.

Governments should consider sharing financing risk when adverse credit markets hamper obtaining long-term debt funding for commercially sound projects, or when refinancing potentially becomes a major threat to the government. Risk sharing should not be regarded as a "free incentive", but should be seen in the context of cost-benefit and value for money.

Two examples of financing risk-sharing mechanisms are:

- **Credit guarantees.** Governments can leverage their balance sheets and effectively guarantee the credit risk of longer-term loans for selected projects. In doing so, governments should quantify the credit risk, the fees received to compensate for the risk, and the scope of projects that can be financed in this manner. Credit guarantees also can apply to a specific time horizon of the project, such as the construction period, as Italy recently demonstrated.
- **Sharing refinancing risk.** Governments can guarantee repayments of construction loans and share the costs and benefits of interest-rate market changes. Some Australian states have taken this approach.

82 *Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships.* May, 2013. Geneva: World Economic Forum.
83 Ibid.
84 Broader political and regulatory risks, also noted as particular concerns in investor interviews, are discussed in Section B.

For projects with high uncertainty and untested demand, which investors have limited ability to influence, many investors may be reluctant to own the risk.

Risk-sharing Mechanisms

Italy. Faced with huge infrastructure spending needs and a deep reliance on bank loans, Italy has introduced new laws to help kick-start a public-private partnership (PPP) programme. One law, called the **First Growth and Development Decree**, gives guarantees to certain bonds for infrastructure financing for a specific period, possibly during a project's construction or until the project is picked up by the concession holder. The aim is to boost international interest in Italian infrastructure investment and address investor reluctance for construction risk in greenfield projects.[85]

United Kingdom (UK). To support high-priority national projects that are financially viable but have not proceeded because of an adverse credit market, the UK created a **£ 40 billion (US$ 65.56 billion) credit guarantee scheme.**[86] Nationally significant projects that meet specific criteria are eligible to leverage the UK's credit AAA rating. The drawback to this fully guaranteed approach is that it reduces or removes the requirement for bondholders to assess project risk. This therefore potentially constrains longer-term capacity growth for investment in project bonds as an asset class, i.e., investors would be financing infrastructure but doing so under a typical sovereign fixed-income product.[87]

Australia. Some state governments in Australia recognize that investors face considerable refinancing risk in PPP projects and have offered shared **refinancing risk** on interest-rate margins as well as guarantees of a material senior debt repayment once construction is finished. These structures promote lower costs to taxpayers via reduced financing margins, increased probability of successful project completion and a greater supply of capital. Sharing refinancing risk also allows the public to participate in profits when interest rates are decreasing.

For example, the Reliance Rail project was unable to repay debt at the refinancing due date. The government of New South Wales (NSW) committed further capital to the project conditional to construction completion. This reduced the refinancing risk but retained construction risk within the project. This model is being rolled out across new PPP assets in NSW, as it is now recognized that to ensure project viability, refinancing risk must be reduced to a sustainable level in highly geared structures.

Demand Risk

For established assets with a demand history, investors typically are willing to accept demand risk, if it is relatively low, quantifiable and predictable.

For projects with high uncertainty and untested demand, which investors have limited ability to influence, many investors may be reluctant to own the risk. (They may cite projects like the Lane Cove Tunnel and Cross City Tunnel in Australia, where demand was 30% below forecast and which went into receivership.[88]) In such projects, the government has the option to share or own demand risk:[89]

In these cases, governments have a range of options for sharing or owning demand risk, such as:

- Availability-based payments – the government takes the full demand risk as long as the infrastructure meets availability requirements and criteria

85 *Italy Looks to Institutional Investors to Support its Infrastructure Financing*. November, 2013. Standard & Poor's Ratings Services.
86 *The UK Guarantees Scheme for Infrastructure Projects: A Brief Overview of the Standard Documentation.* June, 2013. London: Allen & Overy.
87 "UK Scheme Sufficient to Align Infrastructure, Sov Ratings". Fitch Ratings, http://www.fitchratings.com/gws/en/fitchwire/fitchwirearticle/UK-Scheme-Sufficient?pr_id=796481, 2013.

- Risk sharing:
  - The government and investors both take the downside and the upside
  - Collars: the government owns the risk below a certain threshold and upside above a threshold
  - Hybrid: for example, investors receive availability payments to cover debt coverage and operating expenses; any equity return is linked to direct-user charges

Assessing demand risk requires a robust methodology, so that the government can understand the potential value of risk-mitigation or risk-sharing mechanisms. Overly optimistic demand projections underestimate the risk and therefore the cost of risk mitigation provided to investors. It is vigilant practice to use scenario and simulation analysis to forecast demand risk on the project.

Jädraås Onshore Windfarm: Example of Risk Allocation[90]

When fully commissioned in May 2013, Jädraås Onshore Windfarm in Sweden was the largest of its kind in Scandinavian Europe. The 203-megawatt project, valued at € 360 million (US$ 492.6 million), showed that thoughtful risk allocation and mitigation could attract pension funds to greenfield investments. PensionDanmark invested € 120 million in debt financing, supported by an AAA-backed credit guarantee from EKF, Denmark's export credit agency. Critical risks were shared:

Revenue risk: Revenue from onshore wind farms depends on the quantity of energy produced and the price received. Vestas, the operator, owned the risk of underperformance in its contract with Jädraås. The project sponsors were experienced in the market and well placed to manage pricing risk. At current historically low prices, and relatively illiquid markets 10-15 years in the future, power purchase agreements were deemed a poor choice. The project instead took on a rolling five-year hedge for electricity prices and a three-year rolling hedge for renewable electricity credits to avoid locking in low rates at high broker premiums for a lengthy period.

Construction risk: Jädraås bought the wind farm as "ready-to-build", avoiding the delays associated with permitting and public approvals. Construction cost risks could be allocated to Vestas, the main technology provider.

Financing risk: Because of a lack of interest, only half of the required debt financing was raised from commercial banks. EKF's credit guarantee underpinned the Jädraås financing structure, and was vital for the investment from PensionDanmark. The latter is estimated to have secured a return of 1-1.5% above that of government bonds for taking the liquidity, currency and interest-rate risks, while EKF took the project's residual commercial, political and non-payment risks.

C3. Market sounding

Recommendation: Conduct market sounding with investors to gather feedback on the project and determine necessary refinements to attract interest

Before a formal procurement process, market sounding should be conducted with potential bidders and other stakeholders about project and process design. Market sounding could involve online forums, requests for written submissions, invitations for interviews and road shows with individual or small stakeholder groups. The purpose is to encourage dialogue and feedback on project viability, and then potentially incorporate this input into the project design to strengthen its value proposition.

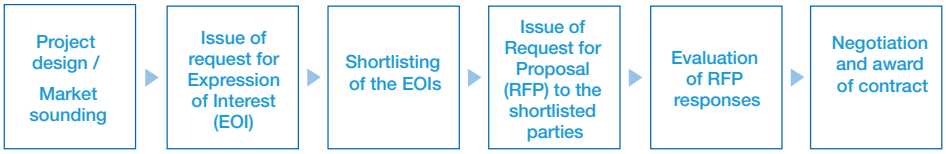
88 *New Models For Addressing Demand Risk in Infrastructure Projects.* 2010. PricewaterhouseCoopers.

89 For more demand risk-sharing examples, see Section 3.3 in *Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships.* May, 2013. Geneva: World Economic Forum.

90 *San Giorgio Group Case Study: Jädraås Onshore Windfarm.* September, 2013. Climate Policy Initiative.

> **Without market sounding, the government runs the risk of spending time and resources only to find little investor interest at the formal tender stage. Interviews with investors and policy-makers suggest this scenario is familiar, and frustrating.**

Figure 14: Typical Procurement Life Cycle



Source: World Economic Forum analysis; Oliver Wyman

Without market sounding, the government runs the risk of spending time and resources only to find little investor interest at the formal tender stage. Interviews with investors and policy-makers suggest this scenario is familiar, and frustrating. The *Blueprint* highlights this aspect of the broader procurement process.[91] Governments understandably can hesitate to engage fully in interactive market sounding due to potential probity or corruption issues, and the challenges of managing an effective, unbiased process. The benefits, risks and recommendations for effective market sounding are as follows:[92]

Benefits

- Develops government understanding of the investor market, helps to ensure investor interest and takes advantage of private-sector knowledge, especially of design issues that organizations might have resolved in other projects
- Informs potential bidders at an early stage of design issues and opportunities in the project, thereby assisting them in forming consortia with design expertise

Risks

- Potential bidders may not provide critical feedback, particularly if it is perceived as possibly compromising their involvement in the future process
- Market sounding could, or be perceived to, shape a project to suit a particular investor or proposal

Recommendations

- Include a variety of market participants who are sufficiently qualified to speak about project details to avoid overemphasizing one particular opinion
- Ensure an open and fair process by documenting process and results
- Clearly communicate that market sounding is not part of the formal tender process, so that participants are encouraged to speak freely about concerns
- Invest time in preparing the background documentation, and clarify the issues for discussion with the market (e.g., technical design, risk allocation, contract structure) to elicit specific responses

Market Sounding on FNM

As part of the restructuring and privatization of FNM, Mexico's national railway, the government and its advisers held iterative "road shows" with potential stakeholders to gather feedback on structuring the sale to generate the most investor interest and enhance transaction value. The market sounding determined that investors would favour sales of vertically integrated (operations and network), geographically distinct concessions. Equally, investors wanted third-party access to the rail network to be limited, because otherwise "cherry picking" of traffic would probably occur, greatly reducing the value of franchises. This information was incorporated into the successful privatization structure, which involved sales of three concessions that generated a total of more than US$ 2 billion for the government.

91 Other stages in a typical procurement process are highlighted in Figure 14.

92 For resources on market sounding preparation and the overall project preparation and procurement process, refer to *Strategic Infrastructure: Steps to Prepare and Accelerate Public-Private Partnerships.* May, 2013. Geneva: World Economic Forum; resources on the World Bank's Public-Private Infrastructure Advisory Facility website (www.ppiaf.org); or national advisory groups such as Infrastructure Australia (www.infrastructure.org.au) or websites such as www.infrastructureaustralia.gov.au or P3 Canada (www.p3canada.ca).

Conclusion

In conclusion, governments seeking higher levels of private investment in infrastructure should undertake several actions. By developing a strategic vision, policy-makers can cultivate an overarching view of infrastructure needs and an ongoing project pipeline, signalling the seriousness of their intent to investors. By addressing political and regulatory risks, streamlining procurement and permitting processes and re-evaluating tax policy, governments can show that they understand investor expectations and needs. Finally, by developing investor value propositions for individual projects with appropriate risk-return trade-offs, policy-makers are most likely to structure bankable projects that attract high-quality bids.

These recommended actions are deceptively easy to outline, but considerably harder to implement. They may require a significant build-up of expertise and capabilities within government, investment of significant political capital and engagement in the time-consuming process of building consensus and agreement amongst stakeholders. All the while, government leaders must balance infrastructure against other high-priority issues. Yet the rewards are worth the labour. Even in a situation of significantly limited resources, by prioritising those recommendations herein that are most relevant and feasible, governments can do much to attract quality long-term financing and set the foundation for future prosperity.

Appendix. Blueprint Recommendation Checklist

Framework element	Recommendation
Strategic vision	○ Create a credible infrastructure pipeline driven by a long-term vision ○ Define a viable role for investors, and consider the value of brownfield capital recycling ○ Communicate the potential value of, and safeguards around, private sector involvement

Policy and regulatory enablers	**Renegotiation risk**
	○ Evaluate various governance and contract mechanisms to reduce political risk:
	  ○ Independent, full-time regulator which explicitly considers the impact of decisions on the long-term investment climate
	  ○ Legislative hurdles to change agreements
	  ○ Profit-sharing or equity-retention agreements
	  ○ Explicit exemptions from changes, well-defined termination payments, clear dispute resolution frameworks
	  ○ Appropriate incentive mechanisms and payment structures
	○ Where appropriate, leverage support and available risk guarantees from multilateral development banks
	Procurement process
	○ Task a public-private partnership unit with improving procurement process efficiency by increasing standardization and predictability, and providing technical skills to line agencies
	Permitting process
	○ Review and streamline regulatory and environmental permitting processes and appoint a lead agency to manage and coordinate them
	Tax policy
	○ Ensure taxes do not systematically advantage or disadvantage certain types of investors and are stable over time
	○ Assess the holistic impact of all forms of taxation on the financial viability of infrastructure projects

Investor value proposition	○ Analyse returns from an investor's perspective and benchmark the project's risk-adjusted returns ○ Create a standard methodology and approach for risk allocation ○ Conduct market sounding with investors to gather feedback on the project and determine if refinements may be necessary to attract interest

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