

CITY OF LONDON CORPORATION London: A Global Marketplace For Infrastructure Solutions

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FOREWORD

Infrastructure underpins the way we live and provides the necessary tools for companies and public services to operate. The City of London is proud to be a key global infrastructure hub that is the home to many world class advisory firms, banks, asset managers, institutional investors, legal firms, insurance brokers, risk management consultants, environmental consultants, architects, design, and construction firms.

We are delighted to witness the achievements that these infrastructure advisory and financial services firms have had over the past decades and we have the biggest global cluster of capital, investors, banks, exchanges, clearing systems, advisory firms, legal services, and insurance markets in the world. To support projected rates of global economic growth, the world needs to find ways to mobilise more private sector capital for infrastructure investment. London, as well as being a global hub for infrastructure financing, is also wellknown for being a centre of excellence for financial innovation. London can help find solutions to better enable the world access to the most efficient capital sources possible in order to deliver much needed new infrastructure projects. The London Stock Exchange and Lloyd's insurance market offer global access to risk capital and I would encourage countries and corporations to consider



Deputy Catherine McGuinness, Chairman of Policy and Resources

how these markets, skills and services can improve the global infrastructure market. We welcome collaborations with countries and regional financial centres to create innovative global solutions to the challenges that the market faces. Together we can meet these challenges and deliver the increase in investable infrastructure transactions that the market seeks.

Partnership will be crucial in mobilising the private sector to address the infrastructure challenges which we all face. The City of London is determined to work with other financial centres and individual countries to deliver more efficient markets and achieve the greatest global impact. As this report shows, London has many natural advantages that will enable us to continue to innovate and ensure there is no shortage of investable projects for investors.



Alderman Charles Bowman, The RT Hon The Lord Mayor of London

LONDON: A GLOBAL MARKET PLACE FOR INFRASTRUCTURE SOLUTIONS

London hosts the biggest global cluster for infrastructure solutions, from deep capital pools and a global investor base, to banks and exchanges, from clearing systems and advisory, to world class legal and insurance markets. London plays a pivotal role in providing direct solutions and services to the global infrastructure market and London provides access to the private sector finance that is needed to meet the world's demands for infrastructure. In 2017 the UK accounted for 14% of the global project bonds market, second only to the US, and ranked first with 25% of the EMEA infrastructure loan market!



Image – London by Night on the River Thames, United Kingdom. Above – The Square Mile, London, United Kingdom. Being a leading international financial centre since the 19th century, the city not only provides direct solutions and services to the global infrastructure market, but has long had a reputation for advising multilateral development banks and governments around the world with infrastructure financing solutions by improving and innovating global market access.

This report explains how London continues to play a crucial role in providing the direct solutions and services required to meet the world's infrastructure requirements. As one of the most mature, liquid and innovative financial centres in the world, this report highlights London's strengths in a number of areas, including financing, advisory, legal services, and insurance.



Home to five of the largest 15 Global Law Firms with 27% of the world's 320 legal jurisdictions using English common law

The Infrastructure Challenges

Economies around the world face significant challenges in meeting current and future demand for infrastructure. Fiscal pressure is being increased on the public sector through a host of different challenges; climate change, population growth, urbanisation, rapid technological innovation, globalisation, changing trade flow patterns, as well as a legacy of ageing or poorly managed assets. All of these require governments to set ambitious infrastructure plans to meet their social, economic and environmental objectives.

Since the financial crisis public investment has declined, creating an annual infrastructure investment gap of \$1 trillion? It is estimated that the global annual current investment in infrastructure required is in excess of \$4.5 trillion³ and will grow significantly over the next decade. In the meantime, governments around the world are facing significant budgetary constraints and rising debt levels. To fill this gap the world is looking toward the private sector for solutions. Banks and institutional investors globally have \$120 trillion⁴ in assets under management. Developed countries in particular have a significant pension, insurance and savings asset base, which seeks to invest in stable long-term index linked revenues such as infrastructure. However, it is still proving challenging for institutional investors to commit more capital in infrastructure transactions due to the lack of investable projects, regulatory constraints, investment data, and high development costs.

New global solutions are required to create a balanced and equitable infrastructure funding model that can incorporate private sector efficiencies and deliver better value for money for taxpayers.

By developing new risk mitigation products, continuing to innovate financing products and diversifying domestic private infrastructure financing, economies can create more robust and sustainable infrastructure funding models. Increasing the number of investable projects for a global investor base will allow more large and complex infrastructure transactions to access private sector solutions and close the infrastructure funding gap.

New initiatives, including the Asian Infrastructure Investment Bank, China's Belt and Road Initiative, cross-Commonwealth commitments to increasing infrastructure investment flows, and the rise of green finance, will strengthen the focus for infrastructure financing and private sector participation globally.

LONDON – A GLOBAL HUB FOR INFRASTRUCTURE FINANCING

Infrastructure financing has developed significantly over the last decade as the role of the private sector in infrastructure development has increased. More sophisticated and efficient financing schemes have been created which seek to match the most efficient forms of risk capital financing with the different phases of an infrastructure project. International and domestic banks have been critical to the debt financing of global infrastructure projects for the past thirty years.



Mark Tweedie, MD, UK Corporate Banking Head, Citi Group.



Image – Queensferry Crossing, Scotland, United Kingdom. Above – Hong Kong International Airport Terminal 1, Hong Kong, Greater China.

Banks

The UK's banking sector is seen as one of the largest financial hubs around the globe with over 250 foreign banks based in London. Banks located in the UK reported total cross-border lending worth almost \$5 trillion in 2017, ranked first among financial centres located in the Bank for International Settlements reporting Countries⁵

Many of the major global infrastructure banking groups have a significant presence in London. Key origination, structuring, execution, credit committee, and syndication functions are based in the UK to allow the banks to offer global financing solutions to national and regional asset financing needs.



Institutional Investors

Institutional investors such as pension funds, sovereign wealth funds and insurance companies are beginning to play an important role in diversifying and increasing the financing sources available for infrastructure assets. According to a Preqin study, the number of institutional investors in the infrastructure asset class has increased by over 116% between 2013 and 2017. Infradeals estimates that over US\$110 billion of unlisted equity funding is available to deploy globally.

GLOBAL UNLISTED INFRASTRUCTURE FINANCING (US\$ BILLIONS)

52 unlisted infrastructure funds reached a final close in 2016 with 50% of the total capital secured by the five largest funds. The average size of these unlisted infrastructure funds was a record \$1.3 billion.



Institutional investors typically seek infrastructure assets offering long-term stable returns that match their liabilities. Investment can be via infrastructure funds, bonds, regulated assets, and increasingly by financing projects directly. In particular, project finance transactions often provide good diversification within an investor's portfolio given the relative lack of correlation to the broader economy.

According to Pregin, 63% of institutional investors are below their target allocation to infrastructure with the key constraint being the availability of assets. However, this figure, coupled with a generally positive outlook on the asset class and a projection of 88% of investors intending to commit more capital or maintain the same levels of commitments over 2017, indicate the availability of capital and the continued potential growth prospects in this asset class, according to the same Preqin study. A number of large institutional investors are developing dedicated infrastructure teams, so it is important that the market innovates to accommodate the requisite risk, return and maturity appetite.

The UK is the second largest asset management centre in the world after the United States.

Total assets managed in the UK reached a new high in 2016, estimated at £8.1 trillion, with more than £2.6 trillion managed in the UK on behalf of overseas investors? The UK remains the largest asset management centre in Europe with 36% of assets managed from the UK, outweighing the next three largest European countries put together.



ASSETS UNDER MANAGEMENT IN EUROPEAN COUNTRIES



London also manages significant assets outside of Europe, including for clients in the US, Middle East and Asia. Most Infrastructure Asset Managers have a significant presence in London in order to access the flow of debt and equity opportunities.

The UK offers institutional investors an established and mature base to access the global infrastructure investment markets. A combination of deep and liquid debt and equity finance markets, world class asset management capabilities along with associated advisory, legal, technical and insurance services have enabled London to become one of the key global infrastructure financing hubs.

Andrew Rose, Chief Executive, Global Infrastructure Investor Association.

Capital Markets

The London Stock Exchange (LSE) is one of the world's oldest stock exchanges and can trace its history back more than 300 years. The Main Market is the world's most international market for the admission and trading of equity, debt and other securities. Its location at the heart of the world's leading financial centre makes it the ideal **home to over 2000 companies with a market capitalisation of £5.5 trillion**, including many of the world's largest, most successful and dynamic companies.

Over \$10 trillion has been raised on the LSE in the last decade and in 2017 it ranked second globally and surpassed all European exchanges by number of IPO's and money raised. More than 13,000 debt instruments are listed on the LSE and it offers access to deep liquid multi-currency markets with over 37% of global FX trading, more than New York and Tokyo combined. Since July 2016 there have been 2,221 debt transactions raising £518 billion in 31 currencies and 1,055 equity transactions raising £63 billion in 8 currencies. The clearing businesses processed \$873 trillion in interest rate derivatives and over \$3.1 trillion of inflation swaps in 2017?



The LSE plays an important role in the development of the global infrastructure market and the provision of green finance. It is the home market for over 480 infrastructure related companies with significant operations in more than 65 different countries. These companies have a combined market capitalisation of \$2.0 trillion with a significant and longterm investor base.

Since 2017 LSE has welcomed rupeedenominated 'Masala bonds' from India's largest corporates, state-owned companies and government agencies to fund infrastructure projects, including the National Power Corporation, National Highways of India and Indian Renewable Energy Development Agency. In December 2017. Indonesian state-owned toll-road operator Jasa Marga listed its first rupiahdenominated 'Komodo bond' on the London Stock Exchange. In January 2018 Wijaya Karya, one of the largest listed stateowned infrastructure and EPC (engineering, procurement and construction) companies in Indonesia, has successfully issued its first Komodo bonds on London Stock Exchange's International Securities Market (ISM).

Innovative Financing Models

New financing structures have also been emerging that provide credit enhancement of senior debt through subordinated or shorter-term debt from commercial lenders, or that include some form of guarantee or support from government or a multilateral organisation. The UK pioneered this market by developing the UK Guarantees Scheme (UKGS) to support private investment in UK infrastructure projects. It works by offering a government-backed guarantee to help infrastructure projects access debt finance where they have been unable to raise finance in the financial markets. The UKGS can issue up to £40 billion of guarantees and is open to at least 2026. It has to date issued 9 guarantees totalling £1.8 billion of Treasury-backed infrastructure bonds and loans, supporting over £4 billion worth of investment.

London is also seeking to help internationalise

green finance. This will be crucial for governments everywhere to be able to attract the private funds they need in order to meet their environmental commitments. By virtue of its world-class financial expertise and global reach, London is already amongst the premier venues for the provision of green finance. Over \$20 billion has been raised through 64 green bonds in 7 different currencies, while 37 "green companies" have raised \$7.7 billion on the LSE, including 13 renewable investment funds and 13 alternative fuel companies. Moody's expect global green bond issuance to eclipse \$250 billion in 2018, a more than 60% increase over the \$155 billion of green bonds issued in 2017.

The UK Government's £5.8 billion International Climate Fund is also working to catalyse green private investment and build markets for sustainable low-carbon ventures worldwide. The Green Investment Bank (GIB) has mobilised over £10 billion in capital and supported over 80 low-carbon projects.



London remains the leading global centre for infrastructure advisory services, reflecting the presence of most of the major infrastructure investors and its strength in project finance banking, but also the innovation which takes place in the London market. KPMG continuously hosts delegations from across the world who wish to understand how to create successful public-private partnerships, and the governance of major public-sector projects such as Crossrail and HS2. London also remains the location of choice for investor roadshows for new infrastructure projects - for example KPMG will shortly be hosting the roadshow for Bogota Metro. It is the complete ecosystem of infrastructure capability that exists in the institutions in London which maintains London's pre-eminence.

Richard Threlfall, Partner & Global Head of Infrastructure, KPMG LLP.

As the spectrum of private sector participation increases and governments seek to transfer more risk to allow for greater efficiencies and cost savings so the risk of delivering and ensuring value for taxpayers becomes more complex.

In order to create more investable projects for the private sector, advisory support is required in different parts of the project preparation process including procurement, risk transfer, financing, regulation, governance and compliance. The banking and private investor market also require significant advisory support with the commercial and technical feasibility of a project including, construction risks, political risks, environmental risks, the regulatory and legal framework within which the project is conducted, and potential tax implications, as well as the financing vehicle for investment.

Many of the world's leading infrastructure advisory services firms are based in London. These advisory firms offer services that cover the entire project life cycle including privatisation, financing, procurement, project development, accounting, tax, mergers and acquisitions, regulation, and risk management.

The Big Four accountancy firms continue to dominate the UK and global markets in 2017, collectively making up 21% of the global £17.4bn business⁸ Deloitte, PwC, EY, KPMG, and BDO are the top five global firms by revenue, while Grant Thornton, RSM, Crowe Horwath International, Baker Tilly International, and Nexia round out the top 10.

The UK is also the main base for 3 out of the world's top 15 international infrastructure engineering and design companies, including ARUP, W.S Atkins and Mott MacDonald? The engineering and design firms that are facing the challenge that rapidly changing technologies and obsolescence risk present. Infrastructure projects must be efficient, cost-effective and sustainable. Infrastructure design firms in the UK can leverage the global expertise from geotechnics, water engineering, bridge and tunnel design, to site development, airports, rail, mining and highway design.



You often hear people say that there is no shortage of funding available for infrastructure. Equally there is no shortage of potential projects as the global economy expands and trade grows. Both these statements are true. However, there remains a shortage of 'bankable' infrastructure projects and if schemes are not bankable, we won't be able to bridge the massive infrastructure funding gap we see. This is where the international expertise of UK firms can really make an impact. We can work across multiple disciplines to ensure that clients can develop the appropriate governance structures and financial models required to attract funding, as well as utilising the expertise of world-class designers, master planners, engineers and consultants like Arup to really maximise the lifetime value of the underlying asset. In short, we have the skills to deliver well-designed, resilient, future-proofed and, ultimately, bankable schemes.

James Kenny, Head of Global Affairs, Arup.



The UK's approach to business case planning – through the five-case model (the UK's business case development methodology) – prompts those planning potential infrastructure projects to ask the right questions at the right time to reach the right results. We believe that the questions you need to ask in preparing projects for market are the same the world over – though the answers may vary. This robust approach to project planning and preparation helps give investors and governments the confidence they need to back infrastructure projects. We are introducing this methodology to a number of middle income developing economies with the aim of increasing the bankability of their projects.

James Ballingall, Head of International Infrastructure and Projects Authority.

> LONDON – A GLOBAL MARKET PLACE FOR INFRASTRUCTURE INSURANCE

MADO P

The City of London contains the highest concentration of specialty insurance market participants in the world. It makes interactions efficient, generates trust and enables rapid decisions on new and complex pieces of business.

While the predominance of face-to-face interaction may be shifting, this concentration of market participants will remain important in delivering cost effective insurance solutions.

Lloyd's is the world's specialist insurance and reinsurance market and has been at the forefront of the sector for more than 300 years, pioneering new forms of protection for a rapidly changing world. It has an unrivalled concentration of specialist underwriting expertise and every day, more than 50 leading insurance-related entities, over 200 registered Lloyd's brokers and a global network of almost 4,000 local insurance agents operating in and bringing business to the Lloyd's market. Lloyd's insures people, businesses and communities in more than 200 countries and territories and covers more than 60 lines of insurance and reinsurance.

The London Market is a leader in innovative product development and have historically embraced insuring new risks, such as The Joint Code of Practice for Risk Management of Tunnel Works and private markets political risks insurance, structured to protect equity and debt capital invested through life cycle in infrastructure projects on a global basis.

Beyond entirely new risks, London is also an innovator when it comes to being flexible in its approach to policy wording, particularly for more bespoke policies. It has a history of being the world's leading specialty lines insurance market, where the more difficult, unusual and high severity/low frequency risks are written.

Infrastructure project insurance underwriting needs are highly specialised; substantial capital is required and pooling of the risk from around the globe to provide diversification. The London market is able to write risk covering all the key infrastructure sectors including;

power – carbon, nuclear, and renewables;
transportation – high-speed rail, airports,
roads, bridges, tunnels, ports and terminals;
utilities – electricity, gas and water;
energy – oil and gas (refining, transportation and storage); and,
social infrastructure – hospitals, schools and accommodation.

London has historically been seen as the 'natural home' for this business, given its ability to meet these needs and the existence of trading rights allowing it to write the business. In the past, the London Market was the only market with the appetite to write more complex and large risks. In recent times there has been an increase in the willingness of alternative centres to write these complex risks, coupled with globalisation and consolidation of both brokers and carriers in the London Market. However, London is still a predominantly broker-led market and this relationship will continue to be central to the market's ongoing success.

In instances where locally licensed insurers will not accept a risk because it does not meet local criteria, usually because it is too big, too unusual or too volatile, London has historically had a reputation for providing cover. The pooling of fresh capacity across the market in London acts as a buffer in these instances, a role that is supported by London's position as a wholesale market with strong relationships with its brokers. As an example, a substantial amount of London business is drawn from the US excess and surplus lines market, where London and Lloyd's are the largest non-US writers.

Image – Kunming Changshui International Airport, Kunming, Greater China.



As a major source of specialist insurance capacity for both construction and operational risks, the London market is large enough to cover the biggest risks – it is the largest global hub for commercial and specialty risk, controlling more than US\$91 billion of gross written premium in 2015 – bigger than Bermuda, Zurich, and Singapore combined – with a truly global reach able to deliver solutions for risks in almost every country worldwide

Edwin M Charnaud,

Managing Director, Chairman of Global Infrastructure Practice, Marsh Ltd.

The size and maturity of the London insurance market will increasingly become important as the market continues to become more sophisticated in separating and allocating infrastructure project risks. London is uniquely positioned to develop and deliver these solutions.

London has been the preeminent centre for insurance for over 300 years and is the largest global hub for commercial and specialty risk. From power projects in the Middle East to chemical complexes in the United States, London provides innovative risk insurance solutions to major infrastructure projects around the world. For example, to address One Belt One Road infrastructure risks, Lloyd's Pembroke syndicate launched the Lloyd's China Project Cargo Consortium on 1st January 2018 on Lloyd's China platform in conjunction with Munich Re's MRSL syndicate. This Consortium offers up to \$415 million (US\$) in capacity and is already supporting local Chinese businesses.

Andrew Corton,

Divisional Director Marine Cargo, Pembroke Syndicate 4000 – Lloyd's.

The London market provides capacity for some of the most complex infrastructure risks under construction in the world today. JLT alone represents 50% of the 20 largest contractors in the UK and places these insurances with trusted partners in the London market. London capacity has also been deployed to service JLT clients worldwide, including for metro projects in as diverse locations as Vietnam, Hong Kong, Scandinavia and the USA. This depth of experience means that contractors and project owners can secure broad coverage at competitive pricing, ensuring the bankability of these investments for all stakeholders. Easily accessible capital in a predictable and stable insurance market is a fundamental strength of London over any other global insurance centre. London also has a unique broking talent pool which ensures that clients receive premium service and advice wherever they are based in the world.

Dave Cahill,

Senior Partner, Divisional Business Development Leader, JLT Specialty Ltd.



> LONDON – A WORLD-CLASS HUB FOR INFRASTRUCTURE LEGAL SERVICES

An important factor in London's development as a leading global international financial centre is the UK legal services sector, which is strong, competitive and well regulated. London is home to an unparalleled body of world class, international law firms that offer multi-disciplinary and often multi-jurisdictional legal advice to international businesses.

The leading global position of international law firms based in the UK is underlined by the fact that five of the largest 15 Global 100 law firms (based on number of lawyers in 2016/2017) have their main base of operations in the UK.¹⁰ The largest international law firms in London have between 45% and 65% of their lawyers based outside the UK, and many other London-based firms have between 10% and 20% of lawyers overseas. **Nearly 7,000 practicing solicitors from the UK were located abroad in 2016, according to the Law Society of England and Wales.** This forms an integral and crucial part of the wider financial and related professional services ecosystem.

The law of England and Wales (English law) has been an important factor in developing a robust and equitable contractual framework for infrastructure regulation, financing and dispute resolution. Many of the project and private financing initiative templates were developed in the UK.

This has enabled UK law firms to develop a significant and skilled professional workforce able to offer legal solutions to overseas clients for infrastructure transactions. The primacy of English law, which is the leading choice of governing law for, and resolving disputes in, cross-border trade and investment, is an important factor contributing to the UK's strong global position and attractiveness to foreign law firms. Some 27% of the world's 320 legal jurisdictions are derived from English common law. **The judicial system is trusted to produce fair results** so when disputes arise, international parties know that they can rely on world-leading dispute resolution services, whether through litigation, arbitration or mediation.

There are many sectors dominated by English law including international commercial contracts, banking, and financing. London's reputation as a leading global centre for international dispute resolution is reinforced by the expertise of barristers and advocates involved in international practice. Despite Brexit, UK-based law firms continue to grow and develop their presence in both developed and emerging markets. This is in response to client demand and a focus on ensuring multi-jurisdiction trade and investment transactions can be supported by firms, regardless of location and time zone.

CONCLUSION

In many of our projects and cases no party to the transaction is British, and the transaction or project in question has no connection with the UK, but the parties had chosen English law as the governing law of the contract and/or the UK as the place to govern their contractual relationships. For instance, recently DLA Piper represented a major Central Asian, state owned oil and gas company in London with LCIA arbitration proceedings in connection with a US\$100m+ dispute relating to the construction of a jack up drilling rig for use in the Caspian Sea. The English courts' record of impartiality, a well-regarded commercial judiciary, the commercial certainty attributed to English contract law, the ease of the use of the English language and the large pool of legal talent available in London all contribute to the popularity of English law and courts.

Maria Pereira, Partner, DLA Piper.

The global significance of London as an established, liquid and innovative financing market will continue to provide support for infrastructure related services.

In order to deliver better value-for-money for taxpayers it is vital to improve the understanding, structuring, allocation, and mitigation of risk across the full life cycle of infrastructure assets. This will require governments and corporations to optimise the risk transfer and funding of infrastructure projects.

Key financial markets, such as London, can encourage private sector involvement in new global infrastructure projects by facilitating access to the most efficient forms of capital and risk management tools.

London's richness as a source of financial and professional services offers access to the most efficient forms of capital and risk management tools. London is also well-placed, thanks to the breadth of services on offer and the city's global connectivity, to act as a premier convening power in developing strategies to tackle cross-border issues.

The City of London is the natural home for forward-looking discussions on one such challenge: how to increase the quality and quantity of infrastructure flows.





FOR MORE INFORMATION

Please contact the Economic Development Office; infrastructure@cityoflondon.gov.uk

To find out more about the work of the City of London Corporation in infrastructure solution's visit our website:

www.cityoflondon.gov.uk/infrastructure