Institute and Faculty of Actuaries

Infrastructure Finance Review

IFoA response to HM Treasury

05 June 2019

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The Institute and Faculty of Actuaries (IFoA) is a royal chartered, not-for-profit, professional body. We represent and regulate over 32,000 actuaries worldwide, and oversee their education at all stages of qualification and development throughout their careers.

We strive to act in the public interest by speaking out on issues where actuaries have the expertise to provide analysis and insight on public policy issues. To fulfil the requirements of our Charter, the IFoA maintains a Public Affairs function, which represents the views of the profession to Government, policymakers, regulators and other stakeholders, in order to shape public policy.

Actuarial science is founded on mathematical and statistical techniques used in insurance, pension fund management and investment. Actuaries provide commercial, financial and prudential advice on the management of assets and liabilities, particularly over the long term, and this long term view is reflected in our approach to analysing policy developments. A rigorous examination system, programme of continuous professional development and a professional code of conduct supports high standards and reflects the significant role of the profession in society

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Infrastructure Finance Review
HM Treasury (2 Orange)
1 Horse Guards Road
London
SW1A 2HQ

05 June 2019

Dear Sir or Madam,

IFoA response to the Infrastructure Finance Review consultation – HM Treasury/Infrastructure and Projects Authority

The Institute and Faculty of Actuaries (IFoA) welcomes the consultation on the Infrastructure Finance Review from HM Treasury and the Infrastructure and Projects Authority. The IFoA's Finance and Investment Board and Infrastructure Working Party have been involved in the drafting of this response, which focuses on those consultation questions relevant to actuaries' experience.

Chapter 2 – the infrastructure finance market

General comment

The funding landscape of life insurance and pension funds has been changing and will continue to do so. New savings are focused on unitised collective investment schemes where the market demands liquidity and where the demand would be limited to an index-based proportionate exposure to infrastructure equity and debt. With-profit funds are declining in number and their appetite for equity risk and very long dated fixed income assets is declining. Defined benefit pension funds are maturing and moving increasingly to very long dated fixed income assets. Many are positioning themselves for a sale of their liabilities to life companies (by way of the bulk purchase annuity market) and therefore have a distinctly lower appetite for equity investment and a strong preference for high quality long dated fixed income assets, especially CPI/RPI linked bonds. The specialist bulk purchase annuity writers can, and do, enter private funding arrangements where they can rate the investment as investment grade and where they can earn a sufficient illiquidity premium. If investment grade is not possible then the asset would need to be credit wrapped (e.g. with a government guarantee) to make them investment grade if these funds are to have an interest in them.

1 Do you agree with strengths identified of the UK infrastructure finance market?
2 What are the weaknesses in the infrastructure finance market?

Taking these two questions together, the IFoA agrees that the UK has a developed private investment market, with a much broader focus on the private sector than in other major Western countries. In addition, the UK's regulatory system is stable by international standards despite some significant and unexpected regulatory changes in recent years, such as the 2018 announcement about the abolition of PFI, and the earlier ending of subsidies for solar panel installation.We agree with the consultation paper's comment (p13) that "There is a potential for misalignment between investors' risk appetite and the potential long-term policy benefit of private capital being attracted into new and complex

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infrastructure" and have discussed this in more detail in a recent briefing paper[1].

4 To what extent can the private sector fill any gap in infrastructure finance left when the UK leaves the EIB?

The consultation notes that some projects, which are similar to ones supported by the EIB, have managed to reach financial close without the EIB's support. However, this has often happened with delays or at greater cost. This suggests that for other projects, which are not robust enough to withstand such delays or increased costs, it is only the EIB support that makes them viable, and they would fail to get off the ground if the UK leaves the EIB. To avoid such a scenario the UK Government may need to create a structure to support private investment and to replace the EIB support, as advocated by the NIC (see also our response to Q16).

5 What new types of assets or technologies do you see coming to market in the next few years and what kind of financing issues might they raise?

The consultation mentions three challenges that new technologies may face – lack of a proven track record, sheer scale, and being introduced during an economic downturn. Some of the technologies that are currently being developed are important and exciting, but they may be affected by all three of these challenges. Examples might include automated and electric vehicles, carbon capture or smart infrastructure. One way to minimise the potential for investors to exaggerate the risks of an unproven technology is to ensure that information about a project is of a high quality and is as transparent as possible. For example, the sponsors' risk assessments could be made available to potential investors.

6 Does the market have capacity on a long-term basis to finance very large projects?

One approach to financing large projects is to develop a range of investable structures to suit different risk appetites. This can increase overall capacity, and might include offering different tranches of investment to align with the risk profiles of different stages in a single project. It is important for funding models to recognise that investors with greater risk appetites will tend to get involved in projects at an earlier stage than investors who are more cautious.

As sustainability become more integrated into mainstream investment thinking, the IFoA believes that the externalities of investments in general will increasingly be incorporated into the risk assessment. This will level the playing field and bolster the fundamentally strong case for investment in infrastructure, and could help to increase the overall allocation of investment to large infrastructure projects with the right characteristics.

Chapter 3 – investment models and existing tools

8 In the long-term, what lessons or models from established tools could be applied to different contexts?

Box 3A of the consultation provides ten examples of regulatory mechanisms to support private investment, including five for the energy sector alone. This multiplicity of approaches suggests that mechanisms are influenced by the specific circumstances that apply in within and across each consumer-funded sector. This suggests that it would be useful to bring the regulators for different sectors together, to analyse how sectors and their regulatory approaches are related. This could generate useful higher-level principles that could then be applied to new contexts.

The IFoA believes that there are lessons which could be learned from the history of the railway line HS1. After the line had been constructed, it was leased to private investors who employed Network Rail to manage the infrastructure and an operating company to run the trains, which meant that those investors largely avoided the risks arising from the construction and maintenance of the physical asset and took the commercial risks which they felt they could understand. This is a model which could be applied in the case of other railway lines, either existing ones requiring refurbishment or brand-new routes. A similar model could also be applied to any other form of infrastructure which generated commercial revenues. The lease, which would normally be issued by the appropriate public-sector body for a long period of years, would either be granted for an annual rental or else in

[1] https://www.actuaries.org.uk/documents/infrastructure-finance-policy-briefing

return for a lump sum payment which could be used to offset any amounts which the public sector had paid for construction costs. At the end of the lease period the asset would be returned to the public sector. Safeguards would of course need to be written into the contracts to protect the public interest and ensure appropriate regulation.

10 What is your view on the effectiveness of the existing government tools to support the supply of infrastructure finance?
11 Should the government change, expand or reduce the levers it uses to support the supply of infrastructure finance?
The tools seem comprehensive, ranging from the maximum support of direct funding, through loans, to guarantees. In addition, the IFoA has also suggested that the UK government could potentially issue sukuk (or sukuk-style) bonds to finance infrastructure projects[2]. Sukuk are Islamic bonds that generate returns for investors but do not involve interest. This could be a way for the government to support infrastructure finance in partnership with investors, while avoiding adding to government debts on the public sector balance sheet.

The IFoA's Infrastructure Working Party recently devised a model for leasing transport infrastructure in which the investor buys a lease for a sum agreed at the start of construction, with the lease not set to begin until the project starts its operational phase. A proportion of the operating company's revenues is paid to the investor as income. This model could potentially be implemented by combining two of the many variants of sukuk:

- Al-Salam – a special purpose vehicle (SPV) agrees to buy an asset at a future date in exchange for advance payments.
- Ijarah – these are sukuk leases.

Chapter 4 - governance

13 Which sectors or types of infrastructure may need support from government to raise the finance they need, particularly in light of major technological changes?
New technologies coming to market will likely need support from government to raise the finance they need. These might include automated and electric vehicles, carbon capture or smart infrastructure.

Electric car-charging points in people's homes could be facilitated through private companies backed by institutional investors if the Government were willing to legislate to enable repayments from householders to be collected via their electricity bills. The same idea could be extended to other socially-desirable infrastructure expenditure by householders, for example improvements to their heating systems to reduce emissions. The IFoA Infrastructure Working Party has prepared a paper on this subject, which could be supplied on request.

16 In the event that the UK loses access to the EIB, do you agree with the NIC that the government should establish a new, operationally independent, UK infrastructure finance institution?
Yes.

If so, what should its mandate be, and how should its governance be structured?
The IFoA believes that the mandate and governance of such a new institution and the extent to which it would attract investment funds would be heavily influenced by the extent to which the UK Government would itself guarantee the debt. The existence of a guarantee might affect whether the debt was counted against the Public Sector Borrowing Requirement - we question whether it would be possible to establish the new development bank in a manner that avoided this if such a guarantee existed.

Even if there was no UK Government Guarantee, this would not preclude the establishment of such a development bank in the UK, financed largely by banks, insurance companies and pension funds. Pension funds are becoming more willing to accept longer dated illiquid investments, which would make their participation in such a bank more likely. The advantage for investors would be that they would get a better spread of risks and less need to conduct their own expensive due diligence, than

[2] https://www.actuaries.org.uk/documents/infrastructure-finance-policy-briefing

they would when seeking out their own individual investments. It would be advantageous if the development bank could offer both bonds and equities, which would accommodate the needs of investors requiring differing risk profiles

The risks taken on by the investors and lenders (even though pooled across a diverse portfolio of projects) would mean that the cost of financing projects would be somewhat higher than at present, where the finance is raised through UK Government debt and loans from the EIB. On the other hand, creating a new UK development bank would be an opportunity to insist on approaches to risk management and mitigation which were more rigorous than the current ones, and this might lead to a more efficient use of resources in the long run.

Supplementary comments

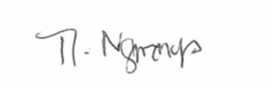
The limited risk analysis of the construction process is often one of the reasons why infrastructure projects go off track in terms of budget and timeframes. Greater actuarial involvement in the financial aspects of construction could lead to more sophisticated risk analysis and ultimately could help to improve the quality of information available to investors. The RAMP process – Risk Analysis and Management for Projects – is one way in which construction costs and timescales can be managed effectively, and investors taking construction risk could encourage the project team to use RAMP or a similar comprehensive methodology[3].

Much of the delivery, management and performance of government-funded infrastructure projects is critically dependent upon there having been fully adequate thinking about the key issues before authority is given for the project to proceed. Good guidance is given in the new Green Book about some aspects of the thinking process, but it does not cover everything and of course the Green Book does not apply directly to much of the public sector. Moreover, increasing delegation to local authorities may mean that there is a danger of less experienced people being involved in future. The IFoA therefore believes that the short booklet it has produced jointly with the Institution of Civil Engineers, Major Infrastructure Projects: Key Front-end Issues, should be read by every senior person who has to develop or make decisions about public sector projects – politicians, planners, civil servants, local authority officers, etc.[4]. The booklet lists the questions which need to be addressed if nothing significant is to be overlooked, and the IFoA's view is that those who follow it diligently will be more likely to achieve success.

If you would like to discuss any of the points raised please contact Matthew Levine, Policy Manager at Matthew.Levine@actuaries.org.uk or on 020 7632 1489 in the first instance.

Yours sincerely,

Marjorie Ngwenya



Immediate Past President
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[3] IFoA and Institution of Civil Engineers (2014) Risk Analysis and Management for Projects https://www.ice.org.uk/eventarchive/risk-analysis-and-management-for-projects

[4] https://www.actuaries.org.uk/documents/major-infrastructure-projects-key-front-end-issues