



Infrastructure: Moving forward



European Pensions Infrastructure Roundtable

(Chair) Hale: We've been through some quite interesting times in the infrastructure space. There have been some disappointments which have formed a rethink in the industry; however what I'm seeing is more and more client recognition of some of the positive aspects of infrastructure. Maybe we can just spend a couple of moments thinking about what infrastructure really is?

Ubhi: We define infrastructure at Mercer as the physical assets and their associated services that are essential for the functioning of modern society. I am sure that we are all familiar with the kinds of characteristics that such a definition includes; assets with monopoly-like positions within their respective sectors, enjoying inelastic demand that is insensitive or not particularly sensitive to financial markets and also micro-economic factors, that are inflation-linked in some way either directly or indirectly over time and that offer genuine diversification within an investment portfolio.

Lennon: What does change over time is individual appetite which is likely to vary from one investor to another. What we have experienced through the last few years is a greater appreciation from investors, as well as some managers in terms of the different sectors within infrastructure. We

observed demand for core infrastructure increase, for example the PPP model which is arguably very low in the risk spectrum of the sector.

Bruno: We started the same way, the core infrastructure was networks, transmission lines, pipelines, roads, bridges, tunnels, the classics you might say, but we had to go further afield as well because as a product provider we need to be somewhat agnostic and cater to multiple constituencies. Our institutional clients are looking for that core infrastructure, the high levels of return, the low volatility, the annuitised cash flows, the inflation-hedging but we also have clients who are interested in a broader expanded definition. So although roads, bridges and tunnels are nice they are fairly useless without lorries and taxis and trains etc. Canals are great but not without container shipping, so we have expanded it a bit to include what our retail clients have felt could be part of infrastructure.

Hector: It is important to note that infrastructure still covers a reasonably wide range of assets in term of risk. On the one side you have the PFIs and availability-based PPPs which are not subject to demand or price risk (and there is a push towards these types of assets because banks now prefer this

type of exposure). On the other side of the spectrum there are assets that are linked to economic risk, the demand being linked to GDP, but they still have some sort of monopoly within the area that they serve (e.g. ports, real toll roads). Still within those assets you also have to make a differentiation. There is a difference for example between a toll road which is a ring road around a big city and a toll road between 'A' and 'B' in the middle of nowhere, where traffic is much more sensitive to economic growth.

Hale: How have the conversations that you have been having with your clients changed? How have they changed over the past two or three years?

Mills: We have seen in the last two years nearly all of our clients come up the knowledge curve massively so their understanding of the sectors, the individual companies, the nuances, regulation, demand risk and liabilities has gone from the bottom-half of the S-curve almost to the top. The benefit of this is that you can have very meaningful, knowledgeable conversations and really understand the assets and their relative performance.

Hector: We have seen a clear trend towards separating the different types of risk within infrastructure. We now have buckets

**Chairman for the day: Duncan Hale, Senior Investment Consultant, Towers Watson**

Duncan Hale is a member of Towers Watson's infrastructure research team and has nine years experience researching infrastructure managers, having started his career in the firm's Australian investment practice in 2001. He was involved in developing the firm's infrastructure capability in that market before transferring to the UK in 2005. He is also involved in providing consulting advice to large defined contribution and defined benefit schemes.

**Mike Bruno, Director of Index Research, FTSE Group**

Mike is Director of Index Research at FTSE and is responsible for the expansion of FTSE's fixed income index system and development of a classification system for bond issuers. Mike joined the company in 2007 as business unit head for Fixed Income before moving to become Head of Strategy for Fixed Income and Alternatives in 2009.

**Jaime Hector, Partner, EISER Infrastructure**

Jaime has over 18 years' experience in financial advisory, lending and principal investment in the infrastructure sector, including transport, utilities, oil and gas and accommodation. He joined EISER's team in April 2006 after working for more than 12 years with English merchant bank Schroders and, after its acquisition by Salomon Smith Barney, Citigroup.

**Niall Mills, Head of Infrastructure Asset Management, Europe, First State Investments**

Niall Mills leads the infrastructure asset management activities in Europe where he is a director on the boards of AWG, ENW and Reganosa. He has over 20 years of Infrastructure experience gained in senior industry roles across a variety of sectors, including utility companies, rail and airports.

**Martin Lennon, Head of Infracapital, M&G Investments**

Martin Lennon has been the head of infracapital since its inception in 2005. Martin has over 20 years of infrastructure, project finance and investment experience gained in the corporate and financial sectors. Before focusing on Infracapital Martin lead the Project & Infrastructure Finance business at M&G having joined the company in 1998.

**Surinder Toor, Managing Director and Global Head of Asset Management, Infrastructure Investments Group, J.P. Morgan Asset Management**

Surinder Toor, managing director, is the global head of asset management for the Infrastructure Investments Group and member of the investment committee for the J.P. Morgan Infrastructure Investment Fund. Based in London, Surinder is a board member of Southern Water and Electricity North West in the UK, Cairns & Mackay airports in Queensland, Australia and Noatum Ports in Spain.

**Amarik Ubhi, Associate Manager Research, Mercer**

Amarik is an associate within Manager Research, a unit within Mercer's investment consulting business. He is part of the alternatives boutique where he leads Mercer's research of infrastructure investments globally, and covers managers based in Europe.

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“Infrastructure assets are relatively easy to understand conceptually, but infrastructure investments can be quite complicated”

(limits) per type of risk, additionally to the usual buckets by sector. So, for example, we now have a minimum target for assets largely not exposed to demand and price risk (e.g. regulated assets, PPPs) and a cap for the GDP linked assets. Basically, investors are smartening up to these different kinds of risks.

Hale: From the clients that you're seeing are they getting into that level of granularity; maybe in terms of thinking about regulated, contracted or demand risk assets?

Ubhi: Infrastructure assets are relatively easy to understand conceptually, but infrastructure investments can be quite complicated. I think in combination with advisers, clients have really sharpened up in terms of what exactly it is they are looking for from an allocation to

the asset class, and their approach to due diligence. Some will have a clear preference for cash flow, and that leads to certain types of investments (typically debt or PPP/PFI funds). More generally, we have seen that most clients are looking for diversification; something within the overall portfolio that isn't strongly correlated to other investments such as equities, is less 'risky' but still offers some growth potential. Occasionally, some are willing to go further up the infrastructure risk/return spectrum in search of private equity-like growth, and consider greenfield and/or emerging market investments. Along with this better understanding of the roles infrastructure can potentially play, clients are going into more detail when considering investments to make

sure that they deliver what is being promised.

Hale: What's the feeling around the table, is infrastructure, for want of a better term, a bond substitute?

Bruno: Well even if the cash flows of infrastructure are akin to a bond-like structure, what type of bond? Sovereign bonds, agency bonds, covered bonds, corporate bonds certainly, but what sectors? So I think from a fixed income perspective, just saying that, "I'm going to benchmark a portfolio of infrastructure versus a corporate bond index", is going to produce tracking error simply because bonds are not like infrastructure; even though the cash flows are similar you should still have sector exposure and the sectors have to be taken into account.

Lennon: Inflation is still one of the



big issues and it seems to be very relevant with most investors you talk to today, so that certainly encourages you to think when offering an infrastructure product that you should have some focus on inflation-linked assets if you can. I think the days of debating if infrastructure is equity investing or a bond substitute are probably largely consigned to history now because there is an understanding that what infrastructure funds invest in (other than specific debt funds) is an equity instrument, even if it's in a highly contracted PPP, it's still equity. I think that we have definitely seen the market mature in terms of thinking about infrastructure in this regard.

Toor: I think that very much comes down to saying, "Well infrastructure returns are linked to inflation but there may be a short-term lag", so directionally if you are coming into these types of investments in terms of matching 20 or 30 year duration liabilities, the inflation protection is very strong. It's very important that for people coming into infrastructure, they are really thinking about the duration of their investment and liabilities. We have had queries through from prospective investors who've said, "What's the RPI position if inflation moves up half a per cent in the next 12 months or so?" It's really the wrong question, because we can answer that question but actually if someone is making an allocated infrastructure and wanting perfect RPI hedging for 12 months then you can't.

Hale: I think that leads us nicely onto performance. Does anyone have comments on what they have seen in terms of performance over the past three or four years and was that to be expected?

Hector: We have gone through

possibly one of the worst economic situations that have been seen in many years and so assets have suffered but different assets have suffered in different ways. For example, PPPs and PFIs are very stable and they have delivered what they are supposed to do. The same would normally apply, for example, to renewables enjoying feed-in tariffs, but even these have been caught by the economic crisis, in that countries in bad economic shape have aimed to change the remuneration. Hence regulatory risk has come to the fore as a key due diligence item. Assets which were linked to GDP growth have suffered, much more than expected by anyone. Some assets have recovered well in the past couple of years with further recovery still to come. Infrastructure assets are not immune to the macro-economic environment but are more resistant than other assets. The whole situation has been compounded by aggressive pricing in some cases, debt levels and competition for the assets at the time they were acquired.

Bruno: As an index provider, we are specifically focusing on listed infrastructure - the reason being the dearth of good market data and a dearth of good valuations with unlisted infrastructure. With listed securities, you get market data every day. Our measurements have shown - and this tends to support the definition of infrastructure - that over the last three to five years, the volatility of our core infrastructure indices have been lower than our broader global equity indices and the returns have been much better. We wouldn't say that's predictive, but one can only hope that will continue into the future. Certainly we have found that a correlation between our infrastructure indices

and the broader equities has been very high. You would naturally assume that because one is the sub-set of the other there would be strong correlations but in this market they would be stronger than usual, we hope of course that they return to some long-run average where they diverge a bit more but that remains to be seen.

Hale: Does the experience over the last couple of years suggest that diversification is important or do you think it's, to a large extent, overplayed?

Ubhi: In my view, diversifying across a number of parameters (such as by manager, fund, geography, sub-sector and vintage) is very important to successful infrastructure investing. We have talked about some of the problems experienced at underlying asset level over the past few years, but unfortunately there have also been problems at fund level and also GP level. Investors have become acutely aware of these risks because in some cases, they have meant that an infrastructure investment has not delivered on expectations. Also, I think there is now a realisation that infrastructure assets and infrastructure investments can be very different in their risk/return characteristics, because of the way that those assets are managed and packaged up into investable form. Some of those differences relate to the investment wrapper (so is it equity? Is it unlisted equity? Is it infrastructure debt?) whilst others relate to the operational management of those assets. For example, you may have an infrastructure asset which is otherwise stable and cash generative, but if it's poorly managed and excessively leveraged, it can turn out to be an investment that's very different to expectations.

Hale: Are you seeing that in terms



of the amount of due diligence that people are doing today versus two or three years ago?

Toor: Yes, at times - investors are now seeking comfort on individual asset business plans and projections that was unheard of two or three years ago but it's a virtuous circle in that it gives them confidence, especially when we have been through a period like we have and you say to someone, "Look there's a 6 per cent yield this coming year", and they say, "Well we haven't got five years or 10 years of history on that so let's actually dive into these assets and business plans and build greater knowledge, greater confidence" and once you have delivered against that, the trust builds up, but there's a lot more due diligence on the individual assets and the fund projections which we welcome.

Mills: Frankly, if investors want more information, transparency and time to review business plans and regulatory information in more detail, then they are absolutely entitled to it. We should be giving complete transparency on all of the assets' performance information.

Lennon: Clearly dealing with the uncertainty seen in the credit markets can't be anything other than a challenge and that's why we all need to be very mindful about how we approach capital structures, there have been plenty of lessons out there to observe in this respect. Anyone that's invested in a strong utility probably hasn't had too much of an issue finding appropriate capital for these businesses. It's probably in the grey areas where people are pushing the infrastructure envelope a bit further where capital is harder to find and this may be defining investment policies more than we have perhaps appreciated.

Ubhi: On the point about the

difficulties in obtaining credit, I'd just like to make a couple of observations. Firstly, despite those difficulties, good assets are still able to attract debt even though it's more expensive than before the financial crisis. Secondly, good asset managers are also still able to attract financing from the capital markets due to their reputations as owners and operators.

Hale: What are the opportunities in infrastructure going forward?

Hector: In terms of the opportunities, the economic crisis has led governments to push for infrastructure investment as a means to foster economic development but, with restricted resources they need to involve the private sector. Some governments are also trying to privatise existing infrastructure assets, but nothing has really happened yet and it remains to be seen what will come of that. Regulation is another driver of opportunities, such as renewables targets that need to be achieved by 2020, and unbundling requirements for utilities, etc. There are many ingredients for opportunities to arise in the coming period.

Toor: I think the interesting thing is that the US has always been the space that has over promised and the delivery has been disappointing in terms of opportunities that are actually executable. You hear about the infrastructure initiatives, you hear Obama wants to move it out of public sector and general taxation, but if you were picking between Europe and the US you would still think the European opportunities would probably be a better set and then further afield Australia commodities related infrastructure and transportation assets seems very positive still but there is a lot of completion for assets.

Hale: What are the risks that

investors need to be aware of?

Ubhi: Even if you have got an asset that has otherwise been 'de-risked' (in terms of construction, financing and operation) it will still be exposed to a degree of ongoing regulatory and perhaps political risk. These are the main factors that make infrastructure unique as an asset class. It's been one of the big issues that we have seen in Europe recently; the case of Spanish solar and retroactive tariff cuts is commonly cited. Another example is the German electricity regulator's suggestion that it will limit returns on investments in the sector, only days after the country's largest electricity grid was sold to a consortium of local pension schemes and insurers. Regulatory risk is something that we try and make investors aware of up front, but it is also one of the reasons that clients buy into the asset class as it can provide stability of returns, and therefore diversification from other types of investment.

Bruno: From a performance benchmark standpoint, we found that most clients were advising us on the utility side to include listed equities of regulated utility companies because the regulators allow them a certain minimum return on equity. They can pass through some of their commodity price risk, the cost of the hydro-carbon fuels etc. and that gives them inflation linking protection in the annuitised cash flows, so for us, excluding the non-regulated utilities and just including regulated, actually made for a more stable product and probably a better level of return and lower volatility.

Hector: As for regulatory risk, you have to do much more on the due diligence front. It is not only understanding how the regulations work but also whether the government has been true to their word,



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and whether policy frameworks have remained stable. Unfortunately many governments have changed policy, introducing uncertainty for potential investors. Then also within different sectors there are specific issues to take into account: in the case of renewables it is also a question of sustainability because the tariffs are usually heavily subsidised, such as solar, and you have to address whether the government is in an economic shape that will enable them to fulfil their financial obligations. Now you really have to undertake in-depth due diligence and understand everything about that particular government, economically, politically and in regulatory terms.

Hale: What are the other key risks of infrastructure; when you are talking to clients what are the other things that you are focusing on?

Lennon: At a fund level or at an asset level it is really a focus on the use or abuse of financial engineering, which is something that the aftermath of the financial crisis has focused attention on. Another area of discussion is the overall mix of assets within a fund portfolio i.e. what kind of exposures is an investor buying or expecting to buy into them and related to this what are the parameters around fund structure and diversification rules? Do they give confidence that the manager will do what they are saying they are going to do? Then on a more practical level there are questions such as, what is our view of this particular manager? How stable are they as an organisation? What is the strength and depth of the infrastructure team that they have in place? Also what is the vehicle structure that they are

offering us? Does that offer a good alignment of interest with us as investors?

Hale: Do any of the managers have a comment on cash yield type performance fees and potentially the issues that might come out of those types of fee structures?

Mills: I think the most important thing is delivering on promises and whilst nobody has a crystal ball and can predict what's going to be there in two or three years' time, if a manager promises a certain level of cash yield and no extraneous factors have completely changed the landscape then I think having cash yield triggers and hurdles is completely appropriate.

Lennon: It also goes back to what we started off with at the very beginning of the discussion about the different types of infrastructure, we have run a secondary PPP fund for 10 years now and that has always had a cash yield based performance bonus because that was absolutely appropriate and suitable for that type of asset. Not all models will work the same way so I think that's the challenge we face as managers.

Ubhi: If an unrealistically high cash yield hurdle is incorporated into a fund's terms, the danger is that the manager is then incentivised to extract every penny from the underlying assets at the expense of long term investing and value creation, which has been one of the criticisms of this particular structure. However, if the underlying assets can actually deliver the level of yield that the manager is promising, then including that kind of structure helps to attract investors, improve the alignment of interests, and also gives the manager the incentive to buy well so it can be an appealing feature of a fund.

Mills: The greater the engagement



that investors want these days and the roles they need to provide that greater oversight protects against that type of behaviour and equally by not setting yield triggers when your hurdles are too high, you can set them at the appropriate rate for appropriate assets. It works provided everybody is sensible and increasingly people are.

Hector: We recognise that it makes sense to link the remuneration of managers to the cash yield achieved and we discussed the concept with investors but what we found is that investors are far from having a common view on it. For now we aim to link part of the remuneration of the employees of the manager to achieving certain levels of cash yield.

Hale: In terms of how to invest, are you seeing clients change their views in terms of the maturity of funds and the duration of funds?

Lennon: A lot has happened in the last few of years and the debates are still the same debates that people were having a couple of years ago about closed ended versus open ended fund structures. I'm not sure they've really developed to a conclusion yet, I don't think actually personally they ever really will because different investors will tend to look for different things.

Mills: When you talk philosophically to most people nearly everybody will say infrastructure should be held forever because you know the asset is there forever. You know it is very very long term but if you look at it from the perspective of an individual who has got to take a recommendation back to his investment committee or his chief executive it's really tough for them to say forever.

Hale: We have seen examples in Canada of direct investing and we've also seen some of the sovereign wealth funds and others

particularly from Australia also going down that route. Is that something that you would expect to see more of from European perspective and what are the issues of doing that?

Toor: You can see there's a trend, there's more and more people saying we want to do it but there's probably 10 times as many people who express the intention rather than have actually executed. If you look back at the Canadians the larger direct investors have large teams established for over 10 years. You can't do it with two or three guys and meaningfully be a partner in that venture if that's what the aspiration is and for some it may be but for the majority it probably won't actually be where they end up. Looking again at the Canadian direct investor examples like Borealis and Ontario Teachers' Pension Plan the preferred structure is open ended perpetual which is what we believe is the most appropriate structure for core

infrastructure investments as it matches perfectly the asset class's characteristics to the investors liability profile.

Ubhi: Amongst UK pension schemes, a key issue with direct and co-investing is governance. Cases like the sale of High Speed 1 (where some UK pension schemes expressed interest) and more recent examples like Cambridge Water have been touted as potential investments for clients, and attracted a lot of interest and attention. However, the reality is that there are probably only a small number of pension schemes within the UK that have the internal governance structures and budgets to be able to take these things forward. From a trustee's point of view, infrastructure might only represent 2.5 per cent - five per cent of the total portfolio, but they would still have to deal with a number of different issues across their other investments alongside the significant workload of direct

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and co-investments.

Hale: Looking ahead, what are the opportunities in the short to medium term for this asset class?

Ubhi: We're finding Europe quite interesting at the moment, as there are a number of factors creating opportunities. Specifically, government indebtedness, distress and balance repair in the private sector (as well as capital recycling), and climate change policy (with the EU 20-20-20 directives) mean that there is a role (and a need) for private sector capital. Also, despite the current macroeconomic problems, there is a long-term need for infrastructure development, upgrade and maintenance that provides a tail wind supportive of investment. For clients that are either looking for something more private equity-like or are looking to diversify existing infrastructure allocations, the emerging market theme can fit nicely. However, this is more of a capital appreciation play and is focused on getting in, constructing assets, de-risking them operationally and then finding a suitable exit. As such, this approach is unlikely to deliver the kind of characteristics that we talked about earlier, but nonetheless represents an investment opportunity for clients if that is what they're looking for.

Hale: So what are your closing remarks, what are your conclusions based on today's discussions?

Hector: We are at a point in time when there should be quite a lot of opportunities out there for private money to be deployed into these infrastructure assets. There were some issues in the past in terms of performance, alignment of fees, etc. that both sides have become much more experienced and knowledgeable about. In connection with the issue of direct investment, there is clearly a trend of investors

asking for more co-investment opportunities but it may be a challenging one because investors may not be quite there in terms of teams set up and resources that sometimes can hinder the making of the investments. We need to be creative about finding ways of solving this type of problems.

Bruno: The funny thing about infrastructure is it is an investment as a force for good. You're investing in something that people are going to need, countries are going to use to feed, to empower, to raise the standard of living of so many people so it's not just the return to you, it's by investing it you give back so you're not just investing in equities but you're investing in real tangible assets that you can see and someone's getting a value out of that.

Mills: The key development in the sector over the last couple of years has been much greater transparency with investors. In general, I think the funds that are attracting investment, performing well and have good investment teams tend to be the ones that are more transparent, more open with their investors and working in genuine partnership and I'm sure that's the right way to go.

Ubhi: I think that infrastructure has firmly established itself as an asset class in its own right. If we'd have been having this discussion even four or five years ago, it would have been seen as somewhat niche amongst UK pension scheme investors, but interest is growing slowly, surely and steadily. We are seeing that clients are increasingly looking at the asset class, gaining familiarity with it and making capital allocations. The market has moved on from its early days and there is now greater investor sophistication and knowledge, greater differentiation between

funds and managers, and a greater degree of choice of investments for clients.

Lennon: This debate has matured over the years and I don't really get a sense of any extreme positions or disagreements being maintained now from managers, investors or adviser. Where we're getting to now is a market which offers investors something which is more mature but still with great opportunity, particularly from an investment point of view and a choice of structures and products. There's still some refinement to be had but we can see a sweet spot developing of what both the manager is offering but also most importantly what the investor wants.

Toor: I would agree with all of that I think that once you take away the sort of the noise of events if you like over the last two or three years and you look at the underlying cash flow and the fundamentals of the real infrastructure and assets and underlying cash flows growing over time, inflation protection you know it's the natural fit for the types of investors we're talking about and therefore it will succeed, it will continue to grow and develop.

Hale: It's an exciting time for infrastructure. It's found its position in the asset allocation world. Previously it was trying to be all things to all people; today there are different funds that are now focusing on different aspects of the asset class. We've spoken today about a number of opportunities that are out there from an asset perspective but we've also talked about the way that the interaction between the investment manager and the investor is evolving. Delivering what's been promised is being talked about a lot; as is greater transparency. Both of those are very very welcome in terms of moving the asset class forward.



