

EDHECinfra Days 2018 6 & 7 June 2018 London

Building benchmarks for infrastructure investors

### Welcome

Until now infrastructure investors have been without a standard reference for infrastructure investment performance.

Private infrastructure is notoriously opaque and investors have faced many challenges resulting in a largely inefficient investment process.

Asset owners, asset managers and regulators need private infrastructure benchmarks to determine their asset allocation to infrastructure, monitor risk-adjusted performance and calibrate prudential models. EDHECinfra is building the largest, most representative database of underlying infrastructure investments in the world.

We are delighted to welcome you to EDHECinfra Days to learn more about these first-of-a-kind indices.

Sarah Tame, Associate Director, EDHECinfra



## Day 1: 6 June (pre-conference day)

### Annual Meeting of the EDHECinfra **International Advisory Board**

- The 30-strong advisory board of the EDHEC infrastructure institute will meet to discuss current and future research directions and the future developments of EDHECinfra broad market indices, sub-indices and custom benchmarks
- Location: Royal Institute of British Architects (66 Portland Place, Marylebone, London W1B 1NT)
- By invitation only

### Masterclass on infrastructure debt investment: advanced techniques for asset owners and managers

- 3-hour seminar on modelling credit risk and valuation in the private infrastructure debt space
- Taught by two EDHEC instructors in an accessible and practical manner
- With the support of Natixis
- Location: Natixis London (Cannon Bridge House 25 Dowgate

# **Day 2:** 7 June

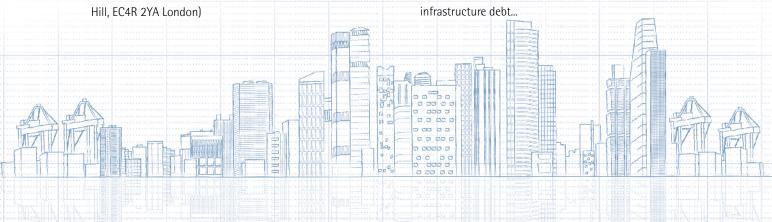
#### EDHECinfra Day 2018 Public Conference

#### part 1: Infrastructure Equity

- Introducing the first broad market indices of private infrastructure equity investment: 20 years of risk-adjusted performance for infrastructure investors
- The future of infrastructure investment products: better diversification, more transparency and industry consolidation
- The valuation of private infrastructure equity: the coming (r)evolution of in asset pricing for long-term investors
- Is listed infrastructure equity `fake infra'?

#### Part 2: Infrastructure Debt

- Two decades of private infrastructure debt investment: the evidence
- The future of infrastructure debt products
- Measuring credit risk in infrastructure debt: doing it right
- What happened in Spain? How to lose a lot of money with



# Day 1: EDHECinfra Days (London, 6 & 7 June 2018)

Start	End	Title	Speakers	Location
09:00	12:00	<b>Private meeting</b> of the EDHEC <i>infra</i> International Advisory Board	Frederic Blanc-Brude, Director, EDHECinfra Majid Hasan, Senior Research Engineer, EDHECinfra Oi Wang, Senior Research Engineer, EDHECinfra	RIBA
12:00	13:00	Private lunch		RIBA
13:30	14:00	Registration		
14:00	15:15	Masterclass part 1 Nature of credit risk in private infrastructure debt  • The nature of infrastructure project debt instruments: from concrete to contracts  • A cash-flow driven credit risk model  • Better measures of credit risk, 20 years of data and unbiased measures of PD and distance to default	Frederic Blanc-Brude, Director, EDHEC <i>infra</i> <b>Majid Hasan,</b> Senior Research Engineer, EDHEC <i>infra</i>	Natixis UK Cambridge House, London
15:15	15:45	Coffee break		
15:45	17:00	Masterclass part 2 Performance measurement of private infrastructure debt investments  • A structural model of private project finance debt  • Embedded options in infrastructure debt  • The term structure of risk and cash flow discounting in infrastructure projects	Frederic Blanc-Brude, Director, EDHEC <i>infra</i> Majid Hasan, Senior Research Engineer, EDHEC <i>infra</i>	Natixis UK Cambridge House, London

### Price:

£599 VAT incl. (Early bird discount £499 until March 1)
Masterclass & EDHECinfra Day Conference: £649
To register: https://www.regonline.com/edhecinfraday





# Day 2: EDHECinfra Days (7 June 2018, The Grange Tower Bridge)

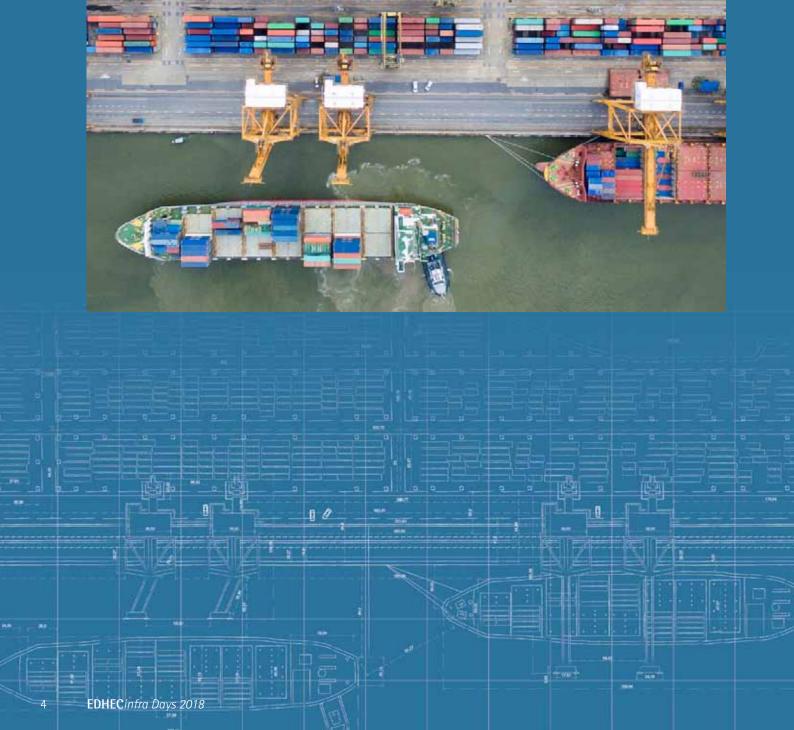
### **Building Benchmarks for Infrastructure Investors**

EDHEC*infra* Day 2018 is the first event to bring together advanced quantitative techniques to the world of private, illiquid infrastructure investment.

The EDHEC Infrastructure Institute has created the largest database of infrastructure investment data in the world, covering dozens of countries, hundreds of firms and thousands of private debt instruments.

Thanks to this unique access to data, advanced approaches to modelling risk and valuing private assets are possible. EDHEC*infra* Day 2018 is the opportunity to discover an ambitious project which will revolutionise the way infrastructure investment is understood, packaged and executed for asset owners and asset managers alike.

The event will introduce EDHEC*infra*'s broad market benchmarks of private infrastructure debt and equity investments, discuss the future of the infrastructure product offering with high-level industry panellists and present the fundamental building blocks of the asset pricing and risk modelling techniques used to create the EDHEC*infra* benchmarks.



# Day 2: EDHECinfra Days (7 June 2018)

Start	End	Туре	Title	Speaker
08:30	09:00		Registration	
09:00	09:15	Introduction	A word of welcome: Infrastructure Investment for Small Pension Funds	Frederic Blanc-Brude, Director, EDHEC <i>infra</i> Mark Fawcett, CIO, NEST

### Part 1 – Morning Sessions: Unlisted Infrastructure Equity

Start	End	Туре	Title	Moderator	Panelists
09:15	10:15	Plenary Panel Session	Do we now have an infrastructure asset class?  The risk-adjusted returns of unlisted infrastructure  Do we need a definition of infrastructure investments?  Is sufficient portfolio diversification possible?	<b>Brendan Malkin,</b> Editor, <i>Inframation</i>	Frederic Blanc-Brude, Director, EDHECinfra Paul Shantic, Director, Inflation Sensitive, CaISTRS Tomas Walter, Senior Expert Solvency II, EIOPA Eugene Zhushenko, Executive Director, LTIIA
10:15	10:45	Coffee break			

Start	End	Туре	Title	Speaker
10:45	11:30	Track Session A	<ul> <li>A1. Private asset valuations: A paradigm shift</li> <li>What is wrong with the standard valuation and performance reporting approach?</li> <li>A better approach: discount rates that reflect risk and market prices</li> <li>Applications to concrete examples</li> </ul>	Frederic Blanc-Brude, Director, EDHEC <i>infra</i> Majid Hasan, Senior Research Engineer, EDHEC <i>infra</i>
10:45	11:30	Track Session A	<ul> <li>A2. Listed infrastructure: is it just a fake?</li> <li>The asset class characteristics of listed infrastructure</li> <li>The actual performance and risks of listed infrastructure products</li> <li>Exceptions and how to better define infrastructure investments</li> </ul>	Christy Tran, Data Analyst EDHECinfra Tim Whittaker, Associate Research Director, EDHECinfra
11:30	12:15	Track Session B	B1. A broad market benchmark of unlisted infrastructure equity  Introduction by Eugene Zhuchenko, Executive Director, LTIIA  • Universe and index constituent selection • Risk-adjusted performance of unlisted infrastructure equity • Subsegments and driver of performance	Sharyn Chang, Senior Analyst, EDHEC <i>infra</i> Christy Tran, Data Analyst EDHEC <i>infra</i>
11:30	12:15	Track Session B	B2. Infrastructure investor preferences survey Introduction by Brer Adams, Senior Director, Global Infrastructure Hub  Latest survey of infrastructure investor intentions and views with the Global Infrastructure Hub (G20)  Revealing pricing preferences through contingent valuation surveys  Investor views of national infrastructure plans	Tim Whittaker, Associate Research Director, EDHECinfra Jing-Li Yim, Research Analyst, EDHECinfra
12:15	14:00		Lunch	

# Day 2: EDHECinfra Days (7 June 2018)

Part 2 – Afternoon Sessions: Private Infrastructure Debt

Start	End	Туре	Title	Moderator	Panelists
14:00	15:00	Plenary Panel Session	What is the future of infrastructure debt products?  • How has private infrastructure d ebt performed since 2000?  • Spread pickup and interest rate raises  • The return of project finance CDOs	<b>Liam Kennedy,</b> Editor, <i>IPE</i>	Annette Bannister, Director, Infrastructure & Project Finance, Met Life Frederic Blanc-Brude, Director, EDHECinfra Anne Christine Champion, Global Head of Portfolio Management, Natixis David Cooper, Regional Head of EMEA, Debt Investments, IFM Investors
15:00	15:30		Coffee break		

Start	End	Туре	Title	Speaker
15:30	16:15	Track Session C	C1. Measuring credit risk in infrastructure project debt: doing it properly Issues with the credit risk metrics used by rating agencies and investors today A structural model of credit risk for infrastructure debt A dynamic approach to measuring expected default frequencies at the individual project level	<b>Qi Wang,</b> Senior Research Engineer, EDHEC <i>infra</i>
15:30	16:15	Track Session C	C2. What happened in Spain? How to lose a lot of money with infrastructure debt  • A brief history of the collapse of the Spanish toll road sector • Debt restructuring and bargaining power • Public-private bargaining and 'the war of attrition' model	Frederic Blanc-Brude, Director, EDHECinfra Silvia Garcia, Senior Research Analyst, EDHECinfra
16:15	17:00	Track Session D	D1. The risk-adjusted performance of private infrastructure debt: 20 years of evidence Introduction by Anne-Christine Champion, Natixis  • Universe and constituent selection  • Risk-adjusted performance by broad segment  • Projects vs. corporate infrastructure debt, is it the same asset class?	Silvia Garcia, Senior Research Analyst, EDHEC <i>infra</i> Jing-Li Yim, Research Analyst, <i>EDHECinfra</i>
16:15	17:00	Track Session D	D2. Sponsored Track Session	







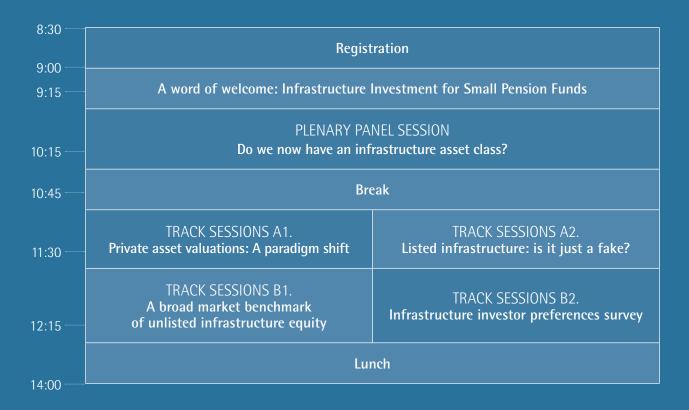






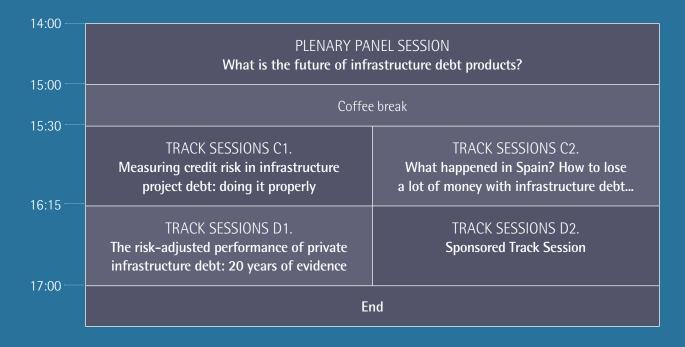
# Part 1 - Morning - Private Infrastructure Equity

#### **SYNOPSIS**



# Part 2 - Afternoon - Private Infrastructure Debt

#### **SYNOPSIS**



## About EDHECinfra

EDHEC Infrastructure Institute is an independent research organisation delivering unrivalled indices and research on the risk-adjusted performance of infrastructure investments. Our indices help investors answer a vital question: What is the risk-adjusted performance of private infrastructure debt or equity?

EDHEC*infra* is building the largest, most representative database of underlying infrastructure investments in the world. By 2020, the EDHEC*infra* Global 1000 Unlisted Infrastructure Index will track most major markets.

Born out of the EDHEC-Risk Institute in 2015, EDHEC*infra* was created with the support of the industry and the public sector, including the G20 and the World Bank, to address the profound knowledge gap faced by infrastructure investors.

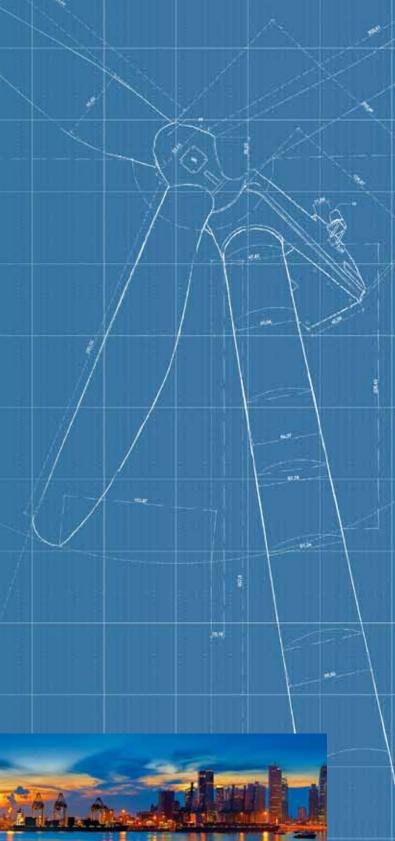
We collect, clean and analyse private infrastructure investment data and input it into EDHEC*infra*'s unique database of infrastructure equity and debt investments and cash flows. We also develop data collection and reporting standards that can be used to make data collection more efficient and reporting more transparent.

Using this extensive and growing database we model the cash flow and discount rate dynamics of private infrastructure equity and debt investments. EDHEC*infra* derives a series of risk and performance measures that can actually help answer the questions that matter for investors.

Using the performance results from our asset pricing and risk models, we can report the portfolio-level performance of groups of infrastructure equity or debt investments using categorisations (e.g. greenfield vs brownfield) that are most relevant for investors' investment decisions. The EDHEC*infra* database and asset pricing technology compute the metrics that investors and regulators need to understand private infrastructure in a multi-asset class context.

Private infrastructure investment indices are needed by asset owners, asset managers and regulators to determine their asset allocation to infrastructure, monitor risk-adjusted performance and calibrate prudential models. EDHEC*infra's* eight broad market indices provide global coverage of unlisted infrastructure equity and private debt markets.

EDHEC*infra* index and analytics data is available through an online platform at **indices.edhecinfra.com** or through Bloomberg (EIPEE, EIPDE).



# About the EDHECinfra Advisory Board

EDHEC*infra* was created to address the profound knowledge gap faced by infrastructure investors. In its endeavour, EDHEC*infra* is supported by an International Advisory Board of major infrastructure asset owners and managers that help steer research directions and provide guidance with respect to potential industrial applications. This Advisory Board includes:

#### Asset management sector **Public sector** Academics Mark Konyn (CIO, AIA) Taik Him Chua (CEO, Enterprise Noël Amenc (professor, EDHEC) Adriaan Ryder (CIO, Abu Dhabi Robert Bianchi (professor, Griffith Singapore) Investment Council) Chris Heathcote (CEO, Global Anne-Christine Champion (Global Head Antonio Estache (professor, Université Infrastructure Hub/G20) of Portfolio Management, Natixis) Libre de Bruxelles) Andre Laboul (Deputy Director, OECD) Jordan Schwartz (Director, World Bank Thierry Déau (CEO, Meridiam) Stefano Gatti (professor, Bocconi lan Berry (Head of Infrastructure, Aviva) University) Group). Dave Brochet (Head of Infrastructure, Timo Välilä (visiting professor, UCL) CDPQ) Paul Shanti (Director, CalSTRS) Tomas Franzen (CIO, PA2) John Campbell (Chairman, Campbell Lutyens) Richard Desai (CRO, Clifford Capital) Paul Carrett (CIO, FWD) Chia Tai Tee (CRO, GIC) Away Shawney (CEO, Kernmantle Advisor) Mark Wang (CIO, NTUC Income) Tony Adams (Head of Infrastructure, Eastspring) James Davies (CIO, Optrust) Brad Holzberger (CIO, QSuper) Sancho Chan (CIO, Sun Life) Christoph Mansor (Head of Infrastructure, Swiss Life) Supporters of EDHECinfra EDHECinfra is grateful to its supporters and data contributors including:

the Monetary Authority of Singapore, Natixis, Meridiam, Campbell Lutyens, the members of the Long-term Infrastructure Investors Association including Allianz Global Investors, Argo Infrastructure, Arjun Infrastructure Partners, Arpinge, British Colombia Investment Management Corporation, CALSTRS, Dalmore Capital, the Development Bank of Japan, the European Bank for Reconstruction and Development, the European Investment Bank, First State Investments, The Government Pension Investment Fund of Japan, InfraRed, InfraVia, John Hancock,

Legal & General Investment Managers, Laborers' International Unions of North America, MACIF, Marguerite, Ontario Municipal Employees Retirement System, Palladio Partners, REST Industry Super, Skandia, SunSuper, SWEN, the City of New York Office of the Comptroller, TIIA, tpt Retirement Solutions, members of the Long-Term Investment Club including BNDES, Caisse des Dépots, CAIXA, China Development Bank, Caisse des Dépots et Placement du Quebec, Cassa Depositi e Prestiti, IDFC, JBIC, Kreditanstalt fur Wiederaufbau, Vnesheconom Bank.

## Conference fees

Early bird rate delegate fee until 1 March 2018 - £150

### Standard rate delegate fee - £195

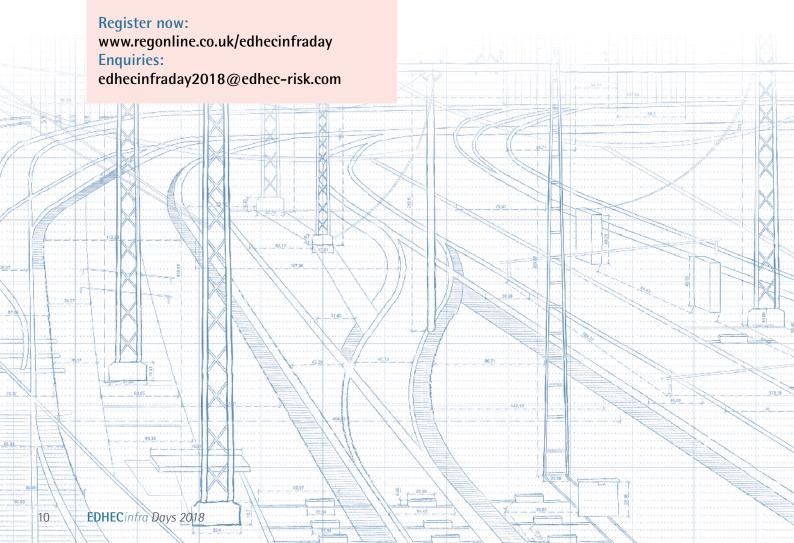
**Investor rate:** Pension schemes, charities, endowments, foundations, insurance companies (third party asset management excluded), single family offices and financial executives from non-financial companies should contact: **edhecinfraday2018@edhec-risk.com** to receive a complimentary link for their registrations.

The registration fee includes a buffet lunch, refreshments and full conference documentation. Delegates may be refused admission if payment is not received prior to the conference.

#### **Cancellation Policy**

Given the moderate conference fee, we do not accept cancellations; invoiced sums will remain payable in full. If a registered delegate is unable to attend, a substitute delegate from the same organisation is welcome at no extra charge. Conference documentation designed by EDHEC*infra* will be made available online to all delegates. EDHEC*infra* reserves the right to alter the programme without notice.





# **Partners:**

### **Sponsors:**







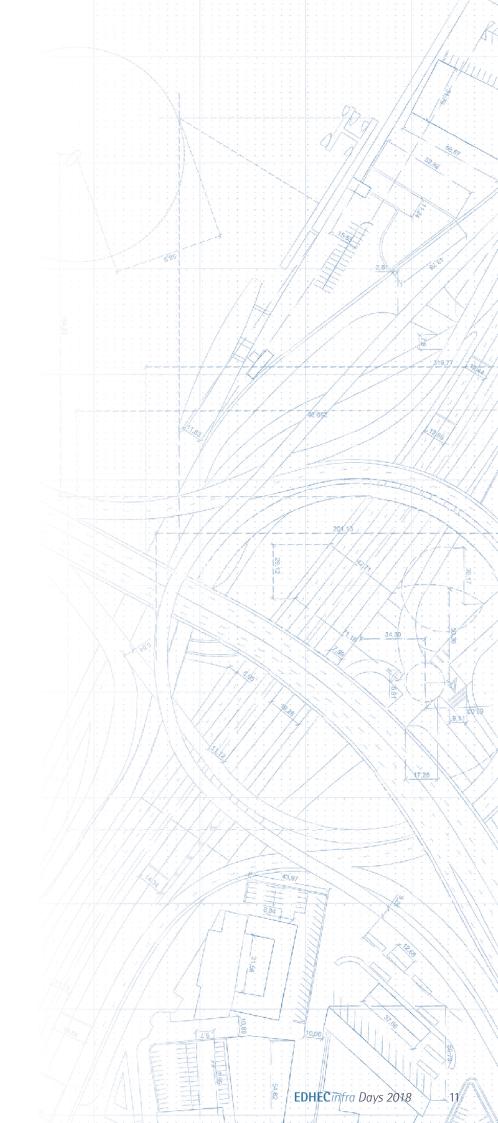


### Media Partners:









EDHEC*infra* was created to address the profound knowledge gap faced by infrastructure investors by collecting and standardising private investment and cash flow data and running state-of-the-art asset pricing and risk models to create the performance benchmarks that are needed for asset allocation, prudential regulation and the design of infrastructure investment solutions.



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