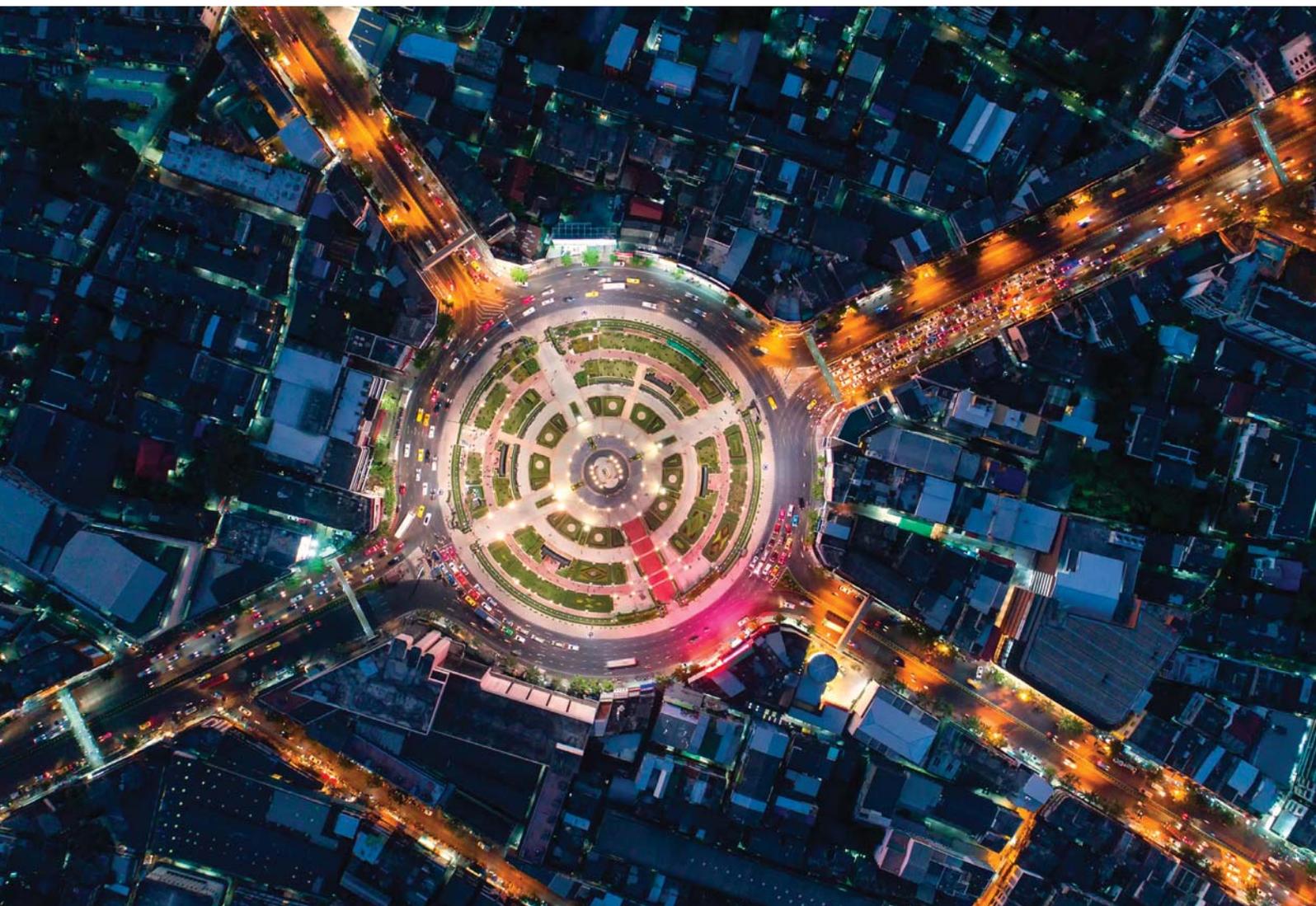




Attracting infrastructure investment through International Standards



Summary

Investment in infrastructure will be crucial if the UK is to remain internationally competitive particularly in a post-Brexit economy. The government, through the National Infrastructure and Construction Plan, has identified the infrastructure projects and programmes that need to be delivered to meet the demands of a growing population. The role of private investors will be crucial to deliver the pipeline as successive governments have adopted a policy of keeping capital spend off the public balance sheet through reduced spending.

The UK, however, is not alone in its ambition to deliver infrastructure through inward investment. Many countries have implemented policies that set out clear visions and strategic plans for infrastructure delivery. With infrastructure forming one of several asset classes comprising a diversified investment portfolio, there will be competition between nations to attract investors. The fine margins between countries means the UK should aim to attract

long-term investors through the adoption of international standards. Robustly regulated standards increase transparency and provide assurance on the accuracy of information being used to make investment decisions.

Infrastructure projects, especially those of national significance, are rarely completed to budget signalling a need for improved cost data reporting. The International Construction Measurement Standard (ICMS), launched in 2017 by 40 global professional bodies, provides global consistency in reporting and analysing construction costs. The regulatory compliant data underlying ICMS can be used from project initiation, to assess the economic viability of a project, through to monitoring the financial metrics of a project during the risky construction period. The presence of other global standards across land and property can form an all-encompassing set of standards that increase the level of transparency in the built environment.

With Brexit on the horizon and recent contractions in the construction sector, measures need to be taken to encourage investors. The adoption of robustly regulated international standards, combined with stable long-term government policies, will ease the investment decision process and aid the UK government's ambition to covet investors.

Introduction

Infrastructure investment is crucial for growth in both emerging and advanced economies. It is axiomatic that coordinated cross-sectoral infrastructure leads to higher productivity which is a significant factor in attracting inward investment.

The UK's ageing infrastructure requires significant investment to meet demand and remain internationally competitive. Currently, roads are at capacity; trains are increasingly over-crowded; the rolling stock continues to deplete; flood defences require modernisation; fibre-optic broadband needs universal accessibility; and a programme of continued airport expansion is essential. Wider issues exist at a local level. The World Economic Forum recently ranked the UK's overall infrastructure 24th in the world¹.

The government's project pipeline illustrates grand ambitions to boost infrastructure, however, the UK is not alone. The Global Infrastructure Hub has stated \$94 trillion² of infrastructure investment is needed by 2040.

A further \$3.5 trillion will be needed if universal access to drinking water and electricity, under the UN Sustainable Development Goals, is to be achieved. Although it is reported that significant liquidity is available for investment, nations will compete to attract investors as infrastructure is likely to form one of several asset classes in an investment portfolio.

So how can infrastructure projects, both in the UK and internationally, attract the long-term investment needed to deliver projects? To assume the UK's historical appeal would naturally place it at the forefront of an investor's wishlist would be naïve. Undoubtedly, a stable political system, presence of a renowned and respected judicial system, a mature and transparent financial system, and a favourable geographical location, are characteristics sought by investors. In a world where many nations can provide the above, this paper seeks to highlight that compliance to regulated international standards can contribute to investment decisions and provide the certainty that attracts investors.



1. <http://reports.weforum.org/global-competitiveness-report-2015-2016/economies/#economy=GBR>

2. <https://outlook.gihub.org/>



How do you price a construction project?

It's done differently all over the world...

For example:

Do you include the cost of the land itself?



Do you include taxes?



There are thousands of inconsistencies worldwide...

As a result

10



identical projects...

built in

10



different countries...

will have

10



different price tags

And that's before you factor in local wages, material costs and currency variations

This can lead to cost variations of millions

So what's the solution?

International Construction Measurement Standards



the product of collaboration between more than **40 global standards bodies**

1.0 International Standards: importance, global collaboration and regulation

Importance of international standards

International Standards can be defined as a common framework that is complied with by professionals in a sector. Put simply, they are rules and/or guidelines formulated by qualified standard setters which must be complied with by professionals. Although standards differ from government regulation, they can often be used in legislation to provide the technical detail.

The formulation of international standards is made more credible through global collaboration, particularly across the built environment sector which crosses borders. Future generations would benefit through the presence of qualified and regulated professionals, working to globally recognised standards. This would serve in the public interest, at a global level, by providing consistent reporting methodologies, facilitating accurate comparatives, reducing the risk of fraud and increasing the level of transparency. All these factors combined would increase investor confidence.



2.0 The need for international standards in construction and infrastructure

Global collaboration

International standards can only be viable and achieve their objectives in a globalised built environment if they are formulated through a collaborative international network of standard setters, as was the case for the International Financial Reporting Standard (IFRS). As a global professional body, with a presence in every continent, the Royal Institution of Chartered Surveyors (RICS) has taken a leading role in developing and embedding international standards that provide a common framework for practitioners, recognised throughout the world.

The RICS has been at the forefront of creating international standards and, since 2013, has worked with more than 100 professional and standard-setting organisations throughout the world to develop high-level international standards (discussed in part 3 and 4). Collectively, these organisations own and implement the standards through their relevant professional guidelines.

Separately, the RICS has worked alongside the UK government to champion the use of standards internationally. This is demonstrated from the RICS's ongoing collaboration with the Infrastructure & Projects Authority and participation in trade trips with the UK's Department for International Trade to promote international standards.

Regulation

Compliance with international standards, that are robustly regulated, provide investors with certainty that their investment decisions have been made based on transparent and accurate information. The creation of the most comprehensive set of standards for the built environment, however, will be rendered meaningless in the absence of an informed and equipped regulator with the necessary tools at their disposal to ensure ethical compliance.

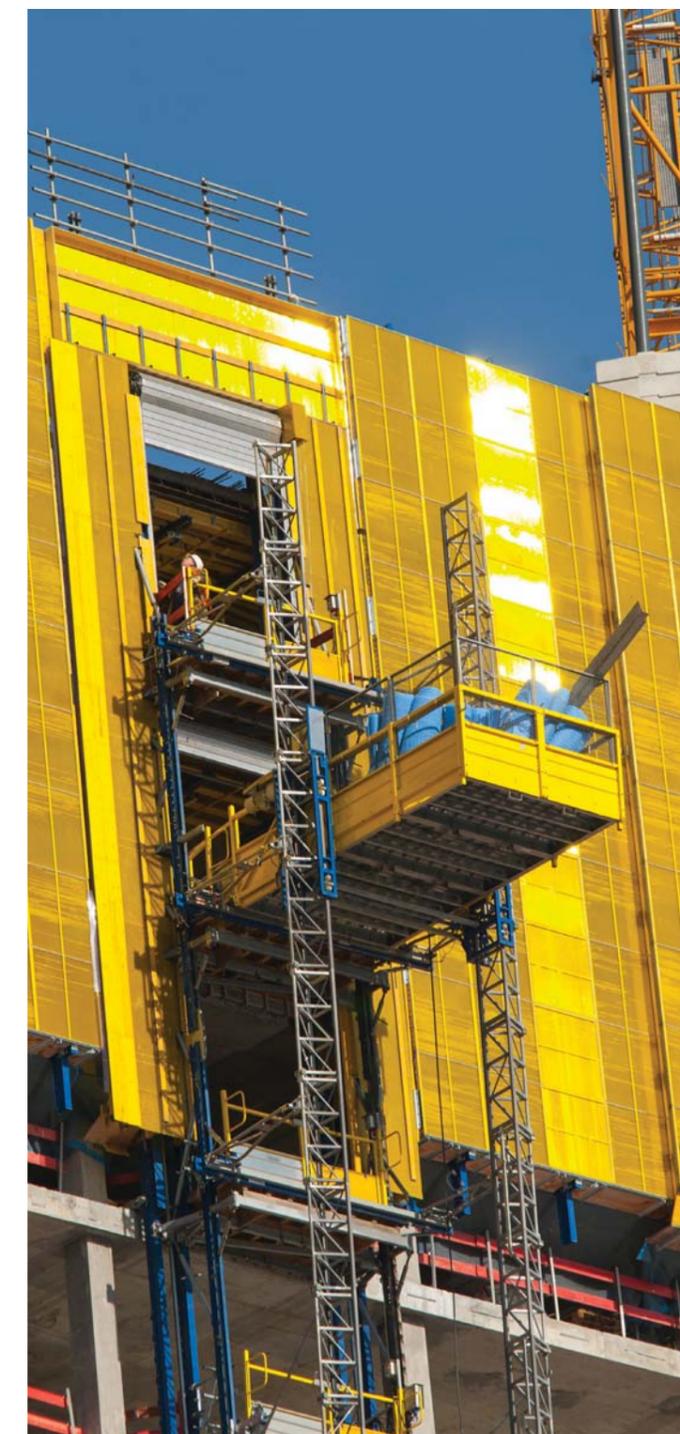
It is incumbent on regulators to ensure appropriate conduct in compliance with international standards, that act in the public interest, to provide confidence to investors. The application of standards (discussed in part 3 and 4) can form an all-encompassing set of factors that contribute to investment decisions. The RICS, as a regulator in the built environment, recognises the importance of its robust regulatory model that allows it to hold the conduct of professionals to account.

Lessons have been learnt from the global financial crisis where a lack of effective regulation was apportioned responsibility for bank failures and the resulting economic downturn. Comparison to the financial sector is appropriate as the built environment also features similar characteristics including: global significance; mass employment; financial reach; human dexterity; and economic impact.

The built environment is of a magnitude that merits the formulation and implementation of international standards to report the capital expenditure (capex) associated with projects. Capex for nationally significant projects can be significant, running into the tens of billions, and is reported ahead of efforts to raise the finance and/or funds. Private investors and government, both prominent stakeholders in infrastructure, would benefit from an internationally consistent method in reporting construction costs, that is regulated by an independent professional body to ensure ethical compliance.

It is widely known and, to an extent, expected that construction costs will almost certainly exceed initial budget, as was the case for the 2012 Olympic games and many other projects. Significant increases in capex can have a detrimental impact on the financial metrics used for investment decisions i.e. changes in debt service cover ratios can distort future revenue streams in the absence of additional equity. Breaching a debt service cover ratio can change a project's credit rating which may form part of a requisite investment criteria. Investment risk can of course be mitigated through credit enhancements, and, in cases where projects are financed through public bond investors, through construction support from the contractor or injections of equity in the transaction.

The National Infrastructure and Construction Pipeline (NICP)³, a forward-looking pipeline of projects and programmes in housing, economic and social infrastructure produced by the government, sets out the capex for projects. The projects and programmes, however, follow no consistency in what comprises its capex. The adoption and implementation of a transparent process, discussed below, for reporting capex requirements will bring consistency and benefit investors by facilitating like-for-like comparisons across different territories and governing laws.



3. <https://www.gov.uk/government/publications/national-infrastructure-and-construction-pipeline-2016>

3.0 The need for international standards in construction and infrastructure

International Construction Measurement Standards (ICMS): Global Consistency in Presenting Construction Costs

The ICMS is the method to report construction costs that can be applied globally, with the aim of providing global consistency in classifying, defining, measuring, analysing and presenting entire construction costs at a project, regional, state, national or international level. It enables better comparison that increase investor confidence. The standard harmonises cost, classification and benchmarking definitions to enhance comparability and consistency of capital projects.

The globalisation of the construction business has increased the need to make meaningful comparative analysis between projects and sectors in different countries, not least by international organisations such as the World Bank Group, the International Monetary Fund, various regional development banks, non-governmental organisations and the United Nations. Consistent practice in presenting construction costs globally will bring benefits to construction cost management.

In a post-Brexit world, the standardisation of professional services in areas where the UK is known to have world-class status will be particularly important. The ICMS improves construction cost reporting, data collection, cost prediction and ultimately construction performance in an industry where productivity improvements are much needed⁴. It also provides a platform for unifying terminologies in the financial management of building and civil engineering projects. These characteristics can only grow the demand for professional services in an area which the UK has a strong heritage. Importantly, the ICMS can provide clarity and transparency on the investment opportunities available for investors, as set out in the UK's Infrastructure Plan⁵.

Accurate reporting of capex through the ICMS can be crucial in increasing the level of infrastructure investment as the standard sets out foreseeable costs. Its accuracy will form part of the regulatory requirement governing the built environment. This standard can be seen to mirror the IFRS which can, similarly, be used to assess the financial position of companies ahead of investments.

The ICMS can also aid the management of investments in infrastructure. The regulatory compliant data that underlies the ICMS can be used to assess the economic viability

of a project before construction and when monitoring liquidity positions during the risky construction period. A non-exhaustive list of benefits that regulatory oversight of the ICMS brings to investors have been set out below:

- Assurance that capex costs have been reported in compliance with global regulatory international standards.
- Consistency in calculating capex for the National Infrastructure and Construction Pipeline, allowing investors to make comparisons across the UK project pipeline.
- Enable the monitoring and refinancing of project debt. The data should provide updated capex requirements for completion at a point in time and enable comparisons against baseline projections as set out at project initiation. An appropriate tool to facilitate comparisons is under development.
- Unexpected cost increases reduce net cash-flow, which is essential for servicing debt, impacting Debt Service Cover Ratios. In an event where a covenant is breached impacting cash-flow, data from the ICMS should identify the capex need to ease finance risk.
- Identifying key costs for construction would reduce the ability of contractors to submit tenders to deliver infrastructure projects at unrealistic costs. This should, in theory, prevent construction companies, that may have been suitable for project delivery, from being unfairly outbid.
- Major institutional investors are often restricted to investment grade debt instruments. Where credit enhancements will be required to maintain investment grade status the ICMS can be used to identify and determine the level of support needed to prevent triggers i.e. managing stressed debt cover ratios or scenarios resulting in drawdowns.



4. ICMS was cited in Reinventing Construction: A Route to Higher Productivity, McKinsey Global Institute, February 2017

5. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381884/2902895_NationalInfrastructurePlan2014_acc.pdf

4.0 International Standards – Ethics, Land, Property and Valuation

Infrastructure investment decisions are preceded by detailed due diligence by in-house project teams and/or technical advisors. Technical advisors (TAs) undertake thorough assessment on project characteristics which may include the status of land acquisition, planning permission, off-take agreements etc. These then form part of a TA report which is legally relied on before projects reach financial close. Adopting international standards as part of the due diligence process can provide assurance to TAs, and investors, that the production of associated material is credible and in line with regulatory international standards.

A universally standardised approach for assessing the feasibility of infrastructure projects would allow international investors to make like-for-like comparisons across different territories and governing laws. The RICS forms part of several global professional coalitions to develop and embed strictly regulated international

standards that provide assurance and mitigate investor uncertainty which is most pertinent at the early stages of a project life-cycle particularly in emerging economies where there may be an absence of investment data.

The different standards are set out below:

International Ethics Standards (IES) – despite the prevalence of quality ethics standards within the profession today, there is no agreed, internationally observed norm – something the medical and accountancy professions both have. IES was initiated at a meeting hosted by the United Nations in 2014, a coalition of professional organisations in the property and built environment sector who are collaborating to align ethics standards at the international level.

International Land Measurement Standard (ILMS) – effective land transfer, acquisition and compensation is an essential building block of large scale infrastructure development and management. ILMS is at its core a global land information and reporting framework which contains the key data elements needed to effectively and efficiently

transfer land/property ownership and rights between parties and therefore enable land acquisition, compensation and taxation. Statistics show that some 70% of land and property in the developing world is un-registered and outside of formal markets. This has a direct impact on communities, economic development and our ability to effectively manage resources, infrastructure development and the environment. Billions of dollars of investment (India - \$178 billion in infrastructure development is caught up in land dispute processes) are derailed by ongoing and, in many cases, violent land disputes. Land disputes are the most likely legal and regulatory factors inhibiting infrastructure development, combined with the cost (and speed) of land acquisition which can have an enormous effect on project timing.

International Property Measurement Standards (IPMS) – implemented to enhance the transparency and consistency in the way property is measured across markets. Property measurement standards differ drastically around the world. It means that the same building could be 24% different in size depending on the measurement used. In an interconnected global

marketplace this inconsistency leads to confusion and risk for all property owners, occupiers and investors, especially those that operate across borders. This makes it fundamentally difficult to analyse property portfolios. The IMF has said it will request IPMS for its premises.

International Valuation Standards (IVS) – valuations are widely used and relied upon in financial markets whether for inclusion in financial statements, for regulatory compliance or to support secured lending and transaction activity. The IVS builds confidence and public trust in the valuation process through the creation of a framework for delivery of credible valuation opinions by suitably trained professionals acting in an ethical manner throughout the world.

Global standards, as detailed above, benefit from international collaboration and contain high level principles covering land, property and construction. The RICS is building on the breadth of the said standards to develop and add depth to the regulation of RICS members on a global basis, through the preparation of professional statements that augment and detail the principles agreed.



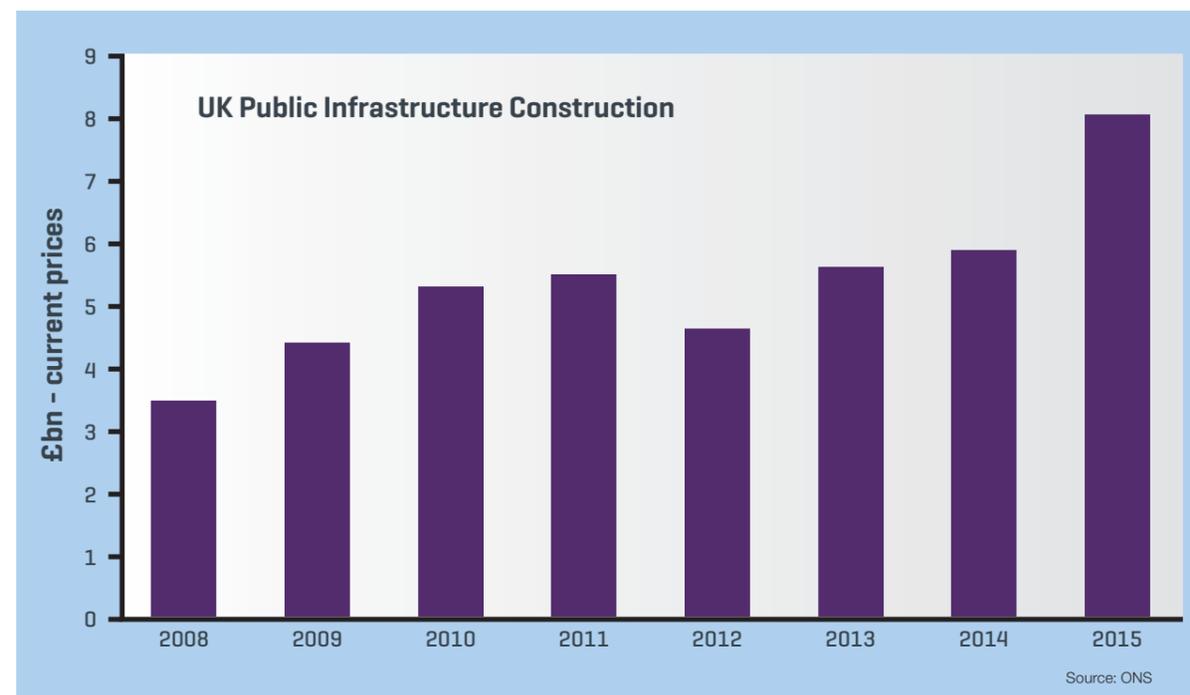
5.0 Government

Political and regulatory risks

Political and regulatory risks can distort revenue forecasts resulting in negative investor sentiment. Long-term infrastructure investors require policy certainty beyond the five-year parliamentary term in the political cycle, particularly for projects that require large-scale financing. According to the ONS, recent stalled investment decision and contractions in the construction sector was explained by the uncertainty surrounding the UK's exit from the European Union⁶. Central government must adopt a clear vision and develop long-term strategies that ameliorate investor concerns on greenfield projects.

Public sector investment in infrastructure is expected to drop from 3.2% of GDP in 2010 to 1.4% in 2020, falling below the OECD's 3.5% recommendation, and reinforcing Britain's status as one of the lowest spenders on infrastructure in Europe⁷. This spending is only a fraction of the public commitment under China's One Belt One Road initiative. The low level of public spending, combined with the potential loss of the European Investment Bank, a significant investor in the UK, means acquiring the private capital, funding and financing will be crucial to deliver infrastructure.

Figure 1: Graph illustrates the level of spending in UK Public Infrastructure Construction [2008-2015]



6. <https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/businessinvestment/previousReleases>

7. <http://www.economist.com/news/britain/21693936-government-trumpets-its-ambitions-roads-railwaysand-airports-fact-infrastructure>

Every government, in emerging and advanced economies, has an incentive to encourage infrastructure investment as long-term investment boosts economic activity and productivity and is a means to stimulate growth during economic slowdowns. The government should seek to capture the available liquidity for infrastructure investment by:

- committing public funds to de-risk complex projects (e.g. nuclear) to secure private finance through tailored contracts between government and private lenders;
- identify proposed infrastructure that will serve as long-term sources of revenue;
- implementing sector specific regulation and policies that attract long-term investors which cannot be rescinded by future governments, absent any adverse public spending impacts;
- establishing cross-party political commitments to nationally significant projects through agreed policies (e.g. CfDs);
- ensuring political messages and policy statements (Enterprise Act) do not create perceived barriers that deter international investors;
- providing the technical skills and risk models that may not exist in-house for certain lenders;
- mitigating human risk by appointing qualified chartered professionals capable of managing major projects throughout a project lifecycle i.e. from inception to operation;
- providing access to a skilled workforce that may otherwise be absent because of restrictions on the free movement of people in a post-Brexit world; and
- adopting international standards (particularly when public funds are invested) that are transparent, provide certainty and confidence to investors through regulatory oversight by an independent body acting in the public interest.

Economic: fiscal and monetary policy

Attracting infrastructure investment is an essential component for economic growth. A modern and efficient infrastructure network linking cities would encourage domestic and international investment leading to growth and strengthen productivity through connectivity between regions. The government and central bank should stand ready to revive the economy by implementing fiscal stimulus and monetary easing, with the aim of expanding growth and lowering public debt.

The government and central bank need, however, to be cautious not to appear to subordinate monetary policy to fiscal needs, thereby replacing deflationary dangers with fears of excessive inflation. If investors felt this was the case, they would demand an inflation-risk premium which defeats the purpose of attracting investment.



6.0 Lenders - capital and liquidity

Funding and financing infrastructure

It is important to distinguish between funding and financing as both are inextricably linked in acquiring the capital needed to deliver infrastructure. Funding is an amount of money acquired through user charges or provided from the public purse as part of an agreement. Some areas of infrastructure, such as water and energy, are largely funded privately via levies on consumers whilst others, such as transport, are funded by both public and private sources.

Financing is the provision of capital, accessed from several sources including banks and institutional investors, with the expectation to be repaid with an agreed rate of interest. Predictability in long-term revenue streams supports the ability to raise finance for a project, as does the nature of the project and the regulatory regime within which the project exists. In turn, the certainty and stability of that regulatory context will be vital in securing private finance, especially for long-term projects.

Institutional investment

Infrastructure is widely regarded as a well performing long-term asset class offering higher prices and wider spreads making it an attractive asset class relative to gilts⁸ and equities, during periods of volatility. Such is the scale of infrastructure investment need globally, the availability of long-term debt exceeds the capital available. This issue was further exacerbated following the global financial crisis where typical project finance lenders like banks and monoline insurers (that guaranteed ProjectCo's debt) were either cut down or eradicated. Additionally, the capital requirements and associated liquidity cover ratio burden under Basel III further hindered the ability of banks to lend for long tenors.

Institutional investors' - insurers, pension funds, sovereign wealth funds – presence in project finance remains small scale when compared to banks, despite the latter two alone sitting on \$106 trillion of institutional capital. With the OECD reporting a global need of \$50tn by 2030⁹ it will be essential

to establish this group as staple financiers in the project finance market. While structures to enable institutional investment in infrastructure continues to evolve there are measures that can be taken in the short-term including:

- providing access to technical expertise and independent chartered professionals capable of managing major projects in the absence of in-house expertise;
- creating bespoke deal structures to meet the needs of private investors - allowing lending from different sources for different phases of infrastructure assets i.e. bank lending for construction vs institutional investment for operation;
- offering credit enhancements through government guarantees as required to meet the investment criteria;
- issuing infrastructure debt bonds as a capital market solution where there is demand;
- advising and structuring capital markets access, equity bridges, and construction risk financing; and
- adopting international standards such as the ICMS, that provide assurance to investors on the accuracy of reported capital expenditure through independent regulatory oversight.

7.0 Recommendations

International Standards

- Adoption of international standards, particularly ICMS, will help inform investment decisions and provide certainty to investors on the accuracy of information, through robust regulatory oversight in the public interest
- The certainty acquired through the adoption of international standards should allow access to a diversified source of capital to finance long-term infrastructure projects.
- Adoption of international standards will result in accurate and transparent reporting of capital expenditure associated with construction
- RICS and associated partners should work with appropriate authority to ensure projects in the National Infrastructure and Construction Pipeline comply to international standards, particularly where public funds are invested
- RICS should work with government to formulate international standards across the built environment that promote the highest safety guidelines for both social and economic infrastructure
- RICS should work with lenders, industry and government collaboratively to develop existing standards or formulate new international standards that unlock access to the private finance needed to deliver infrastructure.

Government

- Comply with international standards to maximise opportunities to access private investors in a post-Brexit world
- Mitigate investment risk by appointing qualified professionals to manage major projects throughout a project lifecycle i.e. from inception to operation
- Provide assurance on the ease of accessibility to a skilled workforce in a post-Brexit world
- Implement sector specific regulatory changes and formulate policy that provides certainty sought by long-term private investors
- De-risk projects through credit enhancements to attract private investors while ensuring value for money is achieved where public funds are committed
- Ongoing review of the planning regime to ensure nationally significant projects are not halted due to local remedial objections
- Create regulatory oversight to ensure all construction complies with the highest levels of safety across the built environment
- Identify infrastructure that will provide long-term sources of revenue
- Encourage inward investment by removing layers of bureaucracy or planning restrictions
- Provide certainty by reducing political risk through cross-party endorsement of projects across sectors
- Work with lenders to create bespoke deal structures tailored to match investor needs.



8. BBA, Financing the UK's infrastructure needs

9. <http://www.oecd.org/futures/infrastructureto2030/48634596.pdf>



Confidence through professional standards

RICS promotes and enforces the highest professional qualifications and standards in the development and management of land, real estate, construction and infrastructure. Our name promises the consistent delivery of standards – bringing confidence to the markets we serve.

We accredit 125,000 professionals and any individual or firm registered with RICS is subject to our quality assurance. Their expertise covers property, asset valuation and real estate management; the costing and leadership of construction projects; the development of infrastructure; and the management of natural resources, such as mining, farms and woodland. From environmental assessments and building controls to negotiating land rights in an emerging economy; if our professionals are involved the same standards and ethics apply.

We believe that standards underpin effective markets. With up to seventy per cent of the world's wealth bound up in land and real estate, our sector is vital to economic development, helping to support stable, sustainable investment and growth around the globe.

With offices covering the major political and financial centres of the world, our market presence means we are ideally placed to influence policy and embed professional standards. We work at a cross-governmental level, delivering international standards that will support a safe and vibrant marketplace in land, real estate, construction and infrastructure, for the benefit of all.

We are proud of our reputation and we guard it fiercely, so clients who work with an RICS professional can have confidence in the quality and ethics of the services they receive.

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