



Yale SCHOOL OF  
MANAGEMENT  
*Executive Education*



**EDHEC-RISK**  
Institute

Yale School of Management – EDHEC-Risk Institute  
Harvesting Risk Premia in Alternative Classes  
and Investment Strategies

February 5-7, 2018, Yale Campus (New Haven, CT) - USA

# Yale SOM – EDHEC-Risk Institute Harvesting Risk Premia in Alternative Classes and Investment Strategies



## Seminar Description

Investors are increasingly turning to alternative investments to find new ways of increasing the performance and decreasing the risk of their portfolio, in a context where the benefits of diversification within traditional equity and bond portfolios have decreased. Broadly speaking, this seminar shows how to deal with non-Gaussian returns, illiquid assets, and flawed data. It also presents qualitative and quantitative techniques to control asset-class exposures, and manage liquidity, valuation and counterparty risks for portfolio-wide decisions involving alternatives

## Seminar Key Learning Objectives

- > Explore the efficacy of an alternatives-based portfolio
- > Analyse various alternative investment vehicles including real estate, private equity, hedge funds, infrastructure and commodities
- > Discuss the celebrated Yale model
- > Understand underlying infrastructure assets and learn about the existing track record of listed and unlisted infrastructure investments solutions
- > Learn about applicable pricing and risk models for infrastructure project debt and equity investments
- > Explore the major global trends in commodities trading, production, and demand around the world
- > Understand the fundamental interconnection between spot and futures markets
- > Investigate investable commodity indices, the effects of the financialisation of commodity markets, and the influence of speculative capital in the markets

# Detailed Outline

## Day 1 – Professor Will N.Goetzmann Alternative Assets

The day will focus on current research into alternative asset classes, including private equity, hedge funds, real estate and fine art. We will use Yale's Brandeis Rose Endowment case as a basis for exploring the efficacy of an alternatives-based portfolio. We will use the EOP/Blackstone case as the basis for exploring real estate investing in the public vs. the private equity setting.

### Morning sessions

#### **The Yale Model**

- > Come prepared for a discussion of the Yale Model.
- > What is the philosophical foundation of the Yale strategy?
- > Is it replicable, saleable, and applicable to other institutional forms?
- > What are the risks of the Yale Model?
- > What is Yale's reported historical returns to private equity investing?

The Yale Model of investing in alternative asset classes is an exemplar for institutional investors moving into illiquid, actively managed assets. In the opening session, we review the philosophy of the Yale model and how it has fared through the development and maturation of the private equity industry, the emergence of new asset classes, the 2008 financial crisis and the boom in public markets. Is the model still valid? If so, is it a fit for a broad range of managers? What is the alternative to alternatives?

#### **Private Equity**

How does private equity add value and to whom does it add value? How should PE returns and risk be measured? What does PE add to an investment portfolio? How does it serve the investor's mission? How do PE returns evolve through time? This session will use recent empirical research into private equity returns to explore these fundamental questions.

#### **Real Estate**

Blackstone acquired the largest public portfolio of U.S. office properties when it made a successful tender offer of \$36 billion in 2006 for Equity Office Properties. The case illuminates all of the fundamental principles of property investing. Class discussion will focus on the nature of commercial property investing, its macroeconomic exposure and its role in an investment portfolio. The case contrasts public vs. private property investment in a discourse that is useful for institutional investors.

### Afternoon sessions

#### **Hedge Funds**

What is the value proposition of hedge funds? What role do they play in the markets and do they deliver alpha to investors? In this section we explore hedge funds from the perspective of their role in capital markets and address the question of whether this role is sustainable in a changing institutional ecology. Research by the instructor and others will be presented and discussed.

#### **Art and Collectibles**

Extraordinary auction prices for art have raised to possibility for institutional investors that collectibles may be a way to invest in macroeconomic trends, hedge inflation and capture "venture-like" returns. In this section, the instructor presents current research about the drivers of the return to art and collectibles, discusses the emerging markets for art in Asia and the question of whether art really is a viable portfolio asset.

#### **Brandeis Rose Art Museum Case**

Set in the context of the financial crisis, this case focuses on a \$700 million university endowment caught in the liquidity shock of 2008 with an alternative assets portfolio and a museum full of valuable art. It combines all

of the elements of the day, addressing the benefits and risks of the Yale Model, the administrative challenge of maintaining the model during a crisis, the issue of art as an investment and the potential to monetize cultural assets. Is Brandeis' alternative asset portfolio appropriate for an institutional investor? Should art be treated as an asset? Is so, what does it contribute to the portfolio?

## Concluding remarks

## Day 2 – Professor K. Geert Rouwenhorst Commodity Investing

Commodities are a relatively young asset class that is not widely understood by investors and asset allocators. Commodities have unique attributes and factor exposures that can be attractive when building diversified portfolios. The investment case for commodities requires understanding of the drivers of the risk premium in futures markets and their relation to scarcity and disruptions in physical markets. In addition to the theoretical foundations, this course will examine the empirical evidence on risk and return in commodity markets. This will include the perspective of a variety of market participants including investors, hedgers, and asset managers such as CTAs. Throughout the class we will illustrate how the insights from research have been implemented in the design of commodity benchmarks and the products offered in the market.

All sections will be co-taught by: K. Geert Rouwenhorst, *Yale University*, and Matthew C. Schwab, *Goldman Sachs Asset Management*

### Morning session

#### **The Investment Case for Commodities**

The morning session is designed to provide an overview of commodities markets around the world: what are the major trends in trading, production, and demand around the world? Next is an analysis of historical price trends over various economic cycles, and inflationary versus deflationary episodes over the past 200 years. We discuss the key differences between spot and futures markets and develop the basic theory behind drivers of return in commodity futures markets followed by a discussion of empirical studies to illustrate how commodities fit into a portfolio of traditional assets. The session will include an overview of investable commodity indices, the effects of financialization of commodity markets, and the influence of speculative capital in the markets. How should an investor construct an expected return forecast for commodities as an asset class.

### Afternoon session

#### **The Fundamentals of Commodities Markets**

The afternoon session will start with the fundamental interconnection between spot and futures markets, followed by a discussion of contango, backwardation, and the convenience yield and how the shape of the futures curve conveys information about scarcity in physical markets. Scarcity as the fundamental driver of returns. What should be the performance benchmark of a commodity investor: spot prices or futures prices? Explaining investment performance: why do commodity investments sometimes outperform or underperform spot prices?

How is fundamental investing different from trend following – the predominant investment style of Commodity Trading Advisors (CTAs)? Issues in performance evaluation of CTAs. Do investors chase returns? Who provides and who consumes liquidity in commodity futures markets and its implications for the returns earned by investors. How are the insights from understanding the fundamentals incorporated into investable products that are available in the market?

## Day 3 – Professor Frédéric Blanc-Brude

### Infrastructure

Infrastructure investments are full of promises for assets owners that need to improve portfolio diversification, increase risk-adjusted returns, create liability-hedging opportunities or simply generate long-term predictable income. The "infrastructure investment narrative" springs from a series of intuitions about the nature of the of business model of infrastructure firms, but until recently had seldom been back by empirical evidence. This course presents the results of 5 years of research at EDHEC, from the development of investment beliefs and the definition of infrastructure investments, to addressing fundamental issues encountered in the pricing of highly illiquid private infrastructure debt or equity, and finally building representative infrastructure investment benchmarks. Students will learn how the private infrastructure investment benchmarks newly released by the EDHEC Infrastructure Institute (Bloomberg: EIPEE, EIPDE) are created, computed and designed, and about the risk-adjusted performance of private infrastructure investment relative to other asset classes. They will also discuss the future of infrastructure investment, how new products that use infrastructure assets to better help meet the long-term investment objectives of asset owners can be created and what role asset managers and private debt originators may play in this respect.

#### Morning session

The morning session aims to give students an understanding of the nature of infrastructure businesses and, as a result, how infrastructure investments may be defined and categorised. It uses insights from financial economics to highlight the contractual and long-term nature of investable infrastructure and reviews evidence from recent empirical research. Categories of infrastructure projects and corporates based on their 'business model' features can be more relevant than their industrial or physical characteristics. Next, the limitations of the standard valuation methodologies used to report the financial performance of private infrastructure equity investment are examined and advanced valuation methods are discussed that can address these shortcomings.

#### Afternoon session

Private debt is a major component of infrastructure financing. Students will learn about building a proper structural model of credit risk using data points that can be observed and collected, and to develop a forward looking model of post-default recovery, thus integrating the option value of private debt step-in rights typically found in infrastructure projects. Combining the unique database of infrastructure investment data compiled by EDHEC (covering hundreds of investments, in tens of countries and going back more than 15 years) the methods reviewed in the course can be applied to create «broad market» benchmarks of private infrastructure debt and equity. Students will learn about the unique (and less unique) characteristics of private infrastructure assets and whether or not there is a stand-alone infrastructure asset class.

## Seminar Instructors

### **Frédéric Blanc-Brude,**

Director, EDHEC Infrastructure  
Institute – Singapore  
PhD King's College London



> Frédéric Blanc-Brude is the director of the EDHEC Infrastructure Institute, an academic research team dedicated to the study of private infrastructure investment that is creating a global repository of infrastructure investment data and produces a series of broad market private infrastructure indices. Frederic has published numerous papers on private asset investment in academic journals and recently co-authored a book on infrastructure asset valuation. He also represents EDHEC on the Advisory Council of the World Bank's Global Infrastructure Facility (GIF) and various G20 working groups focused on infrastructure. Prior to joining EDHEC, he worked for ten years in the infrastructure finance sector, and was actively involved in infrastructure projects representing a cumulative value of more than USD6bn in Europe, Asia and the Middle East. He holds a PhD in Finance from King's College London and degrees from the London School of Economics, the Sorbonne and the Paris Institute of Political Studies (Sciences Po).

### **Will Goetzmann,**

Edwin J. Beinecke Professor of Finance  
and Management Studies, Director of  
the International Center for Finance,  
Yale School of Management  
PhD Yale University



> William N. Goetzmann is an expert on a diverse range of investments, including stocks, mutual funds, real estate, and paintings. His research topics include forecasting stock markets, selecting mutual fund managers, housing as investment, and the risk and return of art. Professor Goetzmann's work has been featured in *The Wall Street Journal*, *The New York Times*, *Business Week*, *The Economist*, *Forbes*, and *Art and Auction*. Professor Goetzmann has a background in arts and media management. As a documentary filmmaker, he has written and coproduced programmes for Nova and the American Masters series, including a profile of artist Thomas Eakins. A former director of Denver's Museum of Western Art, Professor Goetzmann co-authored *The Origins of Value: The Financial Innovations that Created Modern Capital Markets*.

### **K. Geert Rouwenhorst,**

Robert B. and Candice J. Haas Professor of Corporate Finance,  
Deputy Director of the International Center for Finance,  
Yale School of Management  
PhD University of Rochester



> Geert Rouwenhorst specialises in empirical finance and asset pricing. His research interests include risk and return in international equity markets, commodity investments, and the history of financial innovation. He has held visiting positions at MIT and the IMF. His co-edited book *The Origins of Value: the Financial Innovations that Created Modern Capital Markets* surveys key historical innovations in the field of finance, and was named a book of the year by *Barron's* and *The Economist*.

# Yale SOM–EDHEC–Risk Certificate in Risk and Investment Management



Participants can complete all four seminars and receive the prestigious joint Yale School of Management-EDHEC-Risk Certificate in Risk and Investment Management, or attend a single session which provides more focused study.

For further information on the Yale SOM–EDHEC–Risk Certificate in Risk and Investment Management please refer to the [http://docs.edhec-risk.com/mrk/000000/Yale\\_SOM-ERI/YaleSOM-ERI2017.pdf](http://docs.edhec-risk.com/mrk/000000/Yale_SOM-ERI/YaleSOM-ERI2017.pdf).

## Fees, Billing and Further Information

### Remote-Learning Option

To offer you more flexibility, we offer the option of distance-learning, which will allow the instructor to interact live with remote participants. Please be advised that in order to obtain the certificate, a maximum of two distance-learning sessions is permitted within the whole series.

For more information, please contact us at [yalesom-eri@edhec-risk.com](mailto:yalesom-eri@edhec-risk.com)

### Fees

Standard rate: EUR5,200

Fees include instruction, documentation, refreshments at breaks, and lunch.

Accommodation is not included.

### Billing and payment

The fee is billed in euros upon registration and must be settled before the seminar begins. Payment can be made by credit card or wire transfer.

### Transfer or cancellation

Transfer of registration to a colleague, upon written notice, is allowed and free of charge. Transfer of registration fees to another Yale SOM - EDHEC-Risk programme must be requested in writing and is subject to the following charges: 45 to 30 days' notice: 15% of the tuition fee; 29 to 11 days' notice: 30% of the tuition fee; 10 days' notice or less: 50% of the tuition fee.

Cancellations of confirmed seats must be received in writing and are subject to the following charges: 45 to 30 days' notice: 25% of the tuition fee; 29 to 11 days' notice: 50% of the tuition fee; 10 days' notice or less: 100% of the tuition fee.

### Schedule

A typical programme day lasts from 9:00 am to 5:00 pm and is usually divided into lectures and application cases. The two class sessions in each half-day period are separated by 30-minute refreshment breaks. Lunch is included.

### Venue

Yale School of Management  
165 Whitney Avenue  
New Haven, CT 06511-3729

## Continuing Professional Education Credits

EDHEC-Risk Institute is registered with CFA Institute as an approved provider of continuing education programmes.

## Registration

For further information, please contact Caroline Prevost at: [yalesom-eri@edhec-risk.com](mailto:yalesom-eri@edhec-risk.com)  
or on: +33 493 183 496

To register, please visit: <https://www.regonline.co.uk/harvestingriskpremiainalternativeassetclasses>





**EDHEC-RISK**  
Institute

Yale School of Management  
Edward P. Evans Hall  
165 Whitney Avenue, New Haven,  
Connecticut  
Tel.: +1 203.432.5932



Yale SCHOOL OF  
MANAGEMENT  
*Executive Education*

EDHEC-Risk Institute  
393 promenade des Anglais  
BP 3116 - 06202 Nice Cedex 3  
France  
Tel: +33 (0)4 93 18 34 96

EDHEC Risk Institute—London Campus  
10 Fleet Place, Ludgate  
London EC4M 7RB  
United Kingdom  
Tel: +44 (0)20 7332 5600

[www.edhec-risk.com](http://www.edhec-risk.com)