

19th Annual International Conference on

Real Options

Theory Meets Practice

Organized by
Real Options Group
University of Athens
Athens University of Economics and Business

In cooperation with
Bank of Cyprus Chair/University of Cyprus
King's College London
Northwestern University
and University of California at Los Angeles

June 17 - 20, 2015
Athens & Monemvasia, Greece

Program Sessions Summary Guide

DAY 1 - WEDNESDAY, JUNE 17

Track I (Managerial)	Track II (Academic)
8:00-8:40 Registration	
8:40-8:55 President's Welcome	
9:00-10:15 Personal Applications	9:00-10:15 R&D & Technology Investment
10:45-12:00 Various Corporate & Public Applications	10:45-12:00 Sequential Investment, Venture Capital & Corporate Structure
12:00-2:00 Luncheon	
2:00-3:15 Energy, Nat. Resources & Environment I	2:00-3:15 Mergers & Acquisitions
3:45-5:00 Energy, Nat. Resources & Environment II	3:45-5:00 Financing & Investment Choices
6:00-7:30 Networking Reception at U. Athens (Bus from hotel at 5:30 & 6pm)	

DAY 2 - THURSDAY, JUNE 18

Track I (Joint)	Track II (Joint)
8:30-9:00 Registration	
9:00-10:15 Empirical Evidence I	9:00-10:15 Renewable Energy & Policy
10:45-12:00 Empirical Evidence II	10:45-12:00 Public Policy Investment Appraisal
12:00-12:45 Keynote Address	
12:45-2:00 Luncheon	
2:00-3:00 Panel Discussion: Growth in Europe	
3:30 Buses leave for Monemvasia	

DAY 3 - FRIDAY, JUNE 19 (Academic-Monemvasia)

Track I (Church)	Track II (Hotel)
8:30-9:00 Registration	
9:00-10:15 Sequential Investment & Expansion	9:00-10:15 Product(ion) Switching Options
10:45-12:00 Flexible Capacity Decisions	10:45-12:00 Switching Issues & Applications
12:00-2:00 Luncheon	
2:00-3:15 Strategic Investment & Preemption	2:00-3:15 Early Exercise & Computation Approaches
3:45-5:00 Strategic Inv. & Capacity Choice Games	3:45-5:00 Ambiguity & Fuzzy Investment Options
6:30-8:00 Local Reception (Theofano)	

DAY 4 - SATURDAY, JUNE 20

Track I (Church)	
9:00-10:15 Theoretical Models & Issues	
10.30-11:30 Panel Discussion: Current State, Challenges and Future Prospects	
1:00-6:00 Bus Tour in the Monemvasia Region (outside castle gate)	

Program Sessions

DAY 1 – WEDNESDAY, JUNE 17 (ATHENS)

8:00-8:40 REGISTRATION

8:40-8:55 PRESIDENT’S WELCOME

9:00-10:15 TRACK I (MANAGERIAL)

PERSONAL APPLICATIONS

Should I Go to Work Now or Stay More at Home: Optimizing the Morning Commute
L. Cordeiro and L. Brandão (PUC-Rio, Brazil)

Monte Carlo Valuation of the Option to Expand with Application in Multi-Story Car Parking
T. Wisniewski and M. Pawlak (U. of Szczecin, Poland)

Mortgage Renegotiation and Strategic Default: Nash Bargaining in US Residential Mortgages
M. Flanagan (Manchester Metropolitan U.) and D. Paxson (U. of Manchester, UK)

9:00-10:15 TRACK II (ACADEMIC)

R&D AND TECHNOLOGY INVESTMENT

Chairperson: Luiz Brandão (PUC-Rio, Brazil)

Valuation of R&D Projects with Expansion and Updating
L. Brandão (PUC-Rio), J.S. Dyer (U. of Texas at Austin, USA), G. Fernandes and L.F.J. Motta (PUC-Rio, Brazil)

R&D Licensing in Biopharmaceuticals: How to Structure a Good Deal
F. Baldi (LUISS Guido Carli U., Italy) and L. Trigeorgis (U. of Cyprus, Cyprus)

End-game Effects in R&D Investment with Uncertain Cost and Finite Horizon
S. Rötzer (Vienna U. of Technology, Austria)

10:15-10:45 MORNING COFFEE BREAK

10:45-12:00 TRACK I (MANAGERIAL)

VARIOUS CORPORATE & PUBLIC APPLICATIONS

Hiring Decisions and Human Resource Flexibility
L. Ozorio, J.V. Perufo and C. Bastian-Pinto (IBMEC Business School, Brazil)

Valuation of a Staged PPP Contract in Brazil: When is Abandonment Not an Option?
R. Igrejas, L. Cordeiro and L. Brandão and L.F.J. Motta (PUC-Rio, Brazil)

Global Wealth Inequality, Economic Freedom, and Real Options Thinking

J. Kinnunen (Åbo Akademi U., Finland) and I. Georgescu (Academy of Economic Studies, Romania)

10:45-12:00 TRACK II (ACADEMIC)

SEQUENTIAL INVESTMENT, VC & CORPORATE STRUCTURE

Chairperson: Arkadiy Sakhartov (Wharton School, U. of Pennsylvania, USA)

Resource Relatedness, Economies of Scope and Corporate Structure

A. Sakhartov (Wharton School, U. of Pennsylvania, USA)

Entrepreneurs, VCs and Growth Opportunities: Entrepreneurial Financing Model Design

M.T. Gärtner, P. Pereira and E. Brandão (U. of Porto, PT)

Sequential Investment in Emerging Technologies with Risk Aversion and Policy Uncertainty

L.H. Sendstad, P. Bjerksund and M. Chronopoulos (NHH, Norway)

12:00 – 2:00 LUNCHEON

2:00-3:15 TRACK I (MANAGERIAL)

ENERGY, NATURAL RESOURCES & ENVIRONMENT I

A Case Application in an Oil and Gas Project in Latin America

M. Russo and A.R. Neto (FGV Escola de Admin. de Empresas de São Paulo, Brazil)

Thermal Power Portfolio Valuation under Uncertainty in Brazil

W.J. Damasceno do Nascimento (PUC-Rio), M.A.G. Dias (Petrobras) and M.A. Cavalcanti Pacheco (PUC-Rio, Brazil)

Valuation of a Wind Farm Project in Serbia

D. Loncar (U. of Belgrade), I. Milovanovic, B. Rakic and T. Radjenovic (U. of Nis, Serbia)

2:00-3:15 TRACK II (ACADEMIC)

MERGERS & ACQUISITIONS

Chairperson: Artur Rodrigues (U. of Minho, Portugal)

A Theory on Merger Timing and Announcement Returns

P. Pereira (U. of Porto) and A. Rodrigues (U. of Minho, Portugal)

Dynamic Redemption, Default and Evaluation of LBO: A Crossing Boundary Approach

A. Lahmann, M. Schreiter, and B. Schwetzler (HHL Leipzig, Germany)

Strategic Behaviour of a Business Acquisition Target: Non-competition Covenants and Market Reentry

A. Azevedo (U. of Hull, UK), P. Pereira (U. of Porto) and A. Rodrigues (U. Minho, PT)

3:15-3:45 AFTERNOON COFFEE BREAK

3:45-5:00 TRACK I (MANAGERIAL)

ENERGY, NATURAL RESOURCES & ENVIRONMENT II

Assessing Hard Coal Mining: An Application with Abandonment in the Czech Republic

M. Culík and P. Gurny (VSB-Technical U. of Ostrava, Czech Republic)

Estimation of Volatility in Mining Projects: The Impact of Fixed Costs

K. Ampofo and R. Wolff (U. of Queensland, Australia)

*Investment Timing and Risk Aversion Implications on Climate Adaptation to Extreme Events:
An Application in Australia*

S. Trueck and C. Truong (Macquarie U., Australia)

3:45-5:00 TRACK II (ACADEMIC)

FINANCING & INVESTMENT CHOICES

Chairperson: Gordon Sick (U. of Calgary, Canada)

Corporate Liquidity and Dividend Policy under Uncertainty

N. Koussis (Frederick U.), S. Martzoukos and L. Trigeorgis (University of Cyprus, Cyprus)

Reversible Outsourcing, Vertical Flexibility and Firm Financial Choices

M. Moretto (U. of Padova) and G. Rossini (U. of Bologna, Italy)

External Funding Costs, Bargaining and Investment Timing

H. Roche (U. Adolfo Ibáñez, Chile)

6:00 – 7:30 NETWORKING RECEPTION AT U. OF ATHENS

(BUS FROM METROPOLITAN HOTEL AT 5:30 PM AND 6:10 PM)

Sponsored by University of Athens and ROG

DAY 2 - THURSDAY, JUNE 18 (ATHENS)

9:00-10:15 TRACK I (JOINT)

EMPIRICAL EVIDENCE I

Chairperson: Diderik Lund (U. of Oslo, Norway)

Offshore Wind Park Investment with Feed-in Tariffs: The German Renewable Energy Case
V.J. Schwanitz (Potsdam-Institut of Climate Impact Research, Denmark)

Comparative Statics for Oil Investments: Challenging Stylized Facts
D. Lund and R. Nymoene (U. of Oslo, Norway)

Real Options and Government Supports to PPP Infrastructure Investments: An Empirical Study
O. Adetunji and A. Owolabi (Lagos Business School, Pan-Atlantic U., Nigeria)

9:00-10:15 TRACK II (JOINT)

RENEWABLE ENERGY & POLICY

Chairperson: Stavros Thomadakis (U. of Athens, Greece)

Mitigating Wind Exposure with (Lower and Uppend Bound) Collars-type Insurance
G. Fernandes, L. Gomes, G. Vasconcelos and L. Brandão (PUC-Rio, Brazil)

Energy Consumption and Priority Dispatch for Renewables under Demand Uncertainty
F. Kalantzis, N. Milonas and S. Thomadakis (U. of Athens, Greece)

Alternative Renewable Electricity Support Schemes under Market and Policy Uncertainty
T.K. Boomsma (U. of Copenhagen, Denmark) and K. Linnerud (CICERO, Norway)

10:15-10:45 MORNING COFFEE BREAK

10:45-12:00 TRACK I (JOINT)

EMPIRICAL EVIDENCE II

Chairperson: Peter Pope (London School of Economics, UK)

Corporate Divestment Options in Takeover Premia by U.S. Acquirers
P. Alexakis (U. of Athens), M. Chondrokouki and A. Tsekrekos (AUEB, Greece)

Effects of Risk Biases on Real Options Pricing
N. Brady (U. of Newcastle, Australia)

Discouraged In-need Borrowers: An Empirical Analysis of SMEs Borrowing Option
K. Drakos and A. Tsekrekos (Athens U. of Economics and Business, Greece)

Excess Capacity, Momentum and Long-term Reversal in Stock Returns
K. Aretz (U. of Manchester) and P. Pope (London School of Economics, UK)

10:45-12:00 TRACK II (JOINT)

PUBLIC POLICY INVESTMENT APPRAISAL

Chairperson: Sebastian Maier (Imperial College London, UK)

Appraisal of Interdependent Physical and Digital Urban Infrastructure Investments

S. Maier, J. Polak and D. Gann (Imperial College London, UK)

Valuation of Clean Development Mechanism (CDM) Investments

M. Keoula (Bielefeld U., Germany)

Procurement Auctions for Environmental Conservation Contracts

L. Di Corato (Swedish U. of Agricultural Sciences, Sweden), C. Dosi and M. Moretto (U. of Padova, Italy)

12:00 – 12:45 KEYNOTE ADDRESS BY BART LAMBRECHT (CAMBRIDGE)

12:45 – 2:00 LUNCHEON

2:00 – 3:00 PANEL DISCUSSION: GROWTH-LINKED BONDS, (UN)BALANCED BUDGETS, INFRASTRUCTURE INVESTMENT AND GROWTH IN EUROPE

Moderator: Panayiotis Alexakis (U. of Athens, Greece)

(Prospective) Panelists Include:

Gikas Hardouvelis (Ex Minister of Finance of Greece)

Dean Paxson (U. of Manchester, UK)

Gordon Sick (U. of Calgary, Canada)

Yannis Stournaras (Governor of Central Bank of Greece)

Stavros Thomadakis (Ex Chairman of Hellenic Capital Market Commission and of EU's Public Interest Oversight Board)

Lenos Trigeorgis (U. of Cyprus & King's College London)

Yanis Varoufakis (Minister of Finance of Greece)

3:30 BUSES LEAVE FROM METROPOLITAN HOTEL FOR MONEMVASIA

DAY 3 – FRIDAY, JUNE 19 (ACADEMIC-MONEMVASIA)

9:00-10:15 TRACK I (CHURCH)

SEQUENTIAL INVESTMENT & EXPANSION

Chairperson: Yuri Lawryshyn (U. of Toronto, Canada)

Valuation of Sequential vs. Lumpy Investment with Stage-specific Parameters

R. Adkins (Bradford U.) and D. Paxson (Manchester Business School, UK)

Modular Plant Expansion: A Simulation Application to Wastewater Treatment

M. Davison (U. of W. Ontario), Y. Lawryshyn and B. Zhang (U. of Toronto, Canada)

Generation Investment Replacement and Complementarity under Uncertainty

R. Adkins (Bradford U.) and D. Paxson (Manchester Business School, UK)

9:00-10:15 TRACK II (HOTEL)

PRODUCT(ION) SWITCHING OPTIONS

Chairperson: Nikolaos Milonas (U. of Athens, Greece)

Valuing Product Switch Options in Integrated Steel Plants using Monte Carlo Simulation

V. Neri and L. Ozorio (IBMEC Business School, Brazil)

Valuing Production Switch Options in Commodities

G. Dotsis and N. Milonas (U. of Athens, Greece)

Optimal Switching under Stochastic Volatility with Fast Mean Reversion

A. Tsekrekos and A. Yannacopoulos (AUEB, Greece)

10:15-10:45 MORNING COFFEE BREAK

10:45-12:00 TRACK I (CHURCH)

FLEXIBLE CAPACITY DECISIONS

Chairperson: Afzal S. Siddiqui (University College London, UK)

Do Plants Freeze Employment upon Uncertainty Shocks?

M. Meier and A. Mecikovsky (U. of Bonn, Germany)

Firms' Interactive Capital Investment Decisions with Network Effects

Y. Li (Ryerson U.) and G. Sick (U. of Calgary, Canada)

Anticipative Transmission Capacity Planning with Renewable Energy Expansion

V. Hagspiel (NUST, Norway), A.S. Siddiqui (University College London, UK) and

T.M. Boomsma (U. of Copenhagen, Germany)

10:45-12:00 TRACK II (HOTEL)

SWITCHING ISSUES & APPLICATIONS

Chairperson: Nicola Secomandi (Carnegie Mellon U., USA)

Sequential Innovation Investment and Technology Switching under Rivalry and Uncertainty

M. Chronopoulos (NSE, Norway) and A. Tsekrekos (AUEB, Greece)

The Odd "Reversible Investment"

G. Davis (Colorado School of Mines, USA) and R. Cairns (McGill U., Canada)

Analyzing the Tradeoff between Storage and Transport in Merchant Energy Trading Networks:

An Application to Natural Gas

S. Nadarajah (U. of Illinois at Chicago) and N. Secomandi (Carnegie Mellon U., USA)

12:00 – 2:00 LUNCHEON

2:00-3:15 TRACK I (CHURCH)

STRATEGIC INVESTMENT & PREEMPTION

Chairperson: Bruno Versaevel (EMLYON, France)

Complementary Investments in Sequential (Leader-Follower) Duopoly Markets

A. Azevedo (Hull U.) and D. Paxson (Manchester Business School, UK)

Innovation and Imitation in Dynamic Duopoly

E. Billette de Villemeur (U. of Lille 1 & EQUIPPE), R. Ruble and B. Versaevel (EMLYON & GATE, France)

Managerial Strategic Investment with Agency and Competition

A. Odabasioglu (Swiss Finance Institute/U. of Geneva, Switzerland)

2:00-3:15 TRACK II (HOTEL)

EARLY EXERCISE & COMPUTATION APPROACHES

Chairperson: Mark Shackleton (Lancaster U., UK)

Convergence and Versatility of LSM Simulation for Alternative Stochastic Processes

D. Nogueira de Paula and C. Bastian-Pinto (IBMEC Business School, Brazil)

Detecting Trigger Events for Successful Investment: A Multidisciplinary Non-Parametric Analysis

C. Justin and D. Mavris (Georgia Institute of Technology, USA)

Valuing Flexible Cashflow Networks with Operating Modes Switching

S. Ekern (NHH, Norway), M. Shackleton (Lancaster U., UK) and S. Sodal (Agder U., Norway)

3:15-3:45 AFTERNOON COFFEE BREAK

3:45-5:00 TRACK I (CHURCH)

STRATEGIC INVESTMENT & CAPACITY CHOICE GAMES

Chairperson: Kuno Huisman (Tilburg University, Netherlands)

Capacity Choice in a Duopoly with Endogenous Exit

M. Lavrutich, P. Kort and K. Huisman (Tilburg University, Netherlands)

Strategic Investment Timing and Capacity Decisions by Asymmetric Firms

N. Huberts (Tilburg U.), H. Dawid (Bielefeld U., Germany), K. Huisman and P. Kort (Tilburg U., Netherlands)

Asymmetric Cournot Oligopoly under Capacity Constraints

B. Chevalier-Roignant (BCR, Germany), C. Flath (U. of Wuerzburg, Germany) and L. Trigeorgis (KCL and U. of Cyprus, Cyprus)

3:45-5:00 TRACK II (HOTEL)

AMBIGUITY AND FUZZY INVESTMENT OPTIONS

Chairperson: Jacco Thijssen (U. of York, UK)

Pollutant Abatement Investment Policy under Ambiguity

M. Tsujimura (Doshisha U., Japan)

Ambiguity in a Real Option Game

T. Hellmann (Bielefeld U., Germany) and J. Thijssen (U. of York, UK)

Strategic Technology Adoption and Portfolio Choice under Incomplete Markets

M. Leibold and J. Stromberg (U. of Zurich, Switzerland)

6:30 – 8:00 LOCAL VENDOR'S RECEPTION & POETRY READING (IN SQUARE OUTSIDE THEOFANO ART HOTEL)

DAY 4 – SATURDAY, JUNE 20 (ACADEMIC-MONEMVASIA)

9:00-10:15 TRACK I (CHURCH)

THEORETICAL MODELS & ISSUES

Chairperson: Andrianos Tsekrekos (AUEB, Greece)

Waiting to Invest When Interest Rates Are in a Liquidity Trap

G. Dotsis (U. of Athens, Greece)

Entry and Exit Decisions under Output-Price Uncertainty: A Generalized Class of 1-D Diffusions

J.C. Dias (ISCTE), M. Larginho (ISCAC) and C. Braumann (U. of Évora, Portugal)

On the Equivalence of Dixit-Pindyck and Arrow-Fisher-Hanemann-Henry Option Value Concepts

W. Althammer and G. Siegert (HHL Leipzig, Germany)

10:30-11:30 PANEL DISCUSSION: CURRENT STATE, CHALLENGES AND FUTURE PROSPECTS

Moderators: Gordon Sick (U. Calgary, Canada) and Dean Paxson (Manchester Business School, UK)

Panelists Include:

Luiz Brandão (PUC-Rio, Brazil)

Yuri Lavyshyn (U. of Toronto, Canada)

Artur Rodrigues (U. of Minho, Portugal)

Arkadiy Sakbartov (Wharton School, U. of Pennsylvania, USA)

Nicola Secomandi (Carnegie Mellon U., USA)

Afzal S. Siddiqui (UCL, UK)
Mark Shackleton (Lancaster U., UK)
Jacco Thijssen (U. York, UK)
Bruno Versaevel (EMLYON, France)

11:30 CLOSING REMARKS

11:30-12:15 COFFEE BREAK

CONFERENCE CONCLUDES

1:00-6:00 BUS TOUR IN MONEMVASIA REGION (OUTSIDE THE GATE)

CONFERENCE CONCLUDES

About the Conference

Venue The conference on June 17 and 18 will take place at Metropolitan Hotel at 385 Syngrou Ave. in Paleon Faliron, Athens; then participants move by buses at 3.30 pm on June 18 to continue the conference on June 19 and 20 in the medieval Ayios Nikolaos Basilika (Church) and New Malvasia Hotel inside the medieval Castle of Monemvasia surrounded by the sea off the coast in southern Peloponnese.

Fees & Registration €480 by April 10 (for both Academic and Managerial conferences, including bus fare). Registration fees go up by 20% after April 10.

Registration should be made online via the conference website www.realoptions.org

Important Administrative Information Registration fees include the return bus fare from Athens to Monemvasia (€60), the conference proceedings and other materials, gifts, lunches, coffee breaks, and receptions. Only registrations paid by April 10 are guaranteed to be confirmed and be included on the official list of participants. For registration and other general-type conference-related inquiries contact Eugenia (tel +357 22893605; fax +357 22895030; e-mail conference.registration@realoptions.org). For information on local logistics in Greece contact Andrianos Tsekrekos (tel+30 6936599640, e-mail tsekrekos@aueb.gr).

Airport/Transport Athens International Airport (ATH) Eleftherios Venizelos is 27 km NE of Athens. The hotels are about half hour from the airport. There is frequent metro connection from airport to Athens. Closest underground/metro station to hotels is SYGROU-FIX. As this is 3-4 km away, can get a taxi from there to the hotels (max €5). Alternatively, from Airport can get the underground to the central metro station at Syntagma square, get off and cross the road to the bus stop, and get the shuttle bus operated by Metropolitan Hotel Athens to the hotel. The regular schedule of the shuttle bus, as well as instructions on how to find its precise location stop at Syntagma square, is on the conference website.

Hotels For hotels/accommodation see also www.realoptions.org (Hotels).

Hotels in Athens:

Metropolitan Hotel Athens (5*) at 385 Syngrou Ave. in Paleon Faliro is 10 min from Syntagma Sq. in centre of Athens and the port of Piraeus. For reservation should use Group code: REALO2015. If prefer including breakfast (10 € pp) can book directly a Superior Single room for €125 or Superior Twin/Double for €135 via <https://bookings.ihotelier.com/bookings.jsp?hotelID=5862&userType=GRP> Without breakfast, can use Accomodation Form from conference website to book a Superior Single or Twin/Double for €115

Coral Hotel Athens (4*) at 35 Possidonos Ave. in Paleo Faliro is on the waterfront of Paleo Faliro, overlooking the Saronic Gulf, about 1km from the conference hotel. Mention Real Options Conference to get special corporate rates (half price). Including breakfast, €55 for a single room, €65 for 2 persons in a double (60 if one person in a double); plus €10 extra if see view, €12 pp. for lunch or dinner. See www.coralhotel.gr, email: info@coralhotel.gr

Hotels inside Monemvasia Castle:

Malvasia Hotels (New & Traditional) www.malvasia-hotel.gr
<https://malvasiahotel.reserve-online.net/about>

6 rooms for €75; 10 rooms for €80 (includes breakfast); bigger rooms (2-3 bedroom and one-two space/four persons room, for €100 and €130) (above include breakfast)

Theofano Art Hotel, www.theofano.gr, reservations@theofano.gr
rooms for €75 (11 rooms); 4 suites at €135 (includes breakfast)

Guesthouse Kellia, www.keliamonemvasia.com/index_en.htm

info@keliamonemvasia.com double room €70; Superior (double) €85

Organizers L. Trigeorgis (U. Cyprus, KCL & ROG), P. Alexakis and N. Milonas (U. Athens), A. Tsekrekos and D. Georgoutsos (AUEB). VP Planning: P. Alexakis (U. of Athens); VP Program: G. Sick (U. Calgary) and A. Tsekrekos (AUEB).