

GREENFIELD INVESTMENT: DEMYSTIFYING INCREMENTAL RISKS



Marsh & McLennan Companies' Infrastructure Practice held its third global conference in October 2014, addressing the new frontiers of infrastructure investment. The conference sought to provide an updated and holistic view on how best to enhance and protect the economic value of infrastructure investments around the world.



The first of four panel sessions addressed the age-old issue of why a significant percentage of equity investors choose not to deploy capital to greenfield projects, preferring instead the greater perceived security of operational brownfield investments.

This preference is supported by recent data from Preqin¹, highlighting that only 8% of unlisted infrastructure funds invest solely in greenfield projects, while 62% will consider greenfield alongside

other infrastructure life cycle stages. Those with a sole focus on greenfield projects tend to invest in renewable energy or social, including public-private partnership (PPP) projects.

All infrastructure starts with a need for greenfield development. If the unknown risks for such projects can be systematically identified, quantified, and successfully managed, the result will most likely be a successful investment, with no greater real level of investment risk than that of already operational infrastructure.

Investors typically seek a higher return on capital to counter only summary "project completion risk"; that is, whether the project is likely to be effectively managed on time and in budget and consequently ramped up as planned to the required availability/demand specs once operational. In reality, there are probably a dozen or more specific greenfield risk factors that need to be addressed to actually ensure a successful project investment (a few of these are listed below).

A greenfield project also can provide investors with a greater opportunity to influence asset dynamics, including factors such as technology, contractual structure, counterparty risk, etc. during the early stages of the project, leading to a more effective operational life cycle stage. If greenfield risks are effectively structured and managed, the premium and return on capital can become even more attractive.

¹ Preqin, November 2013.

TYPES OF INCREMENTAL RISK

Incremental risks fall into a number of different categories, particularly construction, commercial, capital availability, and geographic. Let us examine each of these in turn and consider the reality of an investor's exposure.

CONSTRUCTION RISK

Construction risk involves two subcategories: contractor risk and public sector interaction.

Contractor risk refers to the real ability of a contractor to deliver new infrastructure to contract specifications, based on a fairly precise scope and output objective. In a greenfield development, confidence in the contractor's technical capabilities, resources to successfully deliver, and track record of similar projects are important factors.

Effective interaction with the public sector is often not fully considered in the context of greenfield construction. But permitting for greenfield developments is not always a clear process, and will depend on both jurisdiction and how contractual undertakings have been negotiated with governmental and other public sector counterparties. While this type of risk is distinct from delivering the asset, it still needs to be understood and managed.

COMMERCIAL RISK

Development of any new economic asset will incur a certain level of commercial risk. This is also true of PPP projects, where any element of demand risk generally is retained by the concession holder. Conversely, where greenfield social infrastructure projects are developed, typically these will not have any attached commercial risks.



CAPITAL AVAILABILITY RISK

The availability of capital, both equity and debt, is clearly an absolute requirement for successful project development. Raising adequate debt capital, and the appropriate structuring of this, requires the adoption of a detailed construction risk profile methodology. The emergence of institutional funders and institutional investors in long-term debt provision for greenfield projects is also leading to new financing trends, such as deferred draw-downs from these institutions during construction, to help ensure a level playing field with traditional bank lenders. The difference with institutional lenders is that they are not typically rated, and thus credit rating agencies will want to perform additional analysis to be certain that funding will be available when required throughout the construction phase. Funding adequacy is a critical issue as how funds are provided has a huge impact on liquidity during construction.

The other issue of concern to investors is counterparty dependency – including both public sector and contractor counterparties. Most construction contractors are rated well below the target rating of most projects. Typically, projects want to achieve an investment grade rating and most contractors are

rated either BB or B as a category.

This leads to potential exposure between the credit of the contractor responsible for completing the project on time and within budget and the actual credit rating of the project as a whole, in the context of the overall project life cycle (which could be 20-30 years or more).

Lenders need the confidence that should a contractor counterparty become insolvent, it will be possible to replace the counterparty, and, more importantly, that there is sufficient liquidity in the project to take it through any delays attributable to the replacement process. Where needed, credit enhancement to elevate the project rating above that of the contractor (such as through letters of credit, other forms of surety provision, performance bonds, etc.) can allow instant access to liquidity if a contractor replacement scenario arises.

Equity investors acknowledge the needs of lenders, and in providing debt to a project, perform significant analysis to understand the financial capacity of those in the project delivery chain. When considering the engagement of contractors, it's important to acknowledge that what matters most are technical capabilities, experience, and track record. This doesn't mean that financial capability isn't important, but a contractor's good financial rating should not count more than its actual ability to deliver the project successfully.



Equity investors also need a track record, in terms of their ability to replace failing banks during a project (that is, where a bank had a rating at the beginning of a construction phase but could not sustain it). Equity investors should also take into account the fact that institutional investors who are lending and perhaps proving late draw-downs are probably more liquid in funding than most banks. Rating is important, but real money is also important.

GEOGRAPHIC RISK

The orthodox view holds that every single aspect of greenfield project risk is magnified by geography. Certain geographies have associated macro-industry risks. Government agencies are critical counterparties in greenfield projects, meaning that governmental stability, or “bureaucratic continuity,” is important. Satisfactory legal frameworks must be in place, with preferably short timetables for dispute resolution. There is also the problem that some geographies have limited or no historical project development experience, or lack technically competent in-country contractors or operators to undertake the work.

MEASURING AND MANAGING GREENFIELD RISKS

ACHIEVING A GREENFIELD PREMIUM

To obtain a greenfield premium, that is, revenue returns of up to 300-400 basis points higher than for mature brownfield assets, investors and developers need to fully understand and implement a number of practical strategies. These include:

- Selecting the right project.
- Ensuring technical, experience and delivery quality of the selected contractor.
- Planning for efficient interactions between the contractor and project owner.
- Most importantly, undertaking active project management.

There is no substitute for active project management, even if a project has the perfect contractual structure.

Active project management starts with selecting the right contractor, the right balance sheet, and the right delivery capabilities. Local knowledge, resources, and active involvement with the local community as project stakeholders to a project are vital too.

Greenfield project needs are broad in scope, so finding the right contractor for any given project is unlikely to be a quick process. Once a contractor is engaged, upsides can only be achieved through a systematic approach to project management that stresses close coordination between the project owner and the contractor throughout the development and construction period.

GOVERNMENT SUPPORT

At present, governments are often the major bottleneck in the delivery of viable greenfield projects. Traditionally over the past 30 years, when it came to the consideration of economic assets (such as toll roads), smart governments were careful not to transfer all commercial risk from the public to the private sector. Transferring all risk to the private sector is always a bad bet, as project failure is never good for a government, not only in terms of optics for the public and media, but also because many PPP agreements include significant termination payment obligations – even when all risks are assumed by the private sector participant.

At a certain point in time, however, significant equity and debt capital became available for investment in greenfield toll roads, that led to governments (for example, Australia) moving away from a risk-sharing approach to one of transferring all risk, including traffic demand, to the private sector. A number of these projects then failed spectacularly, as this extreme model of risk allocation was not sustainable through the life cycle of the projects.

An alternative example, adopted 10 years or so ago by the Irish and French governments, involves a more balanced approach to risk allocation. During four years of recession, these governments provided back-stop guarantees to ensure that road projects could be sustained by the private sector partner. Traffic volumes have since recovered on these routes, enabling governments to once more receive a share of upside revenues. Governments serious about increasing greenfield project investment should consider similar means of de-risking commercial and revenue risk. A compromise can be established, whereby the government provides a backstop in case of trouble, but at the same time, if demand is exceptional, reaps some of the upside (while ensuring that the private sector partner does not make an excessive financial return).

EARLY INVESTMENT RETURNS: A BAD TREND?

Structuring projects for investment return during the construction and ramp up phases is an emerging trend, with the potential to attract equity and debt capital more accustomed to investment in brownfield projects, or seeking to avoid the delayed financial returns normally associated with greenfield projects.

Structuring on this basis, however, may not be a positive development, as investors being paid well before a project is delivered will increase the overall cost of assets. In addition, using debt to pay equity could be considered an aggressive form of improving an investor's financial profile, and may not be well received by rating agencies and lenders.

A more pragmatic approach for an investor who needs to obtain yield while projects are still in development would be to build a mixed portfolio of greenfield development and brownfield operations investments. In this way, lower-yielding brownfield investments can sustain portfolio returns in the short term, with the expectations of higher payoffs from greenfield projects down the road.

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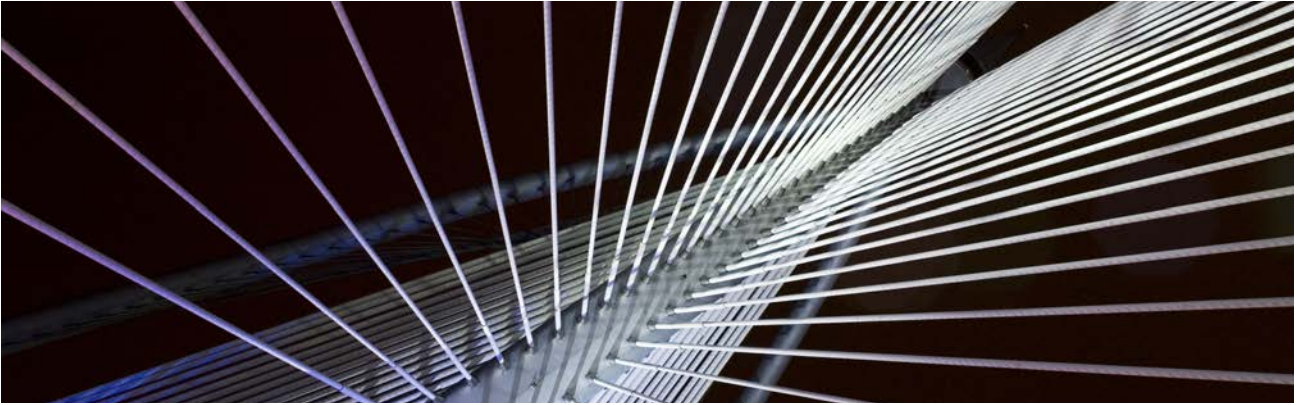
Marsh & McLennan Companies provides risk-based, analytical, and transactional support in the development and implementation of projects for infrastructure clients worldwide.

BANKABLE BUSINESS CASE DEVELOPMENT TAILORED TO SPECIFIC TRANSACTIONS

Proven global experience in supporting bankable, implementable projects

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| <ul style="list-style-type: none"> • Demand/revenue projections (including market-based price optimization). • Operating and capital cost projections (including life cycle risk management). • Integration of technical/engineering requirements. • Trade-off modeling of operating versus capital improvements. • Matching timing of revenue streams to capital expenditures. | <ul style="list-style-type: none"> • Construction projects. • Operating assets. • Secondary purchase. • Sale of an asset. • Public and/or private financing. • Related capital raise. |
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TRANSACTION FEASIBILITY AND GOVERNANCE	RISK IDENTIFICATION AND QUANTIFICATION	RISK MITIGATION	POLICY AND REGULATION
<ul style="list-style-type: none"> • Due diligence. • Project life cycle planning and management. • Project/transaction structure, including key stakeholder alignment (public agencies, financial/strategic sponsors, customers). • Human capital structure and workforce environment. • Investment selection and pacing. • Compensation (including health and welfare). • Insurance coverage for unallocated risks. 	<ul style="list-style-type: none"> • Risk and value driver analysis (modeling and long-term financial forecasting). • Detailed analysis by risk type <ul style="list-style-type: none"> – Market (e.g. commodity risk, interest rates, foreign exchange). – Operational (e.g. construction risk, completion of milestones, start-ups). – Human capital (health, welfare, pensions). • Investment risk. • Ex-post analysis of performance versus risk influence. • Country risk analysis. • Demand forecasting. • Large project risk. • Logistics scheduling under uncertainty (e.g. to and from the infrastructure asset). 	<ul style="list-style-type: none"> • Allocation of risk among parties. • Project construction risk insurance, including delay in start-up and marine transit. • Operational insurance including portfolio insurance procurement. • Human capital obligations. • Surety. • Political risk and political violence. • Environmental risk. • Weather risk. • Workforce communication and change. • Dispute resolution services. 	<ul style="list-style-type: none"> • Project economics under alternative regulatory regimes. • Tariff and pricing alternatives. • Strategy and policy considerations, including privatization and concessioning.



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