

# Panel Discussion: The Role of Institutional Investors

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The final part of the conference was a panel discussion about the role of institutional investors in infrastructure financing. The discussion was chaired by André Laboul, Head of the Financial Affairs Division at the Organisation for Economic Co-operation and Development (OECD), and included the following panellists:

- Frédéric Blanc-Brude, Research Director at the EDHEC Risk Institute-Asia and an economist specialising in unlisted investments
- Leo de Bever, Chief Executive Officer and Chief Investment Officer at Alberta Investment Management Corporation
- Jan Dehn, Global Head of Research at Ashmore Investment Management
- Michael Hanna, Head of Infrastructure – Australia at IFM Investors
- Shemara Wikramanayake, Head of the Macquarie Funds Group and a member of the Macquarie Group's Executive Committee.

The panel discussion had three sessions. The first was a broad discussion of the role of institutional investors in infrastructure financing. Following on from this was a more specific discussion of issues related to infrastructure investment in emerging market economies. These first two sessions began with a panellist providing some remarks on the topic, before Mr Laboul broadened the discussion to include other panellists and conference participants. The final session was a discussion among the panellists about the different business models employed by institutional investors when investing in infrastructure.

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## 1. The Role of Institutional Investors

The first session of the panel discussion began with André Laboul providing some background on why international organisations, such as the G20 and OECD, are interested in the potential for institutional investors to be involved in the financing of infrastructure investment. Mr Laboul outlined the headwinds facing infrastructure financing in general, including fiscal constraints, the decreasing role of banks due to deleveraging and regulatory reform, and the subdued economic environment in some economies. Despite the existence of a large pool of longer-term funds held by institutional investors, such as pension funds and insurers, these investors have not filled the financing gap left by banks. Mr Laboul attributed this lack of financing to an inadequate business environment in many economies, which includes unstable regulation, opaque governance, lack of expertise and planning, misaligned interests, excessive fees and a lack of data. He went on to describe how, in reaction to this, the G20 and OECD have developed some high-level principles on how to promote long-term investment by institutional investors (OECD 2013). Suggested

policies include developing appropriate financial instruments for long-term savings and improving governance, financial regulation and information sharing. The principles also highlight the importance of rigorous and transparent cost-benefit analysis at all levels of government. A joint G20/OECD taskforce has been asked to develop effective approaches to implementing these principles.

Mr Laboul then asked Frédéric Blanc-Brude to comment on the role of institutional investors in infrastructure financing.

### Frédéric Blanc-Brude

Why is there so much discussion about institutional investors putting money into infrastructure, given that it is not the responsibility of pension funds and insurance companies to finance the economy? There are two major paradigm shifts currently taking place in institutional money management that can help to explain this focus.

1. Direct investment: that is, investing outside of capital markets. This shift has followed the large losses experienced in bond and stock markets during the global financial crisis, and has partly been in response to increased volatility in these markets, which has, for example, made the funding ratios of some pension funds intolerably volatile.
2. Liability driven investment: investors with long-term liabilities, such as pension funds and insurers, manage these liabilities by building a portfolio of assets to match or hedge their duration profile. However, assets with a suitably long duration are not always available and, even if they are, may not have the most attractive yield (e.g. long-dated government bonds).

The results of these two trends are that institutional investors now desire long-term assets that can deliver: a) cash flows with a positive yield spread over government bonds of a similar duration; b) a low correlation with tradeable markets; and c) inflation correlation (particularly in the case of defined benefit pension funds). Infrastructure is meant to deliver all of these features because: a) it is associated with services that typically have a lower price elasticity of demand, so its value is less correlated with the business cycle; b) it often has monopoly features, so it creates pricing power and hence has revenues linked to inflation; and c) it has an attractive yield, partly because of its illiquidity. All of these features imply improved diversification and better liability matching, as well as lower volatility. I call this the 'infrastructure investment narrative'. It makes sense intuitively, but it has been difficult for intermediaries to deliver in practice. There are a large number of listed infrastructure products, but these have failed to decouple from other capital markets. Likewise, unlisted infrastructure funds have proven to be relatively short term, speculative, highly leveraged and expensive for final investors. Therefore, while infrastructure may represent a valid investment option, solid evidence supporting the infrastructure investment narrative is still missing, and fully fledged investment solutions demonstrating the benefits of infrastructure investment for institutional investors remain elusive.

The move toward disintermediated direct investment in infrastructure by final investors provides an alternative avenue for realising the 'infrastructure investment narrative'. However, this creates other issues. One is that it makes diversifying difficult, as individual stakes can be quite large, typically in the hundreds of millions of dollars. A lack of diversification is a problem, as the attractive features of infrastructure I just described are those of an average infrastructure project or a pool

of infrastructure projects, rather than any specific infrastructure project. Direct investing can also be costly, as it requires the institutional investor to internalise the project management skills that had previously been outsourced to infrastructure funds, and therefore requires the investor to be of a sufficiently large scale.

In fact, there is no clear definition of what infrastructure investment actually means from an asset allocation perspective and, as a consequence, there is no benchmark to guide asset allocations, making it difficult to make any significant allocations to infrastructure. The lack of benchmark also impacts the regulatory framework. For example, when it comes to the prudential regulation of insurers under Solvency II, as far as the regulator is concerned infrastructure is high risk because it is long-term and opaque.

To make infrastructure more accessible to institutional investors and better understood by regulators, it is necessary to create long-term infrastructure investment benchmarks. At the EDHEC-Risk Institute, we have defined an eight-step roadmap to create such investment benchmarks (Blanc-Brude 2014). We propose to use project finance under its Basel II definition as a starting point on both the debt and equity sides and have developed rigorous asset pricing models that take the infrequent trading of such instruments into account (Blanc-Brude, Hasan and Ismail 2014). We are now in the process of creating the first global database of infrastructure project cash flows that will make it possible to calibrate pricing and risk models and derive useful investment benchmarks for long-term investors considering infrastructure, as well as for regulators needing better measures of risk for long-term investments.

## Discussion

**Jan Dehn:** I profoundly disagree with the notion that we need benchmarks. Investing is about looking at an opportunity and putting a price on it. Whether it has a benchmark or not is irrelevant. The problem with benchmarks is that people think that once they hold a portfolio with similar weights to the market as a whole they have no risk. But as long as you have any investment whatsoever, you have risk. Benchmarks can distract from the proper prudent management of investments.

**Shemara Wikramanayake:** The infrastructure investment pool goes beyond project-financed assets. There are a few trillion dollars of listed infrastructure assets out there, and deep debt markets for funding these beyond the bank project finance market (e.g. the 144A and term loan B markets in the United States). Consequently, I think that what Frédéric says about benchmarks for project finance is possibly valid, but there are a lot of other places that investors can look to benchmark risks and returns related to infrastructure assets.

Regarding the 'infrastructure investment narrative', many infrastructure assets promise to deliver these desirable features. However, the reality is that they are complex operating businesses. An example is Sydney Airport, which was purchased by a Macquarie managed fund in 2002. That year, there were some large negative shocks to airport traffic, including 9/11, the SARS crisis in Asia and Ansett Australia being placed into administration. But one of the benefits of managing an infrastructure asset is that efficiency gains can be driven through operational improvements; for example, by taking out a layer of management and restructuring contracts with airlines.

**Michael Hanna:** As I listened to Frédéric's opening comments, it struck me that there is a risk that this becomes much more complex than my own personal experience of investing in infrastructure. IFM Investors has been investing in infrastructure on behalf of pension fund investors for almost 20 years, and we have had a very positive experience in investing in infrastructure debt and equity in both the listed and unlisted spaces. Frédéric is potentially making something that has a strong track record for a majority of investors in the space more complex than it needs to be. But I'm a pretty simple person and I like simple models. When we invest, we expect a reasonable rate of return for the risk we are taking. There are, however, some things that complicate matters. For example, there are liquidity constraints arising from the defined contribution system used in Australia.

**Leo de Bever:** There is an obsession among certain national regulators about the liquidity of pricing. If I tried to sell all my holdings in a listed company within 60 or even 100 days I would affect the price dramatically. So the notion that mark-to-market pricing is in some sense efficient is nonsense. Conversely, the notion that unlisted pricing is less volatile is nonsense too, because it is an artificial lack of volatility. I try to look through these things as a long-term investor. But in reality, people are inconsistent; they want me to make long-term returns as long as it makes money in the short run. This is an example of people wanting things that they cannot have.

**André Laboul:** What is the main regulatory obstacle impeding the participation of institutional investors in infrastructure financing?

**Leo de Bever:** The unreliability of regulation. In 2012, Norway unilaterally decided to reduce tariffs on a gas pipeline by 90 per cent. This will probably go to court, and I hope the court will ask the government, 'What part of a contract do you not understand?' There has to be more of that, because if regulation becomes unstable, as it has in a number of countries, the end result will be that there is no more money flowing to those economies. Institutional investors like us will not invest in certain jurisdictions simply because of unreliable contract enforcement and regulation.

**Jan Dehn:** I would very much echo Leo's remarks. However, I would go even further and say that it is not just a country-specific problem. There is a huge global bias in the entire regulatory regime, which emanates from the 2008–2009 financial crisis. Governments have decided that to prevent another financial crisis they are going to institute broad-based financial repression, forcing pension funds and insurance companies to continue to hold the debt of advanced economies and finance governments with large deficits. It is becoming increasingly difficult to allocate capital to emerging markets because of regulatory regimes such as Basel III and Solvency II. On the other hand, these emerging markets are ultimately the economies that are going to have to drive most of the growth in the global economy as advanced economies try to deleverage. Emerging markets face a major challenge as they have to rotate to domestic-led growth from export-led growth. To do so, they cannot just increase domestic demand without increasing domestic supply or they will just create inflation. The only way to sustainably rotate an economy to domestic-led growth is to increase its productivity, and infrastructure is a key part of that. If we want these countries to continue to be able to grow in a non-inflationary sustainable manner, we need to enable them to attract the investment that they need. To do that, we need to dismantle what has become the origin of the next financial crisis, which is this regulatory regime we have imposed. This is unambiguously the single biggest obstacle to infrastructure investment in emerging markets.

**Shemara Wikramanayake:** I agree with Jan that illiquid investment in emerging markets has been hampered by what has gone on since the financial crisis, but quantitative easing has actually flooded emerging markets with liquid investment. It is now flooding away and that has created a lot of disruption. I think all of my fellow panellists would agree that there are a lot of pension funds, sovereign wealth funds and other institutional investors that are looking for liability matching, inflation hedging, diversification, etc, but a lot of factors have hampered their ability to find illiquid investments: there is a lack of local banks that can lend; investors are being forced into US liquid debt markets and are taking currency risk; and there is a lack of good construction companies that investors can partner with. Most of all, there has been a lack of a pipeline of investible projects. Sadly, this does not just apply to the emerging markets. When I was working in the United States between 2004 and 2007, we used to jokingly say that the United States needed a good crisis to stimulate infrastructure investment. But the United States has experienced the mother of all crises and has responded with monetary stimulus, while the fiscal side has not yet responded.

**Leo de Bever:** Following up on Shemara's points, governments send delegations to investors like me to implore us to invest more money in their economies, particularly in their infrastructure. But these delegates do not seem to be the same people who decide which projects go ahead. If the two parties could talk to each other maybe the net result would be a bit better than it has been. There is no point sending delegations to get people to commit money if there are no projects to commit it to.

**Michael Hanna:** Here in Australia, we have a dynamic within the energy sector that is unprecedented, where the carbon tax is about to be removed, the renewable energy target is under review, and a mix of public and privately owned assets is operating in the market with many public assets targeted for privatisation. In general, there is huge uncertainty for any player in the energy sector in Australia, and this policy environment has been in a state of flux for at least five years, to the point where very little money is being invested in this market by private investors. Indeed, the majority of investment in energy that IFM Investors has made in the past seven years has been offshore rather than in Australia. So policy and regulatory uncertainty are key issues. Another issue is the public's concern about the private sector owning and managing what were public assets. I think Australia is slowly getting over this aversion, partly through the use of 'capital recycling' to directly link the proceeds from privatisations to funding new greenfield infrastructure.

**Participant:** The issue of the regulatory regime impeding the flow of capital to illiquid assets such as infrastructure in emerging markets is important. But which channels are the binding constraints? For example, is it banks, insurance companies or some other channel?

**Leo de Bever:** When there is a regulatory hearing on what the rate of return on a piece of infrastructure ought to be, there is often a conflict between a few investors, who are often not from the local economy, and a lot of voters or users of the infrastructure. In this scenario, it is extremely easy for a regulator to side with the voters or users. More often than not, unless the regulator has a spine, the result will be a regulatory decision in favour of the voters or users. That is the big constraint. But the truly negative thing for infrastructure is that investors cannot rely on the consistency of regulation over time. If the mood changes every few years on what regulation should look like, the margin of risk increases.

**Shemara Wikramanayake:** The institutions that are affected by the regulatory issues are primarily banks and insurers. The pension funds are not really subject to the same regulatory risk rating on where they invest, and neither are the liquid debt markets, so capital constraints are not necessarily stopping infrastructure projects from happening. There is currently a lot of interest in investing in pan-Asia on the equity side. Equally, on the debt side, emerging economies have been able to access liquid debt markets. However, I think there are a couple of key challenges for the emerging markets. One is that the large institutional investors, like pension funds and insurers, have difficulty understanding each individual emerging economy because the deal volume is relatively small. As a result, it has been difficult to raise infrastructure funds to invest in individual economies. But now that Macquarie is raising a pan-Asian fund there is a lot more interest because investors do not need to spend as much energy trying to understand the deep details of each individual country.

In relation to Frédéric's point about the importance of quality data, we do lack data. For example, we do not have enough data on the extent to which emerging economies will stick to concessions. This sort of thing is a key risk. Macquarie's infrastructure funds have had some negative experiences in investing in emerging markets. For example, there have been toll roads where the government has decided to cap tolls in breach of concessions, without compensation. Another example was a wind farm where locals blocked our access to the site and the government would not enforce our access rights. For many fund investors, it is difficult (and expensive) to understand these risks or to have people on the ground to address them. I actually think that the biggest challenge for getting capital into infrastructure in emerging markets is related to emerging markets rather than regulation, although regulatory issues do constrain other pockets of investment.

**Participant:** The panellists are quite right in saying that the regulation of Basel III and Solvency II is going to affect the infrastructure investment flow, and that pension funds have become increasingly important in financing investment in emerging markets. Unfortunately, because of the trend towards having a single regulator, central banks in emerging markets are increasingly responsible for regulating pension funds, and they are used to regulating banks. This has led several emerging markets to discuss introducing capital requirements for pension funds, which I find absolutely mystifying. For example, in Kazakhstan capital requirements restricted the ability of pension funds to engage in long-term illiquid investment, and this was used as the motivation for nationalising these pension funds.

**Leo de Bever:** The central banks that do regulate the banking system often make a critical mistake when they regulate pension funds. Banks tend to have a duration mismatch between assets and liabilities, whereas pension funds can ride out things like the global financial crisis with very little effect, unless they are involved in some kind of derivative transaction that needs funding.

**Shemara Wikramanayake:** The G20/OECD report recommends establishing a governance regime to ensure that institutional investors have adequate skills and standards in place (OECD 2013). This should allow these investors to effectively assess their liability profile and make sure that their assets match it. Hopefully regulators will aim to regulate institutional investors such as pension funds in this way, rather than through a regime of capital requirements.

**Participant:** Formulating infrastructure investment as an asset class could promote the development of more standardised financial instruments and facilitate things like insurance. Is this a feasible solution, or are things not that simple?

**Leo de Bever:** At Alberta Investment Management Corporation, we deliberately try to avoid the notion of asset classes. There is only risk and return, and if you calculate the risk you can set the return commensurately. The best opportunities are often found 'between' asset classes, as that is where market inefficiencies usually deliver a better return.

**Jan Dehn:** I could not agree more. The fixed-income universe in emerging markets is valued at around US\$14 trillion, but only 11 per cent of this is included in the main benchmark indices. However, the bulk of investors only look at benchmark indices, which are becoming less representative of the broader emerging market fixed-income universe because the Volcker rule and other regulatory changes have led the big investment banks that create these indices to withdraw from emerging market investment. To the extent that investors are passively following benchmarks, they are becoming more concentrated in what is typically the investment-grade area of emerging market fixed income. Ratings-based regulatory regimes are distinctly biased against the higher-yielding lower-rated securities, and are therefore fundamentally biased against emerging markets. This tends to lead to significant underfinancing in those areas.

**André Laboul:** You are all promoted to minister of finance in your country. What is the first decision you make concerning the role of institutional investors in infrastructure?

**Frédéric Blanc-Brude:** I would involve institutional investors in the tendering of public projects at very early stages. This would help to figure out what types of structures and instruments would be agreeable to their balance sheet, while also meeting the objectives of public procurement.

**Shemara Wikramanayake:** I would follow the recommendations of the paper by Poole, Toohey and Harris (in this volume). I would stick to what the public sector should do, which is to create an environment that promotes infrastructure investment. I would create a prioritised list of infrastructure projects by doing value-for-money analysis. I would also look at the infrastructure assets on my balance sheet, consider whether my constituents should be funding these and ask whether I could liquidate these assets to fund other initiatives. I would also try to develop a transparent tendering process that can work with the market.

**Michael Hanna:** Following my principle of keeping things very simple, I would seek to stay out of the market as much as possible and resist the urge to change things. The Australian market works fine. As I mentioned previously, IFM Investors has been in the market for 20 years and has a hugely successful track record of investing in public infrastructure in Australia. Where we have problems is around regulatory change. Uncertainty really is the enemy of good investing.

**Jan Dehn:** The second-order problem in emerging markets is corruption, scandals and misallocation of capital – things that destroy the business models of infrastructure investors. The first-order problem, however, is fear. Senior government officials fear doing anything that can possibly destabilise their economies, which leads to an unbelievable lack of ambition. If I were finance minister, I would be shaking in my pants with fear every single day and I would do absolutely nothing that in any way could jeopardise my position. And that is probably what is going to continue to happen.

**Leo de Bever:** We need to improve the efficiency of social decision-making. Countries that are desperately in need of infrastructure often find that the opposition to specific projects is fragmented but collectively detrimental to execution. The populace wants governments to

deliver services but is unwilling to pay for them. Unless we square that circle these issues will not disappear. For example, a municipality in Alberta realised that they had been undercharging for water and sewerage, so they put the correct pricing structures in place and were subsequently voted out. This is a prime example of good policy not being rewarded.

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## 2. Emerging Economies and Infrastructure Investment

To begin the second session of the panel discussion, André Laboul invited Jan Dehn to provide his views on the challenges associated with infrastructure investment in emerging economies.

### Jan Dehn

I have already hinted at a number of these challenges, which fall into three broad categories.

One is the overall global macroeconomic environment, which is nowhere near equilibrium: central banks have never printed so much money with so little inflation; governments and corporations have never issued so much debt at such low interest rates; and emerging markets have never had such large foreign currency reserves with such weak exchange rates. There is absolutely nothing sustainable about this whatsoever, and the big question is: how are advanced economies going to reduce their overall stock of debt?

Unless governments in advanced economies are willing to impose austerity on their populations for the next 25 years, or default on their debt, or pull a growth miracle out of their hats, the only way out of this debt is through inflation and, as a result, currency devaluation. This will be extremely detrimental for the emerging economies because their currencies are going to appreciate. As a consequence, they will have to rotate from export-led growth to domestic-led growth. Ashmore invests in 65 emerging economies and these economies vary in their appreciation of this reality – some are very forward looking and are preparing for it, while others are not. The rotation to domestic-led growth requires higher productivity, which is where infrastructure investment comes in. However, the amount of investment necessary to alleviate infrastructure constraints is probably around 10 per cent of emerging market GDP, or around US\$4.5 trillion. This is simply far greater than what can be raised locally. It requires the wholesale investment of insurance companies, pension funds, sovereign wealth funds and potentially even central banks.

The second challenge, which I alluded to earlier, is regulatory change. This will be a constant headwind for emerging economies going forward. One solution would be for the big holders of capital – that is, sovereign wealth funds and central banks in emerging markets – to cut advanced economies out of the loop by selling their US Treasuries and other types of risky assets and instead invest in each other's infrastructure.

The final challenge is within emerging economies themselves. Policymakers' fear of doing anything that would jeopardise their position leads to unambitious policymaking. The question is: how do you get around this, and does that leave any room whatsoever for investing in infrastructure in emerging markets? Public sector infrastructure investment is going to be



insufficient, and this means that the private sector will have to pick up the slack. To encourage this, we need to encourage institutional investors to provide long-term infrastructure financing.

## Discussion

**Participant:** Regulatory uncertainty has repeatedly been brought up as a constraint on infrastructure investment. Regulators sometimes recognise the need to regulate the pricing of monopoly-type assets only after the asset has been sold to the private sector. Shouldn't institutional investors anticipate this when buying an asset with monopoly pricing power and no regulatory framework around it? Is it reasonable to suggest that investors should buy these types of assets only after factoring in that regulatory changes will eventually occur?

**Shemara Wikramanayake:** The potential for regulatory change pushes up the risk premium required by investors when purchasing an infrastructure asset. You need a regime where there will be compensation if the government decides to change regulation after the sale of an asset to the private sector.

**Michael Hanna:** There is a different dynamic for assets that are unregulated. IFM Investors has invested in several unregulated assets recently, but there is always the potential that they could become regulated. We have an in-house view that if you own a monopoly asset, the last thing you should do is act like a monopolist. We run analysis to be sure that we are not earning above what would be a reasonable return if the asset were regulated, because once you start over-earning you have to expect someone to step in and regulate you.

**Frédéric Blanc-Brude:** All public infrastructure has some regulatory risk, so there is no way around it. The only solution is to diversify. If you are a large enough investor, diversification should allow you to stop thinking about the one project with specific regulatory or political risks.

**Participant:** What is the true potential for institutional investors in the market for infrastructure financing? I understand the argument for pension funds – they have long-term liabilities so investing in long-term assets makes sense – but many other institutional investors have shorter investment horizons.

**Frédéric Blanc-Brude:** Defined benefit pension funds have clear long-term liabilities. Moreover, insurance companies also have long-term liabilities, especially if members of defined contribution pension funds want or have to buy annuities from them. The mandate of sovereign wealth funds typically includes preserving the purchasing power of national savings for the long term (i.e. protecting against inflation). Consequently, there is plenty of scope for different types of institutional investors to invest in long-term assets like infrastructure. Furthermore, when institutional investors invest in illiquid assets like infrastructure, they have to hold these for long periods of time because these assets are not easily or quickly divested. Therefore, they cannot be used to satisfy short-term objectives.

**Participant:** What should the multilateral development banks (MDBs) be doing to encourage infrastructure investment in emerging markets?

**Jan Dehn:** Even if one government reneges on a contract, this drives the cost of financing up for all other governments. This is because investors do not know ahead of time whether their counterparty is going to renege. The problem is that governments that are not going to renege

are charged a risk premium that is higher than warranted by their 'true' risk, while governments that are planning to renege are willing to accept the higher financing cost, as ultimately they will not have to pay it. This is a classic market failure – adverse selection. Adverse selection leads investors to favour more liquid, financial-type securities over illiquid investments. One thing that MDBs can do is to try to address this type of market failure.

**Leo de Bever:** I am not currently invested in really low-income emerging economies. But if I were to do it, I would want an MDB alongside me, because the governments of these countries are far less likely to renege on a contract with an MDB.

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### 3. Business Models

To begin the third session of the panel discussion, André Laboul invited Leo de Bever, Shemara Wikramanayake and Michael Hanna to describe the different business models employed by institutions investors when investing in infrastructure.

**Leo de Bever:** The Alberta Investment Management Corporation follows the Canadian model, which can be described as a disintermediated model. The main feature of the model is that around 80 per cent of our assets are managed internally. If you have a large amount of capital and you can afford to hire private sector experts, then you can do things at roughly one-quarter of the cost than if you were to rely on external asset managers. We invest in the unlisted space – about 20 per cent of our total assets – because it gives us an incremental return over listed assets. On occasion we still work on specific projects with institutions like Macquarie, but Macquarie probably finds its clients more in the smaller pension funds that cannot develop the internal asset management capacity that we have. Has this business model worked out? We deliver a return on our assets that is 1–1½ percentage points higher than market, on average. Additionally, we are passionately interested in participating in international infrastructure. Part of this is because there is a socially desirable aspect to it. We have patient capital that can work with countries that have development needs. If there is expansion capital needed we can provide that, whereas a limited purpose fund with a shorter life span cannot. When looking for investment opportunities, we tend to focus on places where that extra flexibility earns a premium.

**Shemara Wikramanayake:** In terms of accessing the infrastructure asset class, the private sector uses a range of instruments, just as they do with other asset classes such as real estate. Leo's fund and the other similar Canadian funds, as well as some Australian funds, are probably at the more evolved end because they have been investing in the infrastructure sector for 15 to 20 years, so they have been able to build in-house expertise. These investment funds invest directly in infrastructure projects and then hold them basically forever, just as they do with direct real estate. Leo's fund has double the allocation to real estate than it does to infrastructure, which probably reflects that the direct infrastructure class is still developing. That is one end of the spectrum. The other end is the small funds using external managers. These funds probably start out by investing in liquid instruments, for example in the listed utilities sector in the United States. This allows them to begin building an understanding of the asset class.

**Michael Hanna:** IFM Investors is a fund manager that was set up by 30 Australian industry superannuation funds because they wanted to access large deals but could not do it themselves. Industry super funds exist only to generate profits for members, and that is very much a philosophy that we share, in that, much like Leo, we have a healthy disregard for intermediaries. Over time, our model has changed; we have had to work with other players in the market to get introduced to deals and we have learned important lessons from this. The key lesson is about the concept of incentive and investment alignment, and our business model has evolved whereby we now have full origination, transaction and asset management capabilities across the three markets that we focus on.

The Productivity Commission (2014) recently released a draft report on public infrastructure that covers the 'inverted bid model', which is something that IFM Investors and the industry fund movement have been promoting for some time. This push has been in response to the lack of alignment between the long-term concession opportunities put to market and the short-term interests that are typically leading the bidding consortia. This is what has really driven the significant toll road failures in Australia in the last 10 years. If the bidder is being rewarded on the basis of submitting the highest demand forecast, then guess what? Bidders will inflate their forecasts to win the bid, and then take their money out before the first car drives on the road, leaving longer-term equity participants to take the hit from lower-than-expected traffic demand when the road eventually opens. To address this, we have suggested that governments should change the procurement model to one where the operator or long-term equity participant is selected first, and then together the government and the equity participant can return to the market and select the most competitive debt package. We believe that this would encourage some major global infrastructure investors to participate in the greenfield public-private partnership market, which they have typically avoided for the past decade.

I also just want to make a comment on unsolicited bids. Some of the states in Australia have formalised a process where the private sector can put forward ideas on how to deliver new infrastructure but still have their intellectual property protected. This gives terrific impetus and incentive to put forward ideas with some comfort that it is not going to be shopped around to the rest of the market.

**Leo de Bever:** Michael touches on something that we haven't discussed yet – the bidding process. The transparency of government bidding processes requires that everyone has access to the same information. But if six parties bid on a certain project, there will be five losers. Broken deals or unsuccessful bids cost organisations like ours a significant amount of money every year. It is incumbent on government to make the bidding process efficient and low cost. But I am constantly amazed at how this is not observed, because it seems that often bureaucrats do not know how to make the trade-off between making the bid process efficient and thorough.

**Shemara Wikramanayake:** In response to Michael, I think IFM is an intermediary just like Macquarie, in that we manage third-party money. I do not think the fact that it is your own money makes you immune to getting things wrong. Sometimes people get it right, sometimes people get it wrong, and we have to accept that as a feature of the free market.

**Michael Hanna:** The problem comes when the manager involved in these bids takes out huge amounts of money in fees before the equity participants see how the asset is going to perform. The point is one of incentive alignment.

**Shemara Wikramanayake:** But is it not the manager's obligation to negotiate the proper fees?

**Leo de Bever:** It took us a long time to figure out how all of that worked. Continuous re-gearing was something that Macquarie really perfected. And I think that is the sort of thing that Michael was talking about – a manager taking out cash long before the investors do. There should be transparency not just during the bidding process but also around where the money goes after the bidding process.

**Frédéric Blanc-Brude:** Under the usual infrastructure project financing model, the construction company is an equity investor. They make money both from equity investment and by effectively invoicing themselves for construction work. If you come in as a pure financial investor, obviously you may want to start asking questions about this – you effectively find yourself in the position of an economic regulator of a utility. I think that is quite an interesting dynamic.

**Leo de Bever:** It is. We bought an energy transmission company in Alberta (Canada), and that's exactly the dynamic that developed. You have a fundamentally different relationship with non-financial partners, for example an engineering or construction firm, because they are not just going to get their money from the investment but also from charging for their services. This kind of dynamic arises any time you have a financial player who needs an operator to manage the asset for them. Not all partners in an infrastructure project have the same incentives, and you have to really understand the differences to be able to make it work in the long run. But there are solutions to it.

**André Laboul:** Leo, I understand that the Government of Alberta is one of your main shareholders. Does this affect your investment strategy?

**Leo de Bever:** No. The only way the Canadian disintermediated model works is if you can park yourself far away from the government. When I was at another investment fund here in Australia, that part of the model broke down. But in my case, I have never had a Canadian provincial or territorial government intervene in any investment decision. It is absolutely essential that you have strong governance. We have an independent board, expert investors and no obligation to anybody other than the pension fund members.

**André Laboul:** Michael, your business model is really an open-ended pooling model. One of your colleagues was also recently talking about 'social privatisation'. Could you elaborate a little on that?

**Michael Hanna:** We were established by 30 superannuation funds and, although we now have over 150 investors, everyone is treated equally. That is, the founding members are treated the same as new investors coming in from Canada or the United States or Europe. With an open-ended model, we do not need to invest within a certain time period, so we invest for the medium to long term for every asset. The open-ended model was not really popular outside of Australia until the last two years, and we had a battle in trying to get asset consultants to recognise that this model actually made sense for a long-dated asset class like infrastructure. We have investors that are in net inflow mode for the next 15 to 20 years, so they do not want us to spend \$20 million buying an asset and then have us sell it within 5 years. They want that asset producing a cash yield and

growing in value over the next 20 years, and they will look to liquidate those exposures when they need to start paying out to their members.

The phrase 'social privatisation' seeks to address the stigma associated with privatisation. The argument we are making is based on the fact that we represent almost six million superannuants in Australia. Rather than those people owning infrastructure assets as taxpayers through state governments, they now own these assets as superannuants, so there has effectively been no change in ownership. We find that this is a powerful concept.

**André Laboul:** Shemara, Macquarie had quite a number of listed funds, but now only has a handful. Could you elaborate on the reason for this?

**Shemara Wikramanayake:** Our listed funds are externally managed infrastructure funds. Basically, what happened with the listed infrastructure market during the global financial crisis is what Frédéric described earlier – listed equities traded just like equities in other assets. And when the prices of these listed assets fell, some big institutional investors bought these assets from the listed market. Does that mean that there is no place for the listed players in infrastructure? I do not think so. There continues to be a thriving listed infrastructure market. The prices of those listed funds that were not privatised during the crisis have bounced back strongly. Much like real estate investment trusts, when the market has extreme events these listed infrastructure assets behave like equities, but when they are trading normally they have less volatility than other equities and trade more as a yield stock. The latest evolution in infrastructure financing is infrastructure debt funds. Banks are being disintermediated from longer-dated assets; previously when you did project finance, the banks were willing to lend at tenors of up to 20 years, whereas now they will only lend at tenors of 5 to 7 years, and at lower leverage levels. The institutional market is stepping in to fill this gap, as the tenor matches their liability profile. I think there will be a range of products that the market will deliver. Some of these will fail, and the market will come up with new innovations, just as has happened in many other asset classes.

**Jan Dehn:** There are a whole bunch of new models evolving in infrastructure financing that are disintermediated. Essentially there are two key ingredients for making these models work. The first is that the government absolutely cannot appear on the investment committee, so it gets no involvement whatsoever in decision-making. The other key ingredient is to have a manager that can sort deal flows.

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