

# Masterclass on Infrastructure Investment

## Advanced techniques for asset owners and managers

Executive Infrastructure Investment Masterclass  
EDHEC Infrastructure Institute-Singapore  
Frankfurt Stock Exchange, 19<sup>th</sup> October 2016

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**EDHEC***infra*  
Infrastructure Institute-Singapore



Long-term  
Infrastructure  
Investors  
Association





## Introduction

> Institutional investment in infrastructure assets is related to a broader trend to improve portfolio diversification through alternative investments. This trend involves investing increasingly outside of capital markets, finding sufficiently long-dated instruments with a more attractive performance than government bonds, and investing in inflation-linked securities other than Treasury Inflation Protected Securities (TIPS). One of the most salient features of these emerging investment choices is the decision to buy assets that are infrequently traded and to hold them until maturity.

The decision to invest in private, illiquid infrastructure assets creates numerous issues of valuation and risk measurement, which highlight the difficulty to integrate such assets into a total portfolio approach, be it designed by asset classes or risk factor exposures.

This masterclass provides participants with a detailed view of the latest academic research and empirical results in the subject.

Its two instructors, Dr Frédéric Blanc-Brude (EDHEC*infra* Director) and Dr Majid Hasan (Head of Asset Pricing) have led the infrastructure investment research program at EDHEC since 2012 and are in charge of the work of the "Infrastructure Equity Benchmarking" Research Chair endowed by the Long-Term Infrastructure Investors Association.

## Benchmarking the performance of highly illiquid private assets: the case of infrastructure equity and debt

> The aim of this masterclass is to provide participants with an in-depth understanding of the nature of infrastructure investments and how they might be integrated into an investment strategy or product that is designed to help long-term investors meet their investment goals.

It reviews existing evidence of risk pricing in infrastructure investments but also proposes robust cash flow modelling and valuation approaches that are better adapted to the nature of such assets and their characteristics including their dynamic risk profile, the absence of unique price measures, or the existence of embedded options in certain types of instruments used in infrastructure project finance.

The masterclass is presented in a highly accessible manner and strikes a balance between the exploration of new valuation approaches and an analysis of practical applications and contains integrative case studies providing step-by-step implementation examples.

Lecture notes and reading material are provided to participants.



## Agenda

### Part I: Identifying a unique infrastructure asset class

- > The Nature of Infrastructure Investment: from concrete to contracts
- > Business models and business cycles of infrastructure and non-infrastructure firms

### Part II: Performance measurement of private infrastructure equity investments

- > Going beyond the standard framework for the valuation of private assets
- > An introduction to advanced cash flow discounting using term structure models

## Masterclass Instructors



Frédéric Blanc-Brude is the Director of EDHEC*infra*. He teaches the infrastructure investment course in the EDHEC/Yale program on alternative investments and represents EDHEC on the Advisory Council of the World Bank's Global Infrastructure Facility (GIF).



Majid Hasan is Head of Asset Pricing at EDHEC Infrastructure Institute. His research interests include asset pricing in imperfect markets, and designing solutions to channel private capital towards public infrastructure.

Their latest book on infrastructure asset valuation was published in March 2015.





## Schedule

9:00am - 10.30am: Identifying a unique infrastructure asset class

10:30am - 11:00am: Break

11:00am - 12:30pm: Performance measurement of private infrastructure equity investments

## Venue

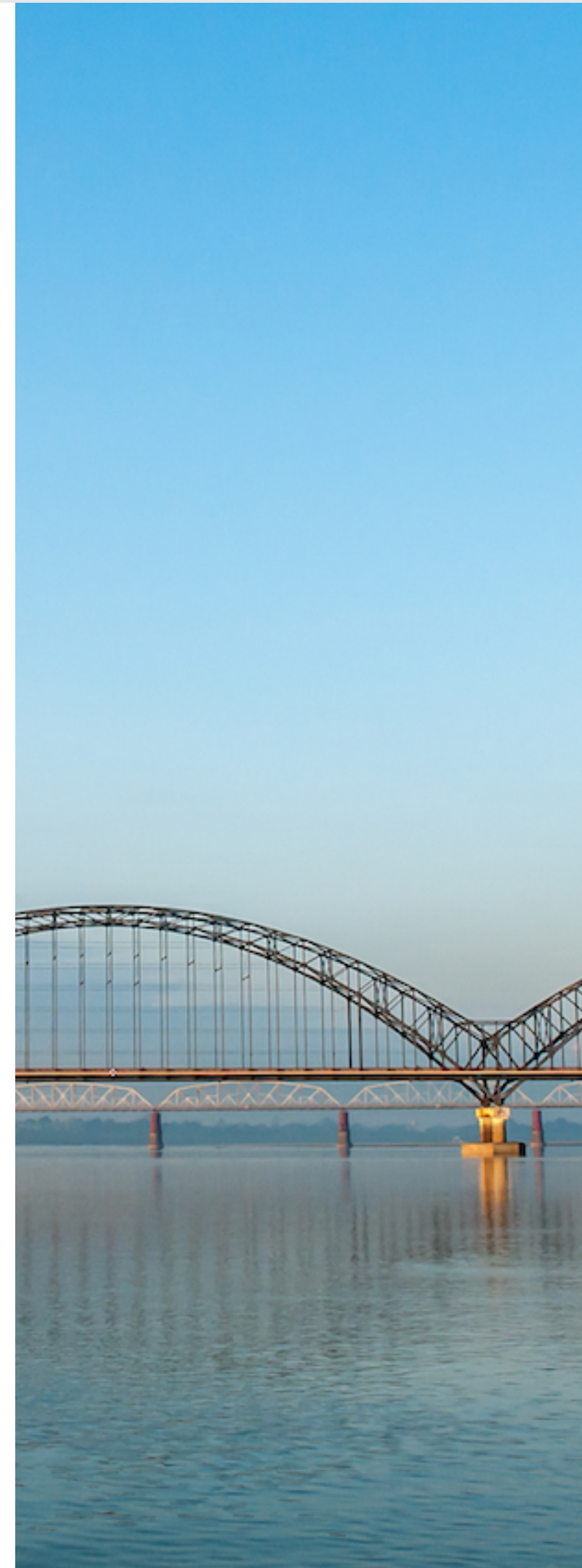
**IHK - Frankfurt Stock Exchange**

Börsenplatz 4, 60313 Frankfurt am Main, Germany

## Further Information and Registration

For further information, contact

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## About the Long Term Infrastructure Investors Association (LTIIA)

Founded in 2014, LTIIA gathers investors that collectively manage in excess of 5 trillion dollars of assets and that include some of the most active investors globally in the field of long term investment in infrastructure. The Association's three key priorities at the core of its action:

- (i) proactive engagement with public stakeholders to support attractive investment frameworks,
- (ii) development of financial performance benchmarks, and
- (iii) definition and sharing of best practices in relation to Environmental, Social and Governance issues.

See [www.ltiia.org](http://www.ltiia.org) for more information.

**EDHEC Business School**, founded in 1906 and among the select few institutions to have garnered international recognition through the triple crown of EQUIS, AACSB and Association of MBAs accreditations, offers management education at undergraduate, graduate, post-graduate and executive levels designed to meet the needs of companies. Its large range of international graduate programmes draws students from the world over. With its five campuses in Lille, Nice, Paris, London and Singapore, its 6,000 students, and its 134 full-time faculty and researchers, EDHEC has been ranked among the top international business schools for several years.

The Research for Business strategy is a key component of the school's identity. Due to its not-for-profit aim, its financial independence and the time devoted to conducting research, the Research and Development Department contributes, as do other entities within the school, to the group's strategic objectives of growing our resources, aiming to have a visible impact on business, and forging close ties with business wherever they may be located.

The **EDHEC Infrastructure Institute-Singapore** (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.

We collect, clean and analyse the private infrastructure investment data of the project's data contributors as well as from other sources, 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. This database already covers 15 years of data and hundreds of investments and, as such, is already the largest dedicated database of infrastructure investment information available.

Using this extensive and growing database, we implement and continue to develop the technology developed at EDHEC to model the cash flow and discount rate dynamics of private infrastructure equity and debt investments and derive a series of risk and performance measures that can actually help answer the questions that matter for investors.

With 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.

