



# Lessons learned

*The past six years in infrastructure investment have been educational,  
and that should not be lost on investors*

by Enrique Fuentes and Wael Elkhoully

**G**rowing interest in infrastructure investing coincided with the run-up to the global financial crisis in the years 2003 to 2008, and in the calamity that followed many investors learned lessons about the infrastructure asset class the hard way — through write-downs, broken deals, inflated prices, the list goes on. However difficult this experience was for many investors, it should be more than a bad memory.

When looking retrospectively at why the infrastructure market failed to deliver the low-risk investments that this asset class has promised and should be able to produce, a number of issues influencing the way

infrastructure investments were made come to mind, including:

- **Capital was mis-incentivized:** Many managers adopted a transaction-driven business model in which managers had conflicts of interest and were incentivized to do deals from which they were deriving ancillary revenues from advisory, provision of debt or other services, regardless of whether the investment was sound. Others were seeking to achieve the desired returns by depending on major transformations to the assets over a short period of time — a business model which, even if based on investing in an infrastructure business, does not result in

the low-risk profile consistent with what an infrastructure investment should be.

- **Debt markets were exuberant:** Prior to the global financial crisis, markets allowed for unsustainable levels of leverage, which, when combined with mis-incentivized business models, drove very aggressive pricing for many assets, very often associated with significant refinancing risks. Many investors thought they were buying double-digit equity IRR deals, but these are now turning into single-digit returns or worse.
- **Lack of relevant experience:** Many teams were assembled with no real experience of investing in infrastructure — often experience of only advising on or lending to infrastructure assets. This resulted in a culture of approaching infrastructure investments as financial assets, not real and complex businesses with customers and employees, as well as technical and operational issues to manage in order to perform. One consequence was that risk analysis was mostly inadequate and oversimplified. Another consequence was often a lack of a plan to manage these businesses once they were acquired. The asset management aspect of the business was, for many fund managers, an afterthought.

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However, the infrastructure sector can deliver attractive risk-adjusted returns to investors, both in absolute terms as well as in comparison to other asset classes if properly approached and pursued in a way that acknowledges and corrects the errors made in the past. A correct approach to infrastructure investments should be based on a number of principles.

### **BACK TO BASICS — INFRASTRUCTURE SHOULD BE DEFINED AS A RISK PROFILE**

The place to start is with a sober understanding of the true nature of the infrastructure asset class, including the risks associated with infrastructure investments and how to invest in and manage those assets.

There are many risks that investors could face in the infrastructure markets,

but perhaps one of the key mistakes that investors have made — and a key risk that the sector will continue to face — is not being clear in defining, and disciplined in achieving, the key goals for infrastructure as an investment class and instead only thinking about infrastructure as a layperson, simply in terms of the of the service being delivered. Not every toll road or power plant represents an infrastructure-type investment.

Many inexperienced investors entered into the sector in recent years thinking that every infrastructure investment will deliver “infrastructure-type” cash flows without fully assessing the risk and return profile of the investment against the investment goals. Investors seeking the relative stability of infrastructure and the managers they select should adopt a disciplined approach in picking investments that fit a certain risk profile, which results in a narrow band of return outcomes — effectively lower-risk and lower-volatility investments.

### **INFRASTRUCTURE RISK ANALYSIS IS COMPLEX — A RIGOROUS APPROACH IS NEEDED**

While infrastructure investments should represent lower-risk investments and provide stable returns, this does not mean that the assets are not complex — there are multiple risks to consider, and often it is a complex exercise to fully assess an opportunity. A different approach should be followed by first defining the level of risk and volatility to equity cash flows that the investor needs to achieve, and then have a business model ensuring investments fit that risk profile.

Detailed and comprehensive risk analysis should form a central part of any investor's process. Risk should be considered in a broad manner to ensure a fuller understanding of how an investment will perform over the long term, extending the risk analysis not only to the specific project operational or financial aspects, but also to the broader context of the investment and the environment in which the asset operates. These are dynamic businesses that provide important services to a community dealing with multiple stakeholders, and understanding this reality is critical to fully assess an investment.

There is often a tendency to be generic while assessing the risks of various infrastructure subsectors or types of assets and to grade them according to a general risk profile. Risk analysis would be oversimplified by “boxing” assets into subcategories and adopting a rigid formula specifying a percentage



exposure to certain sectors, geographies or types of regulatory frameworks.

The reality is that the risk of each and every project is linked to a much larger degree to its individual characteristics than to a common subsector characteristic. The key drivers for risk are usually very asset- and transaction-specific and can only be properly understood on an investment-by-investment basis and by a thorough understanding of the details by an experienced manager.

For example, while regulated assets or P3s are generally perceived to be among the lower-risk investments in the sector, intrinsically uneconomic assets that rely exclusively on regulation or subsidies for their feasibility can become significantly more risky if the cost of paying for those assets becomes a political issue, prompting pressures to amend the regulation. On the other hand, an asset with revenues linked to GDP might still represent an acceptable risk profile with low volatility if the revenue base is diversified enough, the service is essential and the GDP growth projections are conservative. Proper analysis by an experienced manager that can take a view on the sustainability of the project cash flows in the long term is required.

Above the asset level, regulatory and political risks are critical to analyze in the context of infrastructure assets, which typically involve public services. By nature this means there are multiple stakeholders, interest groups, policy issues and, periodically, political considerations around these investments. Understanding the full context, the various interests and the potential impact on an investment over time is critically important. This is not easily quantifiable and requires sound judgment. Knowledge and strong experience in dealing with regulators is necessary to assess how transparent a regulatory framework is, how stable it is and how it is likely to change in the future. It is important to judge whether the compensation for the service is fair compared with the cost of delivering the services. This mitigates the risk of regulatory pressures in the future. Experience in dealing with policy matters to assess the political risk and the various competing forces backing or opposing certain programs is critical.

### **LEVERAGE IN INFRASTRUCTURE INVESTMENTS NEEDS TO BE SENSIBLE**

Infrastructure projects are, by nature, capital intensive, requiring a significant initial investment in the form of construction of an asset or acquisition price. Consequently,

leverage may play an important and appropriate role, helping to facilitate the financing of the asset and allowing a reduction of the average cost of capital associated to the investment. The use of leverage, however, has to be governed by prudence, ensuring that the project cash flows comfortably support the level of debt expected to be used. If that is compromised, the volatility of the equity cash flows may be increased to a point where the risk profile of the investment is not “infrastructure-like” anymore.

In devising a capital structure, it is preferable to limit the use of leverage to the asset level, on a nonrecourse basis. This allows an isolation of the risk of each investment within the portfolio, and provides a more disciplined approach to risk management, avoiding cross-subsidization of risks and returns.

At each asset level, the objective should be to implement a financing structure that is consistent with the projected cash flows and their variability within the available financing market conditions, minimizing the risks. This implies a number of considerations including:

- Maturities as long as possible within the project life, to minimize refinancing risks; this risk can be very significant, as experience shows that the conditions of the financing markets are volatile
- Prudent leverage, with significant coverage ratios, to absorb potential variability of the cash flows without generating liquidity or solvency issues
- Hedging of interest rates to mitigate rate fluctuation risks, to an extent consistent with the indexation of project cash flows to interest rate variations

### **ASSET MANAGEMENT IS CRITICAL IN INFRASTRUCTURE OWNERSHIP**

Active and continuous involvement with investments post-acquisition is essential to both generate incremental value and to ensure the investor maintains the desired risk profile objectives over time.

Even if the core goal of an investor is to make long-term investments in low-risk and low-volatility assets, we do not believe this means infrastructure assets are simple in nature or do not require constant attention. On the contrary, infrastructure assets are often quite complex. For example, they often involve many stakeholders from customers, employees and management teams to suppliers, regulators, governments and various interest groups. They also

typically involve major capital investment programs with related funding and operational decisions. Additionally, as with any investment in an operating business, there are always changes that occur within the company or in the environment in which it operates. This will be especially true with investments spanning a long-term horizon. Therefore, it is essential to be able to properly respond to these changing circumstances by meeting new challenges and managing risk, but also by taking advantage of opportunities that arise. It is critical to have a team qualified to handle those issues for every asset at the outset, and

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one that possesses the capabilities to manage the risks on an ongoing basis.

There are many operational risks associated with infrastructure assets. Some will be common in all types of assets, but some will be specific to the particular sector and even the particular asset within that sector. It is difficult to be exhaustive, but examples of the general risks associated with infrastructure asset management include:

- Risk of overrun or delays in delivering an investment program (typically mitigated by a robust EPC contract transferring risk to the contractor)
- Risk of overspending on operating expenses (mitigated by a proper operational plan sometimes with an O&M contract)
- Risk to revenues (mitigated by a robust regulatory framework or revenue contract)
- Risk of underdelivery in performing an infrastructure service, causing user and political dissatisfaction
- Risk of a nonperforming management team (mitigated by having proper due diligence on the team at acquisition time and putting in place the right incentives)
- Currency or interest rate risks (mitigated by appropriate hedging arrangements)

## ALIGNING MANAGERS AND INVESTORS IS FUNDAMENTAL

The market has significantly improved in its ability to address the explicit conflicts of interest that exist for asset manager models, which derive substantial income from rendering ancillary services to the infrastructure investment. A lack of alignment, however, can be more subtle and may present itself due to an organizational structure or culture. For example, if the asset manager is part of a larger organization, it is sometimes the case that the remuneration of the team is not exclusively linked to performance of the investments but to their ability to deploy capital. In other occasions, the business culture might incentivize individual performance rather than team performance, preventing an open team discussion on the merits of an investment and penalizing the decision not to invest, even if that may be the appropriate one due to risk or pricing. Investors should carefully analyze the independence and alignment of the manager and ensure that remuneration of the team promotes an open and collaborative approach to investing.

Another key issue investors continue to face when deciding to invest in infrastructure is how to obtain the long durations typically sought through investing in infrastructure without compromising the need to have a properly incentivized manager by basing performance compensation on a real and tangible outcome for investors. In structuring an effective alignment between investors and managers, it is important that performance fees are linked to real results and not just to valuations. This is normally better achieved through a closed-end structure. It is important to seek structures combining the benefits of alignment through performance fees based on a transaction with the ability to hold assets for long periods of time if investors wish.

## FINAL THOUGHTS

The problems of the past have not been related to the asset class in itself, but to the way the asset class has been delivered to investors. If approached properly, carefully assessing the risks, understanding the complexity of these real businesses, and ensuring that managers are experienced and properly incentivized, the infrastructure asset class should deliver a satisfactory outcome to investors. ♦

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