

*12<sup>th</sup> Annual International Conference on*

# **Real Options**

*Theory Meets Practice*

*Organized by*  
Real Options Group and  
PUC-Rio, Brazil

*In cooperation with*  
Bank of Cyprus Chair/University of Cyprus  
Northwestern University  
and University of California at Los Angeles

*Main Sponsors*  
Petrobras, Brazil  
McKinsey & Company

**July 10 - 12, 2008**  
**Rio de Janeiro, Brazil**

# Program Sessions Summary Guide

## DAY 1 - THURSDAY, JULY 10

8:00-8:25 Registration
8:30-9:20 Welcome & President's Address
9:30-10:20 Portfolio Applications
11:00-12:15 Competition and Strategy Games
12:15-1:50 Luncheon Keynote Address by Tom Copeland (MIT)
2:00-3:15 Investment Theory
4:00-5:15 Theoretical Issues
5:25-6:15 Panel Discussion: Innovation, Corporate Strategy & Contracting
6:20-7:30 Networking Reception

## DAY 2 - FRIDAY, JULY 11

Track I	Track II
8:30-9:00 Registration	
9:00-10:15 Conceptual Issues	9:00-10:15 Valuing Petroleum Investments
10:45-12:00 R&D/Innovation	10:45-12:00 Volatility Estimation
12:00-1:30 Luncheon Guest Lecture Address by Octavio A.F. Tourinho (BNDES)	
1:30-2:45 Case Applications	1:30-2:45 Tax Effects, Valuation & Policy Issues
3:15-4:30 Infrastructure/Policy Issues	3:15-4:30 Regulatory Access & Incentives
4:40-5:30 Panel Discussion: Current State, Challenges and Future Prospects	

## DAY 3 - SATURDAY, JULY 12

Excursion – Networking

Talk about Brazilian Economy & Financial System

# Program Sessions

## DAY 1 – THURSDAY, JULY 10

**8:00 – 8:25 Registration**

**8:30 – 8:45 Welcome**

**8:45 – 9:20 President's Address**

L. Trigeorgis (U. Cyprus & President, Real Options Group)  
*On Multinationality Options and Performance*

**9:30 – 10:20 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*

**10:20 – 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*

**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**

***Sponsored by ROG, Petrobras and McKinsey & Company***

## **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. Sodjahnin (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. Haahtela (Helsinki U. Technology, Finland), *Volatility and Ambiguity in Simulation-based Volatility Estimation*

M.O. Souza and J. Zubelli (U. Federal Flu-Minense, 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)*

**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 Maeseneire (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 Academi 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*

**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:**

*Luis 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**

Excursion – Networking

Talk about Brazilian Economy & Financial System

Conference Concludes.