Bridging the Infrastructure Gap: Global Integration and the ‘Belt and Road’ Initiative

The Second Global Infrastructure Conference Report

Smith School of Enterprise and the Environment (SSEE) - Infrastructure Transition Research Consortium (ITRC)  
Environmental Change Institute (ECI) - University of Oxford
This report is intended to summarise the proceedings of the Second Oxford International Infrastructure Consortium (OXIIC) Conference - “Bridging the Infrastructure Gap: Global Integration and the ‘Belt and Road’ Initiative” organised by OXIIC, co-hosting with the Smith School of Enterprise and the Environment (SSEE), the UK Infrastructure Transition Research Consortium (ITRC) and the Environmental Change Institute (ECI). The display materials presented during the conference can be downloaded from our website. The report was prepared by the directors of OXIIC: Yin Yang, Xi Hu, Michael Dangerfield and Xuanyi Sheng. Please note that some of the sources cited in this report may not be commercially available and requests for such texts should be directed to the aforementioned directors.

The OXIIC would like to express its special thanks to Hunan Xuanyuan Cultural Relics Preservation Co., Ltd., Shanghai Pudong Development Bank Co., Ltd. and Atkins Acuity for their generous sponsorship of the conference. In addition, we would like to thank the China-Britain Business Council (CBBC), the Oxford Chinese Students and Scholars Association (OXCSSA) and the Tsinghua Alumni Association in the UK (THAA-UK) for their strong support.

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1 All materials on the OXIIC website have been uploaded with the consent of the presenters.
# Table of Contents

Acknowledgements ........................................................................................................................................... 6

EXECUTIVE SUMMARY ................................................................................................................................. 9

I. INTRODUCTION ............................................................................................................................................. 12
   A. Background .................................................................................................................................................. 12
   B. Organisation of Conference ..................................................................................................................... 13

II. Building bridges – Infrastructure and political risk in 'Asia's Century' ....................................................... 15

III. CONFERENCE PROCEEDINGS ................................................................................................................... 21
   A. Opening Keynote Speech .......................................................................................................................... 21
   B. Session 1: Enhancing Policy Coordination for Global Integration and Cross-border Infrastructure Development ................................................................................................. 24
   C. Session 2: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (I) .......................................................................................................................................... 27
   D. Keynote Speech – Jim Rogers .................................................................................................................. 30
   E. Session 3: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (II) .................................................................................................................................. 32
   F. Session 4: Safeguarding the Sustainability of Cross-border Infrastructure for Long-term Green Growth ..................................................................................................................................... 35
   G. Concluding Keynote Speech .................................................................................................................... 37

Annex II. Speakers’ Profiles .............................................................................................................................. 45
Annex IV. Conference Partners ......................................................................................................................... 59
Foreword

Professor Gordon L. Clark

Director, Smith School of Enterprise and the Environment, University of Oxford

Economic integration and globalisation have been with us for centuries. So when we talk about integration and globalisation at the moment, we are actually discussing a topic that was talked about over 2000 years ago. The prosperity of whole countries and the prosperity of people have always been intimately related to trade. We can actually write stories or run conferences on the massive positive effects of European trade from the 15th to 20th centuries that were the engines of prosperity, benefiting people in many ways.

If I were to write the stories of the 17th or 18th centuries in Europe, I would talk about ships and ports. No one at that time ever thought about who owned the port and how the port was financed. Obviously it was financed, and for a purpose. And I would also write about London, the dominant city and financial hub in Europe for over a thousand years, organising the trade entities along with Amsterdam. So to look into history is actually to look into infrastructure – how was all that made possible, how did the parts fit together and how were ships and ports financed.

In this year’s OXIIC Conference we will talk in part about the ‘Belt and Road’ Initiative that brings China together with Eurasia, Europe and the West. I think that in so many respects the lesson of history tells us that the relationship between Europe and China has been close in all kinds of ways, so the ‘Belt and Road’ Initiative is the latest face of an integration process that shares prosperity with so many different people.

Finally, we have collected together a whole range of different people from all over the world in today’s conference. I would strongly encourage you to walk into the crowd and get around everywhere, because in the room there are people from Latin America, from China, from the US and from Europe. We all share a fundamental interest in infrastructure questions and the realisation that infrastructure is part of a larger deal – the engine of global integration.
Infrastructure is a necessary and an almost inevitable aspect of globalization, which provides opportunities for economic integration, prosperity, peace and environmental sustainability. However, we may invest in infrastructure in the wrong ways, which might lock us into unsustainable patterns of development, or bestow debt and stranded asset to future generations. During the current flourishing of investment in infrastructure in Asia, I worry about the way some decisions are being made, without enough attention to how the system that are being incrementally built project-by-project will deliver sustainable services far into the future.

The Second Oxford Global Infrastructure Conference address these challenges at a formative moment for the Belt and Road Initiative. The conference brings together a diversity of perspectives – economic, social, political, financial, technological, legal and cultural. Each of these disciplines talks its own language and looks at the infrastructure through its own lens. Sustainable infrastructure development requires an integration of these perspectives.
Acknowledgements

The directors of the consortium would first and foremost like to extend our sincerest thanks to Professor Gordon Clark and Professor Jim Hall for their most generous support, without which the conference would never have come to fruition. In addition, the OXIIC would like to give special thanks to Hunan Xuanyuan Cultural Relics Preservation Co., Ltd., Shanghai Pudong Development Bank Co., Ltd., and Atkins Acuity for their generous sponsorship. We would also like thank the China-Britain Business Council (CBBC), Oxford Chinese Students and Scholars Association (OXCSSA), and Tsinghua Alumni Association in UK (THAA-UK) for their unwavering support. Finally, we would like to express our sincerest gratitude to the chairs and speakers who travelled to Oxford and participated in the conference.

Opening Keynote Speech
Peter Frankopan

_Director, The Oxford Centre for Byzantine Research_

Session 1

Emily Jones (Chair)

_Associate Professor in Public Policy (Global Economic Governance), Blavatnik School of Government, University of Oxford_

Weidong Liu (Speaker)

_Director, Centre for the Belt and Road Initiative, IGSNRR, Chinese Academy of Sciences_

_Senior Adviser, National Development and Reform Commission of China_

Matthew Jordan-Tank (Speaker)

_Head of Infrastructure Policy and Project Preparation, European Bank for Reconstruction and Development_

Alex Wong (Speaker)

_Head of Global Challenge Partnerships and Member of the Executive Committee, World Economic Forum_

Session 2

Georg Inderst (Chair)

_Independent Adviser, Inderst Advisory_

Akash Deep (Speaker)

_Senior Lecturer in Public Policy, Harvard Kennedy School_

Oliver Heiland (Speaker)

_Director Legal & Compliance, Allianz Global Investors_

Simon Wilde (Speaker)

_Senior Managing Director, Macquarie Capital_

(Continued Page 7)
Keynote Speech
Jim Rogers

Investment Expert and Author, Rogers Holdings

Session 3
Giles Blackburne (Chair)

Executive Director, China-Britain Business Council, China Outbound

Mei Jin (Speaker)

Chief Representative for Europe, the People’s Bank of China (PBOC)

Atif Ansar (Speaker)

Programme Director of the MSc in Major Programme Management (MMPM), Saïd Business School, University of Oxford

Rupert Gather (Speaker)

Founding Director, InvestUK

Hisaka Kimura (Speaker)

Unit Head, Private Sector Infrastructure Finance, East Asia, Asian Development Bank

Session 4
Christopher Kaminker (Chair)

Economist/Project Manager, Long Term Investment, Environment Directorate, OECD

Professor Jim Hall (Speaker)

Director, Environmental Change Institute, University of Oxford

Thorsten Jelinek (Speaker)

Managing Director, Poly Terra Innovation; former Associate Director, World Economic Forum

Sir Roger Gifford (Speaker)

UK Head, Skandinaviska Enskilda Banken

Reyaz A. Ahmad (Speaker)

Head and Chief Investment Officer, IFC Catalyst Fund

Concluding remarks
Denis Galligan

Director, The OBOR Programme, University of Oxford
The OXIIIC committee would also like to thank the conference volunteers and note-takers:

Anna Baginska
Matt Ives
Mike Simpson
Qiong Lu

Raghav Pant
Pablo Astudillo
Jianjun Yu
Xiaoyang Wang

The committee would like to thank our talented photographer and cinematographer, Ben Johnston, for his expert filming and editing of the conference film, available via this link. The committee would like to also extend its sincere thanks to Nan Chen, Gerald Knight and Margaret Knight for their constructive suggestions and kind help in the drafting of this report.

Finally, the committee is indebted to the technical and substantive support provided by the Smith School of Enterprise and the Environment (SSEE), the Infrastructure Transition Research Consortium (ITRC), the Environmental Change Institute (ECI), and the Examination Schools of the University of Oxford.
EXECUTIVE SUMMARY

The conference “Bridging the Infrastructure Gap: Global Integration and the ‘Belt and Road’ Initiative” – held in the Examination Schools, University of Oxford, on 1 July 2016 – brought together leading experts from international organisations, academia and financial institutions to discuss opportunities and challenges in cross-border infrastructure investment and international business under the ‘Belt and Road’ (BRI) Initiative. The conference consisted of four sessions, which were themed “Enhancing Policy Coordination for Global Integration and Cross-border Infrastructure Development”, “Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (I)”, “Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (II)”, and “Safeguarding the Sustainability of Cross-border Infrastructure for Long-term Green Growth”.

In his Opening Keynote Speech, Dr. Peter Frankopan, the author of the book “The Silk Road – A New History of The World”, reminded us that historical precedent is key to understanding the potential opportunities and ramifications of global integration projects. It was therefore emphasised that for those stakeholders seeking opportunities in the strategic regions along the Belt and Road infrastructure, the historical context of empire, taxation and culture continues to hold strategic significance into the modern day.

In Session One, Professor Weidong Liu introduced the ‘Belt and Road’ Initiative (BRI). Professor Liu made clear in his speech that the term ‘Silk Road’ represented not only a historical trading route but also a metaphor in China for mutual cooperation and that therefore the BRI initiative represents an important historical context for recently-sought mutual cooperation. Matthew Jordan-Tank went on to share his experience in the Infrastructure Project Preparation Facility (IPPF) of the European Bank for Reconstruction and Development (EBRD) on policy coordination for cross-border infrastructure development in Europe. He stated that, on the one hand, IPPF directly contracts and supervises framework consultants, in close coordination with public sector clients and, on the other hand, IPPF pre-pays 100% of the cost of project preparation, and the public sector client contributes a percentage of that cost to IPPF in the form of a transaction support fee. Alex Wong went on to use the Programme for Infrastructure Development in Africa (PIDA) as an example to demonstrate policy coordination for infrastructure development in Africa. During the panel discussion hosted by Professor Emily Jones, all speakers held the same view that government should take the lead in policy coordination for the successful implementation of infrastructure development and the BRI.

In Session Two, Professor Akash Deep proposed some innovative solutions for debt and equity infrastructure financing to reduce the barriers preventing institutional investors from participating in infrastructure investment. Dr. Oliver Heiland introduced Allianz Global Investors’ infrastructure
investment business, followed by a case study on how to facilitate institutional investment in infrastructure projects, as well as his observations on opportunities and challenges from the BRI Initiative. Simon Wilde analysed the cross-border infrastructure business, combining his industry and academic perspectives. He thought that the current “low risk infrastructure narrative” in which institutional investors prefer infrastructure opportunities in OECD markets needs refinement and will evolve over time given new business models, technologies and markets arising in infrastructure sectors. Thus, he urged institutional investors to keep an open mind and open eyes for infrastructure opportunities in emerging markets to avoid missing out on opportunities. Hosted by Georg Inderst, the panellists arrived at the conclusion that multilateral institutions, such as the Asian Infrastructure Investment Bank (AIIB), should take the lead in establishing cooperation mechanisms, given the different institutional and cultural contexts among countries along the Belt and Road.

In the Keynote Speech, Jim Rogers discussed his understanding of the BRI and growth opportunities based on his motorbike travels along the Silk Road. According to his observations and predictions, the BRI initiative will facilitate regional growth by connecting infrastructure, improving the investment environment and creating more business opportunities in the states along the Silk Road. Both Chinese and foreign capitals are very keen on the collaboration. He believes the BRI Initiative has the potential to lead the next wave of national-regional-international economic growth and cultural communication.

In Session Three, the chief representative of the People’s Bank of China (PBOC) for Europe shared her policies and practices towards the BRI and global infrastructure development in general. She mentioned that the development of infrastructure has the potential to generate a large amount of trade, investment and financing, which not only deploys the usage of US dollars and British Pounds, but also RMB, the new member in the IMF SDR basket. PBOC will continue to promote RMB business to serve the real economy, such as the development of BRI infrastructure, and facilitate the trade and investment to make RMB an international freely used and convertible currency. In Dr Ansar’s talk, he used China as an example to discuss whether infrastructure investment could lead to economic growth or economic fragility. Rupert Gather pointed out that infrastructure is the key to the movement of goods, water, energy and labour, which are fundamental for maintaining the sustainable operation of modern society, and thus investing in infrastructure is actually investing in people. Hisaka Kimura introduced the Asian Development Bank’s public-private partnerships (PPP) across Asia in the field of transportation, energy, water and co-finance to such projects with commercial banks. In her observations regarding the projects along the BRI, the collaboration of governments and financial institutions at both local and international levels is needed in order to facilitate PPPs in cross-border infrastructure projects. On the other hand, in-depth analysis of case study of infrastructure as a system in different markets is also needed.

In Session Four, Professor Jim Hall warned that infrastructure investments may not yield the growth benefits expected, the reasons being numerous, including burdens of debt as well as negative externalities such as pollution. He stressed that we must plan with a long-term focus and provided an
example of Singapore’s water planning approach that incorporates real options analysis and risk reporting. Dr. Thorsten Jelinek drew attention to the importance of technology in solving environmental problems and how China has adopted innovative projects such as “Zero Carbon Zones” among others to combat air pollution. The effectiveness of these projects, however, is yet to be seen. Sir Roger Gifford spoke about how green finance is preferable because it has integrity, transparency and connects issuers and investors. Reyaz A. Ahmad discussed several challenges that BRI projects may face, such as adherence to environmental and social standards and the abilities of local governments to fund, and how potentially IFC’s standards might be useful in overcoming those challenges. The panellists then raised interesting research questions such as how we can value different types of co-benefits of a project; how to define “green” investment and how attitudes of institutional investors have evolved over time.

In his Concluding Remarks, Professor Denis Galligan emphasised the importance of law and how it may help coordination. Indeed, it is in response to this context that the University of Oxford established a programme on the OBOR dedicated to understanding the regulatory issues arising from the initiative.
I. INTRODUCTION

The Oxford International Infrastructure Consortium (OXIIC), co-hosting with the Smith School of Enterprise and the Environment (SSEE), the Infrastructure Transition Research Centre (ITRC) and the Environmental Change Institute (ECI), organised a conference on “Bridging the Infrastructure Gap: Global Integration and the ‘Belt and Road’ Initiative” at the Examination Schools, University of Oxford on Friday 1st July 2016. The one-day conference explored the opportunities and challenges arising from infrastructure investment and international business through global integration of economic communities, using the BRI Initiative as an example. The event provided a platform for dialogue and debate among a variety of prominent experts from international organisations, multilateral development banks (MDBs), governments, academia, and the private sector on policy coordination, cooperative mechanisms and sustainable development issues that are constraining infrastructure development and global integration.

This report provides an overview of the proceedings with a view to distilling some of the initial lessons learned from the conference and is organised as follows: Section I includes background information on the conference; Section II incorporates a guest contribution from Oxford Analytica; and Section III summarises the key messages from each session of the conference.

A. Background

Eight years on from the start of the global financial crisis, the world economy has remained slow to recover, exhibiting persistently weak growth. During the post-crisis period, calls for infrastructure investment to integrate and revitalise the global economy have come to prominence, both in OECD countries and developing economies. According to the World Bank, every 10% increase in infrastructure provision increases GDP by approximately 1% in the long term\(^2\). As such, infrastructure is expected to play a significant role in the integration of international economic communities, facilitating new potential business and trade, as well as providing a much-needed boost to the global economy.

In this context, the ‘Belt and Road’ Initiative (BRI) was proposed to jointly build the new Silk Road Economic Belt and the 21st Century Maritime Silk Road (hereinafter referred to as the Belt and Road) for promoting the economic prosperity of the countries along the Belt and Road and facilitating regional economic cooperation. Its blueprint articulates the features of a circumnavigation route “connecting the vibrant East Asia economic circle at one end and the developed European economic circle at the other, and encompassing countries with huge potential for economic development”\(^3\). The new routes will

\(^2\) http://go.worldbank.org/YP9O1ZIHM0
\(^3\) http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html
encompass over 60 countries, accounting for 60% of the world’s population and a collective GDP equivalent to 33% of the world’s wealth⁴. The influence of BRI is already evident in China’s overseas investment flows, which rose 16.3% in the first 10 months of 2015 to $92.5bn, with specific BRI related investment rising 36.7% to $13.7bn. According to the China Development Bank, some 900 projects worth a total of $890bn are currently under way or planned⁵. Global engagement and cooperation is prioritised, with projects being open to any partner country as well as both international and regional organisations. Yet enhancing the policy coordination necessary for the implementation of such cross-border infrastructure projects remains a significant challenge.

Fundamentally, if the BRI initiative is to be realised, a vast amount of cross-border infrastructure projects will need to be built over the coming decades. Private sector and institutional investors remain vital for bridging the infrastructure gap in the context of public budget constraints. The differing economic and political contexts of the constituent countries that make up the BRI route are likely to result in inherent risks associated with the economic integration of communities. Such risks will range from the fundamental legal and financial challenges of accessing emerging markets to political and social instability, as well as regional disputes. In light of the BRI initiative aimed at “encouraging the countries along the Belt and Road to achieve economic policy coordination and carry out broader and more in-depth regional cooperation of higher standards; and jointly creating an open, inclusive and balanced regional economic cooperation architecture that benefits all”³, the nature of the feasible and effective cooperation mechanisms utilised in facilitating the participation of private sector and institutional investors (e.g. pension funds, insurers, sovereign wealth funds, etc.) in bridging the infrastructure financing gap and boosting business remains critical to the discussion. Furthermore, the quality of infrastructure generated should also be given equal attention, as cross-border and domestic infrastructure projects have long-term consequences for both the economy and sustainability of the regions in which they are built. Ensuring the development of low-carbon and climate-resilient infrastructure will therefore be crucial for the long-term and sustainable development of the global economy.

B. Organisation of Conference

The Second OXIIC Global Infrastructure Conference featured a series of insightful keynotes and interactive discussions from leading thinkers across academia, international organisations, government, business and the investment industry, and explored the following thematic areas:

i) How can policy coordination for global integration and cross-border infrastructure finance and development be enhanced;

⁴ http://www.cbbc.org/cbbc/media/cbbc_media/One-Belt-One-Road-main-body.pdf
ii) How can cooperative mechanisms for the development of cross-border infrastructure and multinational business be built;

iii) How can cross-border infrastructure investment for long-term sustainable growth best be fostered and safeguarded.

The conference was structured around the following four sessions:

1) **Session 1**: Enhancing Policy Coordination for Global Integration and Cross-border Infrastructure Development
2) **Session 2**: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (I)
3) **Session 3**: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (II)
4) **Session 4**: Safeguarding the sustainability of cross-border infrastructure for long-term green growth

Approximately 150 people participated in the conference, with representation across a variety of organisations including international organisations, MDBs, government agencies, academia, and civil society. Active participation from the audience was central to achieving the objectives of the conference.
II. Building bridges – Infrastructure and political risk in ‘Asia’s Century’

Dr. William Arthur, Oxford Analytica

The iconic images of Earth taken from space are reminders of the planet’s vastness and the array of its political, economic and cultural systems. They also bear witness to humankind’s essential ‘connectedness’, of which infrastructure is both catalyst and manifestation.

Infrastructure is historic: it stands as a testament to the past and the future with the present imposed between. It is also evidence of individuals’ values and priorities, and to the agendas and beliefs of governments, international bodies, civil society groups and industries. Physically and philosophically, infrastructure is all about us.

The need for bridges and roads, irrigation and water purification systems and the like will continue. Yet, infrastructure is evolving, moving into cyberspace, for instance, the Internet of Things, and into deep space, as the probes and rovers exploring Mars and elsewhere attest.

Asia’s century

Asia will define the twenty-first century, and probably the twenty-second. Partly, this is due to the region’s geographical and societal importance. The Asia-Pacific covers almost one-third of the globe, is home to 61% of the global population, or about 4.5 billion people; 1.4 billion of whom live in China and 1.3 billion in India.

Its economies are burgeoning and increasingly dynamic; in 2015, the economies of Cambodia, Laos and Myanmar each grew 7%; China’s economy 6.9%, and India’s 7.6%.

Understanding what lies behind these growth figures is paramount for practitioners of, and investors in, infrastructure. Such data are not simply ‘good news’: they indicate economies in the middle of development and change, and which will bring multiple, varied and changing infrastructure needs.
In November 2015, voters in Myanmar, a country of 54 million people and an economy of 65 billion dollars, elected the National League for Democracy to office. The mostly civilian government is still confirming details of its economic policies. Now in its second year in office, the government has said that it wants to invest in developing the country’s financial and banking architecture, to put more money into enhancing ports and roads, and to expand electrification.

Further east, the Philippines inaugurated a new president in June 2016, Rodrigo Duterte, whose term runs to mid2022. The Philippines’ gross domestic product (GDP) was 292 billion dollars in 2015. In a mark of continuity with his predecessor, Benigno Aquino, Duterte’s team has pledged public spending on infrastructure development equivalent to between 5% and 7% of GDP. The administration has also said that, among other infrastructure priorities, it wants to build out infrastructure on the southern island of Mindanao and to develop provincial airports to take pressure away from central facilities.

Further north, the government of Laos, Southeast Asia’s only landlocked country with a GDP of just over 12 billion dollars and a population nearing 7 million, is constructing hydropower dams on the Mekong River to generate electricity, as, with China’s help, are other Mekong-region countries. Vientiane wants to sell this electricity onwards and use the proceeds to pay for other development projects.

Laos is ASEAN’s economically smallest member state. In a powerful illustration of the diversity that the political and economic bloc straddles, fellow ASEAN member Singapore, with 5.5 million people, has a GDP of 293 billion dollars and is an internationally recognised financial, commercial and trans-shipments hub. Its long-standing People’s Action Party government is prioritising cyber security architecture so that the country’s automated industries are protected in Southeast Asia’s burgeoning e-commerce and industrial activities, something that other ASEAN member states are also turning their attention towards.

China will not only be the recipient of foreign infrastructure practitioners’ interest, but its government is already a primary catalyst of the infrastructure and political narrative that will shape this century, in Asia and beyond. ‘The Belt and Road Initiative’, China’s effort to reconfigure the economic platform of Eurasia, is in many respects inspired by the original trading routes that stretched from China westwards. The twenty-first-century iteration on land passes through Central Asia, taking in Russia and the Middle East and then Europe to reach the United Kingdom’s shores. The maritime arm takes in Southeast Asia and the Indian Ocean before reaching the eastern coast of Africa, a continent that will also heavily influence this century.
Beijing’s plans are bold. They will take years to be accomplished and, during that time, will have to negotiate myriad economic and policy changes globally. However, the expansive Belt and Road scheme is, without a doubt, a signifier of a newly emerging world power in Asia.

**Multiple opportunities...**

With these examples alone, Asia’s broad, sustained and varied need for infrastructure is clear.

Myanmar will need donor and technical support to improve its roads and ports. As it does, opportunities will develop for the automotive, shipping and import and export industries. The Philippines -- which, along with Indonesia, is one of two Southeast Asian archipelagic countries -- will need investment in its airports and roads. Opportunities will exist for aircraft manufacturers, airline operators and inter-island shipping firms as well as logistics outfits more broadly.

Laos will need even more donor aid and technical support. Beyond its need for roads and bridges, is expansion of the state apparatus’s capacity. As in other countries, corruption will need to be combatted, illegal logging activities that can contribute to changes in weather patterns and flood risks need to be countered (as in Myanmar, Cambodia and Indonesia), and the government will also want to invest in infrastructure to support cross-border trade. One country it will need to do this with is close partner and fellow communist state Vietnam, whose government is also investing in infrastructure development including roads and airports.

Singapore’s needs herald the future. The island state will need the latest electronic infrastructure for the internet age, as, eventually, will other ASEAN countries as their economies industrialise and specialise. Telecommunications installations will be needed to take advantage of the demand for internet and mobile telephone banking and shopping. In another example, in time, e-healthcare initiatives will change the approach to medical care and the required infrastructure with it -- the concepts of hospitals and patient care will evolve.

... and multiple risks

However, with these opportunities come political and economic risks.

Myanmar’s new government faces several challenges in achieving its infrastructure aims. The availability of capital is one: the government will thus need private sector money, but it will also need to convince investors of the country’s internal security.
This, though, will require the government to build bridges of the political kind in hopes of convincing the armed forces, which form part of Myanmar’s government and hold 25% of the country’s legislative seats, to support the peace process with ethnic minority armed groups in Myanmar’s resource-rich border areas. Similarly, the government will need to convince ethnic minority groups to come aboard to discuss ceasefire and political settlements.

Meanwhile, the country’s banking and financial architecture will need further development to convince investors and to raise development finance, for instance through government bond auctions. Another challenge is achieving the balance between development needs and local-level human and land rights protections, as the controversy running since 2011 over the stalled, 3.6-billion-dollar, Chinese-invested Myitsone hydro-dam project attests.

In the Philippines, the government’s pledge of spending the equivalent of 5 to 7% of GDP on infrastructure development is enticing to infrastructure practitioners and investors, not least as Duterte’s team also wants to use public-private partnerships to pay for development schemes (as do Vietnam and other Southeast Asian countries). Yet local-level disagreements can snag infrastructure projects and disbursements, so the Duterte team’s goals are not guaranteed to be reached in their entirety.

Meanwhile, there are serious concerns about internal security in parts of Mindanao. There, violent terrorist and criminal groups operate that are known to capture foreigners and tourists on land and at sea. The police and military are pushing back.

Duterte’s administration has also begun a crime crackdown, chiefly targeted at suspected or alleged users and suppliers of illegal narcotics. Yet the accompanying violence and the danger of vigilantism will likely keep some investors away as international and domestic controversy about the campaign rages.

Similarly, there is no guarantee that the next president (2022-28) will share the same policy priorities; some infrastructure projects may be cancelled, delayed or revised, especially those that are long-term in nature. Indeed, changes to demographic trends in all countries require new infrastructure, but these demographic changes can also be the agent of an agreed project’s demise.

Laos faces a different array of challenges. Its hydropower dams are controversial: critics say they have been built without sufficient regard to local objections and local people, claims the government rejects. Similar claims are made occasionally of hydropower and other land development schemes in Myanmar, Cambodia and elsewhere. Critics also argue that the dams, as with others on the Mekong, are changing the river’s flow, damaging locals’ access to food stocks and irrigation. The Mekong sub-region, therefore,
is an area of opportunity with need for infrastructure, but also one with simultaneous political risks. Laos also needs to develop its regulatory architecture to instill investor and practitioner confidence, as do Myanmar, the Philippines and other countries.

Singapore, and economies like it, are often rated as the safest environments for investors. In a political sense, this is accurate: the People’s Action Party continues in office, bringing a measure of policy stability. Yet the island state, like others in Southeast Asia, faces the risk of transiting and home-grown terrorists of the type witnessed in Indonesia, Malaysia and the Philippines. Meanwhile, in the electronic age, as with the invention of intercontinental missile technology before it, geography is no defence from a cyber attack that could cripple vital infrastructure systems, making plain the pressing need for online security architecture.

There are also risks at sea and in the air. As the Asia-Pacific becomes increasingly economically important and diverse, demand not just for air freight services but also sea freight will grow. The increased transit of goods and services through the area by air and sea -- helped by the ASEAN Economic Community coming online and other bilateral and multilateral trade deals such as the possible Regional Comprehensive Economic Partnership -- could still face the threat of political disruption. Piracy is also a risk.

***

The examples above illustrate risks that investors and practitioners in infrastructure will necessarily need to engage with as Asia’s century gets underway, and as the world looks to Asia for economic opportunities.

Nonetheless, they also have an opportunity to engage with a dynamic and growing region and it is these investors’ and practitioners’ efforts that will yield the historic infrastructure that both enables Asian countries’ growth, and serves as the hallmark of their governments’ and peoples’ priorities in the years to come.

In this context, it is also important to take time to reflect, as at the start of this piece, on the direction and priorities that history is taking. In this way, the Oxford International Infrastructure Consortium has and will continue to play an important role.
Figure 1. China: ‘The Belt and Road’ rail routes

Source: Russian and Kazakhstan railway companies, Oxford Analytica

Figure 2. The land and maritime routes of ‘the Belt and Road’

Source: Oxford Analytica
III. CONFERENCE PROCEEDINGS

A. Opening Keynote Speech

“If we were holding this conference 500 years ago, we wouldn’t be holding it in Oxford or in Cambridge or in Harvard or Yale, we would be holding it in Xi’an or in Bukhara or Isfahan or maybe even Kazan.” This meaningful assumption used by Dr. Peter Frankopan to start his keynote speech reminds us of the important role of history in understanding our world and global integration. Few people realise that we can understand today’s world much better through studying history. The unexpected voting results for Brexit, and Donald Trump becoming US President, show the recent emergence of a populism that shifts the blame for current weak economic phenomena onto globalisation. However, the idea that we look at globalisation of the world as something new is fundamentally wrong. Figure 3 (below) shows the trade routes of the Roman Empire 2000 years ago following almost identical routes to today’s Belt and Road Initiative. The map clearly demonstrates that, while perhaps not considered as ‘globalisation’ at that time, cooperation over long distances including import duties, legal contracts and laws, as well as financial institutions that allowed for lending and borrowing across thousands of miles, is nothing new. While history does not always repeat itself, such knowledge represents one of the most valuable resources available, affording us a better understanding of the past, such that we might be able to contextualise the present and ultimately plan for the future.

Speaker for Keynote Speech

Dr. Peter Frankopan
Director, The Oxford Centre for Byzantine Research
It is an unfortunate reality however, that at present, financial institutions, multilateral organisations and government bodies tend only to listen to chief economists and rarely heed the advice of historians. While such organisations prioritise the ability to extrapolate into the future, it is historians, working in conjunction with economists, that are most likely to be able to help to make sense of how past precedent may tangibly influence future scenarios.

There are two key reasons for this. Firstly, the approach taken by historians allows for a breakdown of historical narrative into narrow geographical locations. This approach contrasts with the creation of universal abstract economic models that aim to explain economic phenomena on a more global level. Historians who specialise in the history of China or the history of Iran will analyse local phenomena and associated evolution using a down-to-earth approach. Secondly, historical context teaches us that we cannot simply rely on quantitative data for understanding our world. If we look to recent examples, such over-reliance on statistical data is borne out by its inability to explain the result of the UK’s EU referendum in 2016, the collapse of the banking sector in 2008, the economic liberalisation of China or the fall of the Berlin Wall. All these milestones for changing the global distribution of money, power, labour and resources have similarities in history that can be traced back centuries.

History therefore must be considered critical in helping us to understand our world as it is and those ambitions and agendas that encourage global integration. In particular, understanding the underlying systems that led to the rise and fall of countries and their empires in Eurasia does nothing short of helping us to understand those measures necessary to ensuring the long-term operational stability of the ‘Belt and Road’ Initiative in the present. People who seek opportunities in the regions of the ‘Belt and Road’ Initiative should ensure they are literate in the history of such regions so as to understand the important underlying issues faced when rebuilding a global trade route from the ‘DNA’ of the past. The decisions made by central banks, multilateral organisations, governments,
private investors and institutional investors in the decades to come will act to fundamentally reshape the world in which we live. Such historical narratives and the work of their authors should therefore play an important role going forward, as it explains not just the context for the world we live in today but also how we might find a way to invest in a manner that secures a more sustainable world for tomorrow.
B. Session 1: Enhancing Policy Coordination for Global Integration and Cross-border Infrastructure Development

The ‘Belt and Road’ Initiative (BRI) was proposed so as to jointly build the Silk Road Economic Belt and the 21st Century Maritime Silk Road for promoting the economic prosperity of the countries along
the Belt and Road and facilitating regional economic cooperation. It can be traced back to 2013 based on speeches by President Xi Jinping in Kazakhstan and Indonesia. The routes in the BRI will encompass over 60 countries, accounting for 60% of the world’s population and a collective GDP equivalent to 33% of the world’s wealth. Given countries along the Belt and Road have their own resource advantages and their economies are mutually complementary, there is a great potential and space for cooperation. There are five priorities of cooperation for BRI: policy coordination; facilities connectivity; free trade; financial cooperation; and people-to-people bonds. Among them, enhancing policy coordination is an important guarantee for implementing the Initiative and thus the cornerstone for the BRI.

The BRI derives from the history of the Silk Road which represents the ancient routes of trade and cultural exchanges between China and other countries in the Eurasian continent and even North and East Africa (See Section A). The word ‘Silk Road’ was coined by the German geographer Freiherr von Richthofen in 1877 and developed by the French Sinologist E. Chavannes to cover maritime routes of trade in history. The symbolic commodities in the Silk Road then were silk, china and tea which facilitated cultural and trade exchanges between the East and the West. As Professor Weidong Liu pointed out in his speech, ‘Silk Road’ is both a history of trade and a metaphor. On the one hand, it is a common cultural heritage shared by many Eurasian countries; on the other hand, it is a symbol of peace, friendship and win-win relationships. Therefore, the BRI has a historical basis for mutual cooperation. In March 2015, the Chinese government issued “Vision and Actions on Jointly Building a Silk Road Economic Belt and 21st-Century Maritime Silk Road” which is an overall proposal for promoting socio-economic cooperation among countries along the Belt and Road. The proposal pays high attention to policy coordination that “Countries along the Belt and Road may fully coordinate their economic development strategies and policies, work out plans and measures for regional cooperation, negotiate to solve cooperation-related issues, and jointly provide policy support for the implementation of practical cooperation and large-scale projects.”

As such, the BRI is a systematic long-term project open for cooperation, which should not only be jointly built through win-win cooperation by Asian, European and African countries along the Belt and Road, but also be open to all countries around the world, as well as international and regional organizations for engagement, so that the results of the concerted efforts in the BRI will benefit wider areas and people. Matthew Jordan-Tank shared his experience in the Infrastructure Project Preparation Facility (IPPF) of the European Bank for Reconstruction and Development (EBRD) on policy coordination for cross-border infrastructure development in Europe. In particular, one of IPPF’s objectives is to facilitate the integration of project preparation with systematic higher level policy dialogue. For instance, IPPF adopts a value-added delivery approach for infrastructure project preparation. On the one hand, IPPF directly contracts and supervises framework consultants, in close coordination with public sector clients; on the other hand, IPPF pre-pays 100% of the cost of project preparation, and the public sector client contributes a percentage of that cost to IPPF in the form of a transaction support fee. At the financial close, the private sector PPP concessionaire reimburses both the public sector client and IPPF for all costs incurred. By using a value-added delivery approach, IPPF ensures that projects are well structured and bankable while still focusing on building strong transition objectives and policy dialogue-driven replicability of project structures based on commercialisation, corporatisation and institutional strengthening.
In Africa policy coordination also plays a critical role for infrastructure development. Alex Wong from the World Economic Forum used the Programme for Infrastructure Development in Africa (PIDA) as an example to demonstrate the important role of a policy coordination-based platform in infrastructure development in Africa. Currently, the infrastructure deficit in Africa limits its economic growth and prosperity. Only about 10 to 12 per cent of African trade takes place among African countries due to the severe infrastructure gap, costing the continent around 2% GDP growth per year. At the same time, infrastructure development faces many challenges in Africa. The two critical challenges are: 1) how to identify which of the infrastructure projects to prioritize; and 2) how to maintain the political support and buy-in throughout the process. In this context, the PIDA was created as a mega plan to address these issues. PIDA is a continent-wide, aligned platform for priority regional infrastructure programs to be realised by 2040. It mainly focuses on four key sectors: energy, transportation, water and ICT. It also comprises a Priority Action Plan (PAP) which is a subset of 51 infrastructure programs to be implemented by 2020 with more than $US 67 billion of capital expenditure. In addition, the World Economic Forum launched the African Strategic Infrastructure Initiative (ASII) to accelerate PIDA with private partnerships. Given the important role of policy coordination in public and private partnerships for infrastructure development, PIDA functions as a starting point and a mega plan for infrastructure development in Africa.

The BRI is an ambitious economic vision for the opening-up of and cooperation among the countries along the Belt and Road. In the panel discussion hosted by Professor Emily Jones, speakers in this session all agreed that the state and public sector should and will play an important role in the BRI and infrastructure development, from laying foundations for high-level policies and strategies, providing necessary funding and support for mitigating the risks of large-scale infrastructure projects, to offering a robust mechanism for public and private partnerships for gaining efficiency and sharing benefit. Since the differing economic and political contexts of the constituent countries that make up the BRI routes are likely to result in inherent risks associated with the economic integration of communities, enhancing policy coordination is an important guarantee for implementing the Initiative. Countries along the Belt and Road should promote intergovernmental cooperation, build a multi-level intergovernmental macro policy exchange and communication mechanism, expand shared interests, enhance mutual political trust, and reach new cooperation consensus.
C. Session 2: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (I)

Prior to realising the benefits of trade and business opportunities in the BRI, vast infrastructure projects will need to be developed over the coming decades to ensure enhancing connectivity for countries along the Belt and Road. The capital demand for infrastructure investment in the BRI is far beyond the capacity of governments alone, thus public-private partnerships (PPPs) for investment in infrastructure remains vital for bridging the financial gap. However, due to underdeveloped institutional and legal frameworks as well as immature markets, private capital remains limited in infrastructure investment in emerging markets. For instance, only about 0.2% of the 7.2% of GDP spending on
infrastructure development in Asian countries comes from the private sector\(^6\). Therefore, a cooperation mechanism is needed to lay the foundation for public-private partnerships for infrastructure development and the BRI.

In particular, institutional investors such as pension funds, sovereign wealth funds and insurance companies with US$27 trillion in assets under management after the global financial crisis theoretically hold clear competitive advantages in the market for long-term, illiquid assets such as infrastructure\(^5\). However, a variety of constraints are preventing these investors from taking up their theoretical place of prominence in the market for infrastructure investment. Professor Akash Deep proposed relevant innovation for infrastructure finance to mobilise capital from institutional investors into financing infrastructure. Regarding infrastructure debt finance, credit enhancement is the key as institutional investors offer low/moderate risk-taking capacity while infrastructure debt finance desires capacity to take on credit risk. Approaches including director credit, cushions, credit guarantees and securitization could be used for credit enhancement in debt finance for infrastructure. In terms of infrastructure equity finance, the key problems are mismatches between infrastructure equity finance requiring large volume of equity, active control especially in the greenfield phase, relatively illiquid investment and institutional investors seeking for diversification, passive control and price discovery for their investment. Given these problems, innovation in equity finance for infrastructure should focus on diversification, active control and price discovery. The Australian model by using listed and unlisted infrastructure funds to some extent solves the problem of diversification while the Canadian model, by using direct investment in infrastructure, targets the problem of active engagement in infrastructure investment.

In fact, some institutional investors such as Allianz Global Investors (Allianz GI) have been actively involved in the infrastructure market. As introduced by Dr. Oliver Heiland, Allianz GI is a diversified active investment manager with Assets under Management (AuM) of EUR 435 billion (as per 19 February 2016). Regarding infrastructure assets, Allianz GI have allocated EUR 6.7 billion in infrastructure debt and EUR 1.6 billion for infrastructure equity. In addition, Allianz GI has developed its unique approach for facilitating access to infrastructure assets including understanding target markets, building deal pipelines, structuring the investment, dealing with regulatory complexity, safeguarding stable and predictable cash flows, and managing infrastructure assets over the lifecycle. Speaking of the BRI, Oliver shared his observations that the BRI has created new financial architecture as a catalyst for new investment schemes and new instruments for infrastructure capacity building and for green/low-carbon infrastructure. Oliver also mentioned that there are challenges preventing investors from benefiting from potential opportunities in the BRI, such as the overall lack of country risk profiles of destination countries, market access and investment framework in destination countries, and building markets for infrastructure assets. A robust cooperation mechanism that facilitates bankable project preparation is therefore essential for the successful implementation of the BRI.

As there will be many cross-border projects in the BRI, Simon Wilde combined his industry and academic experience to share his view on cross-border infrastructure. He pointed out that, although institutional investors hold a huge pool of potential capital with $75 trillion, they generally support a “low risk infrastructure profile”. This is clearly reflected in the geographic focus on OECD markets by main infrastructure funds (only $90bn allocated in emerging markets vs. $419bn overall allocation) and higher expected return for investment in emerging markets (16.8% average Emerging Market infrastructure target Internal Rate of Returns (IRRs) vs. 12.9% for Developed Market funds\(^7\)). That being said, however, Simon thought that the “low risk infrastructure narrative” needs refinement and will evolve over time


\(^8\) Source: Preqin Infrastructure Online (June 2016)
given new business models, technologies and markets arising in infrastructure sectors. Thus, he urged institutional investors to keep an open mind and open eyes for infrastructure opportunities in emerging markets to avoid missing out on opportunities. He also emphasised the importance of cooperation mechanisms for achieving successful infrastructure deals in emerging markets, including partnerships between private investors and multilateral agencies, partnerships between corporations and financial investors, and partnerships amongst financial investors. On the other hand, Simon cited the McKinsey Global Institute’s 2016 report on “Bridging Global Infrastructure Gaps” and pointed out that “PPPs are often discussed as a solution, but are not a panacea”. PPPs only account for 6.4% of all emerging markets infrastructure as they face material bottlenecks such as lack of government commitment, project credibility, shortage of sufficient domestic and global capital, regulatory issues and liquidity issues. In addition, Simon used an ongoing greenfield gas storage project in Turkey as a live example to show the “strategic investment” status of the government and the strong contacts linking state-owned offtake and strong EPC contractors for the project. All these demonstrate that a cooperation mechanism for public-private partnerships is critical for infrastructure investment, yet Simon used Norway’s recent negative decision on infrastructure to remind us in the end that we still do not fully understand infrastructure – the special asset class – especially its risks and returns.

As such, both infrastructure development and the BRI require close collaboration between public and private sectors where cooperation mechanisms should play a key role in laying the foundation for such partnerships. In the panel discussion hosted by Georg Inderst, speakers discussed the appropriate roles for the public and private sectors in long-term infrastructure projects. They all agreed that multilateral institutions such as the Asian Infrastructure Investment Bank should take the lead in establishing cooperation mechanisms, given the different institutional and cultural contexts among countries along the Belt and Road. In particular, Simon pointed out that, regarding infrastructure investment and development, China should no longer be considered as an emerging market player, as it has accumulated many years’ experience in infrastructure investment and project development both domestically and abroad. More importantly, the Belt and Road Initiative raised by China will undoubtedly reshape the global financial market and economic landscape, as well as the global infrastructure market, thus facilitating mutual cooperation and common prosperity among countries along the Belt and Road.
D. Keynote Speech – Jim Rogers

Following his co-founding of the Quantum Group of Funds, Jim Rogers set out to traverse the globe on his motorbike, at one point following the route of what was historically the ancient Silk Road. Drawing on his own experiences, Jim Rogers shared his views and insights regarding the BRI. China’s massive infrastructure investment over recent decades has resulted in enormous change globally, creating new and significant opportunities throughout emerging regions such as Central Asia, from transportation to energy infrastructure development.

During the great periods of American post-war growth, huge infrastructure projects helped to open up great swaths of the continent and ensured that the country enjoyed rapid economic growth. Such growth can in many ways again be seen in China’s infrastructure projects in south Asia, central Asia and Europe, fundamentally acting to bring economic growth potential to countries in those regions. Singapore was highlighted as a critical example because one of the key reasons leading to its emergence as an economic power in the 20th century was as a result of the utilisation of its port as one of the primary logistics hubs in the region. As Asia boomed, Singapore boomed as well since the port enabled
Singapore to function as a commodity trading hub, logistics hub and financial hub. Given the significant opportunities along the BRI, it was also made clear that there are several sectors that will play a leading role in such development, such as the transportation sector, where associated infrastructure will enable greater accessibility for other types of infrastructure development, trade and commerce.

China has been through multiple economic cycles of expansion and contraction through its long history. With the change of the geopolitical and global economic landscape, China now has the potential to continue its most recent period of unprecedented growth, the benefits of which will help boost the growth both of the economies in this region and, indeed, globally although there certainly will be normal periods of contractions just as has happened in every other country which has risen to dominance.
E. Session 3: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (II)

The development of infrastructure has the potential to generate large amounts of trade, investment and financing, which not only require tremendous use of US dollars, but will also see the increased use of RMB – the new currency member of the International Monetary Fund (IMF) Special Drawing Rights (SDR) basket. The direct use of RMB can lower the currency exchange cost and reduce the exchange rate risk, especially for Chinese overseas investment and business development.
The People’s Bank of China (PBOC) started a cross-border RMB pilot in 2009. Now, with seven years passed, the PBOC has been pushing forward liberalization on exchange rates and interest rates, and has created the market basis for cross-border use of RMB. Meanwhile the PBOC has kept enhancing the opening and development of financial markets and creating major opportunities for cross-border business. In addition, the PBOC has pushed RMB convertibility forward and widened the development channels of RMB cross-border business. In the promotion of cross-border use of RMB, the PBOC adopted a three-step principle: first trade settlement, then direct investment, and then security investment and financing. So far, the first two stages are well established, allowing the free usage of RMB in cross-border trade settlement followed by direct investment without any limitations. It also encouraged offshore cooperation in exploring offshore RMB markets, such as Hong Kong and London. The development of offshore and onshore RMB markets are mutually beneficial. Onshore markets provide the basis, while offshore markets play a role in accelerating onshore financial reform and financial market development. The security investment and financing have been implemented on a pilot basis with gradual and sound manner, such as Regulated Qualified Foreign Institutional Investors (RQFII), Hong Kong-Shanghai stock connect, and Hong Kong-Shenzhen stock connect, given that the RMB is not fully convertible yet. China has now awarded RQFII quotas to 17 countries and regions with a total amount of RMB 1.5 trillion. The RQFII quotas utilized come close to RMB 500 billion. London has taken the place of Singapore as the second largest RMB settlement centre in terms of RMB payment. Around 72% of RMB payment is conducted in Hong Kong, while the figure in London and Singapore is about 6.3% and 4.6% respectively. PBOC also supported domestic financial institutions to issue RMB bonds in other countries and regions. Industrial and Commercial Bank of China and China Development Bank issued 4 billion RMB bonds in London as a pilot in 2014. PBOC also welcomed foreign governments, enterprises and financial institutions investing or issuing RMB bonds in offshore markets. In April 2016, the Hungarian government issued 1 billion RMB bonds in London with a maturity of 3 years, marking the first country in the European continent to issue RMB bonds in London.

In addition, in order to facilitate the cross-border use of RMB, PBOC has signed Memorandums of Understanding (MOU) for RMB clearing arrangements with 22 countries, such as the US, the UK and Russia, and established 20 clearing banks covering South East Asia, South Europe, Central Europe, the Middle East, North America, Latin America and Africa. PBOC signed bilateral local currency swap agreements with central banks and monetary authorities in 34 countries, of which 13 countries are in the Asia Pacific region, 4 in the Middle East, 11 in the Europe, 5 in America and 1 in Africa. The total agreed amount has reached RMB 3.3 trillion, which is mainly intended to facilitate bilateral trade, investment and short-term liquidity support in financial markets.

China, as the initiator of the BRI, has benefited from the development of domestic infrastructure development itself in the past. Whether infrastructure development can continually boost economic growth domestically and in a much broader jurisdiction such as the BRI remains a challenge. In particular, does infrastructure investment lead to economic growth or economic fragility? Evidence from China has been the example of a positive outcome. However, we have also witnessed the drawback of over-investment and underperformed return. Deeper and more comprehensive understanding of the interrelationship between economic growth and infrastructure investment is therefore required. Existing theories have explained the relations between economic growth and infrastructure investment, such as core infrastructure investment being a major determinant of total factor productivity, infrastructure enhancing the growth rate of output, and infrastructure generating positive externality and spill-over

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effects. Idealistically, infrastructure will create direct employment, improve productivity by lowering producer costs, benefit consumers through better services and improve the environment. However, from a project-level perspective, despite tall claims in the theoretical literature about the macro-level positive effects of large infrastructure investment, the economic, social, and environmental impacts at the project level are still uncertain. In the domestic market, we need to look at infrastructure projects that matter for people. The engineering process and project financing should be better designed based on the actual demands of the local community. Furthermore, on a broader scale, such as cross-border infrastructure development, complexity in international business demands multiple levels of cooperation mechanism.

Different types of infrastructure demand specific approaches in terms of planning, finance, construction, maintenance and operation. In the past, China has mainly focused on natural resources projects such as cross-border pipelines. Recently, the focus has increasingly shifted to the transportation sector, such as promoting ports infrastructure and cooperation in delivering international transport facilities. Interestingly, the focus has also shifted to international communications and network connectivity. Cross-border projects require government consensus, which is complicated and time-consuming. For example, it took about 8 years of negotiation for the relatively short distance railway between Mongolia and China. Concessions were originally given to the private sector but then were soon cancelled by the Mongolian government. The issue was debated by the parliament and was seen as a problem of national security. In general, transport projects have more difficulty in attracting private sector involvement than natural resources projects, owing to concerns over revenue structure. Essentially, such projects are a low priority for national policy makers and therefore require the assistance of multi-lateral institutions, such as ADB and AIIB. The BRI can change the status of a project because it mobilises the mutual interests of the private and public sectors.

Domestic infrastructure investment along the Silk Road can also be integrated into the cross-border infrastructure investment. The BRI is not only about the cross-border deals. In fact, the cross-border transaction is only one of the connectivity targets of the BRI. Financial integration also encourages local infrastructure development such as water, energy and environment infrastructure in the 60 countries to address basic human needs. In the coming years, not only the water companies but also China’s other leading infrastructure companies’ know-how is expected to be transferred. This increases the revenue expectations of a loan and is a very important part of private sector involvement. The public sector generally has more potential to maximise available resources as well as providing expertise and innovation in development. For example, many different types of private sector involvement in infrastructure in the BRI countries have already been observed. China has successfully implemented PPP to mobilise the private sector to join the water industry value chain, whereas other countries rely heavily on local government in the provision of water services. China’s water and municipal environment sector PPP experience has the potential to be implemented in the BRI. China has the potential to be the primary PPP advocator across the BRI regions.

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The Second OXII Global Infrastructure Conference Report 34
F. Session 4: Safeguarding the Sustainability of Cross-border Infrastructure for Long-term Green Growth

We face many challenges when investing in infrastructure. If not addressed, these may threaten the sustainability of our long-term growth. Professor Jim Hall discussed in detail some of the challenges, which may include planned growth benefits not materializing; burdens of debt; white elephants; locking in unsustainable patterns of development in terms of carbon emissions; use of natural resources (water resources); local air pollution; increasing exposure to natural hazards; and uncertainties. He argued a compelling case that we should plan with a long-term focus and gave the successful example of Singapore,
which developed its water infrastructure in an adaptive and diversified manner. Some tools for long-term planning are real options analysis, maintaining flexibility and risk reporting. For instance, the UK Climate Change Act requires all utilities to report on their climate-related risks. In addition, the UK National Infrastructure Commission has worked with Oxford on a National Infrastructure Assessment, which provides a long-term sense of direction by asking questions such as what the alternatives are, what the interdependencies and adaptive pathways are and how we may identify the indicators that can analyse how options might perform.

In the short-run, technology advancement can be very useful in solving some urgent sustainability problems. Dr Thorsten Jelinek mentioned how today’s technology can already save 50% of emissions in the infrastructure environment. Climate change should not be seen as a risk but as an opportunity to innovate. He used the example of China launching numerous innovative initiatives to combat air pollution, including pilot projects on “zero carbon zones”; an investment of $6.6 trillion in reducing emissions; the establishment of a cap-and-trade emissions system; and the adoption of the “circular economy” concept. However, there are huge challenges in China because of protectionism of the state-owned enterprises. Local governments have GDP goals which are sometimes in conflict with the goals of environmental protection.

Financial innovation in the space of green finance was spotlighted in this session. Green finance is preferable because of the connectivity it brings (reconnecting of issuers and investors) which we do not have with government bonds. It also provides integrity owing to its requirements for risk disclosure and reporting. Sir Roger Gifford introduced the basics of green finance and mentioned how defining what green bonds are is still sometimes difficult, despite the International Capital Markets Association publishing the green bond principles. He also provided case studies of green bonds with Swindon Council and Transport for London, which raised 5 million and 400 million respectively. One opportunity for UK universities is that currently there are no UK-based accreditors for green finance. The green bond market is booming and holds great potential for infrastructure development in particular.

Can projects along the “Belt and Road” be green? Reyaz A. Ahmad listed a set of tools that could be used to ensure that high environmental and social standards are adhered to. These include gross government debt; lending/borrowing ratio as % of GDP; Environmental Health Yale EPI; social progress index; enforcing contracts and dealing with construction permits.

Towards the end of the session, the speakers and audience actively discussed an interesting set of research questions for the future, including how the attitudes of institutional investors and their fiduciary duties have evolved; whether it is possible to create a low carbon investment registry for institutional investors; exploring different Green ISA schemes; and how policy instruments such as cap and trade in Europe may provide lessons for China.
G. Concluding Keynote Speech

The legal dimension is crucial for BRI success, which encompasses complex legal structures, legal standards, legal institutions, well trained judges and officials across more than 70 nations. Coordination will be key and law is a means for coordination.

In response to this need, the University of Oxford created a special “One Belt, One Road” (Belt and Road) Research Centre based at the Law Faculty. It represents a major institute dedicated to regulatory issues arising from the BRI Initiative. It will focus on research related to the regulatory response from the 60 nations; how to create a common understanding and principles, a shared regulatory system on the following issues: trade and commerce, finance and investment, regulation and administration, cultural heritage and environment, maritime and logistics, employment and consumer protection; and how we design the new institutions necessary for coordination and collaboration. It aims to facilitate common standards for courts and tribunals, advance ideas and understanding of global governance and administration, help the diffusion of legal cultures and traditions, study the socio-legal dimensions of BRI to ensure laws/institutions are responsive to economic-political-social environments. Although law will be the institute’s focus, it actively encourages a multidisciplinary approach.
Annex I. Conference Programme

Friday, July 1, 2016 - The Examination Schools, University of Oxford

08:00 – 09:00 Registration

09:00 – 09:10 Welcome and Opening Remarks

Gordon Clark, Professor and Director, Smith School of Enterprise and the Environment, University of Oxford

Jim Hall, Professor and Director, Environmental Change Institute, University of Oxford

09:10 – 09:30 Opening Keynote Speech

Peter Frankopan, Director, The Oxford Centre for Byzantine Research

09:30 – 10:45 Session 1: Enhancing Policy Coordination for Global Integration and Cross-border Infrastructure Development

Infrastructure development is crucial for the integration of international economic communities. The Belt and Road will form part of a global effort to improve connectivity through building an infrastructure network connecting all the sub-regions of Asia through to Europe and Africa. Enhancing policy coordination is critical for implementing cross-border infrastructure development. A multi-level communication mechanism could therefore be built for intergovernmental macro-economic and policy exchange so as to promote intergovernmental cooperation, enhance mutual political trust and reach new cooperation consensus. Through this approach, countries along the Belt and Road may fully coordinate their economic development strategies and policies, develop plans and measures for regional cooperation, negotiate to solve cooperation-related issues, and jointly provide policy support for the implementation of practical cooperation and large-scale projects. This session will explore how to enhance policy coordination for global integration and cross-border infrastructure development illustrated by way of the BRI Initiative and the associated global implications.

09:30 – 09:45 Insight from Academia

Weidong Liu, Director, Centre for the Belt and Road Initiative, IGSNRR, Chinese Academy of Sciences

Senior Adviser, National Development and Reform Commission of China
09:45 – 10:00  Keynote from Practitioner

Matthew Jordan-Tank, Head of Infrastructure Policy and Project Preparation, European Bank for Reconstruction and Development

10:00 – 10:15  Industry Demonstration and Implications

Alex Wong, Head of Global Challenge Partnerships and Member of the Executive Committee, World Economic Forum

10:15 – 10:45  Panel discussion

i) How can we enhance policy coordination for global integration and cross-border infrastructure development?
ii) What are opportunities and challenges for the infrastructure industry along the BRI routes?
iii) How can we deliver tailored financing and services to infrastructure development in countries with different institutional and cultural contexts along the BRI routes?
iv) How can we balance the power of market and government for infrastructure development along the BRI routes?
v) What are the global implications of the BRI Initiative for integrating international economic communities and revitalising the global economy?

SPEAKERS

1) Weidong Liu, Director, Centre for the Belt and Road Initiative, IGSNRR, Chinese Academy of Sciences; Senior Adviser, National Development and Reform Commission of China
2) Matthew Jordan-Tank, Head, Infrastructure Policy and Project Preparation, European Bank for Reconstruction and Development
3) Alex Wong, Head of Global Challenge Partnerships and Member of the Executive Committee, World Economic Forum

MODERATOR

Emily Jones, Associate Professor in Public Policy (Global Economic Governance), Blavatnik School of Government, University of Oxford

10:45 – 11:15  Networking break

(PROGRAMME CONTINUED ON FOLLOWING PAGE)
11:15 – 12:30 Session 2: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Businesses (I)

Prior to realising the benefits of global integration and economic revitalisation, vast infrastructure projects will need to be developed over the coming decades. The capital demand for global infrastructure investment is far beyond the capacity of governments alone, thus private investment in infrastructure remains vital for bridging the financial gap. Long-term investors such as pension funds, sovereign wealth funds and insurance companies have a growing appetite for infrastructure with stable, long-term and low-risk returns. The blueprint of the BRI Initiative for connecting Asia and Europe through infrastructure development provides considerable markets and lucrative opportunities for global investors to invest in infrastructure. Yet due to underdeveloped institutional and legal frameworks, as well as immature markets, private capital remains limited in infrastructure investment in emerging markets. For instance, only about 0.2% of the 7.2% of GDP spending on infrastructure development in Asian countries comes from the private sector.\textsuperscript{12} Cooperation mechanisms between public and private sectors are therefore needed to facilitate private and institutional investment in infrastructure. This session investigates how to build cooperation mechanisms for facilitating the private sector - and especially institutional investors - to invest in infrastructure for global integration.

11:15 – 11:30 Insight from Academia

\textbf{Akash Deep}, Senior Lecturer in Public Policy, \textit{Harvard Kennedy School}

11:30 – 11:45 Keynote from Practitioners

\textbf{Oliver Heiland}, Director Legal & Compliance, \textit{Allianz Global Investors}

11:45 – 12:00 Industry Demonstration and Implications

\textbf{Simon Wilde}, Senior Managing Director, \textit{Macquarie Capital}

12:00 – 12:30 Panel discussion

i) How can cooperation mechanisms be built for facilitating public-private partnerships for cross-border infrastructure development?

ii) What can be done to facilitate institutional investors to invest in infrastructure for global integration?

iii) What opportunities and challenges are there in the ‘Belt and Road’ Initiative?

\textbf{SPEAKERS}

1) \textbf{Akash Deep}, Senior Lecturer in Public Policy, \textit{Harvard Kennedy School}

2) \textbf{Oliver Heiland}, Director Legal & Compliance, \textit{Allianz Global Investors}

3) \textbf{Simon Wilde}, Senior Managing Director, \textit{Macquarie Capital}

\textsuperscript{12} https://www.project-syndicate.org/commentary/justin-yifu-lin-and-kevin-lu-argue-that--to-attract-private-investment--infrastructure-must-be-redefined-as-a-new-asset-class
**MODERATOR**

**Georg Inderst**,** Independent Adviser, Inderst Advisory**

12:30 – 13:30  Lunch

13:30 – 14:00  Keynote Speech

**Jim Rogers**,** Investment Expert and Author, Rogers Holdings**

14:00 – 14:30  Group Photo/Networking break

**14:30 – 16:00  Session 3: Building Cooperation Mechanisms for Infrastructure Investment and Cross-border Business (II)**

Fundamentally, the development of infrastructure along the BRI routes aims to facilitate trade and businesses through connecting the continents of Asia, Europe and Africa, thus enhancing integration and revitalisation of the global economy. The tremendous growth in demand from countries along the BRI routes will open up a diverse range of new opportunities for international trade through infrastructure projects, commerce and investment. These opportunities imply cross-border cooperation, which encompasses multiple stakeholders over the life-cycle of cooperation. Nonetheless, the different economic and political situations of countries along the BRI routes inevitably generate inherent uncertainties and risks, ranging from legal and financial challenges to political and/or social instability and regional disputes. Therefore innovative cooperation models, such as joint partnership, technology transfer, investment funding, EPC (Engineering-Procurement-Construction) and PPP (Public-Private Partnership), involving multiple stakeholders and operating under complex political and socio-economic contexts, need to be explored further. A greater understanding of such models is especially important so as to fully benefit from the spectrum of opportunities associated with the mutual prosperity resulting from the BRI Initiative, whilst mitigating the associated risks. This session will therefore discuss how to build feasible and effective cooperation mechanisms for building international economic corridors through deploying cross-border businesses along the BRI routes.

14:30 – 14:45  Keynote from Practitioners

**Mei Jin,** Chief Representative for Europe, the *People’s Bank of China (PBOC)*
14:45 – 15:00 Insight from Academia

Atif Ansar, Programme Director of the MSc in Major Programme Management (MMPM), Saïd Business School, University of Oxford

15:00 – 15:15 Industry Demonstration and Implications

Rupert Gather, Founding Director, InvestUK

15:15 – 15:30 Keynote from Multilateral Financial Institutions

Hisaka Kimura, Unit Head, Private Sector Infrastructure Finance, East Asia, Asian Development Bank

15:30 – 16:00 Panel discussion

i) How can cooperation mechanisms be built for the development of cross-border infrastructure and business?

ii) How can developed economies and emerging markets be connected for mutual prosperity and global integration?

iii) What opportunities and challenges are there in the ‘Belt and Road’ Initiative?

iv) What are the implications of Brexit on building cooperation mechanisms for international business?

SPEAKERS

1) Atif Ansar, Programme Director of the MSc in Major Programme Management (MMPM), Saïd Business School, University of Oxford

2) Rupert Gather, Founding Director, InvestUK

3) Hisaka Kimura, Unit Head, Private Sector Infrastructure Finance, East Asia, Asian Development Bank

MODERATOR

Giles Blackburne, Executive Director, China-Britain Business Council, China Outbound

16:00 – 16:30 Networking break

16:30 – 18:15 Session 4: Safeguarding the sustainability of cross-border infrastructure for long-term green growth

Increasing the amount invested in infrastructure alone, may not foster strong, sustainable and balanced growth. The quality of infrastructure projects should be given equal attention. In light of the recent COP21 Climate Change Conference and the global Paris Agreement 13 on combating climate change, and efforts at the G20 geared at green finance, facilitating low-carbon and climate-resilient infrastructure along the BRI routes will become crucial for ensuring long-term sustainable development. Building the

13 https://unfccc.int/resource/docs/2015/cop21/eng/09r01.pdf
wrong infrastructure will lock in patterns of unsustainable development and will burden countries with debt whilst not yielding the expected growth benefits. A strategic approach to infrastructure investment is required which looks to the long term, recognises the interdependencies between infrastructure investment and economic growth and acknowledges the major uncertainties. This session will explore the evidence for the relationship between infrastructure investment and economic growth. It will address the challenges incorporating uncertainty into infrastructure decision making.

16:30 – 16:45 Insight from Academia

Jim Hall, Professor and Director, Environmental Change Institute, University of Oxford

16:45 – 17:00 Keynote from Practitioners

Thorsten Jelinek, Managing Director, Poly Terra Innovation; former Associate Director, World Economic Forum

17:00 – 17:15 Industry Demonstration and Implications

Sir Roger Gifford, UK Head, Skandinaviska Enskilda Banken

17:15 – 17:30 Keynote from Multilateral Financial Institutions

Reyaz A. Ahmad, Head and Chief Investment Officer, IFC Catalyst Fund

17:30 – 18:00 Panel discussion

i) How can we incorporate systematic risk management into long-term infrastructure planning and investing?

ii) How can we make infrastructure both resilient to climate change (rising temperatures and sea levels, more frequent extreme weather events) and as resource-efficient and low-carbon as possible?

iii) What are the lessons and implications from the COP21 Paris Agreement for green infrastructure investment?

iv) What opportunities are there for mobilising and growing a green bond market to finance low-carbon and climate-resilient infrastructure?

v) What opportunities exist for global investors and businesses from greening the financial system?

SPEAKERS

1) Jim Hall, Professor and Director, Environmental Change Institute, University of Oxford

2) Thorsten Jelinek, CEO, Poly Terra Innovation; former Associate Director, World Economic Forum

3) Sir Roger Gifford, UK Head, Skandinaviska Enskilda Banken

4) Reyaz A. Ahmad, Head and Chief Investment Officer, IFC Catalyst Fund
MODERATOR

Christopher Kaminker, Economist/Project Manager, Long Term Investment, Environment Directorate, OECD

18:15 – 18:30  Concluding remarks

Denis Galligan, Director, The OBOR Programme, University of Oxford
Annex II. Speakers’ Profiles

Opening Remarks

Gordon Clark  
**Professor and Director, Smith School of Enterprise and the Environment, University of Oxford**

Gordon L Clark FBA DSc is Professor and Director of the Smith School at Oxford University, holds a Professorial Fellowship at St Edmund Hall, is the Sir Louis Matheson Distinguished Visiting Professor in the Department of Banking and Finance at Monash University, and is a visiting professor at Stanford University. He has held positions at the Kennedy School at Harvard University, Harvard Law School, the University of Chicago and Carnegie Mellon University. His research and teaching focuses upon the performance of financial institutions, the role of corporations in market economies, and individual behaviour in the context of risk and uncertainty. Acknowledged as one of the world’s leading authorities on the investment management industry, he has advised a number of major corporations and financial institutions as well as governments on issues such as governance and environmental sustainability.

Jim Hall  
**Professor and Director, Environmental Change Institute, University of Oxford**

Professor Jim Hall FREng is Director of the Environmental Change Institute at the University of Oxford. His research focuses upon management of climate-related risks in infrastructure systems, in particular relating to various dimensions of water security, including flooding and water scarcity. He leads the UK Infrastructure Transitions Research Consortium (ITRC), which is now in its second five-year phase developing and demonstrating a new generation of system simulation models and tools to inform analysis, planning and design of national infrastructure worldwide. Jim is a member of both the panel conducting the Institution of Civil Engineers (ICE)’s 2014 State of the Nation’s Infrastructure Assessment and the Engineering Policy Committee of the Royal Academy of Engineering. He has been awarded the George Stephenson Medal, the Robert Alfred Carr Prize and the Frederick Palmer Prize of the Institution of Civil Engineers for his work on flooding and coastal erosion, and the Lloyds Science of Risk prize for the work of his team on climate risk analysis. He was co-chair of the OECD - GWP Task Force on Water Security and Sustainable Growth.
Opening Keynote Speaker

Peter Frankopan
Director, The Oxford Centre for Byzantine Research

Peter Frankopan has been Senior Research Fellow at Worcester College, Oxford since 2000. He works on the history of Russia, the Middle East & Iran, Central Asia and China. His most recent book, “The Silk Roads: A New History of the World” is an international bestseller and Daily Telegraph History Book of the Year. He has written extensively about the Belt and Road initiative in the press and, in the last six months, has been in China, Pakistan, India and Central Asia to advise on the past, present and future of the Silk Roads.

Session 1 – Chair

Emily Jones
Associate Professor in Public Policy (Global Economic Governance), Blavatnik School of Government, University of Oxford

Dr Emily Jones, who is also a Fellow of University College and academic coordinator of the Oxford-Princeton Global Leaders Fellowship Programme, focuses her research on examining government practices in asymmetric negotiations in the global economy, investigating the ways in which small developing countries exert influence even in highly asymmetric negotiations. She leads the Global Economic Governance Programme. Prior to joining the Blavatnik School of Government, Dr Jones worked in Ghana’s Ministry of Trade and Industry, for Oxfam GB, and for the UK Department for International Development. She is a regular contributor to the World Trade Organization’s advanced policy training course, and has acted as a consultant for a range of international organisations, including the Commonwealth Secretariat, the Overseas Development Institute, the German Marshall Fund and Oxfam International. In 2015, Dr Jones was invited to join the E15 Expert Group on trade and finance.
Session 1 – Speakers

Weidong Liu
Director, Centre for the Belt and Road Initiative, IGSNRR, Chinese Academy of Sciences; Senior Adviser, National Development and Reform Commission of China

Weidong Liu is a Professor in Economic Geography, Assistant Director, and Chair of the Centre for the Belt and Road Initiative, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences. He is a key consultant to the China National Development and Reform Commission (NDRC) on the Belt and Road Initiative (BRI) as well as on the Western China Development Strategy. He holds many academic positions, such as chair of the Commission on Economic Geography and board member of the Geographical Society of China, chair of China Division and China Ambassador of Regional Studies Association, full member of the IGU Commission on Local Development, general editor on Economic Geography and Regional Development of Wiley-AAG International Encyclopedia of Geography, managing editor of Area Development and Policy (an RSA journal), and advisory/editorial board member of Progress in Human Geography, Contemporary Social Science, Eurasian Geography and Economics, and Asian Geographer. He is a winner of the China National Science Fund for Distinguished Young Scholars (2011), and National Outstanding Young Expert (2014). His areas of study include regional development and regional policy, FDI, Multinational Corporations, GPN, the automobile industry, new ICTs, and carbon emission and low carbon economy. He has published over 200 papers and book chapters, including 45 SSCI-indexed papers, and is the editor or co-editor of 12 books, including the Geographical Transformation of China published by Rutledge. In the last three years, he has focused on BRI studies, providing support to NDRC for planning for the BRI.

Matthew Jordan-Tank
Head, Infrastructure Policy and Project Preparation, European Bank for Reconstruction and Development

Matthew is the Head of the Infrastructure Policy and Project Preparation facility at EBRD, providing advice and structuring for the Municipal Infrastructure and Transport sectors. Previously, he was Senior Urban Transport Specialist at EBRD from 2007-2013, where he focused on both private and public sector urban transport project structures in line with the Bank’s mandate, involving over 50 individual projects across some 20 countries in Eastern Europe, Russia and the CIS and Turkey. His active project portfolio includes Belgrade, Istanbul, Warsaw, Wroclaw, Budapest, Sofia, Kiev, Almaty, Bursa, and Izmir, amongst others. The focus of his policy work covers transport sector funding, urban public transport regulation and commercialisation, public service contracting, performance-based contracting for roads, automated fare collection projects, ITS/traffic management, parking concessions, road safety, rail sector reforms, delegated management contracting and social infrastructure PPP development. Prior to joining EBRD in 2007, he worked as a Transport Specialist for Inter-American Development Bank in Washington, DC from 1999-2007. He holds a Masters in Planning from the University of Maryland, USA.
Alex Wong
Head of Global Challenge Partnerships and Member of the Executive Committee

Alex heads the World Economic Forum’s activities related to the development of the Global Challenge Partnerships, a new institutional focus by the Forum to accelerate progress on the world’s most pressing global challenges that require new or expanded models of public-private cooperation. From 2010-2015, Alex also led the Forum’s Global Strategic Infrastructure initiative. Since joining the World Economic Forum in 2000, Alex’s prime responsibilities have included co-leading the development and implementation of the Forum’s industry strategies as head of the Centre for Global Industries in the World Economic Forum’s Geneva headquarters, and leading the Forum’s programs in the Basics & Infrastructure industries from 2006-2015, and the IT & Telecoms, Media & Entertainment industries from 2000-2006. Prior to joining the Forum, Alex worked for 12 years in a variety of professional roles at Accenture, General Motors, and the US National Parks Service. He has a degree in Mechanical Engineering from the University of Toronto, and a Masters in Public Administration from Harvard University.
Session 2 - Chair

Georg Inderst
Independent Adviser, Inderst Advisory

Georg Inderst is an independent adviser to pension funds, institutional investors and international organizations, based in London. Georg is the author/co-author of several key studies on infrastructure/green investment and finance, working among others, with the OECD, the EIB, the ADB and the World Bank. He is a member of various international committees and working groups. Georg is also a judge of several pensions and investment awards, a speaker at investment seminars, and a referee for academic journals. Previously, he was a Director of Law Debenture Pension Trust Corporation in London, and a Director of Foreign & Colonial Investment Management, where he headed the Global Asset Allocation and Fixed Interest teams. He joined F&C in London from HYPO Capital Management in Munich. Georg grew up in Italy. He received a PhD in Economics and Social Sciences from the University of Vienna and an MSc in Economics from the London School of Economics.

Session 2 – Speakers

Akash Deep
Senior Lecturer in Public Policy, Harvard Kennedy School

Akash Deep is Senior Lecturer in Public Policy at Harvard University’s Kennedy School. His expertise lies in infrastructure finance and valuation, public-private partnerships, financial risk management and derivatives, and the management and regulation of financial institutions, financial markets, and pension funds. He serves as faculty chair of the Infrastructure in a Market Economy and the International Finance Corporation executive programs, and has served as faculty chair of the Indian Administrative Service executive program at Harvard University. Professor Deep teaches courses in financial investments, risk management and infrastructure finance in the degree and executive programs at Harvard. He has also led executive programs at the World Bank, the International Finance Corporation, the European Bank for Reconstruction and Development, the Inter-American Development Bank, National University of Singapore, Booz & Co, KPMG, and Goldman Sachs, amongst others. Professor Deep has provided advice on bank restructuring, infrastructure financing, capital markets reform and pension funds to various governments and firms around the world, and his work has been cited in journals and publications such as the Financial Times and the Boston Globe. He has worked in the financial institutions and infrastructure section of the Bank for International Settlements and served as consultant and expert for the World Bank, the International Finance Corporation, the United Nations, the Bank for International Settlements, the International Centre for Settlement of Investment Disputes, the United States Federal Highway Administration, and the Latin-American Shadow Financial Regulatory Committee. He also serves on the Capital Debt Affordability Committee for the State of Massachusetts. Certified “Financial Risk Manager” by the Global Association of Risk Professionals, Akash Deep holds a PhD in economics and an
MA in operations research from Yale University, and a bachelor’s degree from the Indian Institute of Technology, Delhi.

Oliver Heiland
Director Legal & Compliance, Allianz Global Investors GmbH

Oliver joined Allianz Global Investors in 2013, where he is responsible for the legal coverage of the Infrastructure Equity asset class. This asset class targets infrastructure and energy investments for institutional clients and includes the Allianz Renewable Energy Fund range. His areas of work include a broad range of matters relating to infrastructure investments (e.g. infrastructure debt, financial and energy regulation, role of institutional investors). Allianz Global Investor’s infrastructure business includes both infrastructure equity as well as infrastructure debt investments in a wide range of infrastructure, PPP, renewable energy and energy infrastructure assets. Prior to Allianz Global Investors, he was responsible for the legal coverage of the entire lending activities (real estate, project finance, sovereign debt) and the covered bonds bank of asset manager DekaBank, which included the successful launch of a EUR 2bn. infrastructure debt platform for institutional clients. Oliver started his career with Allen & Overy LLP, where he advised on a wide range of banking, corporate and capital markets transactions with a specific focus on infrastructure and energy investments. He is a Council Member of the International Project Finance Association and lectures on Energy Project Finance at the Institute for Law and Finance, Goethe-University in Frankfurt am Main (Germany). Oliver is a German law qualified lawyer and has studied law in Germany, The Netherlands and Australia (Master of Comparative Laws). He holds a PhD in public international law (The human right to water) from the University of Mannheim, Germany.

Simon Wilde
Senior Managing Director, Macquarie Capital

Simon Wilde is a Senior Managing Director at Macquarie Capital, responsible for the firm’s major utility corporate relationships and power sector initiatives. He has over 23 years’ investment banking experience, having started his career in 1992 at Credit Suisse, after studying Law and Economics at Christ’s College, Cambridge. He also holds finance and economics MSc degrees from LSE and the University of Bristol. Simon has specialised in corporate advisory for the energy and utility sectors since 1994, and led the Power & Utilities M&A team at RBS and ABN AMRO prior to joining Macquarie in 2011. He has also worked at JP Morgan and Creditanstalt. He has worked on energy-related transactions with an aggregate value in excess of USD 75 billion over two decades. At Macquarie, Simon has been involved in a major push into financing renewable energy projects, across offshore wind, solar, biomass and tidal energy. Since 2013, Simon has been a finance academic as well as practitioner, both teaching and undertaking a PhD at the University of Bath on infrastructure finance. He is a part-time Senior Lecturer at UWE’s Bristol Business School, teaching banking and investment management. His PhD research focuses on the changing risk and return profile of infrastructure investment. Simon is also a non-
executive director of Mongoose Energy Ltd, a community renewables group chaired by former UK Secretary of State for Energy Ed Davey, and non-executive director of Somerset Skills & Learning.

**Keynote Speech**

Jim Rogers

*Investment Expert and Author, Rogers Holdings*

Jim Rogers, a native of Demopolis, Alabama, is an author, financial commentator, adventurer, and successful international investor. He has been frequently featured in Time, The Washington Post, The New York Times, Barron’s, Forbes, Fortune, The Wall Street Journal, The Financial Times, The Business Times, The Straits Times and many media outlets worldwide. He has also appeared as a regular commentator and columnist in various media and has been a professor at Columbia University. After attending Yale and Oxford University, Rogers co-founded the Quantum Fund, a global investment partnership. During the next 10 years, the portfolio gained 4200%, while the S&P rose less than 50%. Rogers then decided to retire – at age 37. Continuing to manage his own portfolio, Rogers kept busy serving as a full professor of finance at the Columbia University Graduate School of Business, and, in 1989 and 1990, as the moderator of WCBS’s 'The Dreyfus Roundtable' and FNN's 'The Profit Motive with Jim Rogers'. In 1990-1992, Rogers fulfilled his lifelong dream: motorcycling 100,000 miles across six continents, a feat that landed him in the Guinness Book of World Records. As a private investor, he constantly analysed the countries through which he travelled for investment ideas. He chronicled his one-of-a-kind journey in Investment Biker: On the Road with Jim Rogers. Jim also embarked on a Millennium Adventure in 1999. He travelled for 3 years on his round-the-world, Guinness World Record journey. It was his 3rd Guinness Record. Passing through 116 countries, he covered more than 245,000 kilometers, which he recounted in his book Adventure Capitalist: The Ultimate Road Trip. His book, Hot Commodities: How Anyone Can Invest Profitably In The World's Best Market, was published in 2004. Another of his books A Bull in China describes his experiences in China as well as the changes and opportunities there. His recent book A Gift to My Children is a heartfelt, indispensable guide for his daughters (as well as for all adults and children) to find success and happiness. His latest memoir Street Smarts: Adventures on the Road and in the Markets was published in February 2013.
Session 3 – Chair

Giles Blackburne
Executive Director, China-Britain Business Council (CBBC), China Outbound


Session 3 – Speakers

Atif Ansar
Programme Director of the MSc in Major Programme Management (MMPM), Said Business School, University of Oxford

A Fellow of Keble College, Atif is Programme Director of the MSc in Major Programme Management (MMPM) at the Said Business School. The MMPM is a two-year, part-time, course that attracts senior executives from around the world who lead major programmes across various arenas: large-scale infrastructure, major ICT, business change, urban development, defence equipment, big science, or major events. Atif has been a fixture at University of Oxford since 2006. From 2006-2010 he undertook his DPhil (PhD), at Brasenose College, with the prestigious Clarendon Scholarship from Oxford University Press. Atif was a post-doctoral Research Fellow from 2010-2013 with Professor Bent Flyvbjerg at the BT Centre for Major Programme Management at Said Business School, then from 2013-2015 he served as a Lecturer at the Blavatnik School of Government and Cohort Manager of the Major Projects Leadership Academy (MPLA). Atif previously undertook his Bachelor’s degree at the School of Foreign Service at Georgetown University where he majored in Philosophy, Politics, and Economics.
Mei Jin  
**Chief Representative, the People’s Bank of China (PBOC) Representative Office for Europe**


Rupert Gather  
**Founding Director, InvestUK**

Rupert Gather graduated in Law from Exeter University in 1984 and, after operational service in the British Army, has built a distinguished career in private equity corporate finance. His 20 years’ experience and personal management of over 100 successfully completed deals have given him a unique insight into selection, appraisal and management of direct private equity investments into UK and international companies across multiple sectors. In 2012 Rupert founded InvestUK, where he is now Executive Chairman. InvestUK is a regulated Foreign Direct Investment adviser based in London’s prestigious Mayfair district. As well as providing advisory services to companies and private equity funds looking to invest in UK unlisted companies, InvestUK is the market leader in investment origination and implementation on behalf of international entrepreneurs and investors seeking Tier 1 Visa immigration status in the UK. In the last three years InvestUK has advised on 90 deals worth over £23 million, and has 170 clients in the company’s pipeline, representing a further £70m+ of potential investment. Clients come from all over the world but are strongly weighted to Russia and China. InvestUK is now starting to offer asset management products to its private clients alongside its advisory offering. InvestUK ‘Education Bond® is a £1 billion project for investment in the UK’s construction industry, targeted particularly at Chinese students seeking to earn Permanent Residence whilst they study. It aims to combine the three key drivers of UK Education, Property investment and Permanent Residence into one simple, secure product.
Hisaka Kimura
Unit Head, Private Sector Infrastructure Finance, East Asia, Asian Development Bank

Hisaka Kimura is responsible for promoting and financing private sector participation opportunities in infrastructure development in East Asia. Hisaka has over 20 years of experience in managing multi-stakeholder projects in various countries, including the People’s Republic of China, Mongolia, the United Kingdom, Japan, South Africa, Russia, Central and Eastern Europe. Her areas of expertise include clean energy, urban-rural environmental infrastructure, natural resources, emergency relief and reconstruction. Prior to joining the Asian Development Bank, Hisaka worked for the European Bank for Reconstruction and Development and Ernst & Young in London. She holds master’s degrees from the London Business School - in Finance - and from Imperial College, University of London, in Environmental Economics.

Session 4 – Chair

Christopher Kaminker
Economist/Project Manager, Long Term Investment, Environment Directorate, OECD

Christopher Kaminker is an economist at the Organisation for Economic Co-operation and Development (OECD) in Paris with a decade of experience at the intersection of energy policy, financial markets and sustainability. He leads the OECD Project on Institutional Investors and Green Growth and directs the OECD Green Investment Financing Forum. His research focuses on the role of institutional investors and capital markets in financing sustainable infrastructure investment. Prior to his appointment at the OECD in 2010, Christopher worked in investment banking at Société Générale and Goldman Sachs. Christopher is a PhD candidate at Oxford University and graduated from the School of International and Public Affairs at Columbia University. He is a Fellow of the Royal Geographical Society and other current appointments include: Delegate to the G20 Green Finance Study Group; Reviewer of the Journal of Sustainable Finance & Investment; and adjunct lecturer at SciencesPo Paris.
Session 4 – Speakers

Thorsten Jelinek  
Managing Director, Poly Terra Innovation; former Associate Director, World Economic Forum  
Thorsten is the Managing Director of Poly Terra Innovation, a German R&D firm developing sustainable plastics and products from idea through to market readiness. He is also a member of the Taihe Global Institute, a nonprofit, independent, public-policy think tank based in Beijing. His professional work is based on his in-depth experience in the areas of business strategy and development, sustainability and international relations. Prior to his current role, Thorsten was an Associate Director at the World Economic Forum responsible for economic relations in Europe, and held various leadership roles in the industry. He holds a Ph.D. in political economy from the University of Cambridge and is a Member of the Clinton Global Initiative.

Sir Roger Gifford  
UK Head, Skandinaviska Enskilda Banken  
Professional banker and keen amateur musician, Roger Gifford has worked for more than 40 years to help financial services contribute to a more harmonious society. He was knighted in 2014 for services to international business, culture and the City of London. Sir Roger’s career has been largely spent with Nordic bank SEB, who he joined from SG Warburg in 1982. Currently Head of SEB in London, he previously worked in the capital markets in London and led the bank’s operation in Japan for six years. In 2013 he served as the Lord Mayor of London, the City’s global ambassador for financial and professional services. Sir Roger is Vice Chairman (and a former Chairman) of the Association of Foreign Banks and, since election in 2004, has represented the Ward of Cordwainer in the City as its Alderman. He is a member of the livery companies of the Musicians, Cordwainers and International Bankers and recently co-founded the City Music Foundation, which supports outstanding musical performers at the beginning of their career. Sir Roger chairs the Tenebrae Choir and the English Chamber Orchestra, and is a trustee of the St Paul’s Cathedral Foundation. Sir Roger is married to Dr Clare Gifford (Lady Gifford). He was born in St Andrews and educated at Sedbergh and Oxford, where he read chemistry.
Reyaz A. Ahmad  
**Head and Chief Investment Officer, IFC Catalyst Fund**  
Reyaz joined AMC in September 2010 as Chief Investment Officer and Head of AMC’s Fund of Funds group. He joined IFC in 1987 in the Energy Unit and worked on oil and gas projects in Asia, the Middle East and Latin America. From 1992 to 1999, he worked in IFC’s Corporate Finance Services Department, focusing on privatization advisory transactions across a range of infrastructure and non-infrastructure sectors. In 2000, Reyaz took an external assignment as Vice-President, Strategy of Softbank Emerging Markets, a $200 million VC fund, returning to IFC in 2002 as Manager of the Global Information & Communication Technologies Department. From 2003 until he joined AMC, he headed the sector team responsible for IFC’s investments globally in solar, wind and other renewables energy supply chains, and energy-efficient machinery. Previously, Reyaz worked at the Boston Consulting Group, SG Warburg Securities and Courtaulds PLC. Reyaz holds a BA and MA (with Honours) in Engineering and Economics from Queens’ College, Cambridge University and an MBA from INSEAD.

**Concluding Remarks**

Denis Galligan  
**Director of the OBOR Programme, University of Oxford**  
Denis Galligan is Professor of Socio-Legal Studies, Oxford University and Professorial Fellow of Wolfson College. He is Director of the OBOR Programme of Oxford University. His current research interests are in the social foundations of constitutional and administrative law, with emphasis on issues of due process. He is also engaged in research into issues of regulation, especially cross-border regulation. His interest in law and society in China, and in the various legal, constitutional, and regulatory aspects of the Belt and Road has resulted in the creation of a research programme in the Faculty of Law. Plans are under way to create an OBOR Institute.
Annex III. Conference Organising Committee

Yin Yang
Yin obtained his Doctorate in Philosophy (DPhil) degree from the University of Oxford under the supervision of Professor Gordon Clark. His research is focused on the economic geography of urban infrastructure investment and governance – a comparison of Beijing and London. As an economic geographer, he is interested in infrastructure investment, governance, urban development, institutional investors, climate change and sustainable development. He is a member of the Association of American Geographers (AAG) and the Royal Geographical Society (with the Institute of British Geographers). He co-organised the special session on ‘Geographies of Urban Infrastructure’ at the AAG 2014 Annual Meeting in Tampa, and gave a presentation at the International Symposium for Next Generation Infrastructure in Vienna in 2014. He once worked in China Development Bank, the largest national infrastructure bank in China with RMB8.19 trillion (USD 1.36 trillion) assets under management. Currently Yin is working with his colleagues to establish the Oxford University International Infrastructure Consortium (OXIIC), which aims to provide a platform to facilitate the exchange of information and knowledge on infrastructure worldwide.

Xi Hu
Xi (Sisi) is a doctoral student at the Environmental Change Institute (ECI) and the Senior Wai Seng Scholar at the Asian Studies Centre, University of Oxford. Her research focuses on understanding the infrastructure development process in China, how the Chinese infrastructure system is vulnerable to climate change impacts such as flooding and droughts and what the adaptation implications are for policy makers. During her PhD, she has consulted for the Latin American Energy Organisation; worked as an energy modeller for the UK Infrastructure Transitions Research Consortium; interned as a climate adaptation researcher with the Chinese National Development and Reform Commission; and facilitated dialogues between Oxford and government agencies such as the Chinese Ministry of Water Resources. Her research has been presented at numerous conferences relating to infrastructure, including the International Symposium for Next Generation Infrastructure and the Second International Conference on Vulnerability and Risk Analysis and Management. Before joining Oxford, Xi conducted policy research at the Chinese Ministry of the Environment and Ministry of Land and Resources on both domestic and global levels. She also worked at the International Finance Corporation (IFC) on Sino-African relations, UK-India Business council on corporate social responsibility, and as an analyst at Legal & General on investing in China. Xi holds a BSc in Environmental Policy with Economics and an MSc in Environmental Economics and Climate Change from the London School of Economics.
Michael Jonathan Dangerfield
Michael is a doctoral student at the University of Oxford and a fellow of the Royal Geographical Society. As a legal and political geographer, his research focuses on the impact of resource extraction and infrastructure development on governance, labour market regulation, and indigenous rights. His doctoral thesis, under the supervision of Dr. Richard Powell, examines Arctic development in the context of Greenland’s emergence as a resource frontier and the impact of foreign direct investment on the island’s evolving political ecology and labour market. During his PhD he has helped to formulate and articulate British Arctic policy by participating in the British government delegation to the 2014 Arctic Circle Assembly led by James Grey MP and by submitting evidence to the 2015 House of Lords Arctic Committee Report chaired by Lord Teverson. Michael is a contributor to Oxford Analytica (OA) on matters relating to Arctic politics and policy. In addition to his role as a Director of the Oxford University International Infrastructure Consortium (OXIIC) Michael is a steering committee and founding member of the Oxford University Polar Forum (OUPF). Prior to embarking on his doctorate, he was an external collaborator with the United Nation’s International Labour Organization (ILO) and specifically the Employment Trends (EMP/TRENDS) Team. Over a period of seven years’, he worked on development of the Global Employment Trends (GETs), the Key Indicators of the Labour Market (KILM) and more broadly the measurement of the Millennium and later, Sustainable Development Goals (M/SDGs) employment indicator targets. Michael holds an MSc in Environmental Technology from Imperial College London, a MA in Land Economy from the University of Cambridge and a postgraduate certificate in Nanotechnology and applied quantum physics from the University of Oxford.

Xuanyi Sheng
Xuanyi is a doctoral student at the Smith School of Enterprise and the Environment, University of Oxford. Her current research focuses on understanding the governance of the public-private partnerships (PPPs) which bring together shareholders and stakeholders of large and complex infrastructure projects. Her key areas of research include global infrastructure investment and governance, cross-border commerce and trade. Prior to her PhD, Xuanyi conducted research on municipal sustainable environmental and energy management strategies at the World Resources Institute (WRI) while also looking at carbon capture, utilization and storage in China with the French “CO2 Chair” and ‘Air Liquide’. She has also worked as an external consultant on integrated urban planning and environmental industry development policy-making for Chinese National Development and the Reform Commission at both provincial and municipal levels. Before joining the University of Oxford, Xuanyi graduated from the School of Environment at Tsinghua University with a MEng in environmental engineering. She also holds an advanced masters degree in international environmental management from MINES ParisTech.
Annex IV. Conference Partners

Host Partners

The Smith School of Enterprise and the Environment, University of Oxford

The Smith School of Enterprise and the Environment, University of Oxford, is a leading interdisciplinary academic hub focused upon teaching, research and engagement with enterprise on climate change and long-term environmental sustainability. It works with social enterprises, corporations and governments and seeks to encourage innovative solutions to the apparent challenges facing humanity over the coming decades. Its strengths lie in environmental economics and policy, enterprise management and financial markets and investment.

The Environmental Change Institute, University of Oxford

The Environmental Change Institute, University of Oxford, was established in 1991 ‘to organize and promote interdisciplinary research on the nature, causes and impact of environmental change and to contribute to the development of management strategies for coping with future environmental change’. Over the last 25 years it has developed an international track record for research in climate, ecosystems and energy and a growing expertise in the fields of food and water. It responds to the challenges in these areas through an interdisciplinary and integrated programme of understanding processes of change, exploring sustainable solutions and influencing change through education and partnership.

The UK Infrastructure Transitions Research Consortium (ITRC)

The UK Infrastructure Transitions Research Consortium (ITRC) is developing a new generation of infrastructure system simulation models and tools to inform the analysis, planning and design of National Infrastructure (NI). Working with partners in government and industry, their research examines energy, transport, water, waste and information and communication technologies (ICT) systems at a national scale to:

- develop new methods for analysing performance, risks and interdependencies
- provide a virtual environment in which to test strategies for long-term investment
- understand how alternative strategies perform under constraints such as reliability and security of supply, cost, carbon emissions, and adaptability to demographic and climate change
- develop risk analysis models to test infrastructure systems’ ability to withstand extreme weather shock events, and so inform long-term risk assessment and adaptation planning
Premium Sponsorship Partner

Hunan Xuanyuan Cultural Relics Preservation Co., Ltd. 湖南轩辕文物保护有限公司

Hunan Xuanyuan Cultural Relics Preservation Co., Ltd. is a high-tech enterprise located in Changsha, the capital of Hunan province in central China. Xuanyuan conducts business in the restoration, preservation, maintenance and display of cultural heritages and relics of various origins, materials and textures, including ancient cultural monuments, sites, tombs and buildings; recent buildings with cultural significance; cultural relics of stone, pottery and other earthenware; frescoes and other mural paintings. The company has been awarded qualification certificates for all the aforementioned types of heritages and relics by State Administration of Cultural Heritage of China. At present, Xuanyuan is the most comprehensive and technically advanced company in cultural heritage related business in Hunan.

Associate Sponsorship Partners

Shanghai Pudong Development Bank Co., Ltd. 上海浦东发展银行

Headquartered in Shanghai, Shanghai Pudong Development Bank Co., Ltd. (“SPD Bank”) is a joint-stock commercial bank with a nationwide presence founded with the approval of the People’s Bank of China on August 28, 1992, opened for business on January 9, 1993 and listed on the Shanghai Stock Exchange on November 10, 1999. As of the end of 2015, the registered capital of SPD Bank reached £1.94 billion. The Bank accelerated its operation process across different sectors and markets over recent years, with the opening of a Hong Kong Branch and the establishment of a London Representative Office. SPD Bank ranked 296th among the global Fortune 500 enterprises published by Fortune magazine in 2015, held 35th place in terms of core capital on the Top 1000 World Banks list published by the British magazine The Banker in 2015, and 57th place on the Forbes Global 2000 list published by Forbes in 2016.

Atkins Acuity

Acuity is the new advisory business from the Atkins Group. It helps to successfully deliver its clients’ ambitions in infrastructure and energy, worldwide. Combining deep business acumen with the engineering expertise of Atkins, it offers seamless, end-to-end advisory services that build higher value, more rewarding partnerships.
Supporting Partners

**China-Britain Business Council (CBBC)**

The China-Britain Business Council (CBBC) helps British and Chinese businesses and organisations to work together in China, the UK and third markets around the world. With 60 years of experience, experts in 11 UK offices and 15 Chinese locations, and a diverse 1,000-strong membership, it operates alongside the British Chamber of Commerce in China to support companies of all sizes and sectors from multinationals to SMEs. As the partner of choice for British companies working with China, CBBC delivers a range of events, tailored research and consultative services. It cooperates closely with UK Trade & Investment, The Foreign & Commonwealth Office and across government to highlight export opportunities for UK companies and investment opportunities for Chinese organisations.

**Oxford Chinese Students and Scholars Association (OXCSSA)**

Oxford Chinese Students and Scholars Association (OXCSSA), founded in 1986 under the direction of the Education Section of the Embassy of the People’s Republic of China in the United Kingdom of Great Britain and Northern Ireland, is a charitable, voluntary, service, non-political, non-religious and non-profit student organization. OXCSSA serves all Chinese students and scholars in the Oxford area, including the University of Oxford, Oxford Brookes University and other academic and research institutions. With more than three thousand general members and a committee of one hundred and thirty-eight board members, OXCSSA is one of the biggest Chinese organizations in the Oxford area.

**Tsinghua Alumni Association in UK（THAA-UK）**

Tsinghua Alumni Association in UK (THAA-UK) was initiated by the Tsinghua Alumni nationwide in the UK. It aims at strengthening the network and cooperation among alumni. Tsinghua alumni in the UK have also made remarkable achievements, which have created favourable conditions for alumni career development in the UK and worldwide. THAA-UK has branches in London, Cambridge, Manchester and other major cities in the UK.