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12<sup>TH</sup> ANNUAL INTERNATIONAL  
CONFERENCE ON REAL OPTIONS  
Theory Meets Practice

July 9 - 12, 2008 - Rio de Janeiro

PROGRAM

**FRIDAY**  
ACADEMIC

**SATURDAY**  
ACADEMIC

	Registration		
	Conceptual Issue	Valuing Petroleum Investments	Campus Tour of PUC-Rio *
	Coffee Break		Presentation on Brazilian Economy *
and mes	R&D Inovation	Volatility Estimation	City Tour - Visit to Christ Redeemer Statue atop Corcovado Mountain *
	Honored Guest Lunch Octavio Tourinho (BNDES)		
it	Case Applications	Tax Effects, Valuation & Policy Issues	Barbecue Lunch at Porcão Rio's *
	Coffee Break		
	Infrastructure/Policy	Regulatory Access	
al	Panel Discussion		
	Closing Remarks		
	Evening Free		
			* Optional activities



## WEDNESDAY

MANAGERIAL

## THURSDAY

MANAGERIAL + ACADEMIC

08:00	Registration	Registration	
08:30	Energy & Natural Resources	President's Address	
09:00		Portfolio Applications	
09:30			
10:00	Coffee Break	Coffee Break	
10:30	Energy & Natural Resources	Portfolio Applications	
11:00		Competition Strategy Games	
11:30	Round Table Discussion by Industry	Keynote Speaker Lunch Tom Copeland (MIT)	
12:00			
12:30	Lunch	Manufacturing/ Contract Design	
13:00			Investment Theory
13:30			
14:00	Real Estate & Infrastructure Applications	Coffee Break	
14:30			
15:00	Coffee Break	Manufacturing/ Contract Design	
15:30			Theoretic Issues
16:00	Infrastructure Applications	Panel Discussion	
16:30			
17:00	Closing Remarks	Networking Reception (live music)	
17:30			
18:00	Evening Free		
18:30			
19:00			
19:30			
20:00			



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## MANAGERIAL PROGRAM SESSIONS SUMMARY

### DAY 1 - WEDNESDAY, JULY 9

- 8:00 Registration
- 8:20 Welcome & Orientation
- 8:25 Energy & Natural Resources
- 12:00 Round Table Discussions by Industry
- 12:45 Luncheon
- 2:20 Real Estate & Infrastructure Applications
- 6:00 Closing Remarks

### DAY 2 - THURSDAY, JULY 10

- 8:30 Welcome & President's Address
- 9:20 Portfolio Applications
- 12:00 Luncheon Keynote Address by Tom Copeland (MIT)
- 1:50 Manufacturing/ Contract Design and Strategy
- 5:25 Panel Discussion: Innovation / Technology, Corporate Strategy & Contracting: Current Status and Future Prospects
- 6:20 Networking Reception

### DAY 3 - SATURDAY, JULY 12

- Campus Tour of PUC-Rio\*
- Presentation on Brazilian Economy\*
- City Tour - Visit to Christ Redeemer Statue atop Corcovado Mountain\*
- Barbecue Lunch at Porcão Rio's\*
- \* optional activities



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## MANAGERIAL PROGRAM SESSIONS

### DAY 1 – WEDNESDAY, JULY 9

#### ENERGY/NATURAL RESOURCES, REAL ESTATE & INFRASTRUCTURE

8:00 Registration

8:20 Welcome/ Orientation

#### ENERGY & NATURAL RESOURCES

8:25 WORKSHOP/PLENARY SESSION I

##### Real Options Applications in Natural Resources/Energy

Marco A.G. Dias, Petrobras, Brazil

9:00 Valuing, Optimizing and Understanding Managerial Flexibility:  
An Application in Oil Expansion

Charles Dumont and Gregory Vainberg, McKinsey & Co, Canada

9:30 The Ethanol-Gas Flex Fuel Car: The Option Value of Choosing your Own Fuel

Carlos B. Pinto, Luiz Brandao and Mariana Alves, PUC-Rio, Brazil

10:00 Valuing the Option to Delay a Petrochemical Project in Brazil

Alberto M. Marques, Marco A. G. Dias, Petrobras, and Roberto M. da Silva Montezano, IBMEC, Brazil

10:30 Morning Coffee Break

11:00 Option Value in Nuclear Energy Projects

Ulrike Lauferts and L. Van Den Durpel, NRG, Netherlands

11:30 Valuation of Flexible Power Plants: An Application in the Brazilian Power Market

Alexandre Aronne, Haroldo G. Brasil, Fundação Pedro Leopoldo, and Ivan Aronne, CDTN, Brazil

12:00 ROUNDTABLE DISCUSSIONS BY INDUSTRY

A. Natural Resources/Energy/Real Estate Roundtable (G. Sick & L. Brandao)

B. Innovation/Manufacturing/Technology Roundtable (D. Paxson & S. Matthews)

C. Corporate Strategy & Portfolio Management (R. Brosch & M. Pergler)


12:45 Luncheon

#### REAL ESTATE & INFRASTRUCTURE APPLICATIONS

2:20 WORKSHOP/PLENARY SESSION II

##### Real Options Applications in Real Estate/Infrastructure

Gordon Sick, University of Calgary, Canada



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## ACADEMIC PROGRAM SESSIONS

3:15 – 4:30

### II. Regulatory Access and Incentives

*Chairperson: K. Nordal (Norges Bank, Norway)*

G. Sick (U. Calgary, Canada), *Real Options and Facilities Access Regulation*

G.F. de Braganca, K. Rocha (IPEA) and R.H.R. Moreira (Anatel, Brazil), *Access Regulation of Brazilian Fixed-Line Telephone Operators and the Markup on the Cost of Capital*

K. B. Nordal (Norges Bank, Norway), *Evaluating Bank Incentives for Implementation of a Risk-Sensitive Capital Rule*

4:40 – 5:30 Panel Discussion: Current State, Challenges and Future Prospects

*Moderator: Gordon Sick (U. Calgary, Canada)*

Panelists Include:

*Luiz Brandao (PUC-Rio)*

*Tom Copeland (MIT)*

*Marco A.G. Dias (Petrobras, Brazil)*

*John Kensinger (U. North Texas)*

*Dean Paxson (U. Manchester, UK)*

*Sigbjorn Sodal (Agder U., Norway)*

*Oliver A.F. Tourinho (BNDES & UERJ, Brazil)*

*Lenos. Trigeorgis (U. Cyprus & ROG))*

5:30 Closing Remarks

### DAY 3 – SATURDAY, JULY 12

Campus Tour of PUC-Rio\*

Presentation on Brazilian Economy\*

City Tour - Visit to Christ Redeemer Statue atop Corcovado Mountain\*

Barbecue Lunch at Porcão Rio's\*

\* *optional activities*

## ACADEMIC PROGRAM SESSIONS

### DAY 2 – FRIDAY, JULY 11

12:00 – 1:30 Luncheon Guest Lecture Address by Octavio A.F. Tourinho (BNDES & UERJ)

1:30 – 2:45

#### I. Case Applications

*Chairperson: L. Brandao (PUC-Rio, Brazil)*

M.C. de Azevedo Rabelo Berni (FEAD Minas), J.A. de Sousa Neto (Terra) and H.G. Brasil (Strategor, Brazil), *Valuing the Conversion Option of Biodiesel vs. Vegetable Oil: An Application in a Soya Processing Plant in Brazil*

S. Verbrugge, D. Colle, P. Demeester (Ghent U., Belgium) and W. De Maeseineire (Erasmus U. Rotterdam, The Netherlands), *Valuing the Flexibility in Fiber Deployment Network Planning: An Application to a Belgian Network*

M. Heikkila and C. Carlsson (Abo Akademi U., Finland), *A Fuzzy Real Options Model for (Not) Closing a Production Plant: An Application to Forest Industry in Finland*

#### II. Tax Effects, Valuation and Policy Issues

*Chairperson: M.A.G. Dias (Petrobras and PUC-Rio)*

M.A.G. Dias (Petrobras and PUC-Rio, Brazil), *Tax Effects on Timing, Scale and Learning Options in Petroleum Upstream*

T. Driouchi, P. Pennesi, D. Kapletia and R. Cuthbert (U. Cambridge, UK), *Valuing Flexibility in Performance-based Service Contracts: Application in Aerospace and Defense*

P.M. Pimentel, G. Couto (U. Azores) and J. Azevedo-Pereira (U. Técnica de Lisboa, Portugal), *High Speed Rail Transport Valuation and Policy Decisions*

2:45 – 3:15 Afternoon Coffee Break

3:15 – 4:30

#### I. Infrastructure/Policy Issues

*Chairperson: A. Rodrigues (U. Minho, Portugal)*

M. Collan (Abo Akademi U., Finland), *Strategic and Operational Real Options in Area Development Projects: An Application in Finland*

M.J.R. Armada, P. Pereira and A. Rodrigues (U. Minho, Portugal), *Optimal Incentives to Public-Private Partnerships for Airport Infrastructure Investments under Market Segmentation: An Application to Portugal*

N. Kruger and M. Svensson (Orebro U., Sweden), *The Impact of Real Options on Willingness to Pay for Infrastructure Safety Investments: A Survey-based Analysis in Sweden*

## MANAGERIAL PROGRAM SESSIONS

3:00 **Optionality in Presale of Real Estate Development**

Luiz Brandao, PUC-Rio, Brazil

3:30 **Viability Study of a New Real Estate Venture in Brazil**

Sergio M. Dos Reis, FNPP, Brazil

4:00 **Afternoon Coffee Break**

4:30 **Optionality and the Role of Municipalities in Regional Development Projects in Finland**

Mikael Collan, IAMSR, Abo Akademi University, Finland

5:00 **Internet Service Option on Trains: An Application in Belgium Railway**

Jan Van Ooteghem, Ghent University – IBBT, Belgium

5:30 **Flexibility in Fiber Deployment Network Planning: An Application to Belgian Network**

Sofie Verbrugge, Ghent University – IBBT, IBCN, Belgium

6:00 **Closing Remarks**

## MANAGERIAL PROGRAM SESSIONS

### DAY 2 – THURSDAY JULY 10

#### PORTFOLIO APPLICATIONS, MANUFACTURING/CONTRACT DESIGN AND STRATEGY

8:30 – 8:45 Welcome

#### 8:45 PRESIDENT'S ADDRESS

##### On Multinationality Options and Performance

Lenos Trigeorgis, University of Cyprus and President, Real Options Group

#### PORTFOLIO APPLICATIONS

#### 9:30 WORKSHOP/PLENARY SESSION III

##### Private Equity Acquisitions as Real Options Portfolios

John Kensinger, University of North Texas, USA

#### 9:55 The Value of Land as Portfolio of Planting Flexible vs. Inflexible Crops

Nelson Ferreira, McKinsey & Co, Brazil

10:20 Morning Coffee Break

#### 11:00 Valuing a Real Options Portfolio in the Petroleum Industry

Oscar M. Bravo, Luis Alfredo Mogollon and José Dario Parra, Ecopetrol S.A., Columbia

#### 11:25 Performance Assessment of a Real Options Portfolio

Javier G. Castro, Tara N. Baidya and Fernando A. L. Aiube, DEI PUC-Rio, Brazil

#### 12:00 Luncheon Keynote Address by Tom E. Copeland (MIT)

Financial and Real Options: My complements and Your Substitutes

#### MANUFACTURING/CONTRACT DESIGN AND STRATEGY

#### 1:50 WORKSHOP/PLENARY SESSION IV

##### Innovation, Manufacturing & Technology Investments

Dean Paxson, Manchester Business School, United Kingdom

#### 2:15 License Contracts with Embedded Options to Expand and Withdraw:

##### The Case of Disc Flex Filter in Japan

Haruyoshi Ito, Keio University, Kenji Yamada, Coteau Vert Co. Ltd, and Akane Iwasaki, Waseda University, Japan

#### 2:35 Expansion Flexibility in Flexible Manufacturing Systems

Roberta Pellegrino, Politecnico di Bari, Italy

## ACADEMIC PROGRAM SESSIONS

### DAY 2 – FRIDAY, JULY 11

8:30 – 9:00 Registration

9:00 – 10:15

#### I. Conceptual Issues

*Chairperson: J. Kensinger (U. N. Texas)*

S.B. von Helfenstein (Braver PC, USA), *Acquisitions, Creative Destruction and Taxes:*

*Applications of Real Options in Economic Systems*

M-C. Beaulieu and W.R. Sadjahin (U. Laval, Canada), *When do Announced IPOs are Completed?*

H. Suzuki, M. Goto and T. Ohno (Waseda U., Japan), *Brand Choice and Purchase Incidence*

#### II. Valuing Petroleum Investments

*Chairperson: M.A.G. Dias (Petrobras and PUC-Rio, Brazil)*

A. Fathi and K. Bilel (U. Sfax, Tunisia), *Valuing an Option to Defer an Oilfield Development by*

*Simulation: An Application in Tunisia*

A.M. Marques (Petrobras), M.A.G. Dias (Petrobras and PUC-Rio) and R.M. da Silva Montezano (IBMEC – Rio, Brazil), *Valuing the Option to Delay a Petrochemical Project: Na Application in Brazil*

C. Bastian-Pinto, L.E.T. Brandao (PUC-Rio) and M de Lemos Alves (TIM Participacoes S.A., Brazil),

*Valuing the Switching Flexibility of the Ethanol-Gasoline Flex Fuel Car*

10:15 – 10:45 Morning Coffee Break

10:45 – 12:00

#### I. R&D/Innovation

*Chairperson: F. Baldi (ENEL, Italy)*

F. Baldi (Enel, Italy) and L. Trigeorgis (U. Cyprus), *Strategic Patent Leveraging under*

*Uncertainty: An Option Games Approach*

E. Agliardi and R. Agliardi (U. Bologna, Italy), *The Fuzzy Value of Patent Litigation*

#### II. Volatility Estimation

*Chairperson: G. Sick (U. Calgary, Canada)*

T. Haahela (Helsinki U. Technology, Finland), *Volatility and Ambiguity in Simulation-based*


*Volatility Estimation*

M.O. Souza and J. Zubelli (U. Federal Fluminense, Brazil), *Real Options Under Fast*

*Mean-Reversion Stochastic Volatility*

J.C. Dias and J. Pedro Nunes (ISCAC Business School, Portugal), *Real Options Under*

*Constant Elasticity of Variance (CEV)*



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## ACADEMIC PROGRAM SESSIONS

### DAY 1 – THURSDAY, JULY 10

3:15 – 4:00 Afternoon Coffee Break

4:00 – 5:15 Theoretical Issues

*Chairperson: S. Sodal (Agder U., Norway)*

R. Adkins (U. Salford) and D. Paxson (U. Manchester, UK), *The Tourinho Model of Deferring Oil Extraction: Neglected Nugget or a Receding Relic*

J. Azevedo-Pereira (ISEG R.M. Lupi), G. Couto (U. Acores) and C. Nunes (Instituto Superior Técnico, Portugal), *On the Optimal Timing of Relocation*

R. Adkins (U. Salford) and D. Paxson (U. Manchester, UK), *An Analytical Real Options Replacement Model with Depreciation*

5:25 – 6:15 Panel Discussion

*Innovation, Corporate Strategy and Contracting*

Moderator: Dean Paxson (Manchester Business School, UK)

Panelists Include:

Francesco Baldi (ENEL, Italy)

Luiz Brandao (PUC-Rio, Brazil)

Tom Copeland (MIT)

Marco A.G. Dias (Petrobras, Brazil)

John Kensinger (U. N. Texas, USA)

Scott Mathews (The Boeing Company, USA)

Martin Pergler (McKinsey & Co, USA)

Sergio Ramos (Kaiser Associates, Brazil)

6:20 – 7:30 Networking Reception

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## MANAGERIAL PROGRAM SESSIONS

3:00 Flexible Processing Plant: Producing Vegetable Oil or Biodiesel in Brazil

Murilo Berni, FEAD Minas, Jose A. de Sousa Neto, and Haroldo G. Brasil, Strategor, Brazil

3:25 Afternoon Coffee Break

3:50 Auto ID (RFID) Deployment Configuration Design: An Application in Aerospace Logistics

Victor Prodonoff Jr. and Tarik Driouchi, University of Cambridge, United Kingdom

4:15 Intuitive Real Options Implementation: Manufacturing Design at Boeing

Scott Mathews, The Boeing Company, USA

4:40 Entering a New Market in the Airline Business: Real Options and Games

Sergio Ramos, Deloitte Consulting, and Ricardo Rochman, FGV-EAESP, Brazil

5:00 Risk and Flexibility in Global Manufacturing Strategy Design Decisions

Martin Pergler, McKinsey & Co, USA

5:25 – 6:15 Panel Discussion

**Innovation/Technology, Corporate Strategy & Contracting:  
Current Status and Future Prospects**

Moderator: Dean Paxson (Manchester Business School)

Panelists Include:

Francesco Baldi (ENEL, Italy)

Luiz Brandao (PUC-Rio, Brazil)

Tom Copeland (MIT)

Marco A.G. Dias (Petrobras, Brazil)

John Kensinger (U. N. Texas, USA)

Scott Mathews (The Boeing Company, USA)

Martin Pergler (McKinsey & Co, USA)

Sergio Ramos (Deloitte Consulting, Brazil)

6:20 - 7:30 Networking Reception

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## ACADEMIC PROGRAM SESSIONS

### DAY 1 - THURSDAY, JULY 10

- 8:00 Registration
- 8:30 Welcome
- 8:45 President's Address
- 9:30 Portfolio Applications
- 11:00 Competition and Strategy Games
- 12:15 Luncheon Keynote Address by Tom Copeland (MIT)
- 2:00 Investment Theory
- 4:00 Theoretical Issues
- 5:25 Panel Discussion: Innovation,  
Corporate Strategy & Contracting
- 6:20 Networking Reception

### DAY 2 - FRIDAY, JULY 11

#### TRACK 1

- 8:30 Registration
- 9:00 Conceptual Issues
- 10:45 R&D/Innovation
- 12:00 Luncheon Guest Lecture Address by  
Octavio A.F. Tourinho (BNDES e UERJ)
- 1:30 Case Applications
- 3:15 Infrastructure/Policy Issues
- 4:40 Panel Discussion: Current State,  
Challenges and Future Prospects
- 5:30 Closing Remarks

#### TRACK 2

- 8:30 Registration
- 9:00 Valuing Petroleum Investments
- 10:45 Volatility Estimation
- 12:00 Luncheon Guest Lecture Address by  
Octavio A.F. Tourinho (BNDES e UERJ)
- 1:30 Tax Effects, Valuation & Policy Issues
- 3:15 Regulatory Access & Incentives
- 4:40 Panel Discussion: Current State,  
Challenges and Future Prospects
- 5:30 Closing Remarks

### DAY 3 - SATURDAY, JULY 12

- Excursion – Networking
- Talk about Brazilian Economy & Financial System

## ACADEMIC PROGRAM SESSIONS

### DAY 1 – THURSDAY, JULY 10

- 8:00 – 8:25 Registration**
- 8:30 – 8:45 Welcome**
- 8:45 – 9:15 President's Address**  
L. Trigeorgis (U. Cyprus & President, Real Options Group)  
*On Multinationality Options and Performance*
- 9:20 – 10:35 Portfolio Applications**  
Chairperson: J. Kensinger (U. North Texas)  
A. Chen (Southern Methodist U.), J. Conover and J. Kensinger (U. N. Texas), *Private Equity Acquisitions as Real Options Portfolios*  
N. Ferreira (McKinsey & Co), *The Value of Land as Portfolio of Planting Flexible vs. Inflexible Crops*
- 10:35– 11:00 Morning Coffee Break**
- 11:00 – 12:15 Competition and Strategy Games**  
Chairperson: D. Paxson (Manchester Business School, UK)  
M. Goto (Waseda U.), R. Takashima (U. Tokyo), M. Tsujimura (Ryukoku U.) and T. Ohno (Waseda U, Japan), *Entry and Exit Decisions Under Uncertainty in a Symmetric Duopoly*  
A. Azevedo and D. Paxson (Manchester Business School, UK), *New Technology Adoption Games: An Application to the Textile Industry*  
M. Nishihara (Osaka U.) and T. Shibata (Tokyo Metropolitan U.), *Real Options, Debt Financing and Competition*
- 12:15 – 1:50 Luncheon Keynote Address by Tom E. Copeland (MIT)**  
*Financial and Real Options: My Complements and Your Substitutes*
- 2:00 – 3:15 Investment Theory**  
Chairperson: T.E. Copeland (MIT)  
M. Schnetzer (Adliswil) and L. Taschini (U. Zurich, Switzerland), *Entry and Exit Decisions with Implementation Delay: A Probabilistic Approach*  
F.A.L. Aiube and E.A.H. Tito (Petrobras and PUC-Rio), *Evaluating Cash Holdings as Real Options: An Application for a Commodity Producer in an Emerging Market*  
S. Scatasta (CEER, Germany) and J. Wesseler (Wageningen U., The Netherlands), *Real Options and the Adoption of Transgenic Crops*