





## 23-26.06.2010 17<sup>th</sup> Annual ERES Conference

Book of Abstracts and Programme





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## Welcome to Milano!

Dear Delegates,

with great pleasure I welcome you in Milano for the 17th ERES Annual Conference and present the following, conspicuous, Book of Abstract. Furthermore I want to take the opportunity to thank the many of you that have responded to the call for papers, making this coming event one of the most prominent of the last years either for ERES or any other real estate institutional meeting.

The body of knowledge of the ERES Conference is created by you and by your precious and original research and I am honored that we had the opportunity to organize it in Milano for the second time in this decade after the 11<sup>th</sup> Conference that, in 2004, hosted more than 400 delegates for a total of 260 papers. With respect to the previous edition, this Conference sees an increase in the number of attendees and papers presented, but also the presence of Symposiums and Industry seminars: we thought it to be the proper way to merge the real estate industry players and academics even more than before.

In the following pages you will have the chance to get an overview of the extensive and original studies that have been prepared in various research offices and universities: this collection of 342 abstracts will help you assessing which of them you would prefer to attend in the various parallel sessions that will be held at the Bocconi University Campus from the 23<sup>rd</sup> to the 26<sup>th</sup> of June 2010. The overall program, with details on the time schedule, speakers, session chairmen and side events, will lead you through these intense days.

Treasure the knowledge that will be shared, enjoy the overall program and its side events and ... have an enjoyable stay in Milano!

Giacomo Morri

ERES 2010 Milano Chair

SDA Bocconi Professor & Director of Master in Real Estate

## **ERES 2010 Organizing Committee**



**Paola Lunghini** Conference Honorary Chair



**Uberto Visconti** *General Manager* 



Gianluca Marcato
Doctoral Session Organizer



Paolo Benedetto



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SDA Bocconi is the leading School of Management in Italy and stands among the top-tier European Business Schools. In Financial Times Global MBA Rankings 2010, SDA Bocconi ranks 14<sup>th</sup> in Europe, 38<sup>th</sup> in the world, and is the only Italian Business School ranked in the top 100.

SDA Bocconi School of Management is part of Università Bocconi, the first Italian University to grant a degree in economics. For over a century, Bocconi has played a leading role in Italy's social and economic modernization. SDA Bocconi has been engaged in the promotion and organization of executive training since 1971, with an International approach. The School's vision of empowering life through knowledge and imagination lies behind its program offerings: Executive and Custom Programs, MBA and Master Programs, for the development of individuals, companies, institutions and economic systems.

Choosing SDA Bocconi and coming to Milano means choosing a vibrant environment, the entrepreneurial, financial and industrialized center of Italy, a doorway to Europe. In short, a wealth of international contacts and opportunities. And Milano, of course, is culture, fashion, design, food and the art of living.

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## **Industry Italian Scientific Committee**

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Barbara Polito Chairman AREL Associazione Real Estate Ladies

Gualtiero Tamburini Chairman Assoimmobiliare & Nomisma

## **European Real Estate Society**

The European Real Estate Society (ERES) was established in 1994 to create a structured and permanent network between real estate academics and professionals across Europe. ERES is dedicated to promoting and advancing the field of real estate research throughout Europe. Incorporating many national property research societies, academic researchers and real estate practitioners, our activities, such the annual conference, the industry seminars, education seminars and publications provide a forum for information flow and debate on research issues. ERES is a non-profit organisation affiliated with the International Real Estate Society, an organisation giving us an even wider contact base in real estate.

This site is designed not only to provide an overview of our organisation, but also to serve as a powerful resource for our members. To do so, academic and industry information about conferences, courses and initiatives of interest for their members are collected among their pages. An intranet is available to an easier interaction between members and the ERES organization.

### The objectives of ERES are:

- To encourage research and promote education in real estate and closely allied areas, especially in European Countries.
- To improve communication and exchange information in real estate and allied matters among college/university faculty members and practitioners who are teaching or engaging in research in property, real estate and land use.
- To facilitate the association of academic, practicing professional, and research persons in the area of real estate and closely allied areas.
- To encourage professionalism in practices related to real estate and closely allied areas as well as other activities promoting the purposes of the foundation.
- To organise events where researchers and educators in the broad area of real estate can interact.
- To organise events where researchers and decision-makers from both academia and practice can exchange their views with respect to the research needs in the field of real estate, but also discuss the best ways of using research results to enhance decision-making in the field to promote in any other feasible way the development of real estate research and education in Europe.

### ERES Membership

Becoming ERES Member gives the possibility to obtain the benefits associated to the European Real Estate Society. These cover:

- 1. Access to the ERES Journal with Emerald.
- 2. Discounts to ERES related conferences & seminars.
- 3. Access to ERES Newsletter.
- 4. Specific seminars information.
- 5 Enter with a password in all contents of the website
- 6. Access to papers and information of the ERES conference website during the activated period.
- 7. Sponsors connection and communication.

## Past and Present ERES Presidents

Bert Kruijt (1994-1995)

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Ramon Sotelo (2008-2009)

Stanislaf Belniak (2009-2010)

Steven Lee (2010-2011)

## **Emerald Journals**

Spanning all areas of the built environment, Emerald journals cover such topics as construction and property management, building appraisal and refurbishment, corporate real estate and facilities and place management. Emerald publishes a wide range of International titles, including the official ERES journal, **Journal of European Real Estate Research**, and is a proud supporter of the Annual ERES conference.







## **Programme**

ERES Milano 2010

Wednesday, 23 June 2010

12.00 Registration opening

13.30 PhD Students Welcome

### **13.45 - 15.15** *Doctoral sessions (1)*

Room N11 Green Buildings & Environmental Policies - Doctoral Session 1

Room N12 Housing Economics - Doctoral Session 2 Room N13 Real Estate Finance - Doctoral Session 3

Room N14 Indirect Real Estate Investment - Doctoral Session 4

Room N15 Urban Economics - Doctoral Session 5

### 14.30 - 16.30 Appraisal Institute - Valuation Seminar

15.15 -15.30 *Coffee Break* 

15.30 -17.00 Emerald Publishing Workshop



17.00 -17.15 *Coffee Break* 

### 17.15 -18.45 *Doctoral sessions* (2)

Room N10 Asset, Property & Facility Management - Doctoral Session 6
Room N11 Real Estate Investment & Market Research, Analysis & Forecasting - D.S. 7
Room N12 Government Policy & Regulation in the Real Estate Sector - Doctoral Session 8
Room N13 Real Estate Finance & Investment - Doctoral Session 9

Room N14 Real Estate Finance (2) - Doctoral Session 10

### 19.30 Icebreaker Party at Sala Alessi Palazzo Marino & Urban Center

Piazza Della Scala, 1 Subway DUOMO Red/Yellow line

Palazzo Marino is situated in the famous La Scala square, which has been the head office of the City of Milan since 1861. Next to Palazzo Marino, in Vittorio Emanuele's gallery, is the Urban Center: the first multimedia urban info center in Italy and a show room of the latest real estate development projects in the Greater Milan area. In this venue it will be possible to view also an exhibit about the most important football stadiums in the world.





## Thursday, 24 June 2010

08.00	Registration	onenina
00.00	Negisii aiioii	opening

### 09.00 - 11.00 Opening Ceremony & Key Note Speakers

Aula Magna Bocconi Grafton Building

### 11.00 - 11.30 Coffee break

### 11.30 - 13.00 Workshop Sessions & Industry Seminars & Symposiums

Room N01 Industry Seminar - Real Estate Debt in Europe: How large is the 'Elephant in the Room'

Room N02 **Industry Seminar** - Green Building: comparing experiences on the Italian market

Room N18 **Industry Seminar** - Project Financing for Infrastructure Investments

Room N03 Symposium - Communication in Real Estate

Room N10 Real Estate Risk Management (1)

Asset, Property & Facility Management (1) Room N11

Room N12 Housing Economics (1) Room N13 Corporate Real Estate (1)

Government Policy & Regulation in the Real Estate Sector (1) Room N14

Room N15 Indirect Real Estate Investment (1)

Room N16 Real Estate Development (1)

### 13.00 - 14.15 Lunch

### 13.00 - 14.00 ERES Doctoral Network Meeting

### 14.15 - 15.45 Workshop Sessions & Industry Seminars & Symposiums

Room N01 EPRA Industry Seminar - Loan to value in listed property companies

Room N02 **Industry Seminar** - The Italian Property Market: A question of Transparency

Industry Seminar - Real Estate Risk & Uncertainty Measurement Room N03

Room N10 **Symposium** - Retail & Shopping centres

Room N11 Macroeconomic Perspectives on the Real Estate Market (1)

Room N12 Market Research, Analysis & Forecasting (1)

Room N13 PPF, PPP & Infrastructures (1)

Housing Economics (2) Room N14

Green Buildings & Environmental Policies (1) Room N15

Room N16 Government Policy & Regulation in the Real Estate Sector (2)

Room N18 Real Estate Investment (1)

### 15.45 - 16.15 Coffee break

## 16.15 - 17.45 Workshop Sessions & Industry Seminars & Symposiums

Room N01	<b>Industry Seminar</b> - Mortgages, risk and valuation	
Room N03	Symposium - Research and Forecasts in real	estate
Room N10	Indirect Real Estate Investment sponsored by <b>NREV</b>	
Room N11	Green Buildings & Environmental Policies (2)	
Room N12	Housing Economics (3)	
Room N13	Asset, Property & Facility Management & Environmental Po	licies
Room N14	Real Estate Development & Finance	
Room N15	Urban Economics (1)	
Room N16	Real Estate Risk Management (2)	

### 19.30 Gala Dinner at World Join Center

via Achille Papa 30, Portello Bus leaving from Bocconi University at 19.00

The World Join Center, opened late 2008, is one of the new landmarks of Milan, located close to the new Congress Center of Milan (18.000 seats, under development and to be delivered by end 2011). The Tower, privately owned, boasts a large covered square which will be perfectly equipped for our top-class Gala Dinner.







## Friday, 25 June 2010

08.00	Registration opening
08.30 -10.00	Workshop Sessions & Panel Sessions
Room N02	Indirect Real Estate Investment (2)
Room N03	Green Buildings & Environmental Policies (3)
Room N10	Housing & Urban Economics
Room N11	Real Estate Investment & Portfolio Management (1)
Room N12	Tax & legal issues in Real Estate
Room N13	Marketing & Communication in Real Estate
Room N14	Asset, Property & Facility Management (2)
Room N15	Case studies & Teaching Real Estate (1)
Room N16	Market Research, Analysis & Forecasting (2)
08.30 - 9.30	ERES Doctoral Network Master Class "Valuation and Pricing" (Room N01)
10.00 -10.30	Coffee break sponsored by Design to Users
10.30 -12.00	Workshop Sessions & Panel Sessions & Symposiums
Room N02	Symposium - Office take up & existing stock
Room N03	IRES Educational Panel - Integrating Industry and other 'Real World' learning
<b>D</b> 1110	experiences within the Real Estate Curricula: Challenges and Experiences
Room N10	Market Research, Analysis & Forecasting (3)
Room N11	Housing Economics & Urban Economics
Room N12	Real Estate Investment (2)
Room N13	PPF, PPP & Infrastructures (2)
Room N14	Case studies & Teaching Real Estate (2)
Room N15	Green Buildings & Environmental Policies (4)
Room N16	Real Estate Finance & Investment
Room N18	Market Research, Analysis & Forecasting (4)
10.30 -11.30	ERES Doctoral Network Master Class "Investment and Finance" (Room N01)

## 12.00 - 13.30 Lunch & Poster Session



### 13.30 - 15.00 Workshop Sessions & Panel Sessions

Room N02	<b>ERES Panel</b> - Communicate To Real Estate Investors? Yes We Can!
Room N03	Housing Economics (4)
Room N10	Case studies & Teaching Real Estate (3)
Room N11	Corporate Real Estate (2)
Room N12	Government Policy & Regulation in the Real Estate Sector (3)
Room N13	Indirect Real Estate Investment & Portfolio Management
Room N14	Green Buildings & Environmental Policies (5)
Room N15	Real Estate Risk & Portfolio Management
Room N11 Room N12 Room N13 Room N14	Corporate Real Estate (2) Government Policy & Regulation in the Real Estate Sector (3) Indirect Real Estate Investment & Portfolio Management Green Buildings & Environmental Policies (5)

Room N16 Real Estate Valuation (2)

Room N18 Green Buildings & Environmental Policies (6)

## 13.30 - 14.30 ERES Doctoral Network Master Class "Housing Research"

(Room N01)

### 15.00 -15.30 *Coffee break*

### 15.30 - 17.00 Workshop Sessions & Panel Sessions

Room N01	ERES Panel - Housing markets
Room N02	Green Buildings & Environmental Policies (7)
Room N03	Real Estate Valuation (3)
Room N10	Uncertainty science in Real Estate & Finance
Room N11	Asset, Property & Facility Management (3)
Room N12	Real Estate Finance (1)
Room N13	Market Research, Analysis & Forecasting (5)

### **17.00 - 18.00** Annual General Meeting (Room N01)

## 19.00 Farewell Party & Rugby sponsored by

Beni Stabili

Viale Byron, 2 Subway: LANZA Green Line

The Arena is located in the hearth of the Sempione Park, Milan downtown, close to the world famous "Sforzesco Castle"."An outstanding, unique, and original way" to conclude the ERES Conference 2010! Enjoy a short but very special Rugby Game played in the honor of ERES Delegates by "Amatori Rugby Milano", the Rugby Team of Milan (the most historical and popular Team in Italy). Have a drink together with the Players at the end of the Game! Take snapshots with Captain Javier Lagioiosa and the other Champions!





## Saturday, 26 June 2010

## 09.00 - 10.30 Workshop Sessions

Room N01	Urban & Housing Economics
Room N02	Corporate Real Estate (3)
Room N03	Housing Economics (5)
Room N10	Real Estate Development (2)
Room N11	Real Estate Finance (2)
Room N12	Real Estate Investment & Portfolio Management (2)
Room N13	Real Estate Valuation (4)
Room N14	Housing Economics (6)
Room N15	Green Buildings & Environmental Policies (8)

## 10.30 - 11.00 Coffee break

## **11.00 - 12.30** *Workshop Sessions*

Room N01	Urban Economics (2)
Room N02	Real Estate Investment (3)
Room N03	Macroeconomic Perspectives on the Real Estate Market (2)
Room N10	Property Cycles & Financial Markets
Room N11	Real Estate Development (3)
Room N12	Real Estate Finance (3)
Room N13	Portfolio Management
Room N14	Real Estate Valuation (5)
Room N15	Housing Economics (7)

## 12.30 - 14.30 Farewell Wine Lunch



## **Industry Seminars**

Real Estate Debt in Europe: How large is the 'Elephant in the Room' 24th June 2010, 11.30-12.45, room N01

### **Speakers**

- 1. Eamonn D'Arcy (University of Reading)
- 2. Konstantinos Papadopoulos (DTZ)
- 3. Iryna Pylypchuk (CBRE)
- 4. Sotiris Tsolacos (CoStar/PPR)

#### **Abstract:**

Problematic real estate related debt continues to be a major negative influence on both the European commercial property market and lending institutions. The panel explores the magnitude of this problem and examines some potential solutions.

### Éamonn D'Arcy

**Éamonn** is the Programmes Director of the Full-Time MSc Real Estate Programmes at the Henley Business School, University of Reading and Senior Lecturer in Real Estate and Urban Economics. He is currently the Executive Director of the European Real Estate Society (ERES), is the incoming president of the International Real Estate Society (IRES).

### **Konstantinos Papadopoulos**

**Konstantinos** is an Analyst in DTZ's Global Forecasting and Strategy Research team. He joined DTZ as a junior analyst in the capital markets research team in 2008. Prior to this he was at CASS business School where he studied MSc Real Estate Investment. He has worked on many of the research coming out of DTZ on the capital and investment markets. This includes work on the Debt Funding Gap, Equity Raising, the CMBS markets and DTZ's flagship research, Money into Property. His work is quoted and discussed widely in the financial arena.

### Iryna Pylypchuk

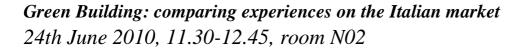
**Iryna** joined CB Richard Ellis in 2004 and is currently working in the Investment and Consultancy team of the EMEA Research. Iryna has a strong understanding of the European investment market and its key players, and regularly reports on the trends in the European Capital Markets, Retail Investment Market and German Open-ended Funds, etc. Over the last 18 months Iryna has been working closely with the Real Estate Finance team at CB Richard Ellis and she has taken responsibility for carrying new areas of research on the structure and trends in the Commercial Real Estate Debt Market in the UK and Europe.

### **Sotiris Tsolacos**

**Sotiris** is the Director of European Research for Property and Portfolio Research, is responsible for delivering the company's research and portfolio strategy services in Europe. He works closely with clients to resolve complex issues by creatively applying PPR's data and research techniques. Sotiris has years of experience in strategic investment research and risk management. He has consulted with investment managers and real estate funds on business planning and strategy. He also spent seven years with Jones Lang LaSalle in London, leading the investment research group.







### **Speakers**

- Simone Spreafico, Engagement Manager Director REAG Real Estate Advisory Group
- Ermanno Pievani, Technical Manager ECOMAG

### **Abstract**

**Economic Drivers** 

- Drive to sustainable buildings coming from occupiers & investors
- Faster depreciation and obsolescence of unsustainable buildings both in the rental & equity market
- Future taxation ?

Legal Framework

• Growing regulatory & policy pressure on the performance of buildings

Risk Management

Sustainable buildings respond best to climate changes and natural resources scarcity

Market Drivers

- Consumers choosing companies responding to environmentally friendly behavior
- "doing the right thing" vs. "doing things right"

### Simone Spreafico, Engagement Manager Director REAG Real Estate Advisory Group

Has been working for REAG Real Estate Advisory Group since March 2001. At present he is Engagement Manager Director for the Investment & Advisory division of REAG; he manages a professional team of 40 employees (7 Engagement Manager) and several professional consultants around Italy. He is responsible for real estate valuations, feasibility studies and investment analysis both in Italy and abroad. He is member of the Board of the Directors of the company named "REAG 4 loans". Among the main activities he has carried out as Manager and Client Referent, there are some of the most important deals signed on the Italian real estate market, portfolios both public and private (Italian and foreigner Company). As Valuator and/or Advisor he worked on several real estate development projects; in particular he coordinated feasibility studies and advisory for significant developments and renovation projects of urban areas (the most important in Milan and Rome and others around Italy). Moreover he carried out consultancy activities as "independent expert" (authority/valuator) for several real estate funds.

### Ermanno Pievani, Technical Manager ECOMAG

He occupies the position of "Technical Manager" for ECOMAG - Environmental Management - srl, which is part of the American Appraisal Associates Group. Ecomag is specialized in environmental, health & safety, building system and energy consulting, developed specific competences for the real estate sector, built upon group know how. Ermanno coordinates the activities of different Ecomag sectors: environmental, building system, energy, health&safety and Hydro. Ermanno worked on several deals covering the entire due diligence services, energy certificates and audits, feasibility studies and analysis of economic sustainability, cooperating both with national and international clients and banks in studies for renewable energy sources.

### Real Estate Risk & Uncertainty Measurement

24th June 2010, 14.15-15.45, room N03

### **Moderation**

Andreas Loepfe FRICS, University of Zurich

### **Speakers**

- 1. Dr. Thomas Beyerle MRICS, Aberdeen Immobilien KAG
- 2. Antonio Campagnoli, Fiabci, Isivi & Tegova
- 3. Prof. Dr. Claudio Giannotti, University of Rome
- 4. Dr. Robin Goodchild FRICS, LaSalle Investment Management
- 5. Gaetan Kameni MRICS, Pension Fund of the Kanton Zurich
- 6. Dr. Kanak Patel, University of Cambridge

### **Abstract**

The distinction between systematic and unsystematic risk allows a clear understanding of the benefits of diversification in the equity or bond market. This distinction is unfortunately less obvious in property markets implying also that diversification benefits may at times be over- or underreported. The questions surrounding the issue of diversification may be answered once the risk and uncertainty sources have been identified and properly quantified at the individual property level. From the valuation perspective part of the task is often referred to as "Valuation Uncertainty".

We discuss potential use of Monte Carlo Simulations and other methods to quantify risk and uncertainty on property level and measure diversification benefits. We try to understand the degree to which the industry already adopted these methods. Are there benefits in investing resources in using this technique? How large are the benefits and what are the costs?

### Andreas Loepfe, CUREM, University of Zurich

Andreas Loepfe is CEO of INREIM – Independent Real Estate Investment Managers in Zurich and Managing Director of the Center for Urban & Real Estate Management CUREM of the University of Zurich. Before he was in charge of the division Real Estate Research & Strategies of the Zurich Insurance Company for seven years and four years responsible for the real estate portfolio management of the Zurich Investment Foundation. Andreas Loepfe studied architecture at the Swiss Federal Institute of Technology Zurich and economics at the University of Zurich. Afterwards he educated himself at the European Business School (ebs) and at the MIT Boston.

### Antonio Campagnoli, Fiabci, Isivi & Tegova

He has a degree in Law cum laude, he is admitted to the Milan Bar as "Avvocato", he is a member of the IsIVI and he is an associate member of the AI, and he is currently vice-president of the European Committee of FIABCI (International Real Estate Federation) and member of the REV's recognition committee of TEGoVA.. He has co-authored several books including the Italian version of the "European Valuation Standards" by Franco Angeli (2008) and he has organised several events and conferences in order to offer his know how and experience to the benefit of the real estate market in general. He is one of the founding members of IL PUNTO and he is responsible for all advisory services provided.

### Claudio Giannotti, University of LUM Jean Monnet

Associate Professor in Banking and Director of the School of Management at University LUM Jean Monnet of Casamassima (Bari – Italy). Director of the Laboratory of Real Estate Finance, within the Ph.D in Banking and Finance of the University of Rome Tor Vergata. Coordinator of the Real Estate Finance module, within the Master in Economics and Management of Properties (MEGIM) at University of Rome Tor Vergata.

### Gaetan Kameni, Pension Fund of the Kanton Zurich

Project development and acquisitions for the pension fund of the canton of Zurich. He has extensive experience in the real estate management industry and a keen interest in the corroboration of financial decisions with field evidence.

### Kanak Patel, University of Cambridge

Dr Kanak Patel is a Fellow and Director of Studies in Economics at Magdalene College, and Lecturer in Property Finance, University of Cambridge. She was elected President of the Asian Real Estate Society (2003-2004) and President-Elect (2002-2003). She is the Co-founder of Cambridge-Maastricht Symposium and Cambridge-UNC Charlotte Symposium on Real Estate Risk Management Guest-Editor of the Special Issues 2001-2008.

### Robin Goodchild, LaSalle Investment Management

International Director & Head of European Strategy with over 35 years experience as a chartered surveyor engaged in a wide variety of activities in the commercial property markets of UK and continental Europe. He obtained his professional qualification in 1973 and was educated at the University of Cambridge where he was awarded both an MA and PhD. He joined LaSalle in 1997 and is based in London.

### Thomas Beyerle, Aberdeen Immobilien KAG

Born in 1967, studied Economic Geography at the University of Mannheim. Upon the foundation of the Dresdner Bank Immobiliengruppe (real estate group) in 1999, transfer to Frankfurt with responsibility there for all real estate research. After the merger of Allianz AG with the Dresdner Bank AG in 2002, became Director and Head of the Allianz Global Investors Division Research & Consulting and Press Management at DEGI – now Aberdeen Immobilien KAG mbH – Frankfurt. Since 2007 working as Head of Global Research at DEGI/Aberdeen Property Investors.



# The Italian Property Market: A question of Transparency 24th June 2010, 14.15-15.45, room NO2

### **Speakers**

- 1. Mirko Baldini, Director Advisory, CB Richard Ellis
- 2. Claudia Buccini, Head of Research, Cushman & Wakefield Italy
- 3. Raffaella Pinto, Senior Analyst, Jones Lang LaSalle
- 4. Valentina Puleio, Head of Research, BNP Paribas REA
- 5. Rezarta Tasellari, Director & Head of Research, DTZ
- 6. Susan Trevor Briscoe, Head of Research, Savills

### **Abstract**

For over 5 years, a forum of researchers from the main international real estate firms (JLL, C&W, DTZ, BNP Paribas Real Estate, Savills and CBRE) has been working to enhance the transparency of the Italian property market.

The Researchers working for some of these real estate advisors began meeting in 2003 (in order to share opinions on current and future market trends and on macro-level market data). Since that date, new researchers from the other real estate international advisors have joined the group and also the amount and quality of information.

discussed has improved. This has vastly improved transparency within some of the most significant sectors of the Italian commercial real estate market. The main objectives of this forum, in addition to maintaining and expanding on the transparency generated to date, is to create and agree upon a harmonized set of definitions applicable to the Italian office market sector. Indeed, flexibility is fundamental so that also consider the peculiarities of each local market.

However adopting a common approach and terminology will lead to a greater degree of comparability of market data. This project is still at the initial stages and in this paper each company will contribute to describing aspects of the results achieved till now, the principal differences between the Italian and more mature markets, and where the forum intends to head in the short-to-medium term.

### Mirko Baldini, Director Advisory, CBRE

In CBRE since 2005, Mirko is head of the advisory team - member of the capital markets department, performing investment valuation and feasibility studies, as well as analyze all the information, produce market reports and presentations, provide bespoke consultancy services. Before joining CBRE, seven years experience at Italy's largest wholesale distribution chain and shopping centre developers. He was head of the team analyzing all aspects of hypermarket and supermarket investments ranging from the valuation and preliminary sustainability analysis to the marketing strategy. Graduated from the University of Bologna in Information Technology and Statistical Sciences.

### Claudia Buccini, Head of Research, Cushman & Wakefield Italy

Claudia heads the Business Space Research Team in Italy. Her responsibilities include the publication of regular market updates and the preparation of detailed market analysis for national and international clients. She is an active player within the European Research Group, providing the information on the Italian market for global publications and international projects. By working closely with the Capital Market and Leasing departments, she provides consultancy to Developers and Investors, assisting them in defining and implementing their strategic plans. Claudia has a degree in Architecture and a Master degree in Urban Planning and Property Market (Italy-UK). She works in the Real Estate sector since 1998.

### Raffaella Pinto, Senior Analyst, Jones Lang LaSalle

Raffaella starts working in the real estate research in 2002 for a local firm and then joined Jones Lang LaSalle in March 2007. Since then her main areas of expertise are office and warehousing real estate sectors as for both occupiers and investment perspective. Among her responsibility: supervise output content, manage the client proposal, manage client directly, data management, forecast support, writing publications. Raffaella also contributes to pitch for clients and support other business line providing advisory services like market and demand assessment analysis. Raffaella has a degree in Statistics from La Sapienza University in Rome.

### Valentina Puleio, Market Research Analyst, BNP Paribas Real Estate

She joined BNP Paribas Real Estate Italy, October 2008, as a Research Analyst focusing on analyzing all the information, producing market reports and presentations for all departments and for national and international clients. She assists BNP Paribas Real Estate professionals in understanding market-trends to give in-depth and accurate advice to clients. She is specialized in market research, tertiary sector. Valentina Puleio has got a BA (Hons) in International Business, with a specialization in Marketing Management from Nottingham Trent University.

### Rezarta Tasellari, Director & Head of Research, DTZ

She starts working like research analyst in Real Estate industry in 2003 and joined DTZ in 2007. Her main responsibilities are to lead and coordinate the Italian research team; as well as producing market reports and presentations for all departments and provide economic and market analysis on Italy. Rezarta is also involved in many projects for national and international clients. Prior to 2003 she worked for two other Italian research market companies, specialized in market research in the industrial sector, mass market goods and public services. Rezarta has a degree in Mathematics and a degree in Business Statistics and IT.

### Susan Trevor Briscoe, Head of Research, Savills

Susan heads Savills Italy's Research department, giving support to Savills Italy's internal departments through the analysis and processing of market information and data, as well as undertaking ad-hoc research projects. Susan has recently undertaken the creation of a comprehensive office market database, under ongoing expansion.

Susan has been working with Savills Italy since the opening of the Milan and Rome offices in 2002, prior to which she headed the Corporate Services department with CB Richard Ellis. Susan is a licensed Italian Real Estate Broker with the Chamber of Commerce in Milan and a Fellow of RICS.

### Anna Strazza, Business Space Research, Cushman & Wakefield Italy

Anna has degree in Business Administration at Università' Cattolica del Sacro Cuore, Milan. After an experience in the Real Estate Administration and in the Marketing and Communication sector, in 2007 Anna joined the Business Spaces Research Team at Cushman & Wakefield LLP Milan. Her main duties consist in the analysis of market trends, quarterly reports for the Milan area and specific researches on other Italian Office markets. She gives strategic support to other departments within the firm, in particular for Business Space team, Capital Markets Group and the Industrial team. Anna also collaborates with C&W Research Department in London and other European offices.



## Mortgages, risk and valuation 24th June 2010, 16.15-17.45, room N01

### **Speakers**

- 1. Antonio Campagnoli IsIVI
- 2. Terry Dunkin and Jim Amorin Appraisal Institute
- 3. Giuditta Losa Eurohypo
- 4. Luca Pavan Eurohypo
- 5. Elena Delsignore Il Punto Real Estate Advisor
- 6. Francesco Dialti Avvocato, Milan

### **Abstract**

In the real estate finance sector, the value of the asset on which a mortgage is raised is a key aspect; in fact, the recovery chances for a lender, in case of the borrower's default, are directly linked to the value of the underlying asset.

As known, prices of the real estate assets have been subject to rather substantial changes in the last years (such changes, of course, varying depending on the location and type of the relevant assets), thereby posing risks for the lenders' actual recovery chances.

This resulted in, inter alia, regulatory proposals aiming at reducing the maximum percentage of the value of a real estate asset which may be financed by banks.

The Industry Seminar will highlight how the events of the last years have made it more and more important (i) to correctly assess the value of the underlying asset (also on a periodical basis) and, more in general, (ii) the relationship between mortgage loans and real estate risk in today's finance, based upon the conviction that this relationship is one of the key elements to be solved in order for real estate finance to re-gain momentum.

Experts with different backgrounds (appraisers, real estate advisors, bankers, providers of risk analysis and lawyers) will express their views and compare their different experiences.

The discussion will also try to highlight similarities and differences, if any, in the approaches pursued in the various countries.

### Antonio Campagnoli

He has a degree in Law cum laude, he is admitted to the Milan Bar as "Avvocato", he is a member of the IsIVI and he is an associate member of the AI, and he is currently vice-president of the European Committee of FIABCI (International Real Estate Federation) and member of the REV's recognition committee of TEGoVA.. He has co-authored several books including the Italian version of the "European Valuation Standards" by Franco Angeli (2008) and he has organized several events and conferences in order to offer his know how and experience to the benefit of the real estate market in general. He is one of the founding members of IL PUNTO and he is responsible for all advisory services provided.

### **Terry Dunkin**

Terry Dunkin, MAI, SRA, is senior vice president and principal of Cassidy Turley, a full-service commercial real estate company based in Baltimore, Md. He has been an appraiser for more than 30 years and has been a member of the Appraisal Institute since 1984, during which time he has served on numerous Appraisal Institute committees and the Board of Directors, he was the International President of the Appraisal Institute in 2007. During his presidency, Dunkin recommitted the Appraisal Institute to expanding their global outreach efforts and worked tirelessly to improve the ways in which appraisers connect with the clients of their valuation services. Under his leadership, the Appraisal Institute experienced a growth in membership, successfully completed a realignment of staff and celebrated the organization's 75th anniversary.

### Jim Amorin

Jim Amorin, MAI, SRA, is the 2010 immediate past president of the Appraisal Institute. He served as president in 2009. Amorin has been actively involved in the Appraisal Institute in the areas of admissions, education, ethics and counselling, and serving in various chapter, regional and national leadership positions. Amorin also serves on the board of the Appraisal Institute Relief Foundation. Amorin is vice president of Atrium Real Estate Services, a full-service real estate appraisal and consulting firm in Austin, Texas. He holds degrees in finance and real estate and urban land development from the University of Texas at Austin. He belongs to the International Right of Way Association and the CCIM Institute. He also is on the board of the Green Building Finance Consortium

### Maria Giuditta Losa

Head of Team Italy Real Estate Appraisal & Consulting of Eurohypo AG, an international bank specialised in real estate and public finance Degree in Architecture and a master in Real Estate Management, she has a significant experience in real estate advisory, valuations (past in CBRE), development management (consultant for Serenissima SGR). He co-authored the book "Glossario Immobiliare - Real estate Dictionary" edited by Il Sole24Ore on 2009.

#### Luca Pavan

He is currently working for Eurohypo AG, the Milan branch, international bank specialised in real estate and public finance. He is part of the Real Estate Appraisal & consulting team, responsible both for the evaluation of the properties and the monitoring of the development projects subject to financing in Italy. He has recently supported the Spanish branch in evaluating and monitoring the Spanish portfolio.

He has a degree in Architecture and a master in Real Estate Management, both accredited by RICS, of which he is member.

He co-authored the book "Valutazioni e valorizzazione immobiliare. Esperienze, metodiche e casi studio" (Valuations and real estate management), Tronconi, Bellintani, Sole24Ore, 2006.

He is a frequent speaker and lecturer in various seminars at IUAV - Architecture university of Venice in Real Estate management and evaluation classes.

### Elena Delsignore

Certified public accountant, she is the manager of IL PUNTO. She has a PhD in Economic and Business and she is a Professor in Strategic Planning and marketing at the Business University of "Piemonte Orientale". She is a member of IsIVI and of Arel, she gives her direct contribution for Master and conferences and she cooperates with some Real Estate magazines and periodicals. She wrote some Real Estate books, such as "The new valuation of the Real Estate Properties" or "The Energetic Certification for the Properties", published by Forum Media Edizioni. She is specialized in valuation and rating and in development and shake-out.

#### Francesco Dialti

Francesco works as a lawyer in Milan. After graduating at the University of Florence, he gained a LL.M. (Finance) at the Institute for Law and Finance of Frankfurt am Main (Germany).

He qualified as an Italian lawyer (Avvocato) in 2004. He works in the fields of banking and financial law and insolvency law. He also advises domestic and international lenders, borrowers and equity investors on real estate finance and mezzanine finance transactions. Francesco is fluent in Italian, English and German. Francesco has published many articles on financial law and international insolvency law issues on prestigious Italian and international law magazines.



## Project Finance for Infrastructure Investments 24th June 2010, 16.15-17.45, room NO2

### **Speakers**

- 1. Riccardo Maria Togni, PricewaterhouseCoopers
- 2. Clement Walsh, PricewaterhouseCoopers

### **Abstract**

Economic development and population growth have created a need for realization, renewal and revitalization of key infrastructure projects, but Governments cannot afford and fund these projects alone especially in the current economic downturn. As a result, partnerships between government and private sector are becoming strategic for public and public interest infrastructures and related service delivery.

The seminar is aimed at providing the attendants with a 360 degree overview on Infrastructure Project Finance and the risk-return character of no/limited recourse projects from multiple perspectives and embracing different sectors. An overview of the main sectors at European level will also provide a clear picture of the state of the art of the application of project finance instruments to the realization of infrastructures.

Main topics: Key principles for Project Finance for Infrastructure. Qualitative risk analysis. Quantitative risk analysis & debt sizing/structuring. Project Finance for Infrastructures vs PPP/PFI Financing. Main sector of application. UK and Italian market overview.

### Riccardo Maria Togni, Director PricewaterhouseCoopers

Riccardo leads the Project Finance team in Italy. He has worked in Project Finance for 8 years, and he leads advisory teams for many of our key clients in Italy. His clients are major Italian and international developers, and he specializes in energy (renewable in particular), roads (both tolled and untolled) and Hospitals. He has recently led the team involved on a tender for a major untolled Highway project to be realized in the UAE and on a Project Finance deal related to the financing of a 43 MW PV plant in the south of Italy.

### Clement Walsh, Director PricewaterhouseCoopers

Clement Walsh leads PwC Corporate Finance Transport Team's work in the roads sector. He has worked in Project Finance for 15 years, and he leads advisory teams for many of our key clients in the UK, Europe and North America. His clients are government bodies and major global developers, and he specializes in roads (both tolled and untolled) and light rail projects. He has worked on over 20 PPP projects to reach financial close, and his background includes working in investment banking, consultancy and the railway industry.

## **Panels**

Integrating Industry and other 'Real World' learning experiences within the Real Estate Curricula: Challenges and Experiences - IRES Educational Panel 25th June 2010, 10.30-12.00, room NO3

### **Speakers**

Chair. Paloma Taltavull de La Paz, Universidad de Alicante, Spain

- 1. Greg Costello, Curtin University, Perth, Australia
- 2. Richard Reed, Deakin University, Melbourne, Australia
- 3. Karl Werner Schulte, University of Regensburg, Germany
- 4. Eamonn D'Arcy, Reading University, UK
- 5. Deborah Levy, Auckland University, New Zealand
- 6. Nicholas Nunnington, Sheffield Hallam University, Uk
- 7. Michael Anikeef, Johns Hopkins University, US



#### **Abstract**

The objective is to try and draw together the challenges and experience of the above from an international perspective. Some topics around which the panellist will discuss are:

### Enhancing Graduate Employability:

- \* Opportunities and Support For Placements and Internships within Programmes
- \* Support for work-related projects in the curriculum
- \* Engaging with graduate recruiters
- \* Career Management Skills CV Creation, CV Books, Mock Assessment Days

### Raising Commercial Awareness:

- \* Field Trips
- \* Using Alumni Associations
- \* Industry Mentoring Schemes
- \* Visiting Speakers/Industry Seminars

### **Direct Curriculum Inputs:**

- \* Employer and professional body advise on Curriculum Design
- \* Teaching Inputs: Industry Speakers, Visiting Fellows, Industry Professors
- \* Case Studies and other work-related projects/Field Trips

### **Panelists CVs**

### Greg Costello, Curtin University, Perth, Australia

Greg is associate Professor and Head of Property Studies at the School of Economics and Finance, Curtin University. He also belong to the Centre for Research in Applied Economics (CRAE) and is associate of the Australian Property Institute (Valuation & Land Economy streams). Greg Costello is Head of Department of Property Studies and has taught in the School of Economics and Finance since 1989. Prior to commencing full-time with Curtin in 1991 he has worked in a wide variety of roles within the Western Australian property industry. Greg teaches a wide range of units in the Property programmes at undergraduate and post-graduate levels



### Richard Reed, Deakin University, Melbourne, Australia

Richard Reed is Professor of Property and Real Estate at Deakin University (Burwood campus Melbourne). Richard is a member of the Australian Property Institute and contributes at the state and national levels. He is also a member of RICS, the International Real Estate Committee (IRES) and a member of numerous overseas property organisations. He is consulting editor of 'The Australian and New Zealand Property Journal' (published by the API) and editor of 'The International Journal of Housing Markets and Analysis' published by Emerald. He has presented at many Australian and international conferences. He also presents regularly at industry events and is widely published in the property area



### Karl Werner Schulte, University of Regensburg, Germany

Prof. Dr. Karl-Werner Schulte is Academic Director of IRE|BS International Real Estate Business School at University of Regensburg and Head of ECE Chair and Endowed Professor of Real Estate Economy. He has a degree in business administration (Dipl. Kaufmann) of University of Münster and is awarded a Dr. rer. pol. In 1986 he was appointed to professorship of Investment and Financing at European Business School (ebs). In 1990 he has founded the ebs Immobilienakademie, where he was Academic Director and Managing Partner till 2006. In 1994 he became Head of Chair and Endowed Professor of Real Estate Economy. By appointing other professors the chair was developed



into the Department of Real Estate. In autumn 2006 the Department of Real Estate and Immobilienakademie changed to IRE/BS International Real Estate Business School at University of Regensburg. Prof. Dr. Karl-Werner Schulte was Founding President of gif Gesellschaft für Immobilienwirtschaftliche Forschung as well as President of ERES European Real Estate Society and IRES International Real Estate Society. Actually Prof. Dr. Karl-Werner Schulte is as Director of IRES responsible for the development of real estate education and research in Africa. Prof. Dr. Karl-Werner Schulte is Honorary Member of The Royal Institution of Chartered Surveyors (HonRICS) and the first German member of the American real estate organization CRE Counselors of Real Estate.

### Eamonn D'Arcy, Reading University, UK

Eamonn D'Arcy is senior lecturer in Real Estate and Urban Economics at the University of Reading. His main responsibilities are as a Program Director at the MSc Real Estate Programmes. Éamonn is a real estate and urban economist whose research and teaching interests focus on the internationalisation of real estate involvements, institutional frameworks for property market analysis, structural change in real estate markets, the future of real estate services in the global economy and developments in the provision of real estate education. His teaching portfolio covers real estate and investment economics, urban and regional economics and international real estate



markets. He has led over seventeen postgraduate real estate field trips across a range of European cities. He is currently the Executive Director of the *European Real Estate Society* (ERES), the leading real estate research and education organisation in Europe, and previously served in this position from 2000 to 2006. Éamonn has been a member of the board of directors of the *International Real Estate Society* (IRES) since 2000. He currently chairs the IRES task force on real estate education and serves as a co-editor of the *Journal of European Real Estate Research* 

### Deborah Levy, Auckland University, New Zealand

Deborah Levy is Associate Professor and Director of Industry Liaison at the Auckland University in New Zealand. She has been president of the Pacific Rim Real Estate Society (PRRES) and has responsibilities on education activities in the society. Se chairs the Student competitions since 2008, a new initiative coordinating group of students from different Universities in the world working about property and real estate. Her special Interests are behavioural aspects of property, property management and real estate marketing.



### Nicholas Nunnington, Sheffield Hallam University, Uk

Nick Nunnington is principal Lecturer on Property Development and Corporate Real Estate. Teaching and Learning, at Sheffield Hallam University. He belong to the Centre of Excellence for Teaching and Learning: Promoting Learner Autonomy and the Centre of Excellence for Teaching and Learning: Enhancing, Embedding and Integrating Employability. Nick developed the innovative MSc Property Appraisal and Management Course and recognition of the features in this course have led to him becoming an Associate Director in the two Centres of Excellence for Teaching and Learning mentioned before. He has lectured in Poland, Norway and Canada and most recently at John Hopkins in Washington DC. He



runs development projects in Shanghai and across Canada and runs the "European Challenge" a partnership involving 8 European Universities in a project which simulates the relocation of a large corporate financial services organisation. Nick is also the leader of a CETL special Interest group on New Technologies. His research interest areas are Corporate Real Estate and how it supports the business, Teaching and Learning - the use of technology, Autonomous Learning and Embedding and Integrating Employability into the Curriculum. His teaching interests are Developing Sophisticated Problem Based Learning, using Technology to achieve innovative blended learning, Corporate Real Estate, Development appraisal and Residential Property

### Michael Anikeef, Johns Hopkins University, US

Mike Anikeef is Professor at the Johns Hopkins University Carey Business School and director of the Edward St. John Program in Real EstateHe is PhD in Sociology and City Planning, and joined the Johns Hopkins Carey Business School in 1991. He is a Professor in the practice track with expertise in the areas of real estate development and urban planning. He is member of the Editorial Board of the International Journal of Strategic Property Management since 2006 to present amd pf Development since 2004. He was Editor of Seniors Housing & Care Journal during 1999-2007. Mike has received various distinctions, as the ARES Distinguished Service Award (2009), the Lambda Alpha International (2007), the



Richard T. Ely Distinguished Educator Award. He is also Eminent Fellow of the Royal Institute of Chartered Surveyors and Distinguished Fellow, National Association Industrial and Office Properties.

### Chair: Paloma Taltavull, University of Alicante (IRES President)

Paloma Taltavull is associated professor in Applied Economics at the University of Alicante, Spain. Her research interest areas are housing markets, macroeconomics, real estate and urban economics. Her publication covers the analysis of housing markets in Spain, affordability problems, housing supply, construction sector, regional and metropolitan analysis. She belongs to the European Real Estate Society board since 1999 and to the International Real Estate Society board (IRES) since 2002. She has been president of the ERES during 2002-2003 and of IRES during the current year (2010). She has developed different education projects, as to create the



real estate undergraduate in Spain inside her University, and she has been in charge of the First ERES Education Seminar in 2005 and develops many educational activities.



## Communicate To Real Estate Investors? Yes We Can! 25th June 2010, 13,30-14,45, room NO2

### **Speakers**

- 1. Allan Saunderson, Property Investor Europe
- 2. Paola G. Lunghini, by Internews

### Roundtable with guests



## Housing markets 25th June 2010, 15.30-17.00, room N01

### **Speakers**

- 1. Geoffrey Meen, University of Reading
- 2. Rose N. Lai, University of Macau
- 3. Uberto Visconti, Italy
- 4. Anthony De Francesco, IPD Australia & New Zealand

Moderator: Paloma Taltavull, University of Alicante

### **Abstract**

The panel covers the impact of credit crunch on housing markets, the macroeconomic aspects of the phenomena and the different housing markets' reaction after two years from the hit. Links between financial and housing sectors will be covered stressing the role of housing on the economic growth, the different market moments worldwide the problems faced by the economies and the disequilibrium raised in the housing markets. Main problems and possibly solutions will also be discussed.

### **Speakers CVs**

### Geoffrey Meen, University of Reading, United Kingdom

Geoff Meen is Professor of Applied Economics in the School of Economics, University of Reading. His areas of interest are Applied econometrics, the economic analysis of housing markets at different spatial levels from the national to the local and the economics of segregation and deprivation. He belong to two research groups: Centre for Spatial and Real Estate Economics (CSpREE) and International Centre for Housing and Urban Economics (ICHUE)



### Rose N. Lai, University of Macau

Rose Lai is Associate Professor in Finance and Associate Dean (Research and Development) at the Faculty of Business Administration at the University of Macau and Executive Editor of the International Real Estate Review. Her research interest cover some financial areas like Option Pricing Models, Risk Management, Real Estate Finance and Economics and Behavioral Finance. She is now Visiting Fellow, Clare Hall, Judge Business School, University of Cambridge, United Kingdom



### Uberto Visconti, Italy

Uberto Visconti is strategic advisor at Europrogetti & Finanza in Italy. He is a well known expert on housing market developing his professional career as advisor at Europrogetti & Finanza, Manager at ING Real Estate Development and he founded Valori Urbani Srl. He is PHd in Architecture & Urban Planning at the Politécnico of Torino worked for Scenari Immobiliari and was researcher in Real Estate & Urban Planning at the Technische Universiteit in Delft.



### Anthony De Francesco, IPD - Australia & New Zealand

Anthony is the Research Managing Director of IPD for Australia and New Zealand. He has been head of Research at Colonial First State Global Asset Management. He is very well known as analyst in real estate. He is PhD in Economics at the University of Melbourne.



### **Moderator: Paloma Taltavull, University of Alicante**

Paloma Taltavull is associated professor in Applied Economics at the University of Alicante, Spain. Her research interest areas are housing markets, macroeconomics, real estate and urban economics. Her publication covers the analysis of housing markets in Spain, affordability problems, housing supply, construction sector, regional and metropolitan analysis.



## **Poster Session**

### Norbaya Ab Rahim, University of Salford

Decision Making In Outsourcing Support Services In Uk Public Healthcare

Kunle Gbenga Awolaja, Ministry Of Waterfront Infrastructure Development, Lagos State, Nigeria Management Of Coastal Area Lands In Lagos State Of Nigeria- An Emerging Market Perspective

Anita Bilos, International Real Estate Business School (IRE/BS) University of Regensburg Impact Of Sustainable/Green Buildings On Productivity And Performance

Yajuan Cao, Dept. of Real Estate and Construction, The University of Hong Kong Is A Recovery Or A Bubble?: What Happened To China's Real Estate Market?

### Rui Chen, The University of Hong Kong

House Prices, Interest Rates And Macroeconomic Fluctuations: Chinese Evidence

### Yung Yau, The University of Hong Kong

Effects Of Land Auctions On Private Housing Market: An Empirical Study In Hong Kong

### Konrad Finkenzeller, IREBS - University of Regensburg

Term-Structure Of Infrastructure Investments- A Comparison To Major Asset Classes

### Benedikt Fleischmann, IREBS - University of Regensburg

Inflation-Hedging, Asset Allocation And The Investment Horizon

Sarah Ok Kyu Frank, University of Stuttgart, Institute for Construction Economics Identification And Integration Of Sustainability Aspects Into Property Valuation

Yuan Gao, School of Management Huazhong University of Science, and Technology, Wuhan, China, 430074 & Land Economy, University of Cambridge, 19 Silver Street, Cambridge CB3 9EP, United Kingdom Irrational Belief And Credit Spreads Puzzle

### Brano Glumac, Eindhoven University of Technology

Modeling Stakeholder Decision Making Processes In The Context Of Brownfield Redevelopment

### Andreas Gohs, IRBES - University of Regensburg

Methods For An Assessment Of The Development Of Real Estate Market Values For Imperfect Raw Data

### Shanaka Herath, Research Institute for Spatial and Real Estate Economics, WU Wien

A Framework For Analysing House Prices Using Time, Space And Quality Criteria

### Kristian Kahre, Tallinn University of Technology

Which Central Eastern European Country Has The Greatest Potential For Housing Market Recovery?

### Manuel Käsbauer, IREBS - Universität Regensburg

Implications Of The Home Buying Process For Short Term Transactions



Moses Mpogole Kusiluka, International Real Estate Business School (IREBS), Regensburg University Agency Conflicts In Property Investment Decisions And The Mitigating Effect Of Informal Institutions: Evidence From Investment Activities Of Pension Funds And Foreign Investors In Tanzania

### Xian Zheng, The University of Hong Kong

Real Estate Tax Policy In China: Can Property Tax Cool Down The Overheated Market?

### Wei Liu, Department of Real Estate and Construction The University of Hong Kong

The Formation Of Housing Price Expectations In China: A Case Study Of Beijing

### Tuuli Luoma, Aalto University School of Science and Technology

Value Creation In Real Estate Business

### Michael Mccord, UNIVERSITY OF ULSTER

Modelling Affordability In Housing Markets

### Jan-Willem Olliges, IREBS Institut, University of Regensburg

Event Study: The Influence Of Quarterly / Annual Reports On The Stock Performance Of Listed Real Estate Companies

### Dominique C. Pfrang, IREBS - University of Regensburg

Property Brands – Developing A Strategic Branding Model For The Real Estate Business

### Frans Schilder, University of Amsterdam

Home equity, fiscal policy and the demand for housing

### Kai-Magnus Schulte, IREBS - University of Regensburg

Conditional Asset Pricing In European Real Estate Capital Markets

### Matthias Segerer, IREBS - University of Regensburg

Is There A Link Between Spatial Theories And Retail Property Investments Within The Urban Area? The Situation Of German Discounters

### Wittig Silke, IREBS University of Regensburg

Modelling The Tenant Mix Of A Shopping Center

### Silvia Spairani Berrio, UNIVERSIDAD DE ALICANTE

A Close Look At The Expert's Perception Of The Suitability Of Construction Materials For Residential Use. Preliminary Studies.

### Ashot Tsharakyan, CERGE-EI

Welfare Effects Of Housing Price

### Christian Witt, IREBS - University of Regensburg

The Relevance Of Real Estate Assets And Derivatives For International Money Markets And Their Preeminent Role During The Subprime Financial Crises

### Andreas Blüml, IREBS - University of Regensburg

Industrial Property In Germany: Bad Performance Or Lack Of Knowledge?





### **Session Details**

Wednesday, June 23, DS. A

**13.45-15.15: Doctoral sessions (1)** 

### Green Buildings & Environmental Policies - Doctoral Session 1 (Room N11)

Chair: Karl-Werner Schulte

Participants:

- 1) Elaine Wilke Capitalization Rates As Risk Indicators For (Non-)Efficient Properties?, Presented by: Elaine Wilke
- 2) Andrea Chegut, Piet Eichholtz, Nils Kok A Global Perspective On The Value Of Green Buildings, Presented by: Andrea Chegut
- 3) Jorn Van De Wetering Uncovering A Pricing Premium For Green Offices In The Uk Using Current Eco-Labels, Presented by: Jorn Van De Wetering

### **Housing Economics - Doctoral Session 2** (Room N12)

Chair: Paloma Taltavull

Participants:

- 1) Peter Scott Judgemental Bias And Housing Choice, Presented by: Peter Scott
- 2) Fan Wu Determinants Of Environmental Preference By Housing Consumers In Guangzhou, China, Using Analytic Hierarchy Process, Presented by: Fan Wu
- 3) Frans Schilder, Johan Conijn Seasonality In The Dutch Housing Market, Presented by: Frans Schilder

### **Real Estate Finance - Doctoral Session 3** (Room N13)

Chair: Martin Hoesli

Participants:

- 1) Tumellano Sebehela, Gianluca Marcato Option Pricing Under Stochastic Volatility Of Us Reits, Presented by: Tumellano Sebehela
- 2) Ranoua Bouchouicha Turning Points Of Financial And Real Estate Market, Presented by: Ranoua Bouchouicha

### Indirect Real Estate Investment - Doctoral Session 4 (Room N14)

Chair: Gianluca Marcato

Participants:

- 1) Douw Boshoff, Chris Cloete Can Listed Property Shares Be A Surrogate For Direct Property Investment Behavior?, Presented by: Douw Boshoff
- 2) Erkan Yonder, Piet Eichholtz, Nils Kok Real Estate, Governance, And The Crisis, Presented by: Erkan Yonder
- 3) Xian Zheng, Jian-Chong Liang, Kwong-Wing Chau Performance And Efficiency Assessment Of Listed Real Estate Companies: An Empirical Study Of China, Presented by: Xian Zheng

### Urban Economics - Doctoral Session 5 (Room N15)

Chair: Alan Evans

Participants:

- 1) Marijana Srećković Knowledge Management In Regional Networks: Empirical Results From The Green Building Cluster Of Lower Austria, Presented by: Marijana Srećković
- 2) Stefanie Forster-Kraus *The Impact Of Demography On The Housing Affordability In Germany*, Presented by: Stefanie Forster-Kraus





### Wednesday, June 23, DS. B

### **15.30-17.00** Emerald Publishing Workshop (Room N01)

**17.15-18.45: Doctoral sessions (2)** 

### Asset, Property & Facility Management - Doctoral Session 6 (Room N10)

Chair: Rianne Appel-Meulenbroek

Participants:

ERES Milano 2010

- 1) Xianting Yin, Fungfai Ng Learning Organization And Mentoring Practice: An Empirical Investigation, Presented by: Xianting Yin
- 2) Mohd Nazali Mohd Noor, Michael Pitt Defining Facilities Management (Fm) In The Malaysian Perspective, Presented by: Mohd Nazali Mohd Noor
- 3) Peggie Rothe User Preferences Of Office Occupiers Driver For Work Environment Decisions In Organizations, Presented by: Peggie Rothe

### Real Estate Investment & Market Research, Analysis & Forecasting - Doctoral Session 7 (Room N11)

Chair: Graeme Newell

Participants:

- 1) Keith Elliott, Gianluca Marcato Alternative Investments: Correlation Structure And Business Cycles, Presented by: Keith Elliott
- 2) Christian Rehring, Steffen Sebastian Dynamics Of Commercial Real Estate Asset Markets, Return Volatility, And The Investment Horizon, Presented by: Christian Rehring
- 3) Yishuang Xu, Chung Yim, Yiu Yiu The Interest Rate Spread And Real Estate Returns ---- Evidence From Hong Kong, Presented by: Yishuang Xu

### Government Policy & Regulation in the Real Estate Sector - Doctoral Session 8 (Room N12) Chair: Ramón Sotelo

Participants:

- 1) Agnieszka Malkowska Public Real Estate Economy As A Factor Of Local Development For The Malopolska Province, Presented by: Agnieszka Malkowska
- 2) Hasniyati Hamzah Housing The Urban Poor: A Case Study Of Institutional And Governance Issues In A Developing Economy, Presented by: Hasniyati Hamzah
- 3) Stanimira Milcheva, Steffen Sebastian Housing Channels Of Monetary Policy Transmission In European Industrial And Transition Countries, Presented by: Stanimira Milcheva

# Real Estate Finance & Investment - Doctoral Session 9 (Room N13)

Chair: Colin Lizieri

Participants:

- 1) Inês Pinto Earnings Management In The Real Estate Sector And Perceptions Of Appraiser Independence, Presented by: Inês Pinto
- 2) Giovanni Tira, Gianluca Marcato *Liquidity Pricing In Unlisted Real Estate Funds*, Presented by: Giovanni Tira
- 3) Bertram Steininger, Christian Rehring*An Empirical Evaluation Of Normative Commercial Real Estate Swap Pricing*, Presented by: Bertram Steininger

### Real Estate Finance (2) -Doctoral Session 10 (Room N14)

Chair: Gianluca Marcato

- 1) Yuan Gao, Pu Gong, Helen Bao *Irrational Belief And Credit Spreads Puzzle*, Presented by: Yuan Gao
- 2) Qian Wei, Kelvin, S K Wong *Ipo Location, Pre Ipo Performance, Post Ipo Performance*, Presented by: Qian Wei





# Thursday, June 24, A

### **09.00 - 11.00 Opening Ceremony & Key Note Speakers** (Aula Magna – Grafton Building)

## 11.30-13.00: Workshop Sessions & Industry Seminars & Symposiums

Real Estate Debt in Europe: How large is the 'Elephant in the Room' - Industry Seminar (Room N01)

Chair: Éamonn D'Arcy

Green Building: comparing experiences on the Italian market - Industry Seminar

(Room N02)

Chair: Simone Spreafico

Project Financing for Infrastructure Investments - Industry Seminar (Room N18)

Chair: Riccardo Maria Togni

Communication in Real Estate - Symposium (Room N03)

Chair: Paola G. Lunghini

Participants:

1) Aldo Norsa, Giuseppe Pedeliento *The Stakeholder Management In Real Estate*, Presented by: Aldo Norsa

### Real Estate Risk Management (1) (Room N10)

Chair: Bob Edelstein

Participants:

- 1) Simon Huston *Investigating A Systems Framework For Property Risk Management*, Presented by: Simon Huston
- 2) Quan Gan *Optimal Selling Mechanism, Auction Discounts, And Time On Market*, Presented by: Quan Gan
- 3) Robert Van Order, Rose Neng Lai*Risk Taking, Securitization And The Option To Change Strategy*, Presented by: Robert Van Order
- 4) Lucia Gibilaro, Claudio Giannotti, Gianluca Mattarocci *Liquidity Risk Exposure For Specialized And Unspecialized Real Estate Banks: Evidences From The Italian Market*, Presented by: Gianluca Mattarocci

#### Asset, Property & Facility Management (1) (Room N11)

Chair: Andrea Ciaramella

- 1) Carlo Vermiglio *Public Property Management For Italian Municipalities. Framework, Current Issues And Viable Solutions*, Presented by: Carlo Vermiglio
- Dulani Halvitigala, Laurence Murphy, Deborah Levy The Effect Of Commercial Lease Structures On Landlord-Tenant Behaviours And Experiences, Presented by: Deborah Levy
- 3) Annette Kämpf-Dern, Andreas Pfnür Nomenclature, Scope Of Service, And Interfaces Of Real Estate Investment-, Portfolio-, Asset-, Property And Facility Management Based On The "Basic Concept Of Real Estate Management", Presented by: Annette Kämpf-Dern

4) Clive Warren *Public Sector Asset Management Planning To Mitigate Climate Change Driven Natural Disasters - A Study Of Uk Disaster And Business Continuity Planning*, Presented by: Clive Warren

#### **Housing Economics (1)** (Room N12)

Chair: Colin Jones

Participants:

- 1) Chris Eves Maximising Investment Performance In Residential Property: A Brisbane Case Study, Presented by: Chris Eves
- 2) Alan Evans *Optimal Taxation Theory And The Taxation Of Housing In The Usa And The Uk*, Presented by: Alan Evans
- 3) Gunther Maier, Shanaka Herath *Efficiency Of The Real Estate Market: A Meta-Analysis*, Presented by: Shanaka Herath

#### Corporate Real Estate (1) (Room N13)

Chair: Bob Thompson

Participants:

- 1) Mario Caputi, Conrad B. Herrmann, Arndt Reifenrath *Post-Crises Strategies In Corporate Real Estate Management (Crem) Hinsights And New Requirements As A Result Of The "Crisis Year"* 2009, Presented by: Mario Caputi
- 2) Mohd Nazali Mohd Noor, Michael Pitt *Compliance Of Rics Code Of Practice For Commercial Service Charges*, Presented by: Mohd Nazali Mohd Noor
- 3) Rianne Appel-Meulenbroek, M. Gordon Brown, Yvette Ramakers *Strategic Alignment Of Corporate Real Estate*, Presented by: Rianne Appel-Meulenbroek
- 4) Nicholas Nunnington Examining The Corporate Relocation Decision Making Process To Design And Evaluate A Client Focused Tool To Support Objective Decision Making, Presented by: Nicholas Nunnington

### Government Policy & Regulation in the Real Estate Sector (1) (Room N14)

Chair: Louise Ellison

- 1) Cathy Hughes, Neil Crosby *Policy Making Without Legislating; The Self-Regulation Of Commercial Property Leasing*, Presented by: Cathy Hughes
- 2) Stefania Sabatino, Riccardo Roscelli, Luisa Ingaramo *The Incidence Of Compensative Costs For Public Standard Services On The Value Of Areas To Be Transformed In Consolidated Or Central Urban Locations: The Case Of Turin*, Presented by: Stefania Sabatino
- 3) Annalisa Ferrari, Federica Ielasi, Umberto Filotto *Towards The Upturn Of Residential Mortgage Markets: Which Policies For The European Context?*, Presented by: Annalisa Ferrari, Federica Ielasi
- 4) Graeme Jay, François Viruly Alternative Tenure Options Available To House The Homeless In South Africa: The Case For Not Providing Access To Ownership Of Freehold Property To People Requiring Government Funded Housing, Presented by: Graeme Jay

#### Indirect Real Estate Investment (1) (Room N15)

Chair: Richard Barkham

Participants:

- 1) Claudio Giannotti, Massimo Biasin, Gianluca Mattarocci, Georgios Siligardos *The Performance Attribution Of The Italian Real Estate Funds: The Role Of Income Return And Capital Growth*, Presented by: Claudio Giannotti
- 2) Lulu Wang, Mary Lou Downie, Peng Xiao Would The Reputation And Behaviour Of The Chinese Stock Exchange Be A Disincentive To Investors Considering A Chinese Reit?, Presented by: Lulu Wang
- 3) Thi Kim Nguyen *The Significance And Performance Of Listed Property Companies In Developed And Emerging Markets In Asia*, Presented by: Thi Kim Nguyen
- 4) Jamie Alcock, Eva Steiner, Kelvin Jui Keng Tan On The Relationship Between Leverage And Debt Maturity For Us Real Estate Firms, Presented by: Eva Steiner

# Real Estate Development (1) (Room N16)

Chair: Jim Berry

- 1) Tanja Tyvimaa, Karen M. Gibler *Pull Factors To Finnish Senior Houses*, Presented by: Tanja Tyvimaa
- 2) Chihiro Shimizu, Yasushi Asami, Koji Karato *Estimation Of Redevelopment Probability Using Panel Data-Asset Bubble Burst And Office Market In Tokyo*, Presented by: Chihiro Shimizu
- 3) Brano Glumac, Jos Smeets, Wim Schaefer *Rethinking Brownfield Redevelopment Features Applying Fuzzy Delphi*, Presented by: Brano Glumac
- 4) Sonthya Vanichvatana Employment Adjustment Strategy For A Property Development Company During Economic Crisis, Presented by: Sonthya Vanichvatana





# Thursday, June 24, B

## 14.15-15.45: Workshop Sessions & Industry Seminars & Symposiums

Loan to value in listed property companies - EPRA Industry Seminar(Room N01)

Chair: Ali Zaidi

The Italian Property Market: A question of Transparency - Industry Seminar (Room N02)

Real Estate Risk & Uncertainty Measurement - Industry Seminar (Room N03)

Chair: Andreas Loepfe

**Retail & Shopping centres - Symposium** (Room N10)

Chair: Enrico Biasi

Participants:

- 1) Marina Bravi, Antonio Talarico Managing The Shopping Centre Formula: Saturation Or New Development?, Presented by: Antonio Talarico
- 2) Sanna Uotinen The Role Of Shopping Centres In Sustainable Development Stakeholder Perspectives In Finland And Sweden, Presented by: Sanna Uotinen

# **Macroeconomic Perspectives on the Real Estate Market (1)** (Room N11)

Chair: Anthony De Francesco

Participants:

- 1) Mei-Ling Chou Testing For The Relationship Between Turnover Rate And Business Cycle In Taiwan's Real Estate Market, Presented by: Mei-Ling Chou
- 2) Charles Leung, Kuang Liang Chang, Nan-Kuang Chen Would Some Model Please Give Me Some Hints? An Empirical Investigation On Monetary Policy And Asset Return Dynamics, Presented by: Nan-Kuang Chen
- 3) Michael White, Qiulin Ke The Evolution Of Chinese Office Markets: A Comparison Of Beijing And Shanghai, Presented by: Michael White
- 4) Mahtab Akhavan Farshchi, C. M. P. De Castro, L. de Oliveira Royer *The Impact Of* Availability Of Finance In Mature And Emerging Real Markets: A Desk Review Of The Uk, The Us And Brazil, Presented by: Mahtab Akhavan Farshchi

#### Market Research, Analysis & Forecasting (1) (Room N12)

Chair: **Bob Martens** 

- 1) Hilde Remøy, Philip Koppels, Hans De Jonge The Beauty Or The Beast? The Influence Of Aesthetics On Structural Vacancy In The Case Of Amsterdam, Presented by: Hilde Remøy
- 2) Éamonn D'Arcy, Paloma Taltavull The Evolving European Real Estate Research Agenda – A Seventeen Year Retrospective, Presented by: Éamonn D'Arcy
- 3) Marzia Morena Role Played By The Local Pas In Town Transformation And Redevelopment Processes, Presented by: Marzia Morena
- 4) Angelika Kallakmaa, Ene Kolbre Estonian Housing Market Before Euro Adoption, Presented by: Angelika Kallakmaa

## **PPF, PPP & Infrastructures (1)** (Room N13)

Chair: Aart Hordijk

Participants:

- 1) Joseph Oyedele, Alastair Adair, Stanley Mcgreal A Measure Of Innovativeness And Performance Of Infrastructure Financing Vehicles Across UK, Presented by: Joseph Oyedele
- 2) Jaakko Leinonen, Ilkka Laitinen, Kimmo Virtanen New And Innovative Infrastructure Procurement Models – The Need For New Financing Models In Finland For Social And Economic Infrastructure, Presented by: Jaakko Leinonen
- 3) Sergio Mattia, Alessandra Pandolfi *Public Assets Development: Analysis Of The Opportunity Of Applying Real Estate Finance Tools In The Urban Redevelopment Processes In Lombardy Region (Italy)*, Presented by: Sergio Mattia
- 4) Bill Dimovski *The Pricing Of Infrastructure Initial Public Offerings: Evidence From Australia*, Presented by: Bill Dimovski

## Housing Economics (2) (Room N14)

Chair: Alastair Adair

Participants:

- 1) Chyi Lin Lee, Richard Reed *Volatility Decomposition Of Australian Housing Prices*, Presented by: Chyi Lin Lee
- 2) Paloma Taltavull De La Paz, Armando Ortuño *The Impact Of Golf Courses In Housing Demand*, Presented by: Paloma Taltavull De La Paz
- 3) Geoffrey Meen, Andi Nygaard *Local Housing Supply And The Impact Of History And Geography*, Presented by: Geoffrey Meen
- 4) Marco Percoco, Michela Barbot *Real Estate Markets And Rental Contracts In The Modern Age: Milan, 1570-1670*, Presented by: Marco Percoco

## Green Buildings & Environmental Policies (1) (Room N15)

Chair: Marc Francke

- 1) Andreas Pfnür, Nikolas Mueller, Sonja Weiland *Carbon Dioxide Emissions Reduction In The Housing Sector: Who Pays The Bill?*, Presented by: Andreas Pfnür
- 2) Stephan Kippes, Chris Eves *Public Awareness Of "Green" And "Energy Efficient" Residential Property*, Presented by: Chris Eves
- 3) Gunther Maier, Sabine Sedlacek *Green Building Councils: Policy Instrument Or Fashion?*, Presented by: Gunther Maier
- 4) Ingrid Nappi-Choulet, Mike Benchimol *Do Environmental Renovation Works And Create Value For Office Buildings?*, Presented by: Ingrid Nappi-Choulet

# Government Policy & Regulation in the Real Estate Sector (2) (Room N16)

Chair: Olli Olkkonen

Participants:

- 1) Roland Füss, Nico Rottke, Joachim Zietz What Drives Ceos To Take On More Risk? Some Evidence From The Laboratory Of Reits, Presented by: Nico Rottke
- 2) Nikolai Siniak, Uladzimir Valetka, Leonid Rusiyanov *Economic Growth And Development Of Construction And Real Estate Sectors In Belarus*, Presented by: Nikolai Siniak
- 3) Lawrence Hill State Regulation Over Property Rights Transferred To Indigenous Peoples Through The Treaty Settlement Claims Process In New Zealand, Presented by: Lawrence Hill
- 4) Paul Cheshire, Christian Hilber, Ioannis Kaplanis *Land Use Regulation & Retail: Space Constraints And Total Factor Productivity*, Presented by: Ioannis Kaplanis

#### **Real Estate Investment (1)** (Room N18)

Chair: Matthias Thomas

- 1) Rafal Wolski, Magdalena Zaleczna *The Real Estate Investment Of Insurance Companies In Polish Conditions*, Presented by: Rafal Wolski
- 2) Deborah Levy, Sussie Morrish *To Own Or Not To Own? Property Decisions Of Sme Entrepreneurs*, Presented by: Deborah Levy, Sussie Morrish
- 3) Sviatlana Anop Determinants Of Foreign Direct Investments In Real Estate In European Countries Panel Data Analysis, Presented by: Sviatlana Anop
- 4) Ahmed Nasima Construction Of Jones Lang Lasalle Prime And Secondary Index, Presented by: Ahmed Nasima





# Thursday, June 24, C

# 16.15-17.45: Workshop Sessions & Industry Seminars & Symposiums

Mortgages, risk and valuation - Industry Seminar(Room N01)

Chair: Antonio Campagnoli

Research and Forecasts in real estate - Symposium (Room N03)

Chair: Sotiris Tsolacos

Participants:

- 1) Ali Parsa, Alona Martinez-Perez, Jim Berry Causes And Determinants Of Land And Property Cycles: The Bubble Phenomenon And Its Consequences In Spain Lessons From Japan, Presented by: Jim Berry
- 2) Sotiris Tsolacos *Panel Estimates Of Office Risk Premia In Europe*, Presented by: Sotiris Tsolacos
- 3) Elena Zanlorenzi, Ilona Schaeffler *The Italian Tourist Sector: Some Ways To Correct Seasonal Adjustment*, Presented by: Elena Zanlorenzi

Indirect Real Estate Investment sponsored by | NREV (Room N10)

Chair: Martin Hoesli

- 1) Hubertus Bäumer, Tobias Pfeffer, Christoph Schumacher *Alignment Of Interest In Non-Listed Real Estate Funds Fee Structure And Its Impact On Real Estate Fund Performance*, Presented by: Hubertus Bäumer
- 2) Jan-Willem Dijkhuis, Mariette Meulman *Property Investment Results Of Dutch Pension Funds* (2004-2008): *International Diversification Is Disappointing*, Presented by: Jan-Willem Dijkhuis
- 3) Georgios Siligardos, Gianluca Mattarocci*The Relevance Of Real Estate Market Trends For Investment Property Funds Asset Allocation: Evidence From France, Germany, Italy And United Kingdom*, Presented by: Georgios Siligardos
- 4) Éamonn D'Arcy, Stephen Lee *Activity Internationalisation In The Real Estate Market:* Some Evidence On The Internationalisation Of The Real Estate Involvements Of Listed Firms, Presented by: Éamonn D'Arcy

# Green Buildings & Environmental Policies (2) (Room N11)

Chair: Karl-Werner Schulte

Participants:

- 1) Sara Wilkinson, Kimberley James, Richard Reed Alterations And Extensions To Commercial Buildings In The Melbourne Cbd: The Relationship Between Adaptation And Building Attributes, Presented by: Sara Wilkinson
- 2) Gunther Maier, Philipp Kaufmann, Andreas Oberhuber *Rents As Incentive For Saving Energy: An Empirical Analysis For Austria*, Presented by: Gunther Maier
- 3) Louise Ellison, Patrick Brown Sustainability Metrics For Commercial Real Estate Assets
   Establishing A Common Approach, Presented by: Louise Ellison

## **Housing Economics (3)** (Room N12)

Chair: Michael Haddock

Participants:

- 1) Elisabeth Beusker, Christian Stoy *Occupancy Costs Indicators Of Municipal Buildings*, Presented by: Elisabeth Beusker
- 2) Nina Segre A Comparison Of Home Mortgage Loan Defaults And Foreclosures In The United States And In Certain European Union Countries, Including A Discussion Of Governmental Responses And Some Observations Concerning Contributing Causes, Presented by: Nina Segre
- 3) Ramón Sotelo, Konstantin Hähndel *Low Home Ownership Rates As A Proxy Of Wealth Theory And Empirical Evidence*, Presented by: Ramón Sotelo
- 4) Frans Schilder, Johan Conijn Welfare Implications Of Housing Subsidies In The Netherlands, Presented by: Frans Schilder

# Asset, Property & Facility Management & Environmental Policies (Room N13) Chair: John Mcdonagh

- 1) Andrea Ciaramella *The Assessment Of Building Performance: A Property Rating Model For The Office And Logistic Buildings*, Presented by: Andrea Ciaramella
- 2) Hilde Remøy, Peter De Jong, Wiechert Schenk *Investing In Possibilities; Extending The Lifespan Of Office Buildings*, Presented by: Peter De Jong
- 3) Tobias Schrag, Sebastian Keiler, Stocker Emanuel Life Cycle Oriented Improvement Of Building Quality, Presented by: Sebastian Keiler
- 4) Shu-Mei Chen, Shwuhuey Wang, Tzai-Zang Lee *The Feedback For User- Centered Design From Consumer's Perception Of The Smart Kitchen*, Presented by: Shu-Mei Chen

#### **Real Estate Development & Finance** (Room N14)

Chair: Rose Neng Lai

Participants:

- 1) Wiegand Dietmar *Real Options Planning In Real Estate Development*, Presented by: Wiegand Dietmar
- 2) John Henneberry, Eckart Lange, Sarah Moore, Ed Morgan *Modelling The Relationship Between Development Design And Financial Viability*, Presented by: John Henneberry
- 3) Tommaso Gabrieli, Gianluca Marcato Real Options And Game Theoretical Approaches To Real Estate Development Projects: Multiple Equilibria And The Implications Of Different Tie-Breaking Rules, Presented by: Gianluca Marcato
- 4) Sergio Mattia, Alessandra Oppio, Alessandra Pandolfi *Urban Analysis And Development Studies For The Area Of The Santa Chiara Hospital In The City Of Pisa (Italy): A Comparison Between Different Redevelopment Options*, Presented by: Alessandra Oppio

#### *Urban Economics (1)* (Room N15)

Chair: Stanislaw Belniak

Participants:

- 1) Boerkoel Fakton, Wim Van Der Post *The Practice Of Land Pricing Across Europe*, Presented by: Wim Van Der Post
- 2) Benoit Faye, Eric Lefur *The Real Estate Valuation Of The Urban Plazas*, Presented by: Benoit Faye
- 3) Alain Bonnafous, Marko Kryvobokov, Pierre-Yves Peguy *Insight Into Apartment Attributes And Location With Factors And Principal Components Applying Oblique Rotation*, Presented by: Marko Kryvobokov
- 4) Moses Baridi Baridoma, Victor Obinna *Housing In Megacity; Role Of Estate Surveyors* And Valuers And Town Planners.(A Case Study Of Proposed Greater Port Harcourt Project- Nigeria), Presented by: Moses Baridi Baridoma

# Real Estate Risk Management (2) (Room N16)

Chair: Clare Eriksson

- 1) Kanak Patel, Kirill Zavodov On Optimal Credit Expansion, Presented by: Kanak Patel
- 2) Nadja Savic De Jager, Porntawee Nantamanasikarn *Building And Maintaining An Optimal Real Estate Portfolio*, Presented by: Nadja Savic De Jager, Porntawee Nantamanasikarn
- 3) Tom Geurts, Ingo Holz Core Real Estate: Do We Perceive A Renaissance Of The Risk Assessment Of An Asset Class?, Presented by: Tom Geurts
- 4) Moritz Müller, Carsten Lausberg *Why Volatility Is An Inappropriate Risk Measure For Real Estate*, Presented by: Moritz Müller, Carsten Lausberg





# Friday, June 25, D

## 08.30-10.00: Workshop Sessions & Panel Sessions

#### ERES Doctoral Network Master Class "Valuation and Pricing" (Room N01)

Chair: **Neil Crosby** 

#### Indirect Real Estate Investment (2) (Room N02)

Chair: Michael White

Participants:

- 1) Rahul Srivatsa, Stephen Lee European Real Estate Markets Convergence, Presented by: Stephen Lee
- 2) Alexander Schätz Indirect Real Estate Investments And Their Links With Properties, Common Stocks And The Macroeconomy - Evidence From The UK And US Markets, Presented by: Alexander Schätz
- 3) Kustrim Reka, Martin Hoesli Analysis Of The Asymmetric Volatility Spillovers In Real Estate Stock Returns, Presented by: Kustrim Reka
- 4) David H. Downs, Steffen Sebastian The Determinants Of Fund Openings: The Case Of German Real Estate Funds, Presented by: David H. Downs

## Green Buildings & Environmental Policies (3) (Room N03)

Chair: Richard Reed

Participants:

- 1) Anil Kashyap, Jim Berry Impact Of Sustainability Attributes On The Performance Of Prime Office Market In The National Capital Region Of Delhi, Presented by: Anil Kashyap
- 2) Juerg R. Bernet, Ulrike Kornfellner Responsible Property Investment-Sustainable Strategies For Green Building Funds In Europe, Presented by: Ulrike Kornfellner
- 3) Agnieszka Zalejska-Jonsson Is There Future For Energy Efficient Residential Buildings In Sweden? Property Developers' Insights On Green Housing Market, Presented by: Agnieszka Zalejska-Jonsson
- 4) Peter De Jong, Hans Wamelink Return Of The Bricks, Presented by: Peter De Jong

#### **Housing & Urban Economics** (Room N10)

Chair: Edwin Deutsch

- 1) Greg Costello Land Leverage Dynamics In Housing Markets, Presented by: Greg
- 2) Colin Jones, Mike Coombes, Colin Wymer Defining Housing Market Areas: The Links To Labour Market Areas, Presented by: Colin Jones
- 3) Chien-Wen Peng, I-Chun Tsai, Steven C. Bourassa Determinants Of Long-Run Homeownership Rates In Taiwan, Presented by: Chien-Wen Peng
- 4) Helen Xiaohui Bao, Mei Wang The Impact Of 2008 Beijing Olympics On Housing Consumption: A Contingent Valuation Approach, Presented by: Mei Wang

# Real Estate Investment & Portfolio Management (1) (Room N11)

Chair: Terry Grissom

Participants:

- 1) Kim Hiang Liow, Alastatir Adair *Performance Dynamics And Diversification Benefits Of European Property Securities*, Presented by: Kim Hiang Liow
- 2) Jaroslaw Morawski *Optimal Global Real Estate Portfolio A Practical Approach*, Presented by: Jaroslaw Morawski
- 3) Kiat-Ying Seah, James D. Shilling *Pension Plan Allocation To Real Estate When Plan Trustees Have Reputational Utility*, Presented by: Kiat-Ying Seah
- 4) Massimo Biasin, Anna Grazia Quaranta *Managers' Compensation, Capital Structure And Reits' Performance. Do Nav-Based Reits Outperform Gav-Based Reits?*, Presented by: Massimo Biasin

# Tax & legal issues in Real Estate (Room N12)

Chair: Alan Evans

Participants:

- 1) Peadar Davis, William Mccluskey *An Empirical Analysis Of Simplified Valuation Approaches For Property Tax Purposes*, Presented by: Peadar Davis
- 2) Sun-Tien Wu, Chun-Hao Yueh *An International Comparative Study On Housing Price And Property Tax Liabilities*, Presented by: Sun-Tien Wu
- 3) Kaarel Sahk, Kadri Kärson, Kalev Sepp *Real Estate Appraisal Procedure Do The Easements Influence Results?*(A Country Based Approach), Presented by: Kaarel Sahk
- 4) Andrew Baum, Claudia Murray *Understanding The Barriers To Real Estate Investment In Developing Economies*, Presented by: Claudia Murray

## Marketing & Communication in Real Estate (Room N13)

Chair: Paola G. Lunghini

Participants:

- 1) Dave Havermans, Jos Smeets, Wim Heijs *Neighborhood Branding: The Underestimation Of Physical Attributes*, Presented by: Dave Havermans
- 2) Ming-Yi Huang A Studies Of Market Segmentation, Pricing And Time-On-The-Market At The Residential Building In Taiwan, Presented by: Ming-Yi Huang
- 3) Peter Rossini, Stanley Mcgreal, Paul Kershaw *An Analysis Of Time On Market And Advertised To Sale Price Differences Over Time*, Presented by: Peter Rossini
- 4) Ella Stoop, Astrid Kemperman, Jos Smeets *Housing Market In Times Of Crisis The Increasing Importance Of Consumer's Preferences*, Presented by: Ella Stoop

# Asset, Property & Facility Management (2) (Room N14)

Chair: Peter Byrne

- 1) Ainoriza Mohd Aini, Sarah Sayce Disclosing Environmental And Sustainability Practices And Initiatives In The Annual Reporting Process Of Property Investors: Evidence From Malaysia, Presented by: Ainoriza Mohd Aini
- 2) Yung Yau Homeowners' Participation In Management Of Multi-Story Residential Buildings: The Hong Kong's Case, Presented by: Yung Yau

- 3) John Mcdonagh *Electricity Use Trends In New Zealand Office Buildings, 1991-2008*, Presented by: John Mcdonagh
- 4) Michael Truebestein *Real Estate Asset Management For Institutional Investors*, Presented by: Michael Truebestein

# Case studies & Teaching Real Estate (1) (Room N15)

Chair: Karl-Werner Schulte

Participants:

- 1) Kathryn Robson, Barbara De La Harpe *Moving Towards An Understanding Of The Factors That Contribute To Student Satisfaction In Higher Education*, Presented by: Kathryn Robson
- 2) Sophia Kongela *Challenges Of Introducing Sustainability In Curricula Of The Built Environment Courses In The Developing Countries: Evidence From Tanzania*, Presented by: Sophia Kongela
- 3) Joanna Poon, Mike Hoxley, Willow Fuchs *Critical Factors And Essential Elements For Rics Accredited Real Estate Postgraduate Conversion Courses In The UK*, Presented by: Paul Royston
- 4) Hermann Lebherz *Urban Renewal With A Inner City Shopping Mall And Approach Towards A Green Building A Case Study Of Komm In Offenbach, Germany*, Presented by: Hermann Lebherz

# Market Research, Analysis & Forecasting (2) (Room N16)

Chair: Kristin Wellner

Participants:

- 1) Michael Joffe Conditions For Bubble Formation, Presented by: Michael Joffe
- 2) Tony Mcgough, Ben Burston *Re-Examining The Modelling Of Yields In A Volatile Market*, Presented by: Tony Mcgough
- 3) Nikolaos Triantafyllopoulos, Thomai Kandyla *Buyers Behaviour And The Housing Bubble In Greece*, Presented by: Nikolaos Triantafyllopoulos
- 4) Marco Percoco *Urban Containment Policies And Housing Prices*, Presented by: Marco Percoco

#### **Real Estate Valuation (1)** (Room N18)

Chair: Maurizio D'Amato

- 1) Ene Kolbre, Angelika Kallakmaa-Kapsta, Pille Mihkelson *Real Estate Quality Assessment Problems In The Estonian Real Estate Market*, Presented by: Ene Kolbre
- 2) Norman Hutchison, Alastair Adair, Kyungsun Park *The Value Of Rental Deposits*, Presented by: Norman Hutchison
- 3) Sergio Mattia, Alessandra Oppio, Alessandra Pandolfi *Contingent Valuation Method And Market Value: Applying Stated Preference Methods In Real Estate Market*, Presented by: Alessandra Oppio
- 4) Modern Condition: Market Value Or User Value?, Presented by: Nikolai Trifonov





# Friday, June 25, E

## 10.30-12.00: Workshop Sessions & Industry Seminars & Symposiums

ERES Doctoral Network Master Class "Investment and Finance" (Room N01)

Chair: Colin Lizieri

Office take up & existing stock - Symposium (Room N02)

Chair: Jacopo Della Fontana

Participants:

- 1) Karsten Lieser, Alexander Groh *The Attractiveness Of 66 Countries For Institutional Real Estate Investments: A Composite Index Approach*, Presented by: Karsten Lieser
- 2) Jacopo della Fontana Office Take Up & Existing Stock: Which Factors Make The Difference Between Markets?, Presented by: Jacopo della Fontana

Integrating Industry and other 'Real World' learning experiences within the Real Estate Curricula: Challenges and Experiences - IRES Educational Panel (Room N03)

Chair: Paloma Taltavull de la Paz

Market Research, Analysis & Forecasting (3) (Room N10)

Chair: Greg Costello

Participants:

- 1) Ali Asghar Anvari Rostami, Farideh Bakhshitakanlou *A New Mixed Strategy Framework* (*Msf*) For Investment Performance Evaluation: Empirical Evidence From The Tehran Stock Exchange (Tes), Presented by: Ali Asghar Anvari Rostami
- 2) Dariusz Pechorzewski *The Impact Of The Global Financial Crisis On Selected Aspects Of The Local Residential Property Market In Poland*, Presented by: Dariusz Pechorzewski
- 3) Ieva Kvedaraviciene *Baltic Real Estate Market Dynamics*, Presented by: Ieva Kvedaraviciene
- 4) Maria Teresa Coelho Morettini, Antonio Edésio Jungles, Norberto Hochheim*Housing Market Segmentation In The City Of São Paulo: A Spatial Data Analysis*, Presented by: Antonio Edésio Jungles

#### **Housing Economics & Urban Economics** (Room N11)

Chair: Magdalena Zaleczna

- 1) Daniel Yet Fhang Lo, Kwong Wing Chau *The Structure Of Urban Residential Housing Submarkets Of Hong Kong*, Presented by: Daniel Yet Fhang Lo
- 2) Edwin Deutsch Forecasting Tenure Durations From Survey Responses On Current Spells, Presented by: Edwin Deutsch
- 3) Peter Westerheide, Sarah Borgloh Social Return On Investment Of Mutual Support Based Housing Projects Potential For Socio-Economic Cost Savings And Higher Living Quality, Presented by: Peter Westerheide

# Real Estate Investment (2) (Room N12)

Chair: Steven Devaney

Participants:

- 1) Michael Voigtländer *Office Market And Labour Market: The Case Of Germany*, Presented by: Michael Voigtländer
- 2) Michael White, Neil Dunse, Colin Jones *Real Estate Investment In British Provincial Cities: Too Much Or Too Little?*, Presented by: Michael White
- 3) Frédéric Laurin, John-John D'Argensio *The Real Estate Risk In Central And Eastern European Office Markets: Thinking Too Big?*, Presented by: Frédéric Laurin
- 4) Moses Baridi Baridoma Effect Of Municipal Solid Waste Dumps On Investment Property Value. A Case Study Of D-Line Neighborhood In Port Harcourt Nigeria, Presented by: Moses Baridi Baridoma

# PPF, PPP & Infrastructures (2) (Room N13)

Chair: Ingrid Janssen

Participants:

- 1) Nikolaos Triantafyllopoulos, Ioanna Alexandropoulou, *Land-Based Financing Of The Eu Jessica Initiatives*, Presented by: Nikolaos Triantafyllopoulos
- 2) Ezio Micelli, Mirko Bisulli, Gabriele Fabrizio *New Tools For Social Housing Development In Italy*, Presented by: Ezio Micelli
- 3) Dilek Pekdemir Early Stage Of Infrastructure Reits : Turkey Experience At Legistative Level, Presented by: Dilek Pekdemir
- 4) Hai Vu Pham, Simon Arnaud, André Torre *The Impact Of Public Facility Setting Conflict On Residential Property Values In Paris's Suburban Zones*, Presented by: Simon Arnaud

# Case studies & Teaching Real Estate (2) (Room N14)

Chair: Ramón Sotelo

- 1) Konrad Zelazowski *Application Of System Dynamics Modeling In Real Estate Market Analysis*, Presented by: Konrad Zelazowski
- 2) John Kirkwood *Inspirational Learning: A Case Study Of Development Practice*, Presented by: John Kirkwood
- 3) Mustafa Nur Khairul Faizah, Siti Hafsah Zulkarnain, Adi Irfan Che Ani *Knowledge* Sharing In Conducting The Building Condition Survey And Assessment For Subsale Housing Market, Presented by: Adi Irfan Che Ani
- 4) Joanna Poon, Paul Royston, Dean Garratt *Issue-Based And Problem-Based Learning Approach For Teaching Property And Construction Economics*, Presented by: Joanna Poon

#### Green Buildings & Environmental Policies (4) (Room N15)

Chair: Chris Eves

Participants:

- 1) Kuang-Yih Yeh, Hao-Ching Hsia *The Study Of Allocation Of Activity Time On Weekends By Using Activity-Based Approach*, Presented by: Hao-Ching Hsia
- 2) Geoff Page Sustainable Farmers Markets In Australia & New Zealand, Presented by: Geoff Page
- 3) Antonella Mazzeo, Giacomo Morri, *A "Medium Term" Add In Proposal For Green Property Appraisal*, Presented by: Antonella Mazzeo

#### **Real Estate Finance & Investment** (Room N16)

Chair: Mihnea Constantinescu

Participants:

- 1) Gianluca Marcato, Giovanni Limentani *Multiple Equilibria In Game Theory: Sharing Profits Vs. Market Price*, Presented by: Gianluca Marcato
- 2) Michel Baroni, Fabrice Barthelemy, Etienne Dupuy, Charles-Olivier Amédée-Manesme Combining Monte-Carlo Simulations And Options To Manage Risk Of Real Estate Portfolios, Presented by: Charles-Olivier Amédée-Manesme
- 3) Tobias Schnaidt, Steffen Sebastian, Comparison Of German And Anglo Saxon Real Estate Appraisal Methods, Presented by: Tobias Schnaidt
- 4) Duccio Martelli, Claudio Giannotti, Luigi Pischedda *The Analysis Of Tenant Risk In The Italian Real Estate Market*, Presented by: Duccio Martelli, Claudio Giannotti, Luigi Pischedda

# Market Research, Analysis & Forecasting (4) (Room N18)

Chair: Tony Mcgough

- 1) Ari Hyvonen, James Culley, Simo Syrman *Investigating Shopping Choice Preferences In Helsinki And Tampere Urban Regions*, Presented by: Ari Hyvonen
- 2) Ed Nozeman *Transaction Costs In Commercial Real Estate: A European Comparison*, Presented by: Ed Nozeman
- 3) Helen Xiaohui Bao, Mei Wang *The Impacts Of The 2008 Olympic Games On Beijing's Urban Structure And Residential Property Market*, Presented by: Mei Wang
- 4) Piyawan Srikhum, Arnaud Simon, *Non-Stationary Semivariogram Analysis Using Real Estate Transaction Data*, Presented by: Piyawan Srikhum





# Friday, June 25, F

## 13.30-15.00: Workshop Sessions & Panel Sessions

ERES Doctoral Network Master Class "Housing Research" (Room N01)

Chair: Geoffrey Meen

Communicate To Real Estate Investors? Yes We Can! - ERES Panel (Room NO2)

Chair: Allan Saunderson

**Housing Economics (4)** (Room N03)

Chair: Colin Jones

Participants:

- 1) D. Gareth Thomas, David Bywaters The Role Of Price Expectations In The U.K. Market Housing, Presented by: D. Gareth Thomas
- 2) Marius Thériault, François Des Rosiers, Marion Voisin Assessing The Effect Of Accessibility To Amenities In The Location Rent Searching For Market Segmentation Of Preferences, Presented by: Marius Thériault
- 3) Eric Fesselmeyer, Kien Le, Kiat Ying Seah A Household-Level Decomposition Of The Black-White Homeownership Gap Distribution, Presented by: Kiat Ying Seah
- 4) Ewa Kucharska-Stasiak, Magdalena Zaleczna, Konrad Zelazowski Waiting For Euro -Housing Market In Poland, Presented by: Ewa Kucharska-Stasiak

# Case studies & Teaching Real Estate (3) (Room N10)

Chair: Paul Royston

- 1) Kaarel Sahk, Maile Kajak, Kalev Sepp Connection Between Valuation Standards And Real Estate Appraisal Procedure (A Country Based Approach), Presented by: Kaarel Sahk
- 2) Hao Wu, Sidh Sintusingha Sintusingha Studio Teaching For Non-Design Discipline: The Case Of Property Analysis Studio, Presented by: Hao Wu
- 3) Nick French, Stephen Lee The Readability Of Academic Papers In The Journal Of Property Investment And Finance, Presented by: Stephen Lee
- 4) Martens Bob, Feedback Mechanisms In The Framework Of Real Estate Education, Presented by: Martens Bob

#### Corporate Real Estate (2) (Room N11)

Chair: Nicholas Nunnington

Participants:

- 1) Sonja Weiland, Andreas Pfnür *Importance Of User-Orientation In European Corporate Real Estate Management*, Presented by: Sonja Weiland
- 2) Bob Thompson, Qiulin Ke *Workspace Appraisal A Model For Corporate Real Estate Managers*, Presented by: Bob Thompson
- 3) Carmen Bader *Real Estate Strategies For Non-Profit Organisations*, Presented by: Carmen Bader
- 4) Carsten Lausberg, Norbert Müller, Reifenrath Arnd Achieving Value Growth By Professionalizing Public Real Estate Management: Results And Conclusions From An Empirical Survey In Germany, Presented by: Carsten Lausberg

# Government Policy & Regulation in the Real Estate Sector (3) (Room N12)

Chair: Cathy Hughes

Participants:

- 1) Graeme Jay, Francois Viruly *The Impact That Government's Inclusionary Housing Policy (Ihp) Will Have On The Provision Of Housing By The Private Sector In South Africa: Lessons To Be Learnt By Other Emerging Countries?*, Presented by: Graeme Jay
- 2) Savino Natalicchio, Elena Zanlorenzi *Liberalisation Of Retail Activities In Milan New Master Plan*, Presented by: Savino Natalicchio
- 3) Eliana Morandi *Recovery Faith On The Real Estate Sector*, Presented by: Eliana Morandi
- 4) Giampiero Bambagioni Key Components Of Real Estate Markets Framework Policy Principles And Guidance For The Development Of A Country's Real Estate Market For Social And Economic Benefits, Presented by: Giampiero Bambagioni

#### Indirect Real Estate Investment & Portfolio Management (Room N13)

Chair: David H. Downs

- 1) Gianluca Mattarocci, Claudio Giannotti *The Role Of Risk Measures' Choices In Ranking Real Estate Funds: Evidence From The Italian Market*, Presented by: Gianluca Mattarocci
- 2) Patrick Lecomte, Joseph Ooi Corporate Governance Of Asian Reits: Introducing A New Framework Of Analysis, Presented by: Patrick Lecomte
- 3) Kim Hiang Liow *Is There A Common Trend In Securitized Real Estate Market Correlations With The Regional Stock Market And The World Stock Market?*, Presented by: Kim Hiang Liow
- 4) Colin Lizieri, Warapong Wongwachara, Stephen Satchell *Unsmoothing Real Estate Returns: A Regime-Switching Approach*, Presented by: Colin Lizieri



## Green Buildings & Environmental Policies (5) (Room N14)

Chair: Louise Ellison

Participants:

- 1) Georgia Warren-Myers, Richard Reed Sustainability And Obsolescence In The Property Market, Presented by: Georgia Warren-Myers
- 2) Francesca Riccardo, Peter De Jong, Van Oel Clarine Redesign Of Affordable Housing Facades. Preparation Of A Visual Experiment, Presented by: Francesca Riccardo
- 3) Marco Salvi, Andrea Horehájová, Juerg Syz Are Households Willing To Pay For Green Buildings? An Empirical Study Of The Swiss Minergie Label, Presented by: Marco Salvi

#### **Real Estate Risk & Portfolio Management** (Room N15)

Chair: Claudio Giannotti

Participants:

- 1) Luigi Pischedda, Davide Manstretta, Roberto Martinez Diaz Market Segmentation And Portfolio Management - An Analysis Of The Italian Market, Presented by: Luigi Pischedda, Roberto Martinez Diaz
- 2) Terry Grissom, Jasmine Lim, Clare Macparland *The Potential For Effective* Diversification Strategies Between The UK And Irish Property Markets, Presented by: **Terry Grissom**
- 3) Mihnea Constantinescu Measuring Returns In The Swiss Rental Market: A New Repeated-Measures Index, Presented by: Mihnea Constantinescu
- 4) Charles-Olivier Amédée-Manesme, Etienne Dupuy Real Estate Portfolio Optimal Debt Structure: A Pan-European Approach, Presented by: Charles-Olivier Amédée-Manesme

#### **Real Estate Valuation (2)** (Room N16)

Chair: Norman Hutchison

Participants:

- 1) Özdilek Ünsal Revisiting Three Approaches Of Real Estate Appraisal, Presented by: Özdilek Ünsal
- 2) Chung-Hsien Yang, Szu-Jung Huang The Improvement Of Housing Appraisal Process With Street Block Housing Price Index, Presented by: Chung-Hsien Yang
- 3) Maurizio D'Amato Cyclical Capitalization, Presented by: Maurizio D'Amato
- 4) Neil Crosby, John Henneberry Changing Valuation Practices A Critical History Of UK *Investment Valuation*, Presented by: John Henneberry

### Green Buildings & Environmental Policies (6) (Room N18)

Chair: Geoff Page

- 1) The Influence Of Office Location On Commuting Behaviour: Just How Bad For The Environment Are Out-Of-Town Office Locations?, Presented by: Peter Wyatt
- 2) Ching-Horng Tsai, Lung-Shih Yang, Jeng-Ying Shieh Strategy For Urban Redevelopment Of Taichung City In The Era Of High Speed Rail, Presented by: Ching-Horng Tsai
- 3) Sandy Bond Residential Property Development Professionals Attitudes Towards, And Experiences Of, Sustainable Development In Australia, Presented by: Sandy Bond





# Friday, June 25, G

## 15.30-17.00: Workshop Sessions & Panel Sessions

Housing markets - ERES Panel (Room N01)

Chair: Paloma Taltavull

#### Green Buildings & Environmental Policies (7) (Room N02)

Chair: Sandy Bond

Participants:

- 1) Lynne Armitage, Janine Itons *Heritage Listing And Property Value: An Australian Perspective Of The Legislative Framework*, Presented by: Lynne Armitage
- 2) Gerrit Leopoldsberger, Sven Bienert, Kerstin Bobsin *Energising Property Valuation In Europe*, Presented by: Gerrit Leopoldsberger
- 3) Juerg R. Bernet, Sarah Sayce, Vermeulen Maarten Winning In The Long Run-A Quantified Approach To The Uncertainty Of Sustainable Financial Value On Real Estate, Presented by: Juerg R. Bernet
- 4) Sebastian Gläsner, Daniel Piazolo, Matthias Thomas *The Influence Of Ownership*, Sector Allocation And Investment Style On Portfolio Volatility, Presented by: Sebastian Gläsner

#### **Real Estate Valuation (3)** (Room N03)

Chair: Marco Percoco

Participants:

- 1) Jessica Lamond, Felix Hammond, David Proverbs Rural Communities And The Valuation Of Rural Amenities, Evidence From Housing Literature And Case Studies, Presented by: Jessica Lamond
- 2) Velma Zahirovic-Herbert, Swarn Chatterjee *What Is The Value Of A Name?*Conspicuous Consumption And House Prices, Presented by: Velma Zahirovic-Herbert
- 3) François Des Rosiers, Jean Dubé, Marius Thériault *Do Peer Effects Shape Residential Values? Reconciling The Sales Comparison Approach With Hedonic Price Modelling*, Presented by: François Des Rosiers
- 4) Carlos Marmolejo Duarte, Esteban Skarmeta Cornejo, Carlos Aguirre Núñez *Do High-Rise Apartment Condos Equally Revalue The Neighboring Housing? An Analysis Of Ñuñoa, Santiago De Chile*, Presented by: Carlos Marmolejo Duarte

#### Uncertainty science in Real Estate & Finance (Room N10)

Chair: Laura Gabrielli

- 1) David Koch, Sebastian Keiler, Thomas Madritsch *From Costs To The Market: The Divergence Between Costs And Market Value*, Presented by: David Koch
- 2) Bob Thompson, Sotiris Tsolacos *Making Forecasts More Holistic –Defining A Risk Framework*, Presented by: Bob Thompson

- 3) Boris A. Portnov Objective Vs. Perceived Air-Pollution As A Factor Of Housing Pricing: A Case Study Of The Greater Haifa Metropolitan Area, Presented by: Boris A. Portnov
- 4) Georgia Warren-Myers, Chris Heywood *The Use Of Heuristics In Valuation Practice: Implications In A Changing Market*, Presented by: Georgia Warren-Myers

# Asset, Property & Facility Management (3) (Room N11)

Chair: Michael Truebestein

Participants:

- 1) Jos Smeets Steering On Customer Percieved Value. Tools For Customer-Oriented Asset Management By Dutch Housing Associations, Presented by: Jos Smeets
- 2) Tony Shun-Te Yuo Measurement Of Retail Concentration And Variety In Vertically-Used Large-Scale Retail Properties, Presented by: Tony Shun-Te Yuo
- 3) Yung Yau, Daniel Chi Wing Ho, Chi Kwong Law Sustainable Development In Urban Renewal In Hong Kong: A Social Assessment, Presented by: Yung Yau
- 4) Ronny Nasrun Adnan, Ismail Maziah Development And Implementation Fm Rating For Facilities Management At The Jakarta Elemntary Public Schools, Presented by: Ronny Nasrun Adnan

## **Real Estate Finance (1)** (Room N12)

Chair: Deborah Levy

Participants:

- 1) Harry M Karamujic *Univariate Analysis Of Seasonal Variations In Building Approvals For New Houses: Evidence From Australia*, Presented by: Harry M Karamujic
- 2) Qiulin Ke, Robert Edelstein *Chinese Listed Property Companies Engaged In Earnings Management?*, Presented by: Qiulin Ke
- 3) Gianluca Marcato, Luca Mongodi *Real Option Analysis In Incomplete Markets: The Pricing Of Simple And Compound Options*, Presented by: Gianluca Marcato
- 4) Noriko Ashiya Financing Through The System Of Securitization, Targeting Corporate Real Estate: Theoretical Findings Best Fit For Euro-Zone Economies, Presented by: Noriko Ashiya

#### Market Research, Analysis & Forecasting (5) (Room N13)

Chair: Éamonn D'Arcy

- 1) James Culley, Arhi Kivilahti *Current Use Of Gis In The Real Estate Industry*, Presented by: James Culley
- 2) Claudia Buccini, Clara Zanussi *Understanding The Italian Real Estate Office Market:* What Does Make It Different From The Other Major European Markets?, Presented by: Claudia Buccini
- 3) Philip Koppels, Hilde Remøy, Hans De Jonge *Know What You're Looking For: A Theoretical Framework For Hedonic Office Studies*, Presented by: Philip Koppels
- 4) Tony Mcgough, Matthew Hall *Modelling Effective Office Rents Across European Markets*, Presented by: Tony Mcgough





# Saturday, June 26, H

# **09.00-10.30:** Workshop Sessions

## Urban & Housing Economics (Room N01)

Chair: Donald Haurin

Participants:

- 1) Ruben Cox, Dirk Brounen, Peter Neuteboom *Homeownership Externalities, Evidence From Rotterdam*, Presented by: Ruben Cox
- 2) Theis Theisen Segregation According To Household Size In A Monocentric City, Presented by: Theis Theisen
- 3) Magdalena Zaleczna, Iris Frankel-Cohen *Gated Communities In Residential Areas Causative Factors In Different Institutional Frameworks. Israel And Poland Comparison*, Presented by: Magdalena Zaleczna

#### Corporate Real Estate (3) (Room N02)

Chair: Rianne Appel-Meulenbroek

Participants:

- 1) Abraham Park *The Performance Impact Of Strategic Corporate Real Estate In Franchise Organizations*, Presented by: Abraham Park
- 2) Kaarel Sahk, Kärt Hindriksoo, Kalev Sepp *Buildings Condition Assessment Procedure*And Its Influence To The Collateral Activities And Operations, Presented by: Kaarel
  Sahk
- 3) Stefania Sabatino, Luisa Ingaramo *The Impairment Risk Of Corporate Properties:*Strategic And Operational Approaches To Analyze Some Mismatches Between The Physical And The Economical Function Of The Buildings, Presented by: Stefania Sabatino
- 4) Barry P Haynes Aligning Corporate Real Estate To Meet The Changing Demands Of Human Resource Management, Presented by: Barry P Haynes

#### **Housing Economics (5)** (Room N03)

Chair: Ramón Sotelo

- 1) Donald Haurin, Roberto Croce, Carroll Glynn, Carole Lunney *The Interrelationship Of The U.S. Housing Bust And Boom And The News Media*, Presented by: Donald Haurin
- 2) Qin Xiao An Intrinsically Stable System? Supply, Demand And Financing In Housing Markets The Us Perspective, Presented by: Qin Xiao
- 3) Martin Haran, Michael Mccord, David Mcilhatton *Mortgage Constraints: Implications For Uk Housing Markets*, Presented by: Martin Haran
- 4) Anthony De Francesco *Transmission Of External Shocks To Real Estate Markets And Implications For Asset Allocation: Recent Experience For Australia And New Zealand*, Presented by: Anthony De Francesco

# Real Estate Development (2) (Room N10)

Chair: Ingrid Janssen

Participants:

- 1) Akinola Olawore *Lifecycle Risk Analysis Of Building Procurement Routes*, Presented by: Akinola Olawore
- 2) Michael Anikeeff, Ven Sriram *Global Expansion In The Hotel Industry: Us Hotels In Emerging Markets*, Presented by: Michael Anikeeff
- 3) Patrick Mcallister, Peter Byrne, Peter Wyatt*Precisely Wrong Or Roughly Right? An Evaluation Of Development Viability Models*, Presented by: Patrick Mcallister

#### **Real Estate Finance (2)** (Room N11)

Chair: Stanley Mcgreal

Participants:

- 1) Yuko Tomizuka German Investors' Involvements In Japanese Real Estate And Their Future Prospects, Presented by: Yuko Tomizuka
- 2) Bill Dimovski *The Costs Of Rights Issue Capital Raising By Australian Reits*, Presented by: Bill Dimovski
- 3) Charles-Olivier Amedee-Manesme, Michel Baroni, Etienne Dupuy Long-Term Inflation Hedging Properties Of Direct Real Estate Investment: A Methodology To Study Inflation'S Protection Given The Lease Structure And The Indexation Uses, Presented by: Michel Baroni

### Real Estate Investment & Portfolio Management (2) (Room N12)

Chair: Graeme Newell

Participants:

- 1) Felix Schindler *Market Efficiency In The Emerging Securitized Real Estate Markets*, Presented by: Felix Schindler
- 2) Ehsan Nikbakht *A Comparative Analysis Of Performance Of Different Types Of Real Estate Investment In The Us: 2000 To 2008*, Presented by: Ehsan Nikbakht
- 3) Stephen Lee The Benefits Of Public And Private Real Estate, Presented by: Stephen Lee
- 4) Ismail Omar, Al-Fahmey Abdul Rahim *Explaining The Sources Of Land Tax Arrears Using Giddens's Structuration Theory*, Presented by: Ismail Omar

#### **Real Estate Valuation (4)** (Room N13)

Chair: David Parker

- 1) Paolo Damian, Salvatore Greco, Paolo Rosato Adjustment Valuation With A Multiple Criteria Analysis Method, Presented by: Paolo Damian
- 2) Federico Donda *The Grademeter: A Clear, Objective And Simple Tool To Measure The Quality Of Office Buildings And Help Investors, Developers And Occupiers In Choosing Their Property*, Presented by: Federico Donda
- 3) Maurizio D'Amato, Tom Kauko Sustainability And Risk Premium Estimation In Valuation Of Property And Worth, Presented by: Maurizio D'Amato
- 4) Leonie Koerhuis, Aart Hordijk *Yield Development In The Real Estate Office Market The Effect Of Obsolescence*, Presented by: Leonie Koerhuis

#### **Housing Economics (6)** (Room N14)

Chair: Tony Key

Participants:

- 1) Yikun Huang, Xiaocen Wang *Effect Of Housing Supply Control Strategy*, Presented by: Yikun Huang
- 2) Ashot Tsharakyan, Petr Zemcik Effect Of The Rent Deregulation On Tenure Choice And Homeownership In The Czech Republic, Presented by: Ashot Tsharakyan
- 3) Paul De Vries *House Price, House Quality And Economic Growth*, Presented by: Paul De Vries
- 4) Berna Keskin *Alternative Approaches To Modelling Housing Market Segmentation*, Presented by: Berna Keskin

# Green Buildings & Environmental Policies (8) (Room N15)

Chair: Geoff Page

- 1) Muhammad Riaz Akbar, Neil Hewitt, George Heaney, Lay Cheng Lim Zero Carbon Sustainable Developments In The UK And Potential Challenges To The Code For Sustainable Homes, Presented by: Muhammad Riaz Akbar
- 2) Anita Bilos, Richard Reed, Karl-Werner Schulte *International Comparison Of Sustainable Rating Tools-Updated Version 2010*, Presented by: Anita Bilos
- 3) Sergio Mattia, Alessandra Oppio, Alessandra Pandolfi *A Multidimensional And Participatory Approach For Green Buildings Assessment*, Presented by: Sergio Mattia
- 4) Constantine Kontokosta, Franz Fuerst, Tom Geurts, Patrick Mcallister *Locational*Determinants Of Leed And Energy Star Certified Properties, Presented by: Constantine Kontokosta

# Saturday, June 26, I

# **11.00-12.30:** Workshop Sessions

*Urban Economics* (2)(Room N01)

Chair: Alan Evens

Participants:

- 1) Slavomír Ondoš, Shanaka Herath *The Role Of Relative Accessibility In Urban Built Environment Change*, Presented by: Shanaka Herath
- 2) Kathryn Robson, Judith Callanan *Changes In A City Over A 50 Year Period: As Seen Through The Eyes Of Residents (A Case Study From Melbourne, Australia)*, Presented by: Kathryn Robson
- 3) Jukka Jokelainen, James Culley *Pedestrian Movement Analysis And Simulation In Public Spaces*, Presented by: Jukka Jokelainen
- 4) Guowei Gu, Martin Lake, Barry Symonds *What Should Be Taught? The Body Of Knowledge For Real Estate Economics Course*, Presented by: Mahtab Akhavan Farshchi

## Real Estate Investment (3) (Room N02)

Chair: Stephen Lee

Participants:

- 1) Phuong Doan, Kanak Patel *Toll Road Investment Under Uncertainty*, Presented by: Kanak Patel
- 2) Steven Devaney, Roberto Martinez Diaz *Transaction Based Indices For The Uk Commercial Property Market: Exploration And Evaluation Using Ipd Data*, Presented by: Steven Devaney
- 3) Peter Byrne, Stephen Lee Sector, Region Or Function? A Mad Reassessment Of Real Estate Diversification, Presented by: Peter Byrne
- 4) Bjoern-Martin Kurzrock, Felix Schindler, Peter Westerheide *Determinants Of The Capital Structure Of Residential Property Companies*, Presented by: Bjoern-Martin Kurzrock

### Macroeconomic Perspectives on the Real Estate Market (2) (Room N03)

Chair: Koloman Ivanicka

- 1) Sae Woon Park, Yun W. Park, Vipin Agrawal A Study Of The House Price Dynamics With A Bubble Formation: Evidence Of U.S. Housing Markets, Presented by: Sae Woon Park
- 2) Abdullah Khuzaimah *The Impact Of Real Property Gains Tax (RPGT) Exemption In Real Estate Secondary Market A Malaysian Case Study*, Presented by: Abdullah Khuzaimah
- 3) Jo Soeter, Peter De Jong *Macro Measurement And Valuation Of The Building Stock*, Presented by: Jo Soeter
- 4) Koloman Ivanicka, Andrej Adamuscin, Julius Golej *Vulnerabilities Of Visegrad Real Estate Markets Lessons From The Past*, Presented by: Koloman Ivanicka

# Property Cycles & Financial Markets (Room N10)

Chair: Tom Geurts

Participants:

- 1) Jon Wiley, Peter Chinloy *Capital Structure And Investment In Real Assets*, Presented by: Jon Wiley
- 2) Martin Haran, Terry Grissom, Stanley Mcgreal, Jim Berry *Banking On Nama: The Fall Of The Celtic Tiger?*, Presented by: Martin Haran
- 3) Kaarel Sahk, Kalev Sepp *Traditional And Non-Traditional Tools For The Description Of Real Estate Value*, Presented by: Kaarel Sahk
- 4) Adel Boubaker, Sahli Lamia Crash Probability Occurrence And Stock Market Efficiency The Tunisian Stock Exchange Case Via Shannon Entropy, Presented by: Adel Boubaker

# Real Estate Development (3) (Room N11)

Chair: Patrick Mcallister

Participants:

- 1) Seppo Junnila, Jukka Luoma-Halkola, Wisa Majamaa *Urban Redevelopment Concept For Existing Neighborhoods*, Presented by: Jukka Luoma-Halkola
- 2) Gretchen Garniss *Pilot Program For Independent Senior Housing In Krakow*, Presented by: Gretchen Garniss
- 3) Ingrid Janssen, Borgers Aloys, Harry Timmermans Measuring Adaptive Behaviour In A Retail Planning Context; A Multi-Stakeholder Conjoint Measurement Experiment, Presented by: Ingrid Janssen
- 4) Terry Grissom, Jim Berry, Jasmine Lim *Development Valuation: Impacts Of Uncertainty, Risk And Capital Structure*, Presented by: Terry Grissom

### Real Estate Finance (3) (Room N12)

Chair: Mihnea Constantinescu

Participants:

- 1) Desmond Tsang, Erik Devos, Andrew Spieler *Elective Stock Dividends And Reits:* Evidence From Reit Dividend Policy During The Financial Crisis, Presented by: Desmond Tsang
- 2) Yener Coskun *An Analysis Of The Opportunities And Weaknessess Of The Turkish Real Estate Market*, Presented by: Yener Coskun
- 3) Che-Chun Lin, Man Cho, Tyler T. Yang *Pricing Of Credit-Sensitivity Residential Mortgage Asset Backed Securities Tranches*, Presented by: Che-Chun Lin
- 4) Petr Zemcik Housing Markets In Central And Eastern Europe: Is There A Bubble In The Czech Republic?, Presented by: Petr Zemcik

#### Portfolio Management (Room N13)

Chair: Laura Gabrielli

- 1) Tony Key, Colin Lizieri *Regional And Urban Economies And Commercial Real Estate In The Uk: Exploring The Linkages*, Presented by: Tony Key
- 2) Anna-Maria Panosa-Gubau, Joan Montllor-Serrats *Real Estate Vs Stock Market: Approaching The Value Creation Through The Treynor And Black Model*, Presented by: Anna-Maria Panosa-Gubau, Joan Montllor-Serrats

3) Graeme Newell, Andrew Baum The Performance Of Property Companies On The Aim Stockmarket, Presented by: Graeme Newell

## **Real Estate Valuation (5)** (Room N14)

Chair: Nikolai Trifonov

Participants:

- 1) Daniela Barbu, Ana Maria Gramescu, Victor Ionescu Studies And Researches On Market Value Estimates Of Real Estates Considered As Spiritual Heritage For Communities, Presented by: Daniela Barbu
- 2) Uladzimir Valetka, Nikolai Siniak, Sierz Naurodski *Measuring Economic Value Added In Real Estate Sector In Belarus*, Presented by: Uladzimir Valetka
- 3) David Parker *Impact Of Green Features On Cbd Office Building Rentals: An Adelaide Case Study*, Presented by: David Parker
- 4) Georgia Warren-Myers *Valuation Practice Issues: Sustainability And Market Value*, Presented by: Georgia Warren-Myers

# **Housing Economics (7)** (Room N15)

Chair: Uberto Visconti Di Massino

- 1) Neil Dunse, Harris Hollans, Carolyn Dehring *The Benefits Of Proximity To Open Space:* A Case Of Aberdeen, Scotland, Presented by: Neil Dunse
- 2) Ekaterina Chernobai, Anna Chernobai *Consumption Of Real Assets And The Clientele Effect*, Presented by: Ekaterina Chernobai





# **Technical visits and tours**

1)" Torre Lombardia", the new seat of the Lombardy Region Council Starting Time: Wednesday June 23rd, at 17.00, duration 1 hour

Meeting Point: entrance of the jobsite, corner viale Restelli –via Pola (underground Green line, stop "Gioia", see map)

"I am glad to inform you that a number of you (25 people at the most) will have the opportunity to visit the new seat of the Lombardy Region Council.

The Tower, named "Torre Lombardia", arises in the hearth of the redevelopment project involving the entire "Garibaldi-Repubblica-Porta Nuova" urban hub.

Standing like a lighthouse, and situated opposite the world famous "Pirelli "skyscraper, the brand new 40 storey building has been designed by the American architect Henry Cobb together with the Italian architect Paolo Caputo.

The Tower will host all the administrative offices of the Lombardy Region Council presently spread out in many different locations in our city (3.000 people. The move is scheduled after summer 2010) With 161 mt, "Torre Lombardia" is the highest tower in Italy.

You will be welcomed by people of Infrastrutture Lombarde, the Lombardy Region's technical arm.( we thank all of them in advance for the kind cooperation).

The visit will last approximately one hour, in time to join the ERES Ice Breaker Party at Palazzo Marino.

Be punctual, and take your cameras with you!

From the top floor of Torre Lombardia you will enjoy a stunning view of Milan, and the crown of the Alpi mountains.

Belive me, un unforgettable experience!

Please confirm your attendance to me directly: <u>paola.lunghini@mclink.it</u>

Your names are requested for safety reasons.



# 2) Ambrosiana Library & Picture Gallery

Starting Time: Thursday June, 24th, at 17.00

For 25 persons only. Meeting Point: Ambrosiana Library Piazza Pio XI, 2 ( near DUOMO square , see map )

"You will be welcomed to a very special guided tour at the "Ambrosiana" Library& Picture Gallery, one of the most famous private Museums in Italy and in the world. The museum is located in the very center of Milan, only a few minutes walking from Duomo (the Cathedral) and the Scala square (see map).





Founded in 1607 by the Milanese patrician family Borromeo, Ambrosiana owns and holds many famous art masterpieces: amongst them, paintings of Raffaello, Caravaggio and Leonardo da Vinci: including the whole "Codex Atlanticus" of Leonardo, more than 1400 drawings, which are now been displayed for the first time in history, in a world famous exhibition, 30-40 different pieces every three months time. The exhibition will so last until 2015.

You will discover much more on www.ambrosiana.it.

You will have as "special guide" the Responsible for international relations of the Ambrosiana.

To book, send an email to <u>paola.lunghini@mclink.it</u> as soon as possible.

Paola G. Lunghini"

(Paola G. Lunghini, Honorary Chair of ERES 2010, is the sponsor of this marvellous visit, where you will feel yourself like in a movie).



# 3)Beni Stabili Tower

Starting Time: Friday June 25rd, at 11.30, duration 1 hour

Meeting Point: entrance of "Garibaldi Railway Station" (underground Green line, stop "Garibaldi", see map)

"I am glad to inform you that a number of you (25 people at the most) will have the opportunity to visit the Beni Stabili Tower, located in the CBD of Milan (underground Green line, stop "Garibaldi"). The Tower, named "Tower B" arises in the hearth of the redevelopment project involving the entire

"Garibaldi-Repubblica-Porta Nuova" urban hub.

The old 24 storey building was acquired years ago by the Italian property company Beni Stabili (Fonciere des Regions Group) which, in 2008, decided to redesign it, in order to reach a sound image, and the best efficiency. Therefore, Beni Stabili selected Progetto CMR (a highly reputed architectural firm based in Milan, and acting very much in China) to do the job: which took two years time.

Now the Tower is ready, and it will soon be leased to a prominent multinational company (according to the market rumors). The Tower arises exactly besides the "Garibaldi Railway Station" (underground Green line, stop "Garibaldi"), so the tour will start at the entrance of the Garibaldi Station, on Wednesday June 23<sup>rd</sup>, at 17.00.

You will be welcomed by people both of Beni Stabili and Progetto CMR.

We thank all of them for the kind cooperation.

The visit will last approximately one hour, in time to join the Lunch at the Bocconi Campus.

Be punctual, and take your cameras with you! From the top floor of Tower B you will enjoy a stunning view of Milan, and particularly of the CBS, which is at the moment one of the major regeneration projects in Europe: the entire site is 300,000 sqm, and all the new buildings are to be delivered by 2012/2013.

# Please confirm your attendance to me directly: paola.lunghini@mclink.it

Paola G. Lunghini"







# 4) Serravalle Scrivia McArthurGlen's Designer Outlet Starting Time: Wednesday June, 25th, at 11.00, duration 5 hours

**Meeting Point: Bocconi Campus** 



"I am pleased to confirm to you that a special "ERES retail real estate tour" is scheduled for Friday June

Thanks to McArthurGlen's courtesy and support (we thank them in advance) you are cordially invited to visit the 180-shops "Serravalle Designer Outlet", Italy's prime scheme featuring a wide range of the most famous fashion brands, which represents a true must for retail specialists, as well as an excellent opportunity to enjoy the essence of the Italian style for everybody!

Enrico Biasi, member of the Scientific Committe of ERES 2010, will be your guide during this special day, which combines technical info, and a very exciting shopping experience: you will be welcomed by McArthurGlen managers, you will enjoy a nice welcome refreshment, and you will be given the special "Serravalle Card" (which means more discounts...in the shops. For further information, please visit www.eres2010, page sponsors (click on the logo of McArthurGlen).

You shall leave by bus the Bocconi Campus at 11.00 a.m. and be back in the afternoon (6 p.m. approx.), before the unmissable rugby tournament and party at "Civic Arena".

Please confirm your participation to Enrico Biasi (eblb@iol.it), who is looking forward to meet you, and in order to communicate the McArthurGlen's Team your names (for the "Cards")

Paola G. Lunghini

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Mazzeo, Antonella Luiss Business School Morri, Giacomo SDA Bocconi

Contact email: antonella.mazzeo@unirc.it

#### A "MEDIUM TERM" ADD IN PROPOSAL FOR GREEN PROPERTY APPRAISAL

It is about time for evaluation modeling of buildings to include the green features and for investors and developers to consider the pleasing impact of green in property valuation and worth. Worldwide some researchers and appraisers have been working on evaluation methods to turn the buildings green features benefits into value, while reflecting the lower risks investors and developers may be taking.

The USA real estate industry has made substantial strides in integrating sustainability/green into valuation (S. R. Muldavin, 2010) as real estate decision makers have understood that sustainable properties can generate health, productivity benefits, recruiting and retention advantages, operations savings and reductions in risk. However, real estate decision makers miss a standard allowing the quantification of the impact of green features outcomes into the asset value.

The objective of this paper is to give some clues for factoring green features into a DCF model in order to let stakeholders consider green issues opportunities in their property decisions. In accordance with its objective the paper deals with the question of how green buildings could be evaluated in a period where comparables are not available on the market, mainly in Italy. The proposal could be useful for investors also over this crunch period as green buildings represent an opportunity thanks to cost savings and risk mitigation.

An analysis, discussion and preliminary conclusion of a case study is presented at the end of the paper as a preliminary starting point for showing that investing in green buildings could really be a competitive advantage also in Italy for all stakeholders either in terms of rental price premium or in terms of absorption rate, tenant retention and mitigation in risk. In conclusion, in order to allow all stakeholders to accurately assess the progress of the green property industry revenue and risk considerations along with payback and IRR analyses have to be considered.

Keywords: Green Buildings, Offices, Risk mitigation, Cost savings, Market Value





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## A CLOSE LOOK AT THE EXPERT'S PERCEPTION OF THE SUITABILITY OF CONSTRUCTION MATERIALS FOR RESIDENTIAL USE. PRELIMINARY STUDIES.

Managing the finances of construction includes the mortgage sector, which calculates the market value of properties, reflecting the incipient search for balance between supply and demand. The daily practice of expert property valuation is undoubtedly a complicated task, as market value involves both objective and subjective aspects that mean value for the property, and mere knowledge of the technique that leads to the possibility of the property appreciating in value is clearly insufficient. The lack of studies on the subjective perception of how construction materials influence the market value of properties for residential use has led to these preliminary considerations as a framework for the needs and shortfalls of subsequent research. This problem particularly affects not only the subjective quantification of the materials to be used in the property construction and development sector, but also property development management itself, as it makes it impossible to predict accurately the most probable sale price.

By using critical analysis and reflecting on a previous research paper that designed an indicator of the perceived quality of construction materials used in homes, this paper studies the subjective perception by home use experts of the suitability of a material in a certain location, taking into account both the general perception of society and aspects such as quality, price, user acceptance, maintenance, cleanliness and suitability of use. To achieve this objective, a survey was designed that was conducted in public places in the province of Alicante (Spain) in the months of March and April 2009 and was completed by 35 experts. Univariate and inferential descriptive statistical analysis was run on the data, and their congruence was analysed.

Initial results show that ceramic porcelain stoneware is the material best perceived by experts to be used in wet rooms in homes. Marble is preferred in other rooms. As a consequence of the study, it can be initially concluded that the highest levels of appraisal by experts on materials that influence the market value of a residential property are for ceramic and natural stone materials, based on aspects such as quality, maintenance and the suitability of use. The findings are relevant for obtaining scientific data with which to measure the subjective perception of experts before choosing the materials used in building a property for residential use.

**Keywords:** Property valuation, construction materials choice indicator, survey analysis, construction materials





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## A COMPARATIVE ANALYSIS OF PERFORMANCE OF DIFFERENT TYPES OF REAL ESTATE **INVESTMENT IN THE US: 2000 TO 2008**

Among major objective to add real estate to an existing portfolio are:

- a. earn an absolute return exceeding a risk free rate
- b. hedge again inflation
- c. enhance diversification

The purpose of this empirical study is to verify, on a comparative basis, how different types of real estate investment in the US have achieved any or all of the above objectives.

We compared returns, volatility, coefficients of variation, as well as the Sharpe ratio for performance analysis. Bivariate statistical analysis for the purpose of comparison has been applied. The historical annual/quarterly data are from 2000 to 2008, as extracted from the Bloomberg database of the Hofstra University trading room on Long Island, New York. We used the 10-year treasury bond as a proxy for risk-free rate, and the GDP deflator as reflective of the rate of inflation. We chose the performance of the S&P 500 and Russell 3000 as the market portfolio.

Our findings at the time of writing this abstract are reported as follows:

- a. Returns for smoothed NPI indexes are in line with those of both fixed income and equity.
- b. Once adjusted for unsmoothing, the performance is lagging.
- c. Adjusted for volatility, the Sharp Ratios are in line with those of both fixed income and equity.
- d. The REITs, as compared to direct properties, performed better in terms of the Sharpe ratio.
- e. Real estate has been a good source of hedging again inflation provided that the data of 2007 and 2008 are ignored.
- f. Real estate returns suffer from negative skewness and positive kurtosis.
- g. Lower correlations indicate potential for enhanced diversification.
- h. Real estate return is very susceptible to extreme shocks.

In most parts, findings are consistent with previous studies conducted for other periods of data.

**Keywords:** real estate investment performance





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# A COMPARATIVE ANALYSIS OF THE COMMERCIAL AWARENESS OF UNDERGRADUATE AND POSTGRADUATE REAL ESTATE STUDENTS

Real estate graduates continue to face very competitive graduate job markets with far fewer opportunities available than the number of students and recent graduates searching. Employers frequently cite commercial awareness as a highly desirable graduate attribute and real estate graduates who can display good commercial awareness will therefore have enhanced employment prospects.

The literature will be analysed to assess whether there is a shared understanding of the components of commercial awareness. This will then be contrasted against the perspectives of two stakeholder groups, real estate employers and real estate educationalists.

Finally the results of a questionnaire survey will be analysed to compare and contrast commercial awareness attributes of undergraduate and postgraduate real estate students. It is expected that postgraduate students will exhibit greater commercial awareness than their undergraduate counterparts and that this is an important factor supporting their desirability in the graduate job market.

Keywords: Real estate education Commercial awareness Employability	
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A COMPARISON OF HOME MORTGAGE LOAN DEFAULTS AND FORECLOSURES IN THE UNITED STATES AND IN CERTAIN EUROPEAN UNION COUNTRIES, INCLUDING A DISCUSSION OF GOVERNMENTAL RESPONSES AND SOME OBSERVATIONS CONCERNING CONTRIBUTING CAUSES

The present crisis in home mortgage loan defaults in the US has some parallels in various EU member countries. However, the EU countries, by and large, have avoided the worst of the US problems. Depending on the countries observed, the European nations seem to be doing a better job in this critical area, due to different, often much narrower, sources of home loans, tougher standards for offering these loans, and differences in the functionning of the secondary markets for home loans. Moreover, in countries where mortgage defaults have risen and the problem is thus more severe, there is again variation in the measures that have been taken to protect homeowners, and their relative success.

Keywords: Home Mortgages, Mortgage Default and ForeclosureEu/US Comparison





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#### A FRAMEWORK FOR ANALYSING HOUSE PRICES USING TIME, SPACE AND QUALITY CRITERIA

The purpose of this paper is to link temporal, spatial and quality aspects of house prices within a single analytical framework. The hedonic price model, derived mostly from Lancaster's (1966) consumer theory and Rosen's (1974) model implies that commodities are characterized by their constitute properties, therefore the value of a commodity can be calculated by adding up the estimated values of its separate properties. These hedonic price indices provide a basis to estimate the house price taking into account the quality or the characteristics of a housing unit. Furthermore, the standard urban economic monocentric model developed initially by Alonso (1964) suggests that the principal variable causing variations in constant-quality house prices within a metro area is land price. A typical land rental equation includes distance from the CBD, agricultural land rental, and a conversion parameter that depends on transport cost per mile and community income, and hence suggests that distance to the CBD should be included in the house price model. In addition, literature related to temporal dynamics of house prices justify adding-in a time variable as a determinant of house prices: even though it is widely accepted that house prices are sensitive to the temporal dynamics, they are hardly incorporated into the hedonic models. Inclusion of temporal dimension allows capturing the time related dynamics of the market such as volatile prices generated by seasonality or the price cycles. Most of the previous analyses of house prices do not typically take into account these three dimensions jointly so that the estimates produced are likely to be biased. The composite model suggested here will reflect temporal and spatial dimensions in addition to the quality of the house represented by its intrinsic characteristics. The estimates of the proposed model, therefore, are likely to be unbiased. An attempt is also made to substantiate or invalidate these claims by conducting tests based on simulations.

Keywords: house price, hedonic price, monocentric model, temporal dynamics of house prices





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### A GLOBAL PERSPECTIVE ON THE VALUE OF GREEN BUILDINGS

Capital investments in energy efficiency in the built environment are a cost-effective manner to achieve substantial reductions in current carbon emissions. In fact, improvements in the energy-efficiency or sustainability of buildings have been shown to lead to positive financial returns. Attention to green building practices has substantially increased over the last decade, but more research is needed on the actual costs and benefits of implementing energy efficiency measures into buildings. Moreover, evidence on financial performance of such investments is limited outside of the U.S. To fill this gap in the literature, this study investigates the financial implications of green building practices in the United Kingdom, the second largest property market worldwide. The United Kingdom was the first to introduce a formal green building rating scheme in 1990 - BREEAM. This rating scheme laid the foundation for the development of rating schemes such as LEED, which is promoted by the U.S. Green Building Council and GreenStar in Australia. We match proprietary information on the addresses of BREEAM rated office buildings, made available to us by BRE, to the characteristics of geographically nearby control buildings, their rental rates and selling prices. This results in a dataset of approximately 7,000 subject and control buildings. We then model the characteristics of green buildings that impact price, occupancy rates and rental performance, controlling for differences in quality between subject and control buildings using a hand-collected set of hedonic characteristics. Initial results from this analysis suggest a positive impact of a building's green characteristics on rents and sales transaction prices.

**Keywords:** environmental sustainability, energy efficiency, green labels, real estate





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# A HOUSEHOLD-LEVEL DECOMPOSITION OF THE BLACK-WHITE HOMEOWNERSHIP GAP DISTRIBUTION

This paper decomposes the black-white gap in homeownership propensity into an endowment component and a residual component across its distribution. We document evidence that supports the view that the racial gap differs across its distribution and that studies that only examine the gap at the conditional means are misleading. We find that although household characteristics could explain the racial gap for households that are more likely to own homes, there is still a substantial portion of the gap that remains unexplained particularly for households with a low propensity to own homes. We estimate the counterfactual distribution using a semiparametric procedure which has the advantage of looking at disaggregated data and does not restrict the sample data to segregated neighborhoods. We illustrate this flexibility by decomposing the racial gap at the city-level.

Keywords: Homeownership, Race, Segregation

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## A MEASURE OF INNOVATIVENESS AND PERFORMANCE OF INFRASTRUCTURE FINANCING VEHICLES ACROSS UK

Quality infrastructure is generally recognized to be a significant factor for socio- economic success and infrastructure investments are considered as a pathway to economic growth across regions. There is however an increasingly significant global agenda in the financing of infrastructure and as the gap widens between demand and supply, infrastructure provision and financing are becoming increasingly more complex. As a result of the recognized inefficiencies be-devilling the public sector provision of superb infrastructure to the community, and to maintain territorial integrity and remain competitive in the global market, governments across jurisdictions are now increasingly expanding the role of the private sector in search of innovative vehicles in the financing of infrastructure resources as evidenced by the increasing growth of infrastructure funds. However, there is a knowledge gap regarding the measure of innovativeness and performance of these financing vehicles in meeting the capital requirement for financing infrastructure provision at a global level. This study adopts the 22 factors that act as drivers or inhibitors of innovation for infrastructure projects as identified by Russsell et al (2006) measured against the performance of 14 infrastructure funds with major focus in UK. The study develops an empirical model and discusses the dominant innovative factors across these infrastructure financing vehicles.

**Keywords:** Infrastructure, infrastructure funds, innovativeness and performance



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**BOOK OF ABSTRACTS** 

### A MULTIDIMENSIONAL AND PARTICIPATORY APPROACH FOR GREEN BUILDINGS ASSESSMENT

The development of complex decision making processes has encouraged the involvement of different stakeholders in the evaluation procedures and tools. Multi-criteria evaluations are increasingly being used in deliberative evaluation process, addressing research experiences and applications towards this new challenge: to give a broader and stronger meaning and consistency to the outcomes of the decision making process. It means to open the decisional arena to different groups with different points of view and involve multiple weights in the multicriteria evaluation framework. It's widely acknowledged that the need for evaluation tools aiding the complex decisions comes from the consciousness about uncertainty (Funtowicz and Ravetz 1994), that requires to focus more on the process than on the outcomes.

According to these general assumptions, the paper gives a critical review of assessment methods and tools developed in the field of the performance assessment of buildings' sustainability by the Green Building Challenge (GBC) process - launched by Natural Resources Canada in 1996 and managed by the International Initiative for a Sustainable Built Environment (iiSBE) in 2002 – in order to point out 1) their strengths and weaknesses and 2) to understand the opportunities to adapt their evaluation framework to the principles of deliberative multicriteria evaluation (Proctor, Drechsler 2006). With reference to the outcomes of this analysis, the paper suggest to enforce the followings issues of the last version of Green Building evaluation tools, called Sustainable Building Tool (SBTool): the evaluation process, the choice of criteria and the weighting system. More in deep, the analysis highlights that weights assignment is the most critical stage, because it is based on preferences and priorities of some decision-makers only (experts, technicians and institutional ones), involved with the task of adapting the generic evaluation framework to the conditions of different context in various regions by tuning values and weights.

To solve this criticism it's important involve other stakeholders in the weighting stage, using specific participatory rules, in order to make the weights assignment as transparent as possible and to strengthen the legitamicy of decisions taken (Munda 2004).

**Keywords:** deliberative processes, multicriteria evaluation, buildings performance



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## A NEW MIXED STRATEGY FRAMEWORK (MSF) FOR INVESTMENT PERFORMANCE EVALUATION: EMPIRICAL EVIDENCE FROM THE TEHRAN STOCK EXCHANGE (TES)

Astronomical amounts of funds invested in financial markets. Consequently, the evaluation of investment performance has created a great deal of interest among practitioners as well as academic researchers. Literature provides various evaluation methods. Since each method has its own weaknesses and strengths and may provide different rankings, it is very important for investors to know which method of evaluation is the best and which investments outperform the others in a given market. The objective of this paper is to provide results of an empirical investigation in the Tehran Stock Exchange (TSE). In order to select the best investments' performance evaluation method, we applied correlation test. To remove the paradox in results of different evaluation methods, a mixed method was introduced. Since the results confirm existing significant differences among the results provided by different performance evaluation methods. We applied the proposed mixed strategy in the TSE. The authors believe that the suggested strategy can help investors in their selection where they face to several and different performance rankings.

Keywords: Investment performance evaluation, Bi-criteria, Triple criteria, Multiple criteria, Tehran Stock Exchange, Mixed strategy

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## A STUDIES OF MARKET SEGMENTATION, PRICING AND TIME-ON-THE-MARKET AT THE RESIDENTIAL BUILDING IN TAIWAN

Market segmentation, Product position, selling price, and the sales time have been lots of discussion at single residential product literature. But it lacked for a portfolio examination of entire housing building. This paper quotes the concept of typicality of housing and atypicality of housing to segment the sub-market of housing by the quantities of room at a dwelling of the entire housing building. As well as make the best product position strategy, and use the proportion of rooms to discuss the relations of selling price and the sales time. The data of this paper investigate the new construct housing buildings in Kaohsiung city, Taiwan, between 2001 and 2006 - total 192 housing building, and counted 21,520 dwelling units. This research is using two-stage least square model Chi-squared and Cluster analysis to probe the cause and effect between the product selling time and the housing substantial attribute combination, and to decide the strategy of proportion of rooms in the beginning of planning product positioning. The result of this research expected to contributive sub-market segmentation from product positioning, proposed that the product positioning of strategy, as well as defines the relations of the selling price and the sales time from the proportion of rooms strategy. We also expect to give development suggestion for the developer and find the important variable effect on the selling price and sales time at the scholarly research.

**Keywords:** market segmentation, pricing, time-on-the-market, typicality of housing and atypicality

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## A STUDY OF THE HOUSE PRICE DYNAMICS WITH A BUBBLE FORMATION: EVIDENCE OF U.S. HOUSING MARKETS

Cycles of boom and bust in the housing market seem to give support to the 'bubble theory' of the house price where the house price is essentially the sum of the fundamental price and the bubble. We test the theory using the cross-sectional time series data of 50 US states from 1985 onwards. We measure the bubble using the percentage changes in median house prices for the 2004:1 to 2006:2 period as well as the deviation from the long run PIR (price-to-income ratios). We find that states with a larger bubble experience a larger subsequent price downfall. Our data suggests that the house price bubble speculation is quite widespread, but geographically confined to 3-4 geographical regions. We document that the excess liquidity measured by the subprime mortgage and the speculative activity as measured by the variation of house prices explained by the past increases in prices cause the bubble formation. Our data also shows that the states with the greater use of subprime mortgages experienced a greater bubble and a greater subsequent bust suggesting that the disintermediation of the mortgage financing contributed to the most recent housing market bubble

Keywords: bubbles, boom and bust, house price dynamics, US housing market, real estate cycles, subprime mortgages, price momentum





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## ACHIEVING VALUE GROWTH BY PROFESSIONALIZING PUBLIC REAL ESTATE MANAGEMENT: RESULTS AND CONCLUSIONS FROM AN EMPIRICAL SURVEY IN GERMANY

The professional management of public real estate has made tremendous progress in recent years. There is no doubt that in most countries public real estate management (PREM) has still a long way to go until it can match the professionalism of corporate real estate manage-ment (CREM) or real estate investment management (REIM); but given the obstacles that have to be overcome to transform a public institution into an effective and efficient marketoriented player a lot has been achieved on all levels: the municipal, the state, and the federal level.

The first aim of this study is to give a comprehensive overview of the state of the public real estate management in Germany by:

- •Summarizing the results of the most important studies on this subject to date,
- •Reporting the results of our own survey,
- •Putting the results in an international context.

Our questionnaire-based survey concentrates on the 16 federal states in Germany. Almost all of them have transferred the responsibility for public properties to independent, state-owned agencies or corporations. However, these institutions differ greatly in respect of strategy, organizational structure, outsourcing of facility management services, and other details.

Based on these findings we develop some conclusions, especially about important trends for the future. And our second aim is to develop a modified concept of value growth for PREM, which adapts the shareholder value concept and follows the development of CREM.

Keywords: public real estate management





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## ACTIVITY INTERNATIONALISATION IN THE REAL ESTATE MARKET: SOME EVIDENCE ON THE INTERNATIONALISATION OF THE REAL ESTATE INVOLVEMENTS OF LISTED FIRMS

Real estate in common with many other business sectors has experienced significant levels of internationalisation in its market activities over the last decade. These range from the internationalisation of key market actors such as real estate service providers and investors to the increasingly cross-border nature of a wide spectrum of real estate involvements. However, with respect to one group of market actors specifically listed real estate firms the evidence so far available of their activity internationalisation suggests that it has more been limited and highly sector specific as compared to other groups of market actors. This paper sets out to systematically examine the internationalisation of the real estate involvements of this group as a means of identifying the key drivers of this process in the listed real estate universe. The analysis examines the experience of listed firms in Australia, France, The Netherlands, The United Kingdom and The United States. By using a range of case study locations the paper attempts to identify the extent to which country specific factors play a role in explaining different levels of internationalisation. Sector specific considerations, levels of market capitalisation, growth strategies and the incentive of superior performance are all examined as potential drivers of the process. The role of opportunistic timing as a driver is also considered. The paper concludes with an assessment of the findings for our understanding of activity internationalisation in the real estate market and identifies a number of priorities for future research.

Keywords: Activity Internationalisation, Real Estate, Listed Sector





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### ADJUSTMENT VALUATION WITH A MULTIPLE CRITERIA ANALYSIS METHOD

Sales Comparison Approach (SCA) is the most popular method for property valuation, both in Europe and North America. The approach is based on principle of substitution and on the assumption that market price, which represent buyers and sellers behaviour in the market, is a good market value indicator.

The procedure most frequently used in SCA is Adjustment Grid Method (AGM). The AGM consist in several steps, the first is selecting a group of comparables property which have been sold recently and present similar characteristic to the property being appraised, called subject. The second is choosing the variables that affect the market value and evaluating the difference between comparables and subject. Then monetary adjustment to the sale price of the comparables are estimated in order to represent what it would have sold for had it been identical to the subject. Finally the market value of subject is inferred from adjusted price of comparables.

One of the major difficult of the AGM is the estimate of the adjustments factors. This article proposes a multiple criteria approach called UTilitès Additives (UTA), for the valuation of the adjustment factors.

The application of UTA on a database of property sales proves the capacity of the method to provide more reliable adjustment estimation then usual regression method.

Keywords: UTA, real estate appraisal, adjustment grid method, sales comparison, multi criteria method







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# AGENCY CONFLICTS IN PROPERTY INVESTMENT DECISIONS AND THE MITIGATING EFFECT OF INFORMAL INSTITUTIONS: EVIDENCE FROM INVESTMENT ACTIVITIES OF PENSION FUNDS AND FOREIGN INVESTORS IN TANZANIA

Agency theory is basically concerned with the conflicts of interest arising in agency relationships and how to align them. Whereas all common forms of investment activities are subject to agency conflicts, property investment owing to its idiosyncratic features is more vulnerable to the conflicts. The objective of this study is twofold i.e. to test the robustness of agency theory in explaining cases of sub-optimal property investment decisions, and to examine the effectiveness of informal institutions in mitigating agency conflicts in property investment activities in property market settings which are characterised by weak formal market institutions. In particular, the study investigates agency relationships existing in property investment activities of pension funds and foreign investors in Tanzania. Tanzania is a typical reforming infant market of Africa with nascent formal market economy institutions. The study is mainly based on a survey of key agents and principals in the property investment activities of pension funds and foreign investors. A qualitative study was used as a forerunner to the survey. The data for the qualitative component were collected using focus group interviews and in-depth interviews. Preliminary findings show pervasive agency problems in the property investment activities. It is however also clear from the findings of the study that informal institutions play a key role in mitigating the opportunistic behaviour of agents. Age and marital status are other key factors in constraining agents' behaviour. However, there is no conclusive evidence to suggest that agent's level of income and education are important factors in mitigating agency conflicts. These preliminary findings provide useful contribution to the development of the agent theory. They provide more compelling evidence in making a case for inclusion of informal institutions in agency theory modelling.

Keywords: Agency conflicts, property investment, informal institutions, Tanzania





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# ALIGNING CORPORATE REAL ESTATE TO MEET THE CHANGING DEMANDS OF HUMAN RESOURCE MANAGEMENT

The aim of this paper is to explore the linkages between corporate real estate, human resource management and business performance. Developing corporate real estate strategies in the current business environment has become an even more complex task. The implementation of flexible working, and the corresponding changes to HR practices, highlights the increasing importance of establishing the right amount and type of organisational space. One clear issue developing is the need to understand the changing demographic trend. The possibility that four different generations could be working in the same office at the same time means that CRE solutions must allow Multigenerational working. The office environment must not only enhance productivity must also provide environments that facilitate health and wellbeing. Creating office environments that are both productive and also supportive of physical and mental health requires that the occupier perspective is established. This means that the linkages between the people and their workplace need to be made through the application of techniques from Environmental Psychology. A number of themes will be identified throughout this paper. These will include the relationship between corporate real estate strategy and human resource strategy, organisational culture, changing demographics and the how office space can used to enhance organisational performance through the use of Environmental Psychology.

*Keywords:* corporate real estate strategy, changing demographics, organisational performance and environmental psychology





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# ALIGNMENT OF INTEREST IN NON-LISTED REAL ESTATE FUNDS - FEE STRUCTURE AND ITS IMPACT ON REAL ESTATE FUND PERFORMANCE

Based on the INREV vehicles database, the non-listed real estate market in Europe has grown to more than 450 vehicles with a Gross Asset Value (GAV) of approx. €260Bn. with different investment strategies and styles in 2009. In light of the recent financial turmoil and more than 40 different fees in place, transparency for investors is limited. Although the alignment-of-interest with fee structures is crucial to the functioning of the property fund model, few studies have targeted the link between fund terms & conditions and investment performance. In this way, the aim of this paper is to critically analyze the effect of fee structures on the performance of non-listed real estate vehicles. In this way, the paper combines performance data from various real estate vehicles on the one hand with fee-related terms and conditions on the other hand. Also, the empirical analysis includes various fund-specific factors like fund size, property type, regional allocation and investment style as control variables in the regression analysis. The INREV-based (Investors in Non-listed Real Estate Vehicles) sample focuses on the European property funds market and excludes fund-of-funds.

Keywords: Indirect Real Estate Investment, Performance Measurement, Fee Structures





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# ALTERATIONS AND EXTENSIONS TO COMMERCIAL BUILDINGS IN THE MELBOURNE CBD: THE RELATIONSHIP BETWEEN ADAPTATION AND BUILDING ATTRIBUTES

Buildings contribute around half of all greenhouse gas emissions and Australian offices alone account for 12% of all greenhouse gas emissions. As city authorities seek ways of reducing the contribution of cities to climate change and global warming, building adaptation appears to offer a means of reducing current building related emissions by 38%. The 1,200 building program developed by the City of Melbourne aims to adapt or retrofit 1,200 CBD properties before 2020 with sustainability measures as part of their policy to become carbon neutral by 2020. Through an examination of building adaptations in the CBD it is possible to identify the nature and extent of typical levels of adaptation, as well as determining the relationship between different types of adaptation and building attributes.

This paper addressed the question; what is the relationship between building adaptation event, classified as 'alterations and extensions' in the CBD and building attributes? Using the Melbourne CBD as a case study, the research analysed 5290 commercial building adaptation events over a ten year period from 1998 to 2008 and the relationship with specific building characteristics. All adaptation events that occurred during this period are included in the study, 5290 in total, making the study the most extensive and comprehensive analysis of this level of building adaptation undertaken in Australia. The outcomes of this research is applicable on a global basis and relevant to all urban centres where existing commercial buildings can become part of the solution to mitigate the impact climate change and enhance the city.

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#### ALTERNATIVE APPROACHES TO MODELLING HOUSING MARKET SEGMENTATION

Hedonic price models have been broadly employed to explore the factors of housing prices changes. Especially market-wide hedonic models have tended to provide preliminary investigation of spatial distribution of housing prices. This paper seeks to explain the effectiveness of different segmented house price structure in Istanbul. Three different approaches are used in order to model the housing price differences. First, a standard market-wide model is employed which is taken as a reference point. Second, a hedonic price model that includes neighbourhood dummy variables as a proxy for segments within the model is used. Third, a multi-level model which includes segments and their interactions with each other is employed. Comparing the performances of these three approaches, this paper concludes that taking housing market segmentation into account improves the effectiveness of the models.

Keywords:





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#### ALTERNATIVE INVESTMENTS: CORRELATION STRUCTURE AND BUSINESS CYCLES

In an asset allocation process, correlations are particularly important if one includes 'alternative investments' such as real estate, commodities and hedge funds, which have been proclaimed to provide diversifying benefits within the overall portfolio context. While many studies have found that correlations between assets are time-dependent within each asset class, we focus on the correlations between asset classes to see if they change over time as a result of the business cycle.

The technique of semi-correlation is used in order to differentiate asset class returns between up- and down-movements. We find that there are a number of assets for which correlations generally increase in down states (e.g. all types of equities). Hedge funds and balanced commodities also show substantially higher correlations to most other assets in down states. Furthermore, we find that gilts are the only asset class that becomes less correlated to most other assets during down markets, thus confirming their importance as a key diversifier in a multi-asset portfolio. Finally, once real estate indexes are adjusted to account for smoothing, we show that several correlation coefficients increase, suggesting that original time series may be overstating the benefits of diversification.

Keywords: Portfolio Management, Alternative Investments, Correlation





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# ALTERNATIVE TENURE OPTIONS AVAILABLE TO HOUSE THE HOMELESS IN SOUTH AFRICA: THE CASE FOR NOT PROVIDING ACCESS TO OWNERSHIP OF FREEHOLD PROPERTY TO PEOPLE REQUIRING GOVERNMENT FUNDED HOUSING

One of the most serious challenges facing South Africa as a developing country is the number of homeless people who currently do not have access to housing opportunities. The institutionalized policy of apartheid in South Africa during the period 1948 to 1994 created not only segregation based upon race, but also inequalities and inefficiencies in terms of access to economic opportunities. This has no doubt had as a consequence the high rate of unemployment that South Africa is currently experiencing.

Many people are reliant on Government assistance in order to obtain access to housing. Such assistance either takes the form of receiving free give-away housing or subsidized funding provided by the Government. A high percentage of South Africa's annual budget is spent on housing programmes. Most of South Africa's housing programmes focus on encouraging people to own their own freehold property.

Community based housing schemes sponsored by government in South Africa, like social housing, have largely failed, unlike in many European countries and countries like the US.

Although one can naturally understand Government's vision of eventually eradicating homelessness, the question that needs to be posed is whether or not South Africa as a country can afford both financially and politically to continue its pursuit of current housing policies. The research for this paper was undertaken in order to:

•Provide an overview of the South African Government's current housing policy;

Keywords: Alternative tenure options, Housing the homeless by government

- •Research the views and perceptions of a sample of people who would be the beneficiaries of Government's policy;
- •Apply the principles that have made social housing schemes in European countries successful to the South African
- •Suggest alternative tenure options available to Government to house people other than providing access to the ownership of freehold property.





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## AN ANALYSIS OF THE OPPORTUNITIES AND WEAKNESSESS OF THE TURKISH REAL ESTATE **MARKET**

Home ownership levels accounting for more than two-thirds of all households in Turkey. Real estate is one of the leading and traditional investments for Turkish household due to several reasons.

2003-2007 period would be accepted as the boom period for Turkish economy in general and real estate sector in specific, as well.

Rising residential prices, increasing the volume of residential and shopping center, growing foreign direct investment to domestic real estate market (particularly for commercial real estate investments) and growing production in social real estate market (by TOKÝ, Housing Development Administration of Turkey) are the pozitive signs of dynamic real estate markets in this period. In addition to this remarkable periodic market movement, there are lots of reasons for strong housing demand in Turkey (i.e. young population and inward migration, renovation investment needs, growing affordable housing and high-end apartment demand etc.) which is important for long term development for the market. Although relatively higher economic growth and strong domestic and international residential/commercial real estate demand are the positive sides, Turkish real estate market is of important deficiencies.

At first, however there is no significant infrastructral problems (i.e. legislative infrastructure, secondary market knowhow etc.) at the market operation, unable to work of mortgage finance is the reason of the rising cost for households, creditors and construction firms. Therefore, residential and commercial market players have no access to capital markets through various financial instruments and intermediaries. Related to this problem, highly dependence of credit markets would be a reason of finance shortage in the time of slowing economy.

Secondly, however real estate is one of the important investment instruments for Turkish household (and for economic growth in general), investment environment is extremely weak for real estate in terms of data availability, real estate valuation process (for mortgage purposes) and consumer protection. In this context the problem of data acquisition and absence of real estate index result in transparency problem in the process of pricing, valuation and hence overall investment process. It is important to note that this non-transparent structure would hurt the process of rational decision-making in the real estate investment for all market players.

On the other hand land shortage in the urban area and complexity of zoning law practices may also cause valuation problems in real estate projects and operational risks for the investors.

In this paper, the author is questioning whether deficiencies will decrease the potential value of the oppurtunities of the Turkish real estate market in the short term and what kind of measures would be taken for the healty developments. In this context, in the case of Turkish real estate market, the author is also discussing the elements of potential valuation problems in the market and management of the potential local risks.

**Keywords:** Turkish real estate markets, real estate valuation, consumer protection





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## AN ANALYSIS OF TIME ON MARKET AND ADVERTISED TO SALE PRICE DIFFERENCES OVER TIME

This paper investigates the changes to Time on Market (TOM) and the advertised to sale price differential for a residential property market over an 8 year period using an extensive data set. The study is based in Adelaide, Australia which is a geographically isolated but active market with over 20,000 residential transactions each year. The study uses sales for detached dwellings from 2002 to 2009 and includes over 70,000 observations that result from combining sale transaction records from the South Australian Government, with details of property marketing collected from advertisements in newspapers and websites and available through a commercial supplier (RPdata). During the period of the study there were substantial regulatory changes affecting the practice of real estate agency as well as a change in the level of government subsidy partly as a result of the Global Financial Crisis. This paper uses time series analysis including event modelling to explore the effect of the regulatory and subsidy changes as well as investigating the seasonal changes to time on market and the advertised to sale price differential.

Keywords: Residential property markets, Property agency, Time on Market





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# AN EMPIRICAL ANALYSIS OF SIMPLIFIED VALUATION APPROACHES FOR PROPERTY TAX PURPOSES

This research examines the potential for Market value and non Market value based banded approaches to be utilised for property tax purposes. The broad aim is to ascertain whether relatively low complexity approaches to establishing a tax base can perform adaquately in comparison to established best practice. The purpose is to provide evidence of the usefulness of such options in developing and transitional jurisdictions and elsewhere in circumsatness which mitigate against full scale appraisal of the property tax base to Market value. Low complexity approaches are more robust in such circumstances, but have suffered from criticism due to a percieved lack of fairness and equity. This is important as Property taxes are viewed as a cornerstone of international efforts in terms of fiscal and political decentralisation. They are therefore vital to international socio-economic and political development plans. Property taxes are technically and administratively demanding - with considerable risk of failure due to capacity issues. If these taxes fail, then the developmental efforts are likely to be hampered. This research uses a large data set of sales evidence to deploy a number of robust banded property tax burden distribution mechanisms and test their performance against statistical tests drawn from industry and academic best practice. In doing this, it introduces an innovative tax bill level of analysis which allows analysis of value and non value based systems. It establishes that non value based robust banded systems can perform far better than that experienced in the GB under Council Tax or by the use of simple floor area based systems. It provides useful empirical evidence for academics, policy makers and practitioners interested in property tax performance and efforts to Introduce and embed property taxes in jurisdictions around the world.

Keywords: Property tax, Banding, fiscal decentralisation, developing and transitional jurisdictions





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#### AN EMPIRICAL EVALUATION OF NORMATIVE COMMERCIAL REAL ESTATE SWAP PRICING

Despite the fact that commercial real estate makes up a large proportion of wealth, a functioning derivatives market exists since 2005 only, when swap contracts began to be traded in the UK in a notable amount. The liquidity of the markets is still far behind that of other established derivatives market. A reason for this may be that the pricing of the derivatives is not straightforward due to the special characteristics of the indices underlying the derivatives. Commercial real estate derivatives are primarily based on appraisal-based indices, which lag and smooth actual market developments. Geltner and Fisher (2007) show theoretically how to account for the lag and smoothing effects with regard to the equilibrium pricing of real estate swaps – the main type of derivative traded so far. The goal of this article is to examine empirically how important the adjustment terms necessary to obtain fair swap prices are. Differences between the US and the UK market are analyzed. The statistical characteristics of the time-varying lag adjustment will be explored and the adjustment for the permanent risk difference between actual real estate market and appraisal-based index returns will be calculated. We consider adjustments for swap maturities of one to five years. Finally, the development of actual commercial real estate swap prices in recent years shall be interpreted in the light of the empirical findings.

The papers by Buttimer et al (1997), Björk and Clapham (2002) and Patel and Pereira (2008) examine theoretically the pricing of real estate swap contracts based on arbitrage analysis. Geltner and Fisher (2007), however, argue that the arbitrage pricing approach is problematic with regard to the analysis of swaps based on appraisal-based indices, because the index cannot be traded and may not always be valued such that it reflects the equilibrium expected return in the real estate market tracked by the index. Based on equilibrium pricing considerations, these authors show how to incorporate the lag and smoothing effects due to the use of appraisal-based indices. The contribution of this paper is to examine how important the adjustments necessary to obtain a fair swap price are empirically. This may yield valuable insights into fair commercial real estate swap pricing.

**Keywords:** Real Estate Derivatives, Real Estate Swap Pricing





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# AN INTERNATIONAL COMPARATIVE STUDY ON HOUSING PRICE AND PROPERTY TAX LIABILTIES

The study tries to explore the factors affecting the relative house price movements in the last 20 years for Taiwan as well as other countries such as the U. S., U. K, and Japan with the dynamic factor model put forward by Otrok and Terrones (2005) with a particular aim to shed light on the relationship between the level of house prices and the tax burdens that are lay on their owners. Our preliminary results show that changes in interest rate as well as the international common trend of all the housing markets of the countries studied are the most important factors behind the scene of house price movements for the countries studied and property tax has negative effect on house prices for the U.S. and U.K only and its influence is barely statistically significant at 10% level. These results reflect the facts that the property tax plays a very limited role in the home purchasing procedure. Incidentally, we hope the adequacy of our data set may get improved in the coming months.

Keywords: house price, property tax, comovement, Kalmon filter





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## AN INTRINSICALLY STABLE SYSTEM? SUPPLY, DEMAND AND FINANCING IN HOUSING MARKETS THE US PERSPECTIVE

The central question of investigation in this study is the stability of housing markets and their related sectors. A feature of the theoretical framework established in this study is that it accounts for heterogeneity among economic agents, as well as slow information diffusion, as in Hong and Stein (Harrison Hong and Jeremy C Stein, 1999). This theory is then incarnated econometrically in ARMAX form. The empirical investigation uses a panel of data from the four regions of the United States: Northeast, Midwest, South and West.

The researcher's initial interests in housing markets were triggered by the spectacular rise and fall of housing prices in the major economies around the world. After years of attempting to model housing prices using different frameworks and methods, and using data from various countries/regions, a natural curiosity arises: is the system linking the housing markets, the financial institutions, and other parts of an economy an intrinsically stable one? To elaborate on that, does equilibrium or equilibria exist in this system? If they do, are they stable; are they attainable? If attainable, what sort of time path would each variable of interests in this system take?

Economists in general classify housing markets into two sub-markets: the space and the capital markets, which are also referred to respectively as the real sector and the financial sector. The space market is location-specific hence heavily influenced by local social economic factors; but the capital market is global. Because funds move around the world in chases of higher returns, the space market is strongly affected by the weather conditions in global financial markets. Conversely, because housing is a major household asset, the performance of this sector will have important bearings on the healthiness, or lack or it, of financial institutions, close and afar.

One of the aims of this study is to build up a theoretical framework which explicitly models the connections between the real and the financial sides of housing markets. The traditional approaches to housing markets tend to treat the two separately. For instance, the four-quadrant model did a great job in integrating the three sub-markets of the space market, namely, the user, the capital and the development markets. Nowhere in this model, however, accounts for the important influences of mortgage financing on the real activities of housing markets. Buckley was one of the very few authors who have attempted this task (Robert M. Buckley, 1982). His work is to be greatly improved by incorporating the advancements in financial and the econometric literatures, seen in the past thirty years, a bold step the current researcher is contemplating.

Another aim of this study is to build up, empirically using panel data, a simultaneous equations model. Most empirical studies take a single equation approach when modeling housing markets. Such an approach allows us to take a microscopic view, hence generating in-depth knowledge, of the problems at hand. It does not, however, facilitate our understanding of the interdependences and interactions among the different parts of a closely linked system. Without a holistic perspective, theoretically and empirically, our understanding will be incomplete regarding many of the issues which have attracted the limelight now and then, for instance, the cyclical behavior of the housing markets, and its somewhat destructive impact on national and global economies.

More specifically, the researcher will attempt to build up a system of four equations, in ARMAX form, that simultaneously determines the housing rent and price, the supply of housing units and housing finance. An ARMAX model combines the desirable properties of polynomial and geometric lag models, permitting very flexible lag structures with relatively few parameters. There is also no need to impose restrictive assumptions about the structures of the disturbance terms, which is the case in classical OLS. Once constructed, estimated, and tested for robustness, the model will be analyzed, theoretically and empirically, to establish the dynamic stability of the system.

With these results in hand, the researcher is then in a position to deal with the short-run and long-run impact of housing policies and mortgage market regulations, an endeavor which in no sense assumes a secondary place in this study. The readers are cautioned, however, whatever empirical statements that might arrive on completion of this study are results of a small sample exercise  $f\{$  the effective data used for estimation include less than 10-year's monthly observations. Such results may well be valid only for the period and the regions under consideration. More firm conclusions can only be reached when longer time series are available; and a general empirical statement cannot be made without an extended study employing data from a variety of countries and regions.

Keywords: Heterogeneous agents, slow information diffusion, panel studies, ARMAX, impact, dynamic and cumulative multipliers, impulse response functions, existence of equilibrium, system stability, policy implications







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#### ANALYSIS OF THE ASYMMETRIC VOLATILITY SPILLOVERS IN REAL ESTATE STOCK RETURNS

Investors increasingly seek to go international on real estate markets. Many studies have been carried out with respect to the benefits of such strategies for stocks and bonds, but less attention has been given to real estate stocks. The aims of this study are twofold. First, a national analysis is realized in order to evaluate the impact of the broader domestic stock market on the volatility of real estate stocks. This first part is motivated by the fact that real estate stocks are stocks by definition, even though the underlying asset is direct real estate. Second, the linkages between the world market and selected domestic real estate stock markets are studied. We focus on the three most important markets in terms of market capitalization, i.e., on those of the United States, the United Kingdom and Australia. Using daily data from 1987 to 2009, these relations are analyzed using a multivariate GARCH model. More precisely, we estimate a series of bivariate models with an asymmetric BEKK specification of the variance. It has been well documented that the stock market reacts asymmetrically to the sign of its own innovation, consequently it is of interest to verify whether this characteristic also prevails for real estate stock market contagion. Conditional correlations are also calculated from the estimates of the previous model. This paper thus contributes to a better understanding of the nature of real estate stocks and of the usefulness of international portfolio strategies.

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<b>Keywords:</b> Real estate stocks, Volatility, Market contagion, A Stocks	symmetric BEKK model, Time-varying correlation,
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#### APPLICATION OF SYSTEM DYNAMICS MODELING IN REAL ESTATE MARKET ANALYSIS

System dynamics is a research approach which allows to model the behavior of political, social, economic systems. Compared to traditional approaches it allows not only to present main characteristics of selected system, its essential elements but also enables to verify how the mentioned system changes over time. Due to unquestionable advantages of system dynamics modeling it becomes a popular simulation tool of economic processes.

The paper presents a possible application of system dynamics in real estate market analysis. Model of residential market and selected scenarios of its behavior are also provided.

market and selected scenarios of its behavior are	e also provided.
Keywords: system dynamics, real estate market	, residential market model





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## ARE HOUSEHOLDS WILLING TO PAY FOR GREEN BUILDINGS? AN EMPIRICAL STUDY OF THE **SWISS MINERGIE LABEL**

The paper provides one of the first empirical studies of the willingness to pay of renters and owner-occupiers for "green buildings". We match publicly available information on the addresses of 15'000 apartments and single-family homes which have received the Swiss energy label "Minergie" with two databases. The first database is provided by homegate.ch, the largest internet quotation service in Switzerland. We are able to match 1'500 Minergie rental apartments and to build a control group of around 11'000 newly built conventional (i.e. non-Minergie) apartments. The second database is provided by a large Swiss mortgage bank. It contains detailed information about the characteristics and price of 25'000 transactions of owner-occupied housing that occurred in the Zurich metropolitan region. We are able to recover 300 transactions of Minergie condominium apartments and single-family homes.

For the buildings in the two samples located in the Zurich area we use a powerful GIS to subsequently match a large set of location characteristics. These include variables related to topography (aspect, orientation, view), accessibility (travel time to the CBD by car and public transportation, distances to local bus stops, distance to major roads), local amenities (road traffic noise, airport noise etc.) and various neighbourhood characteristics.

We find that both Swiss owner-occupiers and renters are willing to pay a significant premium for green buildings. Minergie rentals command a premium of about five percent over conventional buildings – controlling for the quality and specific location of the apartments. The transaction price of Minergie condominiums is 3.5 percent higher, ceteris paribus, while single-family homes command a premium of about seven percent.

In addition to these results we investigate the determinants of the spatial distribution of Minergie dwellings in Switzerland. We study where Minergie certified buildings cluster. By creating a measure of community environmentalism based on votes on four national referenda we are able to test several hypothesis regarding the demand for environmental goods. We conclude that income and "cultural" (i.e. language) differences across communities account for the larger part of the variation in green building demand. The impact of political affiliation and demographic factors, although statistically significant, is less important.

**Keywords:** Green buildings, hedonic model, rents, Switzerland

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## ASSESSING THE EFFECT OF ACCESSIBILITY TO AMENITIES IN THE LOCATION RENT SEARCHING FOR MARKET SEGMENTATION OF PREFERENCES

In previous research (Thériault et al., 2005 & 2007), we developed a novel approach for assessing centrality and accessibility to urban amenities distinguishing among city centre, labour market and other types of services, like schools, shopping centres, groceries and health facilities. Complementary indices for each type of amenity derived from suitable opportunity sets (based on willingness to travel thresholds) are integrated within a hedonic model of housing markets. Results are highly significant and permit in-depth comparison (and ordering) of the marginal value of accessibility (by car, bus and walking) to several types of amenity within an integrated hedonic framework, while controlling for multicollinearity related to urban form and transportation networks, using principal component analysis. However, there is remaining significant spatial autocorrelation among the model residuals. Thus, spatial drift is eventually harming the robustness of estimates of the coefficients and of their standard errors.

The purpose of this paper is to explore ways to get rid of this spatial autocorrelation or, at least, to handle the spatial drift which could be present in the perception of accessibility (and its valuation) among buyers. Building on a comprehensive hedonic model using thousands of single-family house transactions made during the 1993-2004 period in the Quebec Metropolitan Area, this paper compares the efficiency of OLS (ordinary least square), SAR (spatial autoregression) and Quantile regression techniques for handling spatial autocorrelation in the hedonic model and, eventually, for identifying factors behind the spatial drift that could influence buyer's valuation of urban centrality and

*Keywords:* Accessibility, Location rent, Hedonic modelling, Market segmentation, Quantile regression, Spatial autoregressive models

for discussing spatial drift estimations in-line with urban economic theory.

accessibility to amenities. Moreover, assessment of the marginal effects of market segmentation on the valuation of accessibility to specific amenities (e.g. schools versus labour market, schools versus shopping centres) provides bases





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#### BALTIC REAL ESTATE MARKET DYNAMICS

Real estate market is usually being analysed in terms of supply and demand factors definition and estimation in a certain geographical area at a certain period of time. Moreover, local real estate markets are often being compared with markets of other countries, usually similar in size. Market activity, price dynamics, market maturity are traditionally key factors for real estate market research. The importance and significance of the latter - market maturity - suggests to discuss the following issue – can we reasonably compare several markets representing different level of maturity. Part of the countries usually used for comparison (in most cases Scandinavian countries) have formed significantly earlier than Baltic real estate market and, moreover, operate under different conditions over long period of time if compare with the whole existence of the Baltic states market. Therefore, it is relevant to analyse Baltic real estate market functioning and make forecasts taking into consideration fundamental differences of markets, formed mainly due to different surrounding (economic) systems. This would help to reduce inaccuracy of any forecast important for market participants' expectations and decisions.

Qualitative market formation analysis was performed by reviewing and comparing two real estate distribution mechanisms - Soviet era distribution-based mechanism and market economy-based mechanism - and their major elements (property rights, participants, functioning of distribution mechanism, environment). The analysis provided several conclusions:

- In almost twenty years Baltic real estate market and its residential segment developed fast; residential real estate distribution mechanism improved significantly and currently matches characteristics of market economy distribution mechanism.
- Today, first of all due to economic recession, inconformity between purchasing power and real estate prices forms clear demand for financial intermediation. Effective demand is close to zero and has very low impact on real estate market functioning.
- Despite distribution mechanism characteristics, most of which meet market mechanism criteria, it is irrelevant to compare homologous different markets, which have formed in totally different economic systems and were functioning under different conditions. This suggests applying different patterns for prognosis. Major part of residential property fund represents very low quality (more than 60% of total residential property is build in the period of 1961-1990), and forms need to renovate old buildings and build new ones. The volume of need mentioned-above may have impact for growing demand for financing, and shall fasten recovery of real estate market and general economy more quickly and significantly than in matured markets, where qualitative parameters of real estate meet needs of majority market participants and are not depreciated considerably.

Keywords: real estate, real estate market and its functioning, market participants, functioning mechanism, surrounding environment

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### BANKING ON NAMA: THE FALL OF THE CELTIC TIGER?

The Lowland Gorilla, the Iberian Lynx and the 'Celtic Tiger' share commonalities, they are all endangered species. Between 1995 and 2007 Irelands 'Celtic Tiger' economy experienced unprecedented levels of growth and was widely acclaimed as an exemplar of innovation and adaptation to economic globalisation. The expansion in National income and personal consumption aided by comparatively cheap and readily accessible debt, fuelled a real estate boom in both the commercial and residential property markets. In the 10 year period January 1998 to the market peak in January 2007 the average house price in Ireland had risen €216,533 or 129% (ESRI, 2007). In the commercial property market figures compiled by IPD demonstrate a sharp rise in capital growth across all three sectors in the period 2002-2007, which culminating in several consecutive years of double digit returns (IPD, 2008). In the midst of the boom cycle, the construction sector in Ireland experienced massive expansion, accounting for of 22% of GNP and 12% of employment in the economy by the end of 2006 (CSO, 2007). The growth within the construction sector was symbolic of the shift towards a more indigenously based economy driven by internal consumption. The financial crisis of 2007 and ensuing global recession exposed the fragility of Ireland's 'economic miracle'. Built on debt, with a banking industry massively over exposed to real estate, the Irish economy has ground to a shuddering halt. The dramatic downturn in real estate values both nationally and internationally has had a profound effect on the balance sheets of Irish banks, and undermined their commercial viability. Anglo Irish Bank has been nationalised, whilst both Allied Irish Bank (AIB) and Bank of Ireland have received substantive bailout packages from the Irish Government. The capital injection was a necessary first step to restoring a degree of functionality to the Irish banking industry. The next phase in preserving the banking sector will involve the transfer of property and property related loans into a National Asset Management Agency (NAMA) – a bespoke investment vehicle developed to cleanse the balance sheets of Irish Banks and remove uncertainty surrounding their toxic liabilities. Provisional estimates suggest property and associated loans transferred to NAMA will equate to circa €7.1 bn globally, whilst the majority of loans are secured against Irish domiciled assets (€51.4 bn), €3 bn of loans have been secured against land and property assets across a number of European jurisdictions including the UK, Germany, France, Spain, Portugal, Italy and the Czech Republic. The paper presents a series of "work out" options for NAMA highlighting potential implications for European real estate markets given the geographic diversity of land and property assets over which NAMA will assume control. The paper will develop a model based on Fisher's Separation Theorem to examine the variance and inequality between

*Keywords:* National Asset Management Agency (NAMA) Global Financial Crisis The Irish Economy Property Market Boom/Bust Toxic Debt Bank Bailout Programme

outstanding debt obligations relative to underlying collateral value which is fundamental to the outworking of assets overtime. The paper emphasises the importance of sustaining an income stream over the lifetime of the vehicle and the need for strategic release of assets in order to prevent incessant downward pressures on property market values.





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#### BUILDING AND MAINTAINING AN OPTIMAL REAL ESTATE PORTFOLIO

This paper is written from a property fund management perspective. Our research platform is fundamental to investment decision making throughout CBRE Investors. Most specifically, the need to anticipate and translate future market conditions into investment strategy is a critical factor in delivering out-performance whilst minimising risk. At the heart of our research lie forecasts of property market performance. Over the past decade, property has become a more mature asset class, subject to greater use of leverage and more international capital flows. Accordingly, in future, we would expect to see shorter and higher amplitude return cycles. Therefore, we need to make sure that we have policies and mechanisms in place that will protect us from failing to meet our targets and insure that we can deliver the best return in relation to the risk undertaken. This study investigates what mechanisms should property fund manager set in practices to manage risk in a real estate portfolio. The question that we are trying to answer is: "How can real estate fund manager insure that the real estate portfolio will produce optimal returns?". Our prime aim is to create a forward-looking model for direct property portfolios which will help a fund manager to build and monitor an optimal real estate allocation by applying the theory of efficient frontiers.

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## BUILDINGS CONDITION ASSESSMENT PROCEDURE AND ITS INFLUENCE TO THE COLLATERAL ACTIVITIES AND OPERATIONS

During the development of different market based procedures a permanently growing importance of the buildings condition assessment is followed. On the other hand, the current position of technical condition assessment of buildings is basically founded on the empiricism and earlier acquired education of professionals. The curried out questionnaire confirm clearly two hypothesis of it in following: there do not exist a contemporary manual of procedure and the workout of it is also needed. Named prediction form also some important bases of a literature review or the generally accepted practice of the more technically developed states (US, Great Britain etc). In this case the three mentioned whales the survey, the literature review and generally applied area based practice, help to work out the basic layout of the first national instruction of the buildings conditions assessment procedure. In understandings of the Enterprise Estonia and some leading ministries the further development of the instruction will arrange the current position of the up till today volatile market situation in area. As a fact the local practise of the assessment of buildings conditions is strongly connected with the real estate appraisal process so as all the 11 Estonian valuation standards more or less include the management of assessment. In spite the absent of the clear legal space regulation, is very important to underline the intersection of the worked out instruction and earlier editions of valuation standards and in later convergence work out the triangular of mutual connections.

*Keywords:* Assessment, technical conditions, buildings, questionnaire, literature review, instruction, real estate appraisal procedure, further development





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### BUYERS BEHAVIOUR AND THE HOUSING BUBBLE IN GREECE

During the period 2004-2007, there was a peak in both housing construction and house prices in Greece. Two important changes in the real estate tax regime were early announced, which were extensively promoted by the mass media and real estate professionals, in a way that anticipated significant increases in real estate prices: the imposition of VAT on real estate and the drastic tax increases on real estate transfers from the beginning of 2006. The question posed and investigated in this work is the following: given the favourable economic environment, this work investigates to what degree and in which ways, were home-buyers influenced by the views presented by the mass media, in order to proceed to the acquisition of a privately-owned dwelling?

Based on both social psychology and behavioural economics approach, a survey was performed with a questionnaire, which was answered by people who had bought their home during the study period, in two Greek cities. Home-buyers were informed about the imposition of new tax regulations and considered that house prices would continue to rise. They were not directly influenced by the messages received from the mass media, but through discussion with members of their family, they reached the pessimistic conclusion that the acquisition of a privatelyowned home would be more difficult in the future and, therefore, they felt they had to proceed with buying a dwelling as soon as possible.

Keywords: residential market, social psychology, behavioural economics, media

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## CAN LISTED PROPERTY SHARES BE A SURROGATE FOR DIRECT PROPERTY INVESTMENT BEHAVIOR?

The listed property sector in South Africa has increased to a level which could be considered as a good representation of the income producing property market. This provides the opportunity to consider investment behaviour in the listed market and apply it on direct property investment generally. Various publications show the irrational behaviour of investors, causing differences between direct and indirect property investment behaviour. The purpose of the paper is to critically evaluate the behaviour in the listed property sector in order to explain the difference to direct property investment behaviour, which could assist in market interpretations opposed to the traditional relative techniques of asset valuation.

Stock market listed property investment funds offers the opportunity to compare indirect property investment as financial asset, to direct property investment, which could bridge the gap between irrational investment behaviour and intrinsic asset values. The 7 largest property loan stock companies in South Africa are investigated as a case study, which represents 90% of the PLS sector. The daily share price movement is correlated with the value of the shares as per accounting methods of valuation and compared to the actual property values as appeared in the financial statements of these companies. The study uses statistical correlation techniques as well as "RAP analyst" artificial intelligence software to obtain predictions.

The outcome of the study is an explanation of the irrational behaviour of investors and how this correlates with the intrinsic value of the underlying assets of the investment medium, being a listed property company. This would assist in the explanation of market behaviour and provides the opportunity to more accurately predict return requirements of investors, which might be used in the valuation of individual assets.

**Keywords:** Valuation, Portfolio Management, Asset Valuation, Real-estate shares, Property Economics, Property finance,





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#### CAPITAL STRUCTURE AND INVESTMENT IN REAL ASSETS

Apartments and houses are highly substitutable in production and consumption. As a result, performance disparity between these assets is based on financial differences and not technology or preferences. Even as the market for new houses has become highly volatile, that for apartments has remained stable. Apartment starts in the United States did not increase during the asset market boom of 2003-2007. Starts on houses soared, rising more than 80% during the same period. This pattern has existed since at least 1986, even as returns and prices on both assets have fluctuated. These observations have greater urgency given evidence that housing investment is the business cycle (Leamer (2007)). Two-thirds of the variation in U.S. output comes from lagged volatility in housing starts. This finding is apart from the consequences of housing collapses on financial institutions and the international economy. This paper argues that the failure of apartments to collapse is not accidental. Apartment investment is with a transparent and constrained contract design. Projects are awarded in local contests for tax credits. All potential investments are observed prior to being started. Winners sell the credits for equity to publicly-traded firms in another transparent competition. The debt market provides residual financing in a reverse pecking order, conditional on observing winning the contest and raising equity. The geographic limitation, transparent sorting and prior equity provision discipline the market. Investment has low sensitivity to financial variables including interest rates and the term and capital structure.

Houses have a double-leveraged financial design with debt and a call option, and little geographical limitation. Guaranteed nonrecourse debt creates a conventional pecking order. Borrowers obtain the maximum debt with equity as a residual. The guarantee is capitalized in the strike price of a call option to invest in houses prior to production. The contract mitigates agency problems of poor quality, since the buyer refuses delivery at the cost of the premium. However, the call's risk is potentially devastating. There are few limits on calls with buyers holding options on numerous houses by paying nominal premiums. When house prices decline or interest rates rise buyers cancel, leaving producers with inventory in bad markets. The guaranteed debt and call contracts lead houses to be highly sensitive to financial market variables, including interest rates, the term and capital structure. Financial variables have no impact on apartment returns and output, but are determinants of those for houses. Contract design potentially mitigates devastating housing cycles, with implications for aggregate output and the banking system.

The application is to apartments and houses for 25 U.S. cities over 1991-2007. The earnings-price ratio is the yield for both assets. The net rent adjusted for time to sell is equated with the user cost of housing services. The user cost is not an identity, but a weighted sum of interest rates, capital structure and capital gains.

Asymmetric performance of financial variables is confirmed. Both asset types have rent-price rates decreasing in capital gains as predicted by user costs. A 1% rise in capital gains reduces the adjusted rent-price ratio by 0.53% for houses and 0.43% in apartments. There are three critical differences for investment between these markets. First, the yield-price ratio is effective at limiting investment in apartments, while that for houses is not. A drop in the yield-price ratio by 1% reduces investment in apartments by 0.43%. Second, investment in houses is sensitive to the capital structure, yet has no effect on investment in the apartment market. A 1% increase in the loan-to-value ratio on houses leads to a 0.83% increase in investment. No similar results obtain for apartments. Finally, investment in houses expands when short-term interest rates are reduced. A 1% reduction (or three basis points at a 3% base interest rate) leads to an increase of 0.15% in investment in houses. Apartments output does not increase if short-term interest rates fall.

The investment in apartments is disciplined and constrained by locally-limited tax credits sold in a transparent public equity market. Houses are produced by a distinct, debt-oriented contract. A call option capitalizes mortgage guarantees, but potential homebuyers have insurance to escape delivery. The difference in contract design offers promise in mitigating the impact of financial crashes on real markets, lenders and the national and international economies.

**Keywords:** Capital structure, reverse pecking order, contract design





**BOOK OF ABSTRACTS** 

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### CAPITALIZATION RATES AS RISK INDICATORS FOR (NON-)EFFICIENT PROPERTIES?

Sustainability is at the forefront of recent management discussions. Climate changes, the fact that buildings are responsible for about 40% of the worldwide CO2-emissions and the increasing occupancy costs force investors and occupiers to change their management strategies and behaviors. But greening the portfolios might sometimes lead into converse directions and different benefits.

All these biased perspectives of investors and occupiers interact in the valuation of the properties as efficient buildings should realize higher capital values as non-efficient buildings since efficiency reduces the property specific risk. Therefore the capitalization rate as all risk yield can be taken as indicator for the individual property to reflect the risks of being (non-)efficient.

The aim of this paper is to analyze how current valuers account for the risk of non-efficient properties in the derivation of the adequate capitalization rate. By combining the investors' and the occupiers' perspectives and taking all their relevant property costs on lease contract level into consideration this paper addresses the overall impacts of efficiency in the valuation process of the property market.

Thereby, the crucial question will be addressed whether significant differences occur in the risk premiums of the capitalization rates for (non-)efficient properties.

For this purpose, the relative risk premiums of 47 properties in the UK, based on data from the IPD Investment Property Databank as well as the IPD Occupier Databank, are each analyzed and measured against tailored IPD capitalization rate benchmarks of direct properties for the years 2007 and 2008. The results will give new insight into the definition of the right capitalization rate. The analysis shall help to explain risk patterns add to an improved understanding of the valuation and differentiation of (non-)efficient properties.

Keywords: capitalization rates, risk indicator, valuation, efficiency, investor, occupier





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#### CARBON DIOXIDE EMISSIONS REDUCTION IN THE HOUSING SECTOR: WHO PAYS THE BILL?

A clean natural environment is a public good. Environmental pollution, especially carbon dioxide emissions caused by residential heating and air-conditioning, generates complex external effects.

Residents in the European Union are living in a carbon-constrained world. The internalisation of the external effects comes at a cost, both politically and economically. Environmental economics can provide many different recommendations, the most common being a system in which polluters pay a fee based on the volume of pollution they create; also known as the polluter-pays-principle. However, it is not always possible to identify the polluter. Even if it is possible, it is not always economical feasible to refinance investments in order to reduce greenhouse gas emissions, More than that: Some polluters are simply unwilling to do so.

Based on these insights, this paper proposes a financial burden-sharing model between owners, occupants and the public and demonstrates the political implications of the results. The analysis and data are based on research on housing sectors conducted within a climate protection commission mandated by the German government.

Keywords: sustainable real estate, housing, real estate investment, greenhouse gas emission reduction

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# CAUSES AND DETERMINANTS OF LAND AND PROPERTY CYCLES: THE BUBBLE PHENOMENON AND ITS CONSEQUENCES IN SPAIN – LESSONS FROM JAPAN

The dramatic growth and collapse of land and property markets in Spain has been the subject of recent analysis. Such analysis has focused on the political and economic factors including the modernisation of financial systems and institutions since the 1980s. This paper examines the causes and determinants of land and property cycles in Spain and draws comparisons with the real estate bubble of the 1980s and 1990s in Japan. In this context it is argued that cultural attitudes, institutional behaviour and perceptions of real estate as an asset are significant contributory factors in creating real estate bubbles. Analysis of major political events, deregulation of the financial system and planning reform since the 1980s is utilised to identify the causes and interrelations using time series to examine economic and real estate cycles in Spain. The analysis will therefore focus on the implication of over supply compounded by opaque transaction, valuation practice, bank lending and the unique characteristics of the Spanish and Japanese real estate markets. The paper will consider whether the behaviour of market players is influencing property market performance.

Keywords: Property markets, Real Estate Bubbles, Spain, Japan, Institutions and Market Players





**BOOK OF ABSTRACTS** 

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## CHALLENGES OF INTRODUCING SUSTAINABILITY IN CURRICULA OF THE BUILT ENVIRONMENT COURSES IN THE DEVELOPING COUNTRIES: EVIDENCE FROM TANZANIA

Comprehensive sustainability education is paramount for success in the adoption of sustainable practices in the real estate industry. It is however a fact that sustainability education is generally accorded marginal importance in the curricula of higher learning institutions in the developing countries. Drawing evidence from Tanzania, this study looks at the challenges of introducing sustainability aspects in the curricula of the built environment courses offered by higher learning institutions. The study entailed a critical review of curricula of the various higher learning institutions offering courses in the built environment discipline. In addition, a questionnaire was administered to some researchers and heads of selected academic units of the subject higher learning institutions. The findings reveal that, sustainability education in Tanzania is more popular with courses related to natural resource management and agriculture, rather than those related to the built environment. There are no higher learning institutions which offer courses with comprehensive treatment of sustainability aspects in buildings. With the present curricula, it is clear that students in the built environment courses complete their studies without the necessary knowledge of sustainability. Lack of commanding knowledge and skills on contemporary sustainability aspects in buildings amongst academicians, bureaucratic curriculum review process and budgetary constraints are some of the main reasons posing a challenge in incorporating sustainability in the built environment courses curricula. Lack of coordination between experts in different components of sustainability between and within institutions is another main reason for not incorporating sustainability in the curricula.

Keywords: Sustainability education, built environment, Tanzania





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## CHANGES IN A CITY OVER A 50 YEAR PERIOD: AS SEEN THROUGH THE EYES OF RESIDENTS (A CASE STUDY FROM MELBOURNE, AUSTRALIA)

Fifty years ago Australia had one of the highest standards of living in the world. Australia still rates high on liveable conditions, but it is a very different experience in 2010 to what it was in 1960. This 50 year period has seen enormous change take place in Australian coastal cities, second only to the gold rushes of the 1850s and the post-war boom of the 1950s.

This research explores the premise that "optimum size does not necessarily lead to optimum liveable conditions" and uses Australian Bureau of Statistics (ABS) data and interviews with residents who have lived through this period, to create a picture of the changing face of Melbourne. The study will concentrate on the older inner suburbs for the longitudinal analysis, but will also use information from some of the newer outer suburbs, to illustrate how the city has grown and changed from 1960 till today.

The growth of a city encompasses many factors including; population, income, housing, transport, infrastructure, leisure work and industry. This is a pilot program that will lead on to a much larger study embracing the development of a questionnaire, which will be administered over a large sample of residents. This study will help government plan for future development by using the experiences of the past to enhance the lives of residents in the future.

*Keywords:* urban characteristics, optimum size, housing, population, infrastructure







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#### CHANGING VALUATION PRACTICES - A CRITICAL HISTORY OF UK INVESTMENT VALUATION

This paper makes the case for doing research on the history of investment valuation. It adopts a cultural economy approach which suggests that economies and markets are constructed, not given; and that economic practices – such as those involving calculations like property investment valuations – do not just operate the economy, they constitute the economy. The core of the argument is that, at any given time, certain calculative practices predominate. They embody particular rationales and they legitimate and facilitate certain ways of doing things: in other words, they reflect power relations in society. Changes in calculative practices may provide evidence of wider structural changes. Consequently, their histories are important.

The paper considers the evolution, organisation and forms of calculative practices in the UK, in particular the evolution of investment valuation practice during the last century. It is anticipated that this examination will provide a framework within which to analyse and interpret the history of particular practices, including other valuations such as for development situations. The paper concludes with a consideration of some aspects of property valuation and appraisal to show how they relate to the general discussion and how valuation may make a good subject for a critical history.

Keywords: Property Valuation, Investment, History of Method	, UK

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#### CHINESE LISTED PROPERTY COMPANIES ENGAGED IN EARNINGS MANAGEMENT?

Corporate earnings management may generate serious market impacts by misleading investors and causing the misallocation of resources. Our paper represents one of the first comprehensive analyses of earnings management for Chinese listed property companies. Using data from 2001-2008, we examine the earnings management activities of Chinese listed property companies. We investigate the incentives of companies to manage earnings and other real activities. We show that Chinese listed property companies are more likely to engage in earnings management in order to meet regulatory requirements for issuing new shares or avoiding de-listing. We also find ownership concentration facilitates earnings management. The existence of other large outside shareholders and independent directors reduces the likelihood of earnings management. Earnings management is more likely to occur in companies where the Chair and the CEO appear to be entrenched. Inventorying and current liabilities can be utilized to manage earnings to meet short-term financial targets.

Keywords: earning management, property company



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### COMBINING MONTE-CARLO SIMULATIONS AND OPTIONS TO MANAGE RISK OF REAL ESTATE **PORTFOLIOS**

This paper aims at showing that using simultaneously Monte-Carlo Simulations and options theory may improve real estate portfolio valuations accuracy. Our method considers the options embedded in lease contracts, especially as conceded to tenant in continental Europe. We combine Monte-Carlo simulations for both the market prices and rental values with an optional model that takes into account a rational tenant's behavior. We analyze to what extent the options exercise by the tenant significantly impact the owner's income. Our main findings are that simulated cashflows taking into account such options are more reliable that those usually computed by DCF traditional methods. Moreover this approach provides interesting measurements such as the cash-flows distribution, the probability of leaving for the tenants and the derived optimal holding period for the owner. The model also provides a risk measurement by computing the Value-at-Risk and a risk-adjusted performance measurement by computing a forward Sharpe Ratio of the considered portfolio. After a brief review of literature on simulations methods used for real estate valuation, the paper describes the suggested simulations model, its main assumptions, and the incorporation of tenant's decisions as break-options influencing the cash-flows. Finally, through an empirical example, we analyze the sensitivity of the model to various parameters and we test its robustness.

Keywords: Monte-Carlo Simulations, Real Estate Portfolio Valuation, Break-option, Lease Structure, options





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### COMPARISON OF GERMAN AND ANGLO SAXON REAL ESTATE APPRAISAL METHODS

There is a continuing discussion whether there is a superior appraisal method and which one it is. The often expected need for a standardized appraisal method for the merging real estate market with its international cross border investments intensifies this discussion.

There are some remarkable differences in the appraisal methods in the UK and in Germany. In the past the Anglo Saxon DCF method was considered to be more accurate. Several German surveyors disagree and claim that the German appraisal method with its gross rental value fulfills its purpose.

The paper compares the appraisal methods in its bases and shows the remarkable differences. It also analyzes the differences in context of importance for the different markets where the appraisal methods are used.

The paper shows that the discussed appraisal methods are comparable if they are used correctly. It is important that the appraisal methods are used in the field they were developed for.

For now there is no superior appraisal method. In the end the surveyor has to work with great diligence and he needs transparent data for the valuation.

Keywords: Appraisal, valuation, gross rental method, DCF, WertV, BauGB, Red Book



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#### COMPLIANCE OF RICS CODE OF PRACTICE FOR COMMERCIAL SERVICE CHARGES

RICS code of practice 'Service Charges in Commercial Property' was introduced in 2007 with intention to promote best practice guidelines in the provision and management of commercial service charges. The paper seeks to view the compliance of the code after two years from its inception. Documental analysis through various reports, journals and other relevant secondary information are gathered and analyse in completing this paper. Critical review on the materials gathered is carried out in understanding the key recommendations as set within the RICS code against the current practice. Huge gaps were identified between the RICS as against existing practice involving several key headings such as transparency, value for money, communication and responsiveness. Recommendations are made to minimise the gap by harnessing concerted efforts among the stakeholders in commercial property industry

Keywords: commercial lease, landlord and tenants, RICS, service charges, sinking funds





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#### CONDITIONAL ASSET PRICING IN EUROPEAN REAL ESTATE CAPITAL MARKETS

The paper examines the pricing of real estate equities listed in European capital markets from 1983 to 2009. While US equity and listed real estate markets have been thoroughly examined using diverse pricing models, European real estate capital markets have not been scrutinized to a similar extend. The paper aims at filling this gap and provides out-of-sample evidence on the pricing of listed real estate companies. Due to the assumptions of normally distributed returns and increasing absolute risk aversion, the traditional CAPM is not appropriate for real estate asset pricing. Therefore, the paper seeks to develop a conditional asset pricing model for European listed real estate companies by examining HML, SMB and higher comoments in addition to the common market factor. The Fama & French factors are calculated for European stock markets and used to capture the cross-sectional variation in average property stock returns. Since non-normality is a common feature in real estate stock returns, the coskewness and cokurtosis are included in the asset pricing model. Furthermore, it accounts for a relationship between the risk factors and asset returns that is conditional on market phases. Therefore, the asset pricing test is performed conditional on whether the excess market return is positive or negative, assuming an inverse relationship in periods with negative excess market returns. The paper moreover scrutinizes whether the inclusion of higher comoments into the Fama & French Three-Factor model increases the explanatory power or whether the additional risk factors proxy for HML or SMB.

Keywords: Condtional Asset Pricing, Covariance Coskewness Cokurtosis, Fama-French, Higher Moment CAPM









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#### CONDITIONS FOR BUBBLE FORMATION

A bubble is typically defined as "trade in high volume at prices that are considerably at variance from intrinsic value", which is compatible both with higher or lower prices, whereas the metaphor suggests something asymmetric that gradually inflates rather than deflates. Whether bubbles are symmetric or not is an empirical question; the historical record appears to be that they are asymmetric, but the literature is unclear on this point. In addition, in some types of market such as property, it is unclear that an "intrinsic value" exists in the same way that it does for e.g. stock markets. Furthermore, not all types of market are prone to bubbles. Established product markets (goods and services) do not form bubbles, whereas they are frequent in property and financial sectors, as well as with new products and also with primary products (e.g. minerals). This suggests that markets with a stable relationship with costs – "cost-tethered" markets – are not bubbles-prone, whereas those that lack this characteristic – "free-floating" markets" – are. In costtethered markets, the information required to set the going price is derived from the unit cost, whereas with freefloating markets another type of information is required. One possibility is that a recent price trend is extrapolated into the future. This creates a sellers' market in the case of a rising trend, or a buyers' market with a falling one. This situation can be modelled very simply by extending a standard market model to include additional terms that represent the effect of the trend extrapolation on the current price. It can be shown that under certain conditions, instead of the standard situation in which the quantity demanded falls with increasing price, this is reversed so that a perceived rapid upward price trend leads to increased demand. Similarly, from the sellers' viewpoint, an intensely rising trend can lead to a lower rather than the usual higher willingness to sell. These would together lead to a selffulfilling and thus self-perpetuating tendency, whereby the trend is accentuated, a bubble equilibrium, which is inherently unstable. The maths shows that this can occur only in a rising market. The model therefore suggests that the definition of a bubble should be asymmetric.

The causal processes underlying this model do not depend on radical departure from rationality, as with recent authors who have postulated "emotion", "group-think", "optimism" or "panic". Rather, a form of situational rationality is postulated, that preserves the element of deliberate forward-oriented calculation.

**Keywords:** bubbles, market volatility, information, trend extrapolation, self-fulfilling prophecy, situational rationality





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## CONNECTION BETWEEN VALUATION STANDARDS AND REAL ESTATE APPRAISAL PROCEDURE (A COUNTRY BASED APPROACH)

During the ownership reforms in Estonia as in all the Baltic States a lot of properties as the basic objects of restitution based ownership reform were returned to the former owners. During this procedure a permanently growing of importance of real estate appraisals is followed. The appraisal procedure itself was founded not only on the legal act of ownership reform but also on the valuation standards. In this case the connection of the international valuation standards is noticed perceived already from the middle of the last decade. The situation was essentially changed while in 2005 was started the publishing of the national valuation standards. In the lights of the aims to explain the connection between appraisal practise and the standardized regulation of the applied appraisal procedure was carried out a questionnaire. The survey engaged mostly the certified real estate appraisal professionals and was concentrated to the usage of the valuation standards by them during the last two decades. The survey data was compared with the results of regular auditing process of the real estate appraisers that is carried out rarely than five years of professional practice of each certified appraiser, the suggestions of the Certification and Examination committees were also considered. As a result of the survey were drawn down basic liens of relationship between the standardization procedure and the contemporary professional practice and the proposals for the professional and academically education in area.

Keywords: Ownership reform, appraisal procedure, standardization, survey, auditing procedure, educational proposals





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#### CONSTRUCTION OF JONES LANG LASALLE PRIME AND SECONDARY INDEX

The UK economy is in a recession. In its latest Inflation Report, the Bank of England is forecasting the UK economy will contract around 4% in 2009. This perspective is more negative than the government's forecast announced in the Budget which predicted that GDP would contract by 3.5%. The pace and timing of the recovery is uncertain at the present time, although it will be affected by the contraction in world demand, weak trade and constrained financial markets. The economic deterioration impacted Commercial Real Estate significantly. Property values have dropped by 26% over 2008. The IPD annual index recorded the lowest total returns ever, with all property returns falling by 22.1% in 2008. The financial meltdown in the aftermath of the collapse of Lehman Brothers and the continued casualties within the banking and the corporate sectors is adding to the current misery. We are clearly in an uncharted territory. Given the current climate a tool to measure investment performance of prime and secondary properties is crucial. Logic would suggest that prime properties would prove more resilient compared to secondary properties in the downturn. We do not yet, however, have any indices in the property sphere to prove this and compare performance of such properties. Thus, the aim of this project is to suggest a useful way to construct a prime and secondary index. This would enable us to analyse performance of both prime and secondary properties not only at all property level but also for individual sectors (office, retail and industrial). The analysis is based on Jones Lang LaSalle valuation data (913 properties). The equivalent yield is used and divided into quartiles. Initial and Reversionary yields can also be used to conduct the same analysis. The top and bottom quartiles represent the two groups, prime (top quartile e.g. properties with low yield) and secondary (bottom quartile e.g properties with high yield). This analysis utilises equivalent yields as it encapsulates all the property characteristics such as covenant strength, lease length, sector, location and building quality. In order to exclude "hybrid properties" the middle two quartiles were ignored. In addition only the "super prime" and "super secondary" (properties which remained in the top and bottom quartile over the period studied 1994 to 2008) assets were included. Similarly quartile analysis using capital values has been conducted. The performance between the two methods was compared to observe which method captures the market cycle well. In order to test this both indices were compared with the IPD (Investment Property Bank) total returns for low and high yield band. Subsequently, few statistical tests were applied to analyse the obtained distributions of

**Keywords:** prime and secondary commercial property performance tool





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#### CONSUMPTION OF REAL ASSETS AND THE CLIENTELE EFFECT

This paper develops a theoretical model that explains how long-term consumption goals influence households' choice of real assets in situations when these assets have no investment value. Using a suburban residential housing market that exemplifies such a market, we develop a general equilibrium model for the valuation of illiquid assets. We show that, in equilibrium, clientele effect persists, with long-tenure agents overwhelmingly choosing higher quality properties and short-tenure agents settling for lower quality properties. Equilibrium values of our model variables related to buyers and sellers are simultaneously determined in a competitive Nash equilibrium. We also show that price-based liquidity and time-based liquidity measures may behave in a conflicting manner in equilibrium, which is a novel result in itself. This paper contributes to the understanding of a consumption-based clientele effect as well as different measures of liquidity.

Keywords: Asset pricing, clientele effect, illiquidity, search, housing, asymmetric information, buyer heterogeneity, time on the market, quality signalling

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## CONTINGENT VALUATION METHOD AND MARKET VALUE: APPLYING STATED PREFERENCE METHODS IN REAL ESTATE MARKET

One of the most criticism in Real Estate appraisal processes based on sales comparison approach is the reliability of data about market prices of comparable properties. The lack of information on house prices is particularly relevant in Italy, where households' preference for housing wealth is very high, due also to the market orientation of Italian households for owner-occupation (Di Addario, 2002; Faiella et al., 2008).

In this context, the use of evaluation methods based on hypothetical markets, most widely used in the field of the evaluation of environmental goods or cultural heritage, could solve that problem. It has been found (Mattia et al., 2003) that estimating the willing to pay (WTP) for a sample of goods with different features brings to reliable outcomes with negligible gaps by comparison with the values obtained by the more traditional real estate appraisal methods.

According to these general assumptions, the paper suggests the use of stated preference methods with the aim of replace in the appraisal models the market prices (historical data) of a sample of properties with the willing to pay for the same goods. More in deep, of the various valuation stated preference (SP) techniques available, Contingent Valuation Method (Dichotomous Choice Model) has been used in order to estimate the market value of a sample of residential properties in the city of Milano. Even if the two main features of this method – the hypothetical character of the questions and the fact that actual behaviour is not observed but only predicted – has been broadly criticized (Adamowicz, Louviere, and Williams 1992), in this study the WTP can be considered the behaviour of potential buyers selected by a real estate agency and advertisements on real estate reviews in the face of real choices. Strategic bias has been reduced by pre-testing the valuation questionnaire and using different bidding mechanism according to two different groups of buyers selected, the one who answer that the property meets is needs and the second who is not really interested in it.

To this end, it's meaningful to specify that the possible strategic character of the answers to the questionnaires given by individual interview is consistent with the real estate prices' formation process.

Starting from the critical analysis of the outcomes of this first case study, the paper suggests an evaluation procedure for the systematic production of economics data – median WTP – to use in statistical pluriparametric appraisal models in order to build up a databank of real estate prices according to the principle of transparency.

Keywords: CVM, Real Estate market





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## CORE REAL ESTATE: DO WE PERCEIVE A RENAISSANCE OF THE RISK ASSESSMENT OF AN ASSET CLASS?

It is commonly accepted that Core Real Estate means buildings that are located on a prime location and which are of a high quality with long-term lease contracts. Indeed, according to this definition a recently renovated office building in a prime location with only one tenant would get the Core Real Estate label. The authors of this paper argue that this is incorrect since it is now known that these buildings carry much more risk than the typical Core Real Estate. Hence the correct classification should be Opportunistic Real Estate.

The argumentation that the classification should be changed centers on the fact that in times of economic crisis, when Core Real Estate should be the "anchor" in a portfolio, rent in a prime location show much more downward volatility than the average location. Especially during an economic crisis cash flows of a typical tenant of a newly renovated building, for example banks, show a lot of volatility which could impact their ability to pay rents. When coupled to the fact that there is only one tenant, hence there is no diversification within a building, a situation is created that is contradictory to the concept of Core Real Estate, which implies stability.

Owners willing to pay a premium for buildings that are erroneously labeled Core Real Estate will in all likelihood not receive the return justifying the higher purchase price. Investors should realize that expensive is not equivalent to low-risk, especially not when the typical lease term is five years and many buildings can become obsolete since tenants are expected to gravitate to so-called green buildings. Upgrading buildings to the latest standards will require expensive investments in the near future, further eroding the perceived benefits of Core Real Estate.

The authors will provide the full argumentation supporting their hypothesis in their paper and, based on the classical portfolio analysis, show a re-classification of buildings in terms of risk and return, taking the latest knowledge and experience of the current financial crisis into account.

Keywords: Risk and Return, Portfolio Analysis, Core Real Estate





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#### CORPORATE GOVERNANCE OF ASIAN REITS: INTRODUCING A NEW FRAMEWORK OF ANALYSIS

As the REIT regime has been expanding globally over the last ten years, corporate governance practices in emerging REIT markets have become a major concern for domestic and international investors alike. Idiosyncrasies stemming from the ownership models applied in Asian economies and the fact Asian REITs are often externally managed "captive entities" make issues pertaining to corporate governance of the listed real estate sector in Asia all the more important. To address these issues, the paper introduces an original framework that can be used to estimate the level of corporate governance among externally managed Asian REITs. As a pilot study, the framework is applied to define a corporate governance index of REITs listed on the Singapore Stock Exchange (S-REITs). The index called R-Index enables the ranking of S-REITs' corporate governance practices. It is then used to examine the relationship between corporate governance and performance of S-REITs. The empirical tests based on several performance-related metrics provide evidence supporting a positive correlation between corporate governance practices identified in the R-Index and performances. In other words, S-REITs with higher corporate governance tend to register better corporate performance on risk-adjusted basis.

Keywords: REITs, corporate governance, firm value, performance



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## CRASH PROBABILITY OCCURRENCE AND STOCK MARKET EFFICIENCY THE TUNISIAN STOCK EXCHANGE CASE VIA SHANNON ENTROPY

The purpose of this paper is to test the hypothesis of the financial market efficiency. Thus, the evolution of the daily informational efficiency is measured for Tunisian stock market index (TUNINDEX) by using the Shannon entropy, over the period [2007 –2009]. After that, a logit model is applied in order to study the relationship between efficiency and probability of the financial crash. The main results seem to confirm the negative relationship between the probability of crash and the efficiency.

Keywords: Chania





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## CRITICAL FACTORS AND ESSENTIAL ELEMENTS FOR RICS ACCREDITED REAL ESTATE POSTGRADUATE CONVERSION COURSES IN THE UK

Real estate and commercial property are important to the economy. Commercial property industry, a sector which not only makes up a major part of the UK economy itself, but also provides a platform for virtually all of the country's other major industries. It is a sector which plays a crucial role by providing places in which people can work, shop and enjoy leisure activities. Larger than the banking, leisure, communications and transport sectors, commercial property is also a significant investment asset for the pensions industry and so contributes to the financing of our retirement. Commercial property's value in 2008 was over £500 billion, slightly below that of UK government bonds, and comparable to the country's stock of plant, machinery and vehicles, making it an extremely important factor of production. Its value is about half that of UK equities. The value of the commercial property stock fell by around 24% in 2008, compared to the 33% decline in the value of companies listed on the London Stock Exchange (IPF, 2009). The number of 'general practice' graduates from RICS accredited courses is significantly high. It has the second highest number of graduates and students starters by professional groups apart from Quantity Surveyors and Construction. In 2008, it accounted total 1787 graduates and 2293 student starters, while 892 and 1162 respectively are postgraduate students. The total 'general practice' graduate and student starters constitute 35% and 24% across the fourteen major RICS professional groups (RICS, 2009).

Royal Institution of Chartered Surveyors (RICS) accredited postgraduate courses have become the major supplier for future surveyors in the UK now. The number of new students on this type of course was 5156 in 2008 as compared to 419 in 2000. The number of postgraduate students studying RICS accredited postgraduate degree courses as a percentage of the whole population of new students increased from 13% in 2000 to 55% in 2008. The number of the UK RICS accredited postgraduate courses is substantially more than the RICS accredited undergraduate courses since 2004. In 2009, there were 235 postgraduate courses as compared with only 127 undergraduate courses in the UK, while there were 335 postgraduate courses as compared to 214 undergraduate courses worldwide (RICS, 2009). The global recession has hit the world economy hard. The real estate market has also suffered and it has also affected the labour market for real estate professionals. Many real estate professionals have been made redundant or have taken on extra or different responsibilities in order to keep their employment. In these circumstances, it may be that only sufficiently skilled real estate staff still remain in full-time employment. In addition, as the number of graduates from the RICS accredited postgraduate conversion courses substantially increased in the last decade, meant that there are more graduates who enter the surveying profession through this route.

There have been several research studies aimed at investigating industry's expectation of built environment graduates and essential reform of built environment courses across the world. Davies, Csete and Poon (1999) and Wong, Wong and Hui (2007) conducted research to investigate the employers' expectations of construction and surveying undergraduates in Hong Kong.

Massyn, Mosime and Smallwood (2009) conducted research to investigate whether construction management graduates in South Africa have the competencies that the industry need. As with Davies et. al. (1999) and Wong et. al. (2007)'s research, it is also quantitative-natured research. The data was collected through a questionnaire survey which was sent out to contractors registered at Level 9 on the Construction Industry Development Board (CIDB) register in South Africa.

Hoxley and Wilkinson conducted RICS Education Trust funded research investigating the impact of the 2001 education reform on building surveying. The targeted respondents for their research were course leaders for building surveying undergraduate courses in the UK. The responses were gathered through a questionnaire survey and a focus group meeting with the large national, mainly London-based, employers of building surveyors.

Research in this topic has been conducted in various countries over the last two decades. The previous research mainly focused on studying the competencies requirements for graduates of undergraduate surveying courses. There is also lack of research studying competencies of surveying graduates in the UK. These has been one piece of research of in the UK with a building surveying focus, but, the skills, knowledge and competencies' requirement of UK real estate graduates has not yet been investigated.

This paper aims to fill the gap of previous research. This paper aims to examine the critical factors and essential 13 elements for real estate courses in the UK.





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#### CURRENT USE OF GIS IN THE REAL ESTATE INDUSTRY

Like any business in the commercial world success in the Real Estate industry is reliant upon being able to make better and more informed decisions quicker than your competitors are able to do. A key component of this is having the latest and most complete data available and also having the correct tools to be able to interpret and analyse this data to its full potential. GIS enables its practitioners to reveal trends and patterns in data that are unlikely to be revealed using statistical and tabular analytical techniques alone. The aim of the current paper is to try and assess all aspects of GIS usage in the Real Estate industry. The paper will aim to compare whether this usage differs in Finland, where the technology is a relatively new concept, to the UK, where the technology has a longer history.

The paper will be primarily conducted through face to face interviews with GIS practitioners in the corporate real estate industry. We will also speak to GIS data and service providers as well as third party GIS companies who offer an analysis service to the real estate industry.

As well as asking about techniques and data that GIS practitioners use, the paper will also take into account the position of GIS in the organizational structure as well as problems and perceptions of GIS within the industry.

Keywords: GIS, Spatial Analysis, Research Techniques, Coomercial Property

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#### CYCLICAL CAPITALIZATION

In an important article of 2008 Prof. Shiller on New York Times explained the current collapse of financial market with the "failure to recognize housing bubble". It seems an important proof that there is a conceptual gap between property valuation practice and property market analysis. While this problem it is less evident in Market approach because appraiser will select the comparables in the same property market phase Prof. Shiller problem seems to be pertinent in Income approach application. The International Valuation Standards (IVS,2007) indicates two methods to appraise property using income approach. The first is the so called direct capitalization the second is the yield capitalization. The application of these methods often relies on a stable Net Operate Income or constant growing models. This work proposes a cyclical capitalization linking the property market cycle to property valuation. The importance of property market cycles have been addressed in several different previous works (Born, Roulac, and Pyhrr 1999; Pyhrr, Webb and Born,1990;Roulac,1996). The work is focused on the development of two generations of Cyclical Dividend Discount models (d'Amato,2001;d'Amato,2003). The application of these models have been tested using a time series analysis on prime yield time series in the London real estate market. Empirical results shows that Cyclical capitalization offers results with less volatility than the application of traditional income capitalization techniques.

Keywords: Property Valuation, Cycle





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### DECISION MAKING IN OUTSOURCING SUPPORT SERVICES IN UK PUBLIC HEALTHCARE

In order to strive in the competitive market, organisations outsource not merely to reduce costs but also to achieve efficiency and focus on their core business. Outsourcing exists in different sector of the economy such as in manufacturing, transportation, construction, banking and healthcare. The practice of outsourcing is not only applied in the private sectors, the public sectors also practice outsourcing in order to enhance their performance. For example, NHS has been outsourcing their support services for more than two decades. Despite of the perceived benefits of outsourcing, there are circumstances whereby outsourcing contracts being terminated even before the end of the agreement. Most of the studies in outsourcing decision-making in the UK concentrate on the private sector especially in manufacturing. Therefore the study is based on the premise that there is paucity in the research concerning outsourcing decision making in the UK healthcare sector. A qualitative approach is proposed with a case study will be adopted as the research strategy. A semi-structured interview will be used as the main technique to collect the data.

Keywords: Decision-making, Outsourcing, Public healthcare, UK



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### DEFINING FACILITIES MANAGEMENT (FM) IN THE MALAYSIAN PERSPECTIVE

Facilities Management (FM) can be summarised as creating an environment that is cohesive to carry out an organisation's primary operations, taking an integrated view of the infrastructure services and use it to give customer satisfaction and value for money through support for an enhancement of the core business. However, since FM has been identified as a multi-disciplinary area of development and opportunity, it has resisted a universal definition. Unlike in the UK where the FM market is well established, the Malaysian FM market is still in its infancy and its related duties are fragmented with limited knowledge on the subject. Several branches of the built environment dominants in Malaysia such as property management, building maintenance and assets management define FM based on their own interpretation resulting FM becoming more ambiguous in the local context. The research is conducted through five phase's mixed-methods research design in collaboration with Construction Industrial Industry Board of Malaysia (CIDB) and a prominent local FM service provider. Through these alliances, relevant FM stakeholders are identified as the respondents to the research undertaken. The paper provides a fresh input on how FM is defined in the Malaysian perspective to be commonly shared and emulated by the Malaysian FM stakeholders and the built environment community at large.

Keywords: Asset management, Definition, Facilities management, Malaysia, Property Management





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### DEFINING HOUSING MARKET AREAS: THE LINKS TO LABOUR MARKET AREAS

Two other authors: Neil Dunse and David Watkins (Heriot-Watt University). Abstract: The paper will discusses the use, logic and the theoretical issues underpinning the definitions of housing market areas (HMAs) and their relationships with labour market areas. Drawing on this understanding, the empirical research generates sets of different potential geographies of HMAs for England based on an algorithm that applies a range of criteria linked to the degree of closure of migration and commuting patterns. Based on a range of criteria/tests the different geographies are assessed. In particular standardised house prices in neighbouring HMAs are tested to assess whether they are different using hedonic multiple regressions and a Chow test to see if they generate statistically different coefficients. Finally conclusions are drawn on these relationships. The empirical work is on England and the datasets drawn from the Population Census and the Land Registry.

**Keywords:** Housing Markets Planning Migration Commuting Patterns House Prices





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## DETERMINANTS OF ENVIRONMENTAL PREFERENCE BY HOUSING CONSUMERS IN GUANGZHOU, CHINA, USING ANALYTIC HIERARCHY PROCESS

This paper analyzes the determinants of housing environmental preference by consumers in Guangzhou, China. Preferences of different housing environments have been well researched by scholars in architecture, urban planning, and urban environmental science. However, few studies shed light on housing environment by measuring physical/tangible and social/intangible attributes with hierarchy models. Based on the literatures on housing environment, preference, satisfaction and housing quality, this study explores the housing environment preference by identifying the environmental attributes which are grouped into three categories: mobility, community facility, and community social capital.

The Analytic Hierarchy Process (AHP) is employed to estimate the relative importance of those environmental attributes, which are further organized into a hierarchical structure. Housing consumers and property experts in Guangzhou participate in the survey and they represent a wide spectrum of environmental performance demands as well as socio-environmental backgrounds in the sample. Statistical weights of the factors based on their judgments are then generated.

It is found that mobility factors, including public traffic network, proximity to workplace, have dominant importance in the housing environment. Social capital factors and facility factors, including sense of safety, medical and health facility, and education facility are also regarded important. Property experts and consumers have diverse perspectives on the demand of end users as they represent different interest groups. Furthermore, different age groups of housing consumers attach different relative importance to the factors studied.

This paper develops a method to assess the relative importance of the environment factors in housing preferences, and provides a useful tool in the field of environmental assessment. Instead of measuring the monetary value of different attributes in the market, the findings of this study help to understand the general demand pattern and preferences of consumers in the housing market based on multidimensional values and benefits. It is hoped that the findings will offer more information for urban planners and housing developers from a social and cultural perspective.

Keywords: Housing, Environmental Preference, Analytic Hierarchy Process, China



**BOOK OF ABSTRACTS** 

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## DETERMINANTS OF FOREIGN DIRECT INVESTMENTS IN REAL ESTATE IN EUROPEAN COUNTRIES - PANEL DATA ANALYSIS

Foreign direct investments (FDI) have been one of the core features of globalization and the world economy over the past two decades. Statistical data shows that the level of FDI was continuously increasing during 2003-2007, but the directions and amount of such inflows differs significantly between the countries. Investments in Real Estate are just one of these inflows and European countries proved to be successful in this process. The objective of this study is to highlight theoretical and empirical findings about determinants of foreign direct investment in Real Estate in developed European countries. This paper first present and analyze existing scientific theories in this area with special attention to Real Estate investments, then focuses on assessing the relative significance of the factors that may attract FDI in Real Estate via a panel data regression analysis for a representative sample consisting of 15 OECD countries for 1996-2007. Results of the study suggest that certain variables such as size and growth of GDP, human capital and road infrastructure appear to be robust under different specifications. Significance of these factors estimates are also observed, confirming the relevant theoretical propositions. However certain differential variables that expected to have positive effect proved to be insignificant within the estimated data sample.

**Keywords:** Foreign Direct Investment, Real Estate, Panel Data Analysis





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#### DETERMINANTS OF LONG-RUN HOMEOWNERSHIP RATES IN TAIWAN

In the literature on microeconomics regarding tenure choice documentation, house price is usually viewed as one of the most important parameters. Taiwan experienced very dramatic real estate cycles in the past several decades. However, the homeownership rates looked quite stable and consistently increased at the same time. The reason behind this phenomenon needs to be discussed. This paper uses the panel cointegration model to investigate the determinants of long-term homeownership rates for the four cities in Taiwan. The results show that a long-term trend exists in homeownership rate series, which may be caused by the fact that the government has used the property tax and income tax policies encouraging households to own their houses. Without considering the time trend, the evidence shows there is a long-run equilibrium relationship between homeownership rates and many variables, such as household income, share of married couples, share of elderly people, and mobility rates. However, there is no long-run cointegration relationship between homeownership rates and the change in number of households, rents, and house prices. In addition, homeownership rates and house price-to-income ratio are only co-integrated in Taipei County. Finally, the results of cointegration vectors show that the most important variables influencing the homeownership rates are different in the four cities. Overall, the increase in the share of elderly people and the rise of income are the ones more related with the increase of the homeownership rates.

**Keywords:** house prices, homeownership rate, tenure choice, panel cointegration

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#### DETERMINANTS OF THE CAPITAL STRUCTURE OF RESIDENTIAL PROPERTY COMPANIES

The concept of financial leverage is a paradigm in real estate investment and vital to most investment decision making. Financial theory suggests that the amount of leverage indicates the degree of risk tolerance associated with an investment. Clearly, leverage increases the buying power of an investor and therefore the range of attainable investment opportunities. At the same time, however, this may lead to a potential bid-up in prices and introduces interest rate risk to an investment. It also increases subjection to financial institutions that may limit entrepreneurial activities. The cost of capital more and more defines the radius of action for all kinds of institutions, particularly property companies. Clearly, debt offers a variety of benefits and downsides that affect financial performance in multiple ways.

This paper analyzes the determinants of the capital structure of residential property companies. Built on previous research in finance and established theories of capital structure the analysis uses financial data from a sample of >1,400 residential property companies in Germany. Both the Pecking Order Theory (POT) and the Trade Off Theory (TOT) are empirically modeled and tested. The results show that residential property companies only partially adjust their capital structure systematically according to POT or TOT.

*Keywords:* financial leverage, leverage, capital structure, property companies, real estate finance, real estate investment, performance





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## DEVELOPMENT AND IMPLEMENTATION FM RATING FOR FACILITIES MANAGEMENT AT THE JAKARTA ELEMNTARY PUBLIC SCHOOLS

A new management approach is needed to improve the delivery of facilities services in elementary public school to ensure clean, safe and healthy learning environment. The study examined functions of facilities management as they relate to daily operations and maintenance, and identified variables and building factors affecting it. A total quality management (TQM) framework was developed to establish a continuous improvement culture in a asset/facilities department dinas pendidikan dasar Jakarta.

First phase, it is based on qualitative approach which included the development of a service quality rating system at the Jakarta Elementary Public Schools. A survey instrument was devised called "Service-On-Wheels," and data was collected from 300 elementary public schools to evaluate 24 service categories.

The study showed that implementation of such a TQM framework improves the performance of the organization at all levels and provides for problem solving. The study examined relationships between the evaluation system and key building characteristics or factors including building age, area, condition and student enrollment. It was found that none of these factors affect the service quality rating system. The study utilized various statistical analysis methods including regression, correlation and histograms.

In the second phase, it is based on qualitative approach which involves data collection on service provider using semistructured interview over 10 dinas pendidikan dasar DKI Jakarta senior officers. From the study it showed that, there is a need to measure Service Quality in dinas pendidikan dasar DKI Jakarta.







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## DEVELOPMENT VALUATION: IMPACTS OF UNCERTAINTY, RISK AND CAPITAL STRUCTURE

This paper builds on the developing literature delineating and specifying uncertainty and risk as it can be associated with measures of entrepreneurial profit in development valuation procedure. These conceptual and empirical associations enable the formulation of strategic differencing in systematic pricing of both uncertainty and risk. The incorporation of stochastic pricing procedure on development valuation in turn alters the fundamental choices of diversifiable development options, alternative capital structures and financing procedures fitting development scenarios and strategy.

The strategic model created in this paper is tested with the utilization of data from development appraisal/valuation reports conducted from a significantly defined set of opportunity sites. The quantitative data derived from alternative development scenarios proposed across Belfast, Northern Ireland and the Republic of Ireland enable a comparative analysis of the potential and measurement of risk and uncertainty associated with the entrepreneurial choice between options of single and mixed use development alternatives.

**Keywords:** Development Valuation, Mixed Use development, risk, uncertainty and profit





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# DISCLOSING ENVIRONMENTAL AND SUSTAINABILITY PRACTICES AND INITIATIVES IN THE ANNUAL REPORTING PROCESS OF PROPERTY INVESTORS: EVIDENCE FROM MALAYSIA

Investors around the world are recognising the importance of embedding environmental, social and governance issues when making property investment decision or sustainable and responsible investment (SRI). The objective of this paper is to examine the implementation of environmental, social practices of property investors in Malaysia. Content analysis is used in this research. Analysis was conducted of potential SRPI or ESG initiatives of 13 Real Estate Investment Trusts (REITs), property investment companies and key institutional investors using publicly available company literature. The websites and annual reports of these investors from 2007-2009 were examined in order to identify activities, strategies contributing to the progress of sustainable and responsible property investment. The progress made was also compared with progresses made in other countries including UK, USA and Australia. The study indicates that although some of the Malaysian REITs and property investment companies are beginning to adopt sustainability practices this is less embedded than in other major countries notably Australia. The study also shows that the sustainability agenda is skewed more to notion of corporate philanthropy than environmental issues.

Keywords: Content Analysis, Malaysia, Responsible Property Investment, Sustainability







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### DO ENVIRONMENTAL RENOVATION WORKS AND CREATE VALUE FOR OFFICE BUILDINGS?

The office sector currently faces an important issue when it comes to sustainable development. Indeed, the environmental legal framework has evolved and there is a widening gap between the new – and thus green – buildings and the existing ones. Since new buildings represent only 1% to 2% of the total stock, the main issue lies in the renovation of those existing buildings, in order to make them comply with the law, obtain a green label and retain their attractiveness both for investors and users.

Hence, a legitimate question for the investors on the return on investment of renovation works that aim at improving the environmental performance of office buildings. Whereas the costs are easily identifiable, the impact of those works on valuation and its parameters – rent, expenses, capitalisation rate, discount rate – are much more difficult to determine. In other words, is there a "green value", and how much is it?

We aim at providing the evolution of some parameters that will be part of the DCF valuation of the asset through the viewpoint of real estate professionals in order to assess the financial relevance of environmental renovation works from the investor point of view.

Keywords: environmental sustainability, renovation works, energy efficiency, office sector





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## DO HIGH-RISE APARTMENT CONDOS EQUALLY REVALUE THE NEIGHBORING HOUSING? AN ANALYSIS OF ÑUÑOA, SANTIAGO DE CHILE

Many studies have analyzed the market premium enjoyed by houses located within gated communities; nevertheless little or no attention has been paid on the impact that such a sort of development produces on the surrounding housing market. This question becomes very important in the cities in which gated communities or other common interest communities, aimed to medium and high socioeconomic groups, are traditionally confined to low incomes enclaves. Salcedo & Torres (2004) and Caceres & Sabatini (2004), from a qualitative perspective, have suggested that this social proximity produces various benefits like

improvement of value expectations of land from the original settlers, among others.

Keywords: Real Estate values, hedonic prices, GWR, gated communities, high-rise condos

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## DO PEER EFFECTS SHAPE RESIDENTIAL VALUES? RECONCILING THE SALES COMPARISON APPROACH WITH HEDONIC PRICE MODELLING

Although the hedonic framework can be said to vary substantially from the traditional sales comparison approach used in real estate appraisal in that the former rests on much stronger conceptual grounds than the latter while benefitting from large transaction samples that enable statistical inference, both are derived from a similar paradigm with respect to how prices, hence market values, are determined. While the hedonic approach is much more explicit about the determinants of property values and can provide reliable estimates of individual attributes' marginal contribution, it may – unlike the sales comparison approach underestimate the prominent influence that surrounding properties exert on any given nearby housing unit and sale price. In this paper, a simple method for reconciling the two approaches is developed within a rigorous conceptual and methodological framework. It is based on peer effect models, an analytical device developed, and mainly used, by labour economists, which we adapt to the hedonic price equation so as to incorporate nearby properties' influences, thereby controlling for non observable neighbourhood effects. The ensuing model accounts for four types of effects, namely endogenous interactions effects (comparable sales influences), exogenous, or neighbourhood, effects, fixed location effects and, finally, spatial autocorrelation effects. This research relies on a database provided by the former Quebec Urban Community (CUQ) Assessment Division on some 15,700 sales of single-family detached houses that took place on the former CUQ territory between January 1990 and December 1996, with prices ranging from \$50,000 (Can.) to \$250,000. Preliminary findings suggest that integrating peer effects in the hedonic equation allows bringing out the combined impacts of endogenous, exogenous and spatially correlated effects in the house price determination process, with spatial autocorrelation of model residuals being significantly reduced without resorting to a spatial autoregressive procedure. Further investigation is still needed though in order to find out which sub-market delineation should be used to obtain optimal model performances.

**Keywords:** Peer Effects, Hedonic Price Modelling, Sales Comparison Approach, House Values





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## DYNAMICS OF COMMERCIAL REAL ESTATE ASSET MARKETS, RETURN VOLATILITY, AND THE **INVESTMENT HORIZON**

The term structures of return volatility for UK and US direct and securitized commercial real estate are compared using vector autoregressions. To capture the dynamics of the real estate asset markets it is important to include valuation ratios specific to the asset market analyzed. In the UK, direct real estate and property shares exhibit mean reversion, and unexpected returns are primarily driven by news about discount rates. US REIT returns are mean reverting, too. In contrast, US direct real estate shows a considerable mean aversion effect over short investment horizons, after which the term structure of the annualized return volatility is slightly decreasing. The low short-term standard deviation and the mean aversion of US direct real estate returns can be explained by the positive correlation between cash-flow and discount rate news. In the UK market, direct real estate returns remain more predictable than property share returns in the medium and long term, whereas US REIT returns appear to be equally predictable to US direct real estate returns at a ten-year investment horizon.

Keywords: Commercial real estate investment, Investment horizon, Return volatility, Vector autoregression



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### EARLY STAGE OF INFRASTRUCTURE REITS: TURKEY EXPERIENCE AT LEGISTATIVE LEVEL

Global interest in infrastructure investments is growing rapidly, driven by not only investor demand, but also the increasing need for governments to find alternative sources to fund new infrastructure projects and repair existing infrastructure.

Infrastructure has evolved as one of the attractive alternative asset classes for institutional investors, searching for higher-yielding and stable investments. An increasing number of vehicles such as, direct investments, unlisted infrastructure funds, listed infrastructure funds, and unlisted infrastructure securities funds, focusing on assets such as toll roads, pipelines and utility assets, respond to institutional demand, such as Australian listed property trusts (LPTs). Budgetary pressures on governments worldwide are forcing them to explore alternatives to traditional public sector provision of assets and services. Infrastructure investments typically consist of partnerships between the public and private sectors, Public/Private Partnerships (PPPs) or Private Finance Initiatives (PFIs).

Recent arguments that infrastructure REITs may be an effective tool to fund infrastructure needs or REIT structure may address some of the concerns and opposition related to privatization. The first J-REIT focused on acquiring and operating both industrial and infrastructure properties (IIF), was established on March 26, 2007 in Japan. In the U.S., Internal Revenue Services affirmed the electric transmission and distribution company's wires and pipes qualified for inclusion in a REIT in June 2007. It could lead the way for other typed of infrastructure assets to be classified as REIT. On 29 January 2009, the Capital Markets Board (CMB) published the Communiqué Regarding Infrastructure Real Estate Investment Company ("IREIC") in Turkey. The Communiqué articulates the requirements for establishing an IREIC and provides extensive rules regulating operation of the IREIC.

This paper is aimed to investigate legal framework of Turkish IREIC and background of this structure based on the arguments and similar experiences in the world. Although no IREIC has been established yet, this framework can be considering as an embryonic stage for infrastructure REITs in Turkey.

*Keywords:* infrastructure investments, infrastructure REIT, Turkish infrastructure real estate investment companies (IREICs)





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## EARNINGS MANAGEMENT IN THE REAL ESTATE SECTOR AND PERCEPTIONS OF APPRAISER **INDEPENDENCE**

The aim of this project is to examine whether fund managers strategically run the net asset value of the real estate investment funds under their management and which factors may influence their decisions. The legal framework of the Portuguese real estate investment funds allows fund managers to show some discretion in valuing properties opening room for empirical study on earnings management for this sector.

According to the Portuguese securities market regulation for real estate investment funds, properties have to be appraised every two years at least. In the meantime, in order to determine the value of the property for subscriptions or redemptions, fund managers may choose any value between the acquisition cost and the average of the appraisal values attributed by two independent appraisers. This means that they may choose to keep the asset valued at its historical cost, to keep it at the revaluation value, or at any value between both. One common procedure is to progressively recognise the revaluation increments of properties starting from the acquisition cost up to the revaluation value. Therefore, we hypothesise that fund managers have the opportunity to control ("manipulate", or "manage") the investors' earnings throughout the timing of the recognition of the unrealized gains that arise from fund assets. In order to test this hypothesis, based on a property-held sample, we first analyze the cross-sectional distribution of a variable named RDIF - Return Rate Difference computed as the difference between the annual asset value increments fixed by fund managers and the annual appraisal changes recommended by appraisers. The observation of unusually high frequencies of negative values of this variable can evidence that fund managers are using their discretion to manipulate earnings. If as we hypothesise, there is evidence of earnings management, it will be relevant to examine in what conditions managers work out the earnings and what are the major factors that lead to such a behaviour. Then, based on a fund-held sample and following a research design similar to McNichols, Wilson, and DeAngelo (1988) and Petrovits (2006), we test different hypothesis to examine if fund characteristics as fund type, dimension or fund vacancy rates can stimulate earnings management actions. After modelling how annual revaluations increments of funds properties would be reported in the absence of earnings management, we estimate a discretionary accrual proxy as the difference between the reported revaluation increment and its expected value obtained by the model. Considering that fund managers may also manage the net asset value through the influence that they can have on appraisers, we also plan to focus on the perception of appraisers' independence. Therefore, in a second phase of our work, we attempt to identify the factors that potentially influence the perceived appraiser independence in the real estate investment funds industry.

Considering that properties appraisal values are of the essence in investment decisions and performance measurement of private real estate, the reliability of these values are crucial to the market in general. As such reliability is related to the confidence and transparency of the appraisal process and appraiser actions, we believe that a better understanding of the factors that influence the perceived appraiser's independence is crucial to the proper functioning of the market. As this area of research is in an early stage, we believe that this study may contribute to the literature for different reasons. First, it will provide a basis for the development of a theoretical framework on the definition of appraiser independence. Secondly, it will provide information for regulators that will certainly help in the monitoring of client/appraiser relationship. Finally, with the move to international accounting standards, and subsequent introduction of fair value as a basis for accounting measurements, the topic of appraiser's independence is acquiring a significant relevance, playing a key role for reliability of financial information in general.

Keywords: Earnings Management, Real Estate Investment Funds, Aprraisers independence, Net Asset Value

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# ECONOMIC GROWTH AND DEVELOPMENT OF CONSTRUCTION AND REAL ESTATE SECTORS IN BELARUS

The economic growth in Belarus is to a great extent determined by the development of construction and real estate sectors. Under the conditions of declining business activity, construction is regarded as a driving force for the national economy. Sector's share in GDP has increased from 9.3 % to 10.7 % in 2009. While in 2008 the residential area put to use constituted 5.14 mln. m2, in 2009 it reached an all-time high at 5.8 mln. m2 and according to the decisions from 2008, 10 mln. m2 of residential area has to be build in 2011. In 2009 only housing construction has absorbed 20,6 % of total national investments. Large-scale needs in investment and allocation of resources in construction on a priority basis will take place at the expense of other economic activities. So the risk of slowing of national economy diversification and increasing imbalance becomes higher.

To keep economic growth in Belarus sustainable it is essential to improve construction industry relations with real estate markets. At present a "pushing out" model is dominating when the volume and structure of additional housing is determined by industry plans. A transition to a "pulling out" model, where the real estate market will play a proper role and supply will be guided by demand, will permit to diversify the risks and reduce alternative costs of residential investments.

An econometric analysis of quarterly data indicates that salary dynamics does not directly affect the volume of housing construction in Belarus. At the same time there is a strong positive influence of the inflation dynamics on housing construction that indicates the inflationary character of construction funding. Negative influence of the salary dynamics on the construction output increase can be explained as follows: when there is a relatively great increase in the salary of employees of government-financed organizations, the volume of resources to be invested in construction decreases. The analysis has also revealed that the absolute volume of construction has a positive impact on GDP whereas dynamics indices have a negative one. The given results raise the issue of a serious reexamination of the construction and real estate sectors development in Belarus.

*Keywords:* Real estate market, construction, economic recession, growth, analysis, forecast, macroeconomic factors, prices





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### EFFECT OF HOUSING SUPPLY CONTROL STRATEGY

High-cost threshold induces oligopoly for real estate market, which means a few powerful developers may easily control the supply of houses. On the other hand, land scarcity and regulation also induces the limited housing supply, therefore, housing supply control strategy may exists which can increase the developers' profit. While on demand side, speculative demand exists in housing market as property is not only consumption goods, but also an investment. Such demand is relatively vibrational while it is strongly affected by supply signal. In the paper, we analyze the profit change under supply control strategy and show that how property developers make control decision by introducing a mathematical model. The result suggests supply control strategy may achieve higher profit by stimulating the speculative demand if Control Interval is nonempty. Additionally, we also found that marginal return and marginal cost is not equal when developers facing the discrete real estate demand. VAR model is employed to test the dynamic relationship among housing supply, house price index and developers' profit in Hong Kong. During 1984 to 1997, housing supply was limited due to the Sino-British Joint Declaration; and we can see that supply control in the period significant bring up developers' profit.

Keywords: Supply control strategy, Speculative demand, Marginal inequality, Hong Kong real estate market



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# EFFECT OF MUNICIPAL SOLID WASTE DUMPS ON INVESTMENT PROPERTY VALUE. A CASE STUDY OF D-LINE NEIGHBORHOOD IN PORT HARCOURT NIGERIA

The sites of municipal solid waste dumps are replete in and around our cities and towns in Nigeria. Real estate development and market is highly dependent on perception, environment and economic situations, especially for residential and commercial properties.

Prospective tenants and investors tend to be weary of the environmental quality of proposed investment sites or residential neighborhood if it will fetch good return on their investment and how long.

This paper will critically examine effect of municipal solid waste dumps on investment property values and proffer useful solutions to perspective property investors and tenants.

Keywords: Municipal solid waste, Dumps, Environmental quality, Investment, Property Values





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## EFFECT OF THE RENT DEREGULATION ON TENURE CHOICE AND HOMEOWNERSHIP IN THE **CZECH REPUBLIC**

Rent regulation, which was put into effect in the Czech Republic in 1980s, has created a shortage of affordable rental housing in Czech Republic and has resulted in considerable difference between the free-market rents and regulated rents. Due to growing public pressure, in 2006 the government decided to completely remove rent regulation and bring the level of rents for previously regulated dwellings in accordance with market rents by 2011. The rent deregulation can have substantial effects on tenure decisions of both households currently living in regulated rent apartments since it will lead to increase in rent for those apartments as well as on tenure decisions of young households just entering into the housing market since it should intuitively lead to a decrease in current market rents. This research first uses the standard present value model of renting versus owning to predict tenure decision of the households after the deregulation and then compares the prediction of the model with empirical results obtained from logistic regression.

**Keywords:** value of renting vs owning choice, rent deregulation, homeownership rate, mortgages logistic regression



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## EFFECTS OF LAND AUCTIONS ON PRIVATE HOUSING MARKET: AN EMPIRICAL STUDY IN HONG **KONG**

Acquisition of land is the prerequisite of housing development. However, land and houses are traded in two separate markets, with the former being traded by developers and the later by end-users or investors either in the primary or secondary markets. Further to the findings of a previous empirical study by Chau (2008) that unexpected public land auction outcomes brought asymmetric impacts to the private housing market, this study aims to investigate the effects of the announcement of an auction and its details on the transaction activities in the private housing sector such as the volume of transaction and transacted prices. Particularly, this study would also focus on investigating how the characteristics of the auction winners, i.e. the developers, will affect the price discovery process of private housing market. Winner's characteristics include its scale, profitability, past bidding history; experience in the locality of the land being auctioned. In short, this study intends to answer the question of whether an unexpected auction outcome with a winner with good track record or perceived to be an industry leader will provide additional information to the housing market. Likewise, whether a winner containing better location-specific information in the land being auctioned will bring a more spatial signalling effect to the housing market will also be addressed. An event study will be employed.

**Keywords:** Event study, Hong Kong, land auction, price discovery

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### EFFICIENCY OF THE REAL ESTATE MARKET: A META-ANALYSIS

The issue of whether or not the real estate market is efficient has been debated extensively in recent years. We use a meta-analysis to shed light on the issue. A sample of studies published from 1984 is used to examine the robustness of the evidence regarding efficiency of the real estate markets. Empirical studies that test the three versions of the Efficient Market Hypothesis (EMH), i.e. weak, semi-strong and strong form are considered along with tests of market fundamentals and price bubbles. Our dependent variable is whether the real estate market is efficient or not. It is expected that the results are sensitive to several research design parameters such as type of data used (aggregate or transaction level), geography of the market (US, Europe or Asia), type of property (residential, income generating or land etc.), scale of the market (local, regional, national or international), urban/rural classification, and to the publication year.

**Keywords:** real estate market, Efficient Market Hypothesis, meta-analysis



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# ELECTIVE STOCK DIVIDENDS AND REITS: EVIDENCE FROM REIT DIVIDEND POLICY DURING THE FINANCIAL CRISIS

In response to the recent financial crisis, the U.S. Government introduced new rules which allow REITs to issue elective stock dividends (ESD) to satisfy their distribution requirements. The goal of these rules was to provide temporary relief to REITs facing cash flow problems. We investigate how the introduction of these rules affected dividend policy of REITs. Surprisingly, we document that only 17 REITs chose to issue elective stock dividends. We examine the characteristics of these REITs and find that their cash flows are similar to REITs who did not select these dividends. This suggests that REITs cash flow problems are unlikely to be a determinant of the elective stock dividend issuance decision. Instead, our findings indicate that the choice to pay elective stock dividends is related to the level of loans that are close to maturity, REIT size, growth opportunities, and poor performance during financial crisis.

Keywords: REITs, dividend policy, financial crisis



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BOOK OF ABSTRACTS

### ELECTRICITY USE TRENDS IN NEW ZEALAND OFFICE BUILDINGS, 1991-2008

The built environment has been assessed as accounting for 70% of electricity consumption in the USA (Claire 2007) and globally, the built environment accounts for 40% of energy consumption (Kolokotsa et. al. 2009). While New Zealand generates most of its electricity from renewable hydro electric sources, there are limited opportunities to expand such generation. As a result, the NZ government has been promoting energy efficiency as a means to reduce growth in electricity demand, with the focus to date on the residential sector. Efficiency policies relating to office buildings have recently been proposed, but little prior research has been carried out on this sector in NZ. This research identifies trends in office building electricity consumption over the period 1990-2008 using data from the Property Council of New Zealand annual survey of building operating expenses. This will help establish a base line against which future energy efficiency initiatives can be assessed. Findings include relatively stable electricity consumption rates over the study period but a surprising decline in real electricity prices for this sector until 2004 followed by sharp increases since.

Keywords: energy, efficiency, electricity, prices, sustainability, office, building, trends, New Zealand



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## EMPLOYMENT ADJUSTMENT STRATEGY FOR A PROPERTY DEVELOPMENT COMPANY DURING **ECONOMIC CRISIS**

During business crisis, cost cut back is necessary. The immediate contemplation usually comes to employee layoffs. However, less disturbing set of approaches can be exercise to cut back labor costs. This research explores strategy for adjusting employment for a property development company during the two economic crises in Thailand during both 1997 – 2000 and 2008 – 2009. The scope focuses on for-sale property development companies, both low-rise (single detached, duplex, and townhouse) and high-rise (condominium). The data is from the questionnaire survey with real estate developers who are the members of the three main real estate associations in Thailand.

The research explores many approaches for employment adjustment, including layoff, pay cuts, reduction of overtime, bonus cuts, and reassignment/dispatching. These approaches are analyzed against three attributes of a property development company: product type (low-rise, high-rise, and mixed products), the size of capital, and the business experience (year). The results from this research reflect experiences which can be beneficial for property providers' management approaches not only during business crisis but also during other business phases.

**Keywords:** real estate, economic recession, business strategy, layoff, employment adjustment

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### **ENERGISING PROPERTY VALUATION IN EUROPE**

Eventually the sustainability movement has achieved the real estate industry. Since the "Stern Review" was published in 2006 governments all over the world are trying to reduce the most obvious ecological hazards that are responsible for the climate change. While the existing building stock uses around 40% of the overall consumed energies the real estate industry as well as real estate researcher, i.e. the real estate professions are discussing phrases like "green buildings", "sustainable buildings", Triple Bottom Line (TBL) and corporate social responsibility (CSR).

In Europe the European Energy of Buildings Directive (EPBD - 2002/91/EC) was launched in 2002. Due to the Directive EU member states had to develop specific measurable values, which illustrate the overall energy-efficiency of a building. Furthermore Energy Performance Certificates (EPC's) are mandatory when buildings are sold or let since 2006. Finally the EPC illustrates the status quo of the overall energy-efficiency of a subject existing or newly developed building. Due to the ongoing activities like for example energetic refurbishments the question arises if energy efficient buildings are able to achieve a higher market value than non-efficient buildings. Therefore the European Commission is granting the IMMOVALUE project, which is aimed at using key figures of the EPC to assess the energy-efficiency of a building and put them into value.

But how it could be possible to integrate this single issue into property valuation? Therefore the project on the one hand collected and assessed the existing valuation methodologies and on the other hand the configuration of some launched national EPC's. International measuring scales, like the sustainability certifications of BREEAM or LEED, are quite different and therefore not comparable. Additionally it can be stated that it is the same about the national EPC's all over Europe.

Basically every property valuation reflects the subject property in the local property market. The task of the valuer is to compile all property facts and estimate their quality and marketability in comparison to the property market to demonstrate the valuation process in a transparent and replicable way. One aspect should be the status quo of the energy-efficiency and/or the sustainability characteristics of the property being valued. Besides the descriptive integration it should be proven if some quantitative, i.e. monetary premium or discount on value, has to be considered. Therefore the possibility of regression analysis and furthermore hedonic pricing models were tested in a selected property benchmarking stock. This analysis method is able to examine the effect of a special characteristic, i.e. energy-efficiency and it's related features, while further price regulating characteristics are assumed to be either stable or changed in specific steps. In this paper we will focus on showing up a possibility of integrating energy-efficiency aspects into property valuation when a significant correlation to market value influencing parameters can be proved right.

Keywords: EPBD, EPC, real estate valuation, energy-efficiency, market value, hedonic pricing models





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## ESTIMATION OF REDEVELOPMENT PROBABILITY USING PANEL DATA-ASSET BUBBLE BURST AND OFFICE MARKET IN TOKYO

When Japan's asset bubble burst, the office vacancy rate soared sharply. This study targets the office market in Tokyo's 23 special wards during Japan's bubble burst period. It aims to define economic conditions for the redevelopment/conversion of offices into housing and estimate the redevelopment/conversion probability under the conditions.

The precondition for land-use conversion is that subsequent profit excluding destruction and reconstruction costs is estimated to increase from the present level for existing buildings. We estimated hedonic functions for offices and housing, computed profit gaps for approximately 40,000 buildings used for offices in 1991, and projected how the profit gaps would influence the land-use conversion probability. Specifically, we used panel data for two time points in the 1990s to examine the significance of redevelopment/conversion conditions.

We found that if random effects are used to control for individual characteristics of buildings, the redevelopment probability rises significantly when profit from land after redevelopment is expected to exceed that from present land uses. This increase is larger in the central part of a city.

Limitations stem from the nature of Japanese data limited to the conversion of offices into housing. In the future, we may develop a model to generalize land-use conversion conditions.

However, this is the first study to specify the process of land-use adjustments that emerged during the bubble burst. This is also the first empirical study using panel data to analyse conditions for redevelopment.

Keywords: hedonic approach, random probit model, urban redevelopment, Japan's asset bubble





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### ESTONIAN HOUSING MARKET - BEFORE EURO ADOPTION

After a rapid period of changes in the Estonian economy the situation will start to stabilise and it seems to be realistic, that Estonia is able to meet all the Maastricht criteria for the adoption of the euro. Weak domestic demand due to the decrease in incomes and worsening situation in the labour market is the main source of negative impact on the economy, but it can be balanced by the restored growth in Estonian exports in the second half of 2010. The rapid growth period from 2000 to 2007 was mostly driven by real estate and construction sector. The loan portfolio of individuals and businesses in local banks started to decrease since the end of 2008 and the trend will probably continue. The high debt burden has weakened households' financial position. The mortgage credit turnover has significantly decreased. Property prices in Estonia's residential real estate market have returned to 2004-2005 levels. Suspected adoption of the euro will increase the credibility of Estonia and it will also lay a foundation for the growth of foreign investment activity to Estonia.

The first part of this article analyses the financial behaviour of households that has become notably more conservative over the past year and discusses about the procyclicality effect in the Estonian banking sector. During an economic boom financial sector inclines to strengthen the impact of a business cycle through intensifying lending activity and vice versa. Second part analyses the situation in the housing market in Estonia and changes and dynamics of the housing sector.

	(1)	

Keywords: housing market, supply, demand, housing loans, procyclicality, Estonia

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### EUROPEAN REAL ESTATE MARKETS CONVERGENCE

This paper uses the concepts of beta-convergence and sigma-convergence and to evaluate empirically the hypothesis of rent and yield convergence in seven European office markets during the period 1984-2009. Because of the introduction of a single currency in January 1999, the analysis is carried out sequentially, first for the period the overall period and then the periods before and after the introduction of the single currency. The results indicates that irrespective of the time period considered there is not enough evidence of beta-convergence or sigma-convergence for rents and yields of the European office markets under review. We do however find some evidence that the introduction of the single currency in 1999 has led to increasing signs of convergence, especially in the Continental European markets.

Keywords: European real estate markets, Beta, Sigma Convergence





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## EVENT STUDY: THE INFLUENCE OF QUARTERLY / ANNUAL REPORTS ON THE STOCK PERFORMANCE OF LISTED REAL ESTATE COMPANIES

Listed real estate companies, just like all other listed companies around the world, have to publish quarterly as well as annual reports, informing the public and especially the share and stake holders about the current development of the company.

These reports are always awaited with great anticipation. Will there be bad news or good news in the report? And if there is bad news, is it as bad as suspected or better and vise versa are good financial news as good as everybody

Depending on this news, changes in the stock price are expected, as well as observed changes in stock price are often explained with an interpretation of the content of the reports.

It is commonly expected and believed that bad news have a negative effect on the performance and vise versa with god news. As obvious as it seems, so difficult it is to proof, as god and bad is not an absolute definition but rather a relative one in the eye of the beholder.

An interesting question arising from this is, if the publication of financial reports have an general impact, meaning "always" significantly positive or negative, basically regardless of the content.

In order to verify whether the publication of these reports has an effect, an event study shall observe abnormal returns around the time of the publication.

Further options are to test if relatively late / early publication has an effect – a problem here will be the definition of the "normal" time of publication – and if the timing within the week or the timing with regard to the period of the year have an influence.

- •The aim of this study is to find out whether a general effect (always positive or always negative) on stock performance can be observed caused by the publication of financial reports, although it is commonly expected to depend upon the content.
- •Does it matter whether the reports are published relatively early or relatively late

**Keywords:** Stock performance, listed real estate companies, event study, reporting

•Does timing matter with regard to day of the week or period of the year

On a scientific level, the contribution of this study lies in analyzing whether behavioral effects influence the stock performance of listed real estate companies.

From a professional point of view, implications for an optimized investment strategy can be obtained as well as implications for the optimal information strategy of listed real estate companies with regard to their stock performance.





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# EXAMINING THE CORPORATE RELOCATION DECISION MAKING PROCESS TO DESIGN AND EVALUATE A CLIENT FOCUSED TOOL TO SUPPORT OBJECTIVE DECISION MAKING

The size of the organisation can have a significant impact on the building evaluation and decision making process and previous research undertaken by the author suggests that larger firms are more likely to pursue a sophisticated measurement and modelling process. In addition, smaller firms with less resources are more likely to make the relocation decision based on "gut feeling" rather than detailed evaluation. The research also confirmed that some decisions were made in a few cases based on personal preferences of the Chairman or Chief Executive. However, with increased transparency, accountability and corporate social responsibility, decisions based on more rigorous and objective approaches are being demanded.

Establishing clear quantifiable building assessment criteria and a framework for evaluation are essential if the relocation decision is to be made in a purely objective manner.

The methodology most likely to be adopted would be one which compares the specifications for building demand with the specifications for building supply, often through the use of checklists and tick box exercises. However, the relocation evaluation process should include more than just the evaluation of a buildings specification and should consider factors such as demographics and quality of life are likely to play a greater role.

The weighting placed on each element will be individual to the organisation. What we find is that extracting the preferences and ranking them in an objective way is difficult for companies and they need time, support and a simple framework to assist them in their prioritisation of supply priorities.

In the European Challenge project for European Students we have been working for many years with the Dutch designed system the Real Estate Norm (REN) originally developed by DTZ Zadelhoff and Jones Lang Wootton (now Jones Lang LaSalle) and G&P Starke Diekstra. It has never really been adopted fully in the industry, probably due to, in our opinion, its over complexity and attention to detail and Dutch orientation. However, we believe that its methodology in identifying a comprehensive list of occupier demand factors, translating this into a specification and allowing users to score available buildings is a very useful approach.

The authors have been working with Creative Sheffield, the Sheffield based urban regeneration company to extend, refine and adapt the REN approach into a working tool to support the organisation demand and supply analysis, inherent in relocation projects.

The tool is spreadsheet based and requires occupiers to rank 54 business factors in terms of High, Medium, Low priority or Not Applicable. Each of these factors have been examined in detail and a building specification developed on a five point scale.

The paper will examine the literature around corporate relocation decision making and the development of tools to support the process and demonstrate the operation of the Sheffield Hallam / Creative Sheffield Tool and its beta testing and evaluation in a student project which has led to its refinement before offering it to real clients looking to relocate to Sheffield.

Keywords: Corporate Relocation, Inward Investment, Objective Decision making, Criteria based approaches





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Keywords: Structuration theory, land tax arrears, Malaysia

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# EXPLAINING THE SOURCES OF LAND TAX ARREARS USING GIDDENS'S STRUCTURATION THEORY

Land tax revenue is a source of income to the government. Unfortunately, there are huge land tax arrears that affect the government expenditures in developing countries. The paper seeks to study sources of land tax areas from the structuration viewpoint. There are two elements of structuration that plays important roles in shaping and restricting human decision making and economic activities. On the one hand, there is structure that consisting of ideas, regulations and resources that may guide or control human decisions. On the other hand, there is agency which consisting of human behaviour that may initiate and/or restrict their decision and actions. Using the structuration viewpoint, primary and secondary data will be collected empirically and analysed qualitatively. The findings show that these elements of structure and agency are responsible for the existence of land tax arrears in the case studies.

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### FEEDBACK MECHANISMS IN THE FRAMEWORK OF REAL ESTATE EDUCATION

The ERES 2009 Education Seminar, held at TU Vienna in December 2009, provided a good opportunity for a lively discussion of feedback mechanisms following university classes. This paper discusses the benefits to be drawn for a real-estate education activity from such an evaluation, a process belonging to the sphere of quality management. Furthermore, the paper explains the procedures used at TU Vienna and compares it to similar procedures at other education facilities. The focus lies on post-graduate in-service training classes. The authors also discuss questions of principle relating to the handling of evaluation processes. This seems to be particularly significant, as real-estate education classes are not only taught by "academics" but first and foremost by practitioners in the field.

Keywords: Course evaluation, quality management, feedback process





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# FINANCING THROUGH THE SYSTEM OF SECURITIZATION, TARGETING CORPORATE REAL ESTATE: THEORETICAL FINDINGS BEST FIT FOR EURO-ZONE ECONOMIES

This paper has two objectives: (1) to formulate a theory of financing through the system of real estate securitization as one option among various kinds of corporate real estate strategies for representative firms aiming for profit expansion; and (2) to show that the nominal interest rate as well as the rate of capital depletion would help sustain money circulation between the firm and the investors who bought the released securities. This posited result implies the importance of the role of these two factors – nominal interest rate and the rate of capital depletion – as key determinants of the robustness of such a securitization system. Note that this paper presents an analytical framework as simply as possible, so that it can present an accurate and plausible conclusion to clearly show which factor would be essential in the construction of long lasting, default-free, scheme of real estate securitization. It also examines the ramifications of the findings in a systematic manner.

Keywords: Corporate Real Estate, Real Estate Securitization, Euro-zone Economy



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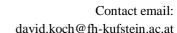
### FORECASTING TENURE DURATIONS FROM SURVEY RESPONSES ON CURRENT SPELLS

In various survey data, the tenants report the spell from past entry to the current date.

Although that gives useful information about the mobility pattern, it does not provide any immediate forecast how long the tenants will stay in the future or eventually remain in probability. Information of that sort would be important for planning processes, but the data signal only the interoccurrence time from which we can estimate the backwards recurrence time, what underestimates the total stay. Inferring about the latter needs strong assumptions on the nature of the underlying stochastic processes, discussed by Feller, Cox, Karlin and Taylor, Bhat and Miller, Prakasa Rao and others. By means of simulations we first illustrate the size of underestimation. Then we use the simulations as a benchmark to estimate and forecast the total spells from Austrian census data.

*Keywords:* Census survey data, spells in rentals, stochastic process, backward recurrence time, estimation bias, inspection paradox

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### FROM COSTS TO THE MARKET: THE DIVERGENCE BETWEEN COSTS AND MARKET VALUE

Market dynamics are an authoritative factor in real estate valuation. Assessing and exploring market based adjustments is imperative for obtaining the value of an object. This analysis offers insights into market adjustments by evaluating 1,000 valuations of single family homes in Austria based on the cost approach. While the cost approach is mainly used in the German speaking area, it offers an attractive opportunity of investigating market adjustments emerging from the divergence between the costs of a building and the value obtained on the market. This is captured by the adjustment based on market evidence parameter.

In order to reveal the main determinants of adjustments as well as market dynamics for the Austrian real estate market, 1,000 real estate valuations by court approved appraisers have been collected over three years (2008–2010) and statistically analyzed. We introduce semi-parameteric additive regression models in order to capture nonlinearities in adjustment factors. Furthermore the analysis features an assessment of geographical dependencies by regarding spatial interactions between the regions.

Results show spatial effects between the regions as well as a significant impact of demographical aspects on market adjustments. Outcomes help understanding market determinants as well as assessing and obtaining market adjustments for future appraisals.

**Keywords:** market value, market based adjustments, valuation report, semi-parameteric additive regression models

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# GATED COMMUNITIES IN RESIDENTIAL AREAS – CAUSATIVE FACTORS IN DIFFERENT INSTITUTIONAL FRAMEWORKS. ISRAEL AND POLAND COMPARISON

The development of residential areas that are described as Gated Communities ("GC") is rapidly spreading around the world in various forms and extents. Yet, these residential areas are usually associated with physical separation of their residents and the exclusion of those that are not.

The proliferation of GC's has engaged the attention of academic researchers. Some researchers describe GCs as a global phenomenon. This phenomenon, it is claimed, is influenced by social and ideological trends such as individualism, neo-liberalism and deregulation. Other authors refer to the effects of the local processes and the cultural characteristics concerning this residential form. Generally, GCs are perceived as a means to obtain some social desires and a higher degree of security. The type and extent of these motives differs among different countries. The manifestations of GCs and their popularity are also influenced by the specific perception of GCs and the policies that concern them. Our research aims to demonstrate this combination of effects in two different countries – Poland and Israel.

Poland is cited as a country with the largest number of GCs in Europe. There is also a growing number of GCs in Israel. Our research examines the perceptions of GCs in both of the countries and their manifestations, the motives that influence the demand and the institutional environment that influence the supply of this housing form. The institutional environment includes policies and laws that may affect GCs. The authors sought to identify existing similarities and differences concerning GCs among the countries."

Keywords: gated communities, Poland, Israel, residential

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### NON-STATIONARY SEMIVARIOGRAM ANALYSIS USING REAL ESTATE TRANSACTION DATA

The development of information and communication technologies (Internet, databases...) reduces the barriers of investment. Consequently, investors now have a wealth of opportunities available for diversifying their real estate portfolio geographically. However, neighborhoods residential properties tend to have similar price evolution because they have the same structural characteristics and share location amenities. The previous studies often confirm a degree of spatial autocorrelation (positive or very positive autocorrelation) between neighboring properties. Hence, the real estate diversification between predefined regions, based on administrative boundary (arrondissement) is rarely optimal. Differences from the administrative segmentation, this study analyzes the relevance of a new segmentation of Paris housing markets that could improve the geographical diversification performance. By applying the spatial econometrics techniques based on the notary's data of 35206 apartments' transaction in Paris in 2007, we attempt to use residual spatial autocorrelation information to redefine new market segmentation. This geographical boundary allows the properties to determine their submarket structure and to eliminate the spatial autocorrelation problem between submarket. We find a low spatial autocorrelation of properties belonging to different submarkets. According to this study, the diversified portfolios based on this structure show probably more efficient than the previous literatures established on the traditional administrative segmentation.

Keywords: geographical diversification, spatial autocorrelation, market segmentation, real estate portfolio

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# GERMAN INVESTORS' INVOLVEMENTS IN JAPANESE REAL ESTATE AND THEIR FUTURE PROSPECTS

The reasons why German investors have been active in Japanese real estate market since late 2007, when the market started declining in Europe, are considered to be 1. Favorable exchange rate, 2. Long term stability in property value and cash flow, and 3. Debt availability. In this paper, the future trends of exchange rates and their impact on existing investments in Japan are analyzed first. Secondly, it will further be discussed why long term stability has been sought by these investors and how this stabilization is assessed. Among many factors which affect the real estate market stability like political system and reliable regular and legal structures, long term GDP growth is assessed to estimate the stability of property value. Thirdly, clarifying the difference of funding structures between Japan and German and analyzing German lenders of intentions and criteria of financing in relation to the typical fund raising scheme, the further growth of debt availability should be mentioned. Comprehensively assessing future trends of these three factors, the prospects on German investors of involvements in the Japanese real estate market ought to be discussed.

Keywords: German, Japan, lender, pfandbriefe



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### GLOBAL EXPANSION IN THE HOTEL INDUSTRY: US HOTELS IN EMERGING MARKETS

The growth and change of the global hotel industry shows how companies in industrialized countries enter and succeed in emerging markets. We examine hotels in the United States because the U.S. chains dominate the industry and have a great influence in the global arena. U.S. hotel chains have followed a classic three-step process in developing a worldwide strategy; 1) develop the core strategy, the basis of competitive advantage, in the home country first. 2) internationalize the core strategy through expansion of activities and adaptation. 3) globalize the international strategy by integrating the strategy across countries.

The paper begins with an overview of the industry's historic development of core strategy. We see how organization and structure develop and change over time in response to the business environment. In general, the expansion into international markets is an extension of the strategy and tactics developed for the domestic markets. However, in an important instance, experience gained from entering emerging markets in the 1940s influenced industry tactics in domestic and international markets. This emerging market experience allowed the industry to globalize an international strategy across countries.

After the overview, the paper focuses on the important success factors. An examination of the hotel industry's organization and structure, human resources, and strategic behavior shows that the hotel firm's success is a function of the location, the market segment/brand, the management, and the ownership structure. The fixed location is important for two reasons — the market demand and the government economic policy at the site. The market segment/brands are next in importance. They determine the hotel clients and source of business. Management is important because hotels are one of the most labor-intensive service businesses. Finally, the ownership structure determines the capital structure of the investment, which determines the investment returns and risks. The paper ends with a case study illustrating hotel development in an emerging market market.

Keywords: Global Expansion Strategy, US Hotels, Emerging Markets





**BOOK OF ABSTRACTS** 

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Keywords: Green Building, Governance, Economic Incentives

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### GREEN BUILDING COUNCILS: POLICY INSTRUMENT OR FASHION?

This paper deals with the question whether the "Green Building Councils" that have been founded in many countries of the world serve an economic purpose or are just fashionable at the moment. From a theoretical point of view we will investigate the economic environment of green building initiatives, the roles that developers, investors, policy makers and other actors play in this context. Then, based on existing economic literature, we will identify potential needs for policy initiatives like green building councils. Finally, we will contrast these hypotheses with the results of a survey among green building councils on order to see whether or not they engage in the expected types of activities.





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## HERITAGE LISTING AND PROPERTY VALUE: AN AUSTRALIAN PERSPECTIVE OF THE LEGISLATIVE FRAMEWORK

In Australia, the public has played a significant and long-standing role in the conservation of heritage places – one which predates formal government participation in the conservation arena by more than two decades. Co-ordinated, large scale, community involvement in the conservation of Australia's heritage places dates from the mid 1940's when the National Trust of Australia was founded in Sydney (AGPC 2006). In contrast, formal government recognition of the role and significance of heritage places is a relatively more recent phenomenon. The 1970's heralded the naissance of conservation-focussed legislation that served as both a manifesto and then a mandate for the introduction of a framework of statutory control mechanisms for the identification and protection of Australia's rich stock of heritage places. (Irons 2009)

The objective of this paper is to identify the framework which underpins heritage listing in Western Australia for the purpose of establishing a range of relevant perspectives, with an emphasis on the legislative paradigm. It is part of a broader empirical study (Irons 2008) which investigates in detail the effect of local heritage listing on the price of a single family dwelling in the Fremantle local government area of Western Australia to determine whether a discernable pricing differential exists between heritage listed and non-heritage listed property. The perspectives identified in the study include market and heritage value and the geographic context and focus which are significant at the scale of the single unit detached dwelling in the Fremantle LGA. More particularly, this paper discusses the scope, definitions, limits and background to these issues based on a detailed review of current practices and processes.

The paper provides a review and discussion of the current legislative framework and offers findings which provide some insights into conservation practice in Western Australia ranging from the wider metropolitan/sub-regional scale to that of the local government level – united by a consistency of application to the single family dwelling.

Keywords: Built heritage, heritage significance, listing, designation, residential property, price, value, Western Australia. Fremantle





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# HOMEOWNERS' PARTICIPATION IN MANAGEMENT OF MULTI-STORY RESIDENTIAL BUILDINGS: THE HONG KONG'S CASE

Proper management and maintenance of the building stock is vital to the sustainable development of a city because of a number of reasons like the close relationship between building performance and residents' health. While this is a widely accepted idea, people often overlooked or even rationally ignored the importance of building management. As revealed by the painful lessons of the Severe Acute Respiratory Syndrome outbreak in 2003 and the unremitting fatal building-related accidents, mismanagement of buildings in Hong Kong is common. Although proper building management and maintenance should be put in place to eradicate time bombs set by building dilapidation, homeowners in the city have been slow to embrace the culture of building care. Homeowners' participation in housing management is claimed to remain at a low level because of its voluntary nature. This article analyzes who are willing to voluntarily participate in housing management and why they participate. Generally speaking, older and wealthier homeowners are more willing to participate in building management matters, keeping other things constant. Besides, homeowners' approach towards building care is predominantly reactive since they engage in housing management for their dissatisfaction with building quality. The findings of the research will provide valuable insights to the government (particularly the Development Bureau) and quasi-government bodies (e.g. the Hong Kong Housing Society and Urban Renewal Authority) for formulating better policies on private building management.

Keywords: Housing management, resident participation, sustainable built environment, logistic model, Hong Kong



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### HOMEOWNERSHIP EXTERNALITIES, EVIDENCE FROM ROTTERDAM

Does homeownership benefit neighborhoods? We analyze two specific positive externalities of homeownership in neighborhoods: perceived safety and neighborhood satisfaction. Our analysis addresses two important questions: 'How does the causal relation run between homeownership-rates and externalities' and 'Is this relationship linear in homeownership rates?' Using unique data on Rotterdam's neighborhoods over an eight year time-span, our evidence suggests that homeownership causes positive neighborhood externalities rather than good neighborhoods attracting owner-occupiers. However, the relationship does not seem to be linear, which means that from a policy-perspective, increasing homeownership-levels is not always effective in alleviating neighborhood distress and other socio-economic problems.

Keywords: homeownership, externalities, neighborhood stability, safety, endogeniety





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### HOUSE PRICE, HOUSE QUALITY AND ECONOMIC GROWTH

Periods of economic growth are characterised by a demand for better housing quality and increasing prices. Affordability of the demand for higher quality then becomes a problem in the subsequent period of economic stagnation. This article seeks to identify the mechanism in which quality and affordability are weighed against each other, showing that the price-quality relationship changes with the economic growth. We do this against the background of the Dutch housing market. Our analysis shows that in a high-growth economy households search for better quality of property and are prepared to pay for it. In a stagnant economy the demand for quality takes second place to the demand for affordable homes. It also appears that appreciation of quality varies in particular between the low-growth phase and the medium-growth phase. The price-quality relationship barely varies between the mediumgrowth and high-growth phases.

Keywords: House Prices, House Quality, Housing Market, Economic growth, the Netherlands



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## HOUSING CHANNELS OF MONETARY POLICY TRANSMISSION IN EUROPEAN INDUSTRIAN AND TRANSITION COUNTRIES

We estimate an identical vector autoregressive (VAR) model with house prices for 14 European industrial countries, 7 Central and Eastern European (CEE) countries and the US. Using counterfactual simulations of consumption and investment responses to policy rate induced house price shocks, we study the role of the housing market in the monetary policy transmission. Consistent with the literature, we find evidence of more pronounced housing channels in countries with more flexible mortgage markets. Institutional factors such as loan-to-value ratios, availability of mortgage equity withdraw, fee-free prepayment and securitization of mortgage loans strengthen the role of the housing market in the monetary policy transmission. The type of mortgage contract (variable or fixed) is not crucial. Countries exhibiting housing effects have high ratios of mortgage debt to GDP. Housing effects in European transition countries have been observed only in the Baltic countries Estonia and Lithuania where strong growth of mortgage debt during the last years has been observed. Housing effects on consumption or investment are pronounced in Denmark, Ireland, the Netherlands, Norway, Spain, Sweden and the US. In Denmark, Sweden, Spain and the US the role of the housing market for consumption has amplified since the mid 1990s.







**BOOK OF ABSTRACTS** 

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# HOUSING IN MEGACITY; ROLE OF ESTATE SURVEYORS AND VALUERS AND TOWN PLANNERS.(A CASE STUDY OF PROPOSED GREATER PORT HARCOURT PROJECT- NIGERIA)

Housing is one of basic necessities of life. Housing transcends physical shelter but determines even social, physical and psychological well being of man.

Housing development is a critical aspect of provision of shelter as it involves a chain of processes and commitment from site acquisition to construction and final occupation or disposal.

The professionals in the built environment especially the estate surveyors and valuers and town planners are indispensable in the process; in areas of economic viability, location, feasibility, orientation, maintenance to keep such development in line with statute, relevant standards, present day realities and technology.

This paper will exam the roles expected of estate surveyors and valuers and town planners by their professional training and the implications of these on an emerging mega city project.

Keywords: Housing, Mega City, Professionals, Estate Surveyors and Valuers, Town Planners





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# HOUSING MARKET IN TIMES OF CRISIS THE INCREASING IMPORTANCE OF CONSUMER'S PREFERENCES

For years the owner-occupied housing market had proven to be a solid investment for consumers in the Netherlands. By buying a dwelling, a home-owner could not only provide oneself a good accommodation, but could also guarantee a capital gain. When the consumer sold their dwelling, in most cases, the selling price was (much) higher than the original price.

The recent economic crisis however has made it clear that a capital gain cannot be taken for granted anymore. The quality of the dwelling has become of more importance if someone considers buying a dwelling. With the decrease of demands for new owner-occupied dwellings and the increasing amount of owner-occupied dwellings entering the market, consumers can afford to be more critical when it comes to purchase a dwelling. Today, when a dwelling does not match the consumer's whishes, the consumer is less likely to buy the dwelling.

This paper enters into two research methods to examine consumer preferences. The first method is the most common. This method looks separately at every feature of the dwelling and composes afterwards the optimal dwelling. The second method is the so called 'conjunct' method. This method is used to explore complete dwelling profiles at once. For the research presented in this paper both methods are used to examine consumer preferences for one and the same residential estate in Eindhoven. It concerns an apartment complex especially developed for people over 55 years. This apartment complex is constructed in 2008 and sales started in the spring of that year. A few apartments were sold at that time, but after the start of the credit crunch the sales stopped completely.

The paper starts with a short introduction of the features of this apartment and of its market position. Secondly both methods will be explained. Next the findings of the used methods in regard to the Eindhoven case will be discussed. In the final paragraph the findings will be compared and evaluated in regard to their implementations for change of policies of the developer(s).

Keywords: Consumer Preferences, Housing Market, Finacial Crisis, Conjunct Method

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### HOUSING MARKET SEGMENTATION IN THE CITY OF SÃO PAULO: A SPATIAL DATA ANALYSIS

On the housing market literature there is a consensus to adopt the existence of submarkets and the recognition that the urban housing market should be portrayed as a set of distinct and inter-related submarkets. It is important to understand how the metropolitan areas are divided into housing submarkets for several reasons, including: increasing the accuracy of statistical models that are used to estimate the price of houses, improving the ability of lenders and investors in define the financial risk; and provide information to the buyer to find a residence. Segmentation can be attributed to individual characteristics of households, attributes of the site and the characteristics of the neighborhood. In this context, spatial econometrics is an important tool as it considers the spatial location of housing units. Therefore, this study aims to determine the housing market segmentation in São Paulo using property data from the last ten years (3,590 vertical condominiums). The program GeoDa will be used, since it allows doing statistical tests from geo-referenced data to detect the influence of spatial effects in hedonic models of house prices.

Keywords: segmentation, spatial autocorrelation, ho	ousing submarkets
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	tries of Central and Eastern Europe from 2003 to 2008. In this

R paper, I provide the first assessment of whether housing prices in this region correspond to rents, i.e. to cash-flows related to an apartment purchase. State-of-the-art panel data stationarity and Granger causality techniques are employed to test the implications of the standard present-value model using regional data from the Czech Republic. Apartment prices both in this country overall and in its capital are only slightly overvalued. In addition, changes in prices are helpful in predicting changes in rents and vice versa.

Keywords: Central and Eastern Europe, Czech Republic, panel data, unit root, bubble, house prices, rents





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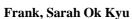
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# HOUSING THE URBAN POOR: A CASE STUDY OF INSTITUTIONAL AND GOVERNANCE ISSUES IN A DEVELOPING ECONOMY

The role of institutions in housing markets has a significant bearing on the output and quality of housing. Building and planning regulations in particular help shape how housing is produced, exchanged and consumed. Due to the fragmented and differentiated nature of housing markets across and within countries, an institutional analysis offers the potential to uncover the role of agents and regulations in shaping local housing outcomes. In the past, analysis of the impact of regulations on housing has mainly sought to quantify the effects of specific regulations on housing prices. However, such analyses often fail to appreciate differences in the structures of housing provision in different countries and regions and do not address the implications of different legal structures on the practices of housing agents. This paper critically examines the role of the Federal Government and the State Authority in the provision of low cost housing in a developing region in Malaysia. It shows how rules and regulations condition inter-agency operations in the study area. This paper presents results from a preliminary investigation into how the institutional structure of governance influences the provision of low cost housing.

*Keywords:* low cost housing, institutions, regulations, developing economy



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# IDENTIFICATION AND INTEGRATION OF SUSTAINABILITY ASPECTS INTO PROPERTY VALUATION

Sustainable and energy efficient building is becoming increasingly important for the building and real estate economy. Especially in light of the currently emerging long-term developments such as the global climate change and the change of the demographic trend of society or energy prices. However, these developments are not, or only insufficiently, taken into account in common property valuation methods used today, although they can significantly effect the long-term value of a property. In this context, it can be assumed that sustainable properties tend to be undervalued. Sustainable properties which can deal with the long-term changes of ecological, economic, political and social framework conditions will be marketable in the future and maintain their value as well. But at present, a method for measuring sustainability characteristics in real estate is absent.

Against this background, it seems necessary to define sustainability characteristics of properties from a financial point of view and to quantify the financial value of sustainability characteristics. The basis constitutes a holistic view of the three pillars of sustainability covering environment, economy and society. In a financial point of view, the economic dimension is at the foreground; thus the focus is on the long-term economic success of a property which is the long-term performance.

By the means of this study, it is possible to quantify the financial value of sustainability characteristics in real estate. Uncertainties in property valuation such as estimation errors due to incomplete information, especially on future developments, can be minimized. Most common property valuation methods used today neglect long-term developments, which are not or only insufficiently taken into account. Estimates are mostly based on data and experience from the past or present. This inaccuracy can be reduced as well.

Within the scope of the study, a Sustainability Indicator shall be developed which identifies value-related sustainability characteristics of a property and extends the assessment with the discounted cash flow method (DCF method) and the German income approach relating to these data. The value-related sustainability characteristics are derived from long-term changes in exogenous framework conditions that could effect the long-term property value. The Sustainability Indicator, which is expected to be specified for office buildings, retail properties and residential properties, measures the risk of a property declining value or the opportunity of gaining value due to these long-term developments. Thus, the long-term value of a property can be measured and assessed more accurately and transparently by taking into account and integrating value-related sustainability characteristics of a property.

*Keywords:* Sustainability, property valuation, discounted cash flow method, German income approach, sustainability characteristics





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Keywords: Office, rental, green, sustainability

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## IMPACT OF GREEN FEATURES ON CBD OFFICE BUILDING RENTALS: AN ADELAIDE CASE STUDY

Following a review of literature, the features of green office buildings that are likely to influence rental value are identified. Using green office buildings in the central business district of Adelaide, South Australia as a case study, the paper seeks to quantify the impact of such green features on office rentals through data collection and analysis in order to identify the contribution, if any, of each green feature.

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# IMPACT OF SUSTAINABILITY ATTRIBUTES ON THE PERFORMANCE OF PRIME OFFICE MARKET IN THE NATIONAL CAPITAL REGION OF DELHI

Real estate in the National Capital Region of Delhi has experienced an unprecedented boom in development specifically in the industrial, information technology and retail sectors of the economy which in turn is creating a escalation in demand for residential and office space. The liberal policies of government, in relation to the streamlining of planning permissions and licence procedures for mega construction projects, have attracted foreign investments since the 1990s. As the traditional CBD in Delhi did not have sufficient space to accommodate modern office buildings, the emergence of multi-centred office developments in district centres and sub centres has been a key driver in the real estate market.

The paper analyses the impact of sustainability attributes on the performance of office space based on a classification of key variables (macro-economic, property, design, energy efficiency and behavioural variables) including an evaluation of market segmentation (prime and secondary offices) in the National Capital Region of Delhi. This research will determine how price is influenced by sustainability criteria in the office market and will be of benefit to players in the private (real estate providers) and the public sectors (planners and policy makers).

**Keywords:** Sustainability attributes performance of office space, office market segmentation





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### IMPACT OF SUSTAINABLE/GREEN BUILDINGS ON PRODUCTIVITY AND PERFORMANCE

Terms such as sustainability, climate change or green buildings belong in the meantime no longer to the exotic foreign words, they became rather common. The focus of the building and real estate economy is in change, which is subject not only to the time, but above all the circumstances. Buildings and urban areas are today differently planned, realized and operated already, than they became it in the past. The climate, its impacts, humans and the real estate stand thus in faster interdependency to each other and cause themselves increasingly mutually.

Green or sustainable buildings are buildings designed and built environmentally responsible and resource-efficient throughout a building's life-cycle. The definition of a green building and especially a sustainable building is, as the range of worldwide rating tools to measure sustainability, huge. Furthermore the authors see a significant difference between green and sustainable buildings.

**Keywords:** Real estate, sustainability, green buildings, productivity, performance, rating tools, CSR





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## IMPACTS OF REDEVELOPMENT AND BUILDING REHABILITATION ON HOUSE PRICE IN HONG **KONG**

Urban renewal has been adopted by governments around the world to arrest the problems of urban decay. While redevelopment, or demolition and rebuilding, is a common approach of redevelopment, more and more scholars, urban managers and sociologists advocated that emphases should be placed on the use of other approaches of urban renewal such as building rehabilitation because of the downsides of redevelopment. For example, redevelopment inevitably results in resident displacement which destroys the existing social fabric, and creates a lot of demolition and construction waste. In Hong Kong, since the dispute over how the Sai Yee Street Project should proceed in 2006, the public administrators have been facing challenges in choosing between redevelopment or building rehabilitation for a particular renewal project. As evidenced by previous studies, both redevelopment and building rehabilitation enhance the house prices in the vicinity. Yet, it is still unclear if there are any differences in the positive externalities posed by the two processes, in terms of magnitude of price change, affected distance and length of endurance. In this regard, this study aims to investigate the differences in the impacts of redevelopment and building rehabilitation on house price in Hong Kong. One redevelopment project and one rehabilitation project in urban area of the city are targeted for study using hedonic price analysis. The findings of this study offer valuable insights to the public administration in carrying out cost-and-benefit analysis for decision making in urban renewal.

Keywords: Externalities, building improvement, redevelopment, gentrification, Hong Kong





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### IMPLICATIONS OF THE HOME BUYING PROCESS FOR SHORT TERM TRANSACTIONS

Studies about the housing market based on fundamentals like income, construction costs, interest rate generally lacked in explanation power during the latest massive price move-ments especially in the US. The main reason for this might be that expectations of individu-als for further price increases as a main driver for house prices during that period were not considered. The importance of expectations can be due to the belief of a lack in affordability of housing after further price increases. Alternatively this euphoric element is based on the implicit costs of not gaining from the price increases (Shiller 2007).

This study is one of the first considering households' rationales in their decision for an in-vestment in their own property. The National Association of Realtors observes home buyers' characteristics for nine years now. Based on the implications of their surveys we provide a sophisticated analysis of households' behavior during their home buying process. Further-more these insights suggest leading indicators for transactions in the housing market taken in the near future. This connection is caused by the common cyclical behavior of informa-tion gathering processes, i.e. yard signs or real estate agents, and transactions as well as the logical lag structure of this search process and the corresponding transaction.

Finally, as we are able to forecast transactions, we make inference about house price movements following the assumption of households' belief of mean reversion of house prices (Arbel et. al. 2009).

**Keywords:** housing, transcations, fundamentals, home buying process





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# IMPORTANCE OF USER-ORIENTATION IN EUROPEAN CORPORATE REAL ESTATE **MANAGEMENT**

Currently, a transition in the perception of real estate business in European Non-Property Company is noticed. In recent years the theory and practice of Corporate Real Estate Management (CREM) has been dominated by the perspective of real estate as an operating asset, whose value-based management provides major contributions for better corporate finance results. But there is another observable trend: CREM is more focused on users' objectives. Therewith European Non-Property Companies adopt the practice of North American and Asian companies. Their CREM departments have a self-image as a "problem solver" as well as service provider to the users for quite some time. An empirical survey with a subset of German Non-Property Companies with more than 10.000 employees was conducted to verify if an increased value-based finance perspective has lead to a less focus on the users' objectives. It was to examine the importance of the users in the strategic and operational business in European Corporate Real Estate Management using German ones as example. The study gives an answer which perspective respectively function is predominant in European Non-Property Companies. Additionally it shows the status quo if or how user-orientation is achieved by the CREM departments and how the user-satisfaction is measured and controlled. Finally it surveyed the connection between user-orientation and corporate success.

Keywords: Corporate Real Estate Management, User-orientation, Corporate Success





**BOOK OF ABSTRACTS** 

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# INDIRECT REAL ESTATE INVESTMENTS AND THEIR LINKS WITH PROPERTIES, COMMON STOCKS AND THE MACROECONOMY - EVIDENCE FROM THE UK AND US MARKETS

Investments in listed real estate imply that the progress on the underlying property markets no longer represents the only driver of the risk/return structure of this asset. Instead, listed companies are faced with the risk that market values are predominantly driven by developments on general stock markets, although the main business of the constituents remains unchanged and is still focused on trading and renting real estate properties. For that reason, it is worthwhile considering to what extent developments on general stock markets influence the progress of listed real estate. Answering this question is of particular importance with respect to issues of asset allocation in a multi-asset portfolio. If predominantly driven by progress on general stock markets, the benefits of listed real estate in terms of portfolio diversification would be considerably limited, because this scenario ultimately results in a portfolio allocation which is riskier than requested.

Using a vector error correction framework and variance decompositions, the analysis of the UK and US property markets consistently detects a significantly stronger linkage among real estate assets compared to the linkage among the examined equity assets. The real estate equity markets are therefore predominantly driven by the progress of the underlying properties, which can therefore still be interpreted as the key driver of listed real estate in the long run. Long-term investments in listed real estate therefore not only provide opportunities for portfolio diversification, but additionally allow the combination of advantages of both real estate assets, including benefits in terms of liquidity, transparency and management. As a result, investments in real estate equities can still be classified as an alternative investment and therefore still represent a favourable tool in terms of asset allocation.



**Keywords:** indirect real estate vector error correction





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#### INDUSTRIAL PROPERTY IN GERMANY: BAD PERFORMANCE OR LACK OF KNOWLEDGE?

Despite its total size and value Industrial Property is still not a hot topic on the agenda of German institutional investors. While about 80% of existing property space in Germany is linked to industrial, institutional investors still prefer traditional property sectors like office and retail. This attitude does not match with the strategy of investors in the UK and the US, where industrial already plays a vital role. One first insight into this fact comes from a comparison of the constitution of the national Investment Property Database (IPD) market indices between Germany, the UK and the US. While in Germany Industrial Property is only responsible for 4.2% of the capital value of all properties, these numbers for the UK and the US are 14.4% and 20.4% respectively. Although it should be noted that this diverse distribution could be a result of other factors as well, this tendency sheds light on a different behavior of institutional investors across countries.

The objective of this paper is to investigate what is known about German Industrial Property and therefore summarize and systematize available literature and data. By doing this, the following questions will be assessed:

i)As it is assumed that in the long run growth of institutional investment in German Industrial Property will have to come from diminishing real estate ownership by companies, do higher levels of real estate ownership in Germany explain the different behavior between German and UK/US institutional investors?

ii)Is investment in German Industrial Property associated with weaker financial performance and higher associated

iii) How can Industrial Property be sub-categorized and which subcategory is expected to show best performance according to questions i) and ii)?

Keywords: industrial property, institutional investment, real estate ownership, financial performance



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# INFLATION-HEDGING, ASSET ALLOCATION AND THE INVESTMENT HORIZON

Focusing on the role of the investment horizon, we analyze the inflation-hedging abilities of stocks, bonds, cash, and direct commercial real estate investments, and the implications of the inflation-hedge results for asset allocation. Based on vector autoregressions for the UK market we find that the inflation-hedging abilities of all assets improve with the investment horizon. For long horizons, real estate seems to hedge unexpected inflation as well as cash. This has implications for the difference between the return volatility of real returns versus the return volatility of nominal returns, and ultimately for asset allocations. Portfolio optimizations based on real returns yield higher allocations to cash and real estate than optimizations based on nominal returns. Bonds tend to be less attractive for an investor taking into account inflation. Switching from nominal to real returns, the allocation to stocks is decreasing at medium investment horizon, but increasing at long horizons.

Keywords: Real Estate, Inflation Hedging, Return Predictability, VAR



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# INSIGHT INTO APARTMENT ATTRIBUTES AND LOCATION WITH FACTORS AND PRINCIPAL COMPONENTS APPLYING OBLIQUE ROTATION

Apartment characteristics including prices, internal attributes and location attributes consisting of travel times to urban centres and income variables are analysed with exploratory factor analysis. Principal axis factoring with oblique rotation is applied, which allows the extracted factors to be correlated. Four factors are extracted, of which two represent apartment attributes and other two - location attributes. The analysed area is the French adjacent cities of Lyon and Villeurbanne. Spatial distribution of the factors provides an insight into both apartment attributes and urban structure. In particular, factors show the concentration of big expensive apartments on the one hand and older apartments in bad condition on the other; they also demonstrate a contradiction with the existing city boundaries in the north and highlight the existence of a problematic low income area in the central part of Lyon. Principal component analysis is applied for a more comprehensive study of location attributes. The clusters of components obtained by Kmeans algorithm are seen as proxies for apartment submarkets, which are useful for a subsequent study.

Keywords: apartment attributes, location attributes, exploratory factor analysis, principal component analysis, oblique rotation







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#### INSPIRATIONAL LEARNING: A CASE STUDY OF DEVELOPMENT PRACTICE

This case study illustrates the 'inspirational learning' project at Sheffield Hallam University (SHU), as applied to the Development Practice module on the final year of the BSc (Hons) Real Estate Development. In particular, it examines and assesses the application of information and communication technology (ICT) to learning, teaching and assessment, the impact on student engagement and performance and the module delivery considerations for staff.

The module outline includes the following introduction:

"Development surveyors are involved at all stages in the development process, from the inception of development projects to their completion. In addition to contributing their own specialist knowledge and skills to this process, they work closely with other specialists, as part of multi-disciplinary project teams. This module provides an opportunity to rehearse this development process, and the role of the development surveyor, using project work based on real-life development opportunities."

This module consists of both group work and individual work and makes use of a wide variety of information and communication technologies to motivate and inspire students. These include video production technology; Web 2.0 applications (e.g. Delicious and Twitter); computer aided design; and, development appraisal software (e.g. Argus Developer and Monte Carlo Risk Analysis).

The teaching and assessment is supported by a virtual learning environment (i.e. Blackboard) and by the use of a spreadsheet-based marking schema, now widely used throughout SHU.

An analysis of the effectiveness and efficiency of this approach will be based on tutor experience, student feedback studies and external examiner responses. Examples of student videos will be presented for comment and discussion.

**Keywords:** learning teaching assessment information communications technology video Web 20

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# INTERDEPENDENT INVESTMENTS IN MARINAS: A MODEL APPLIED TO THE ITALIAN PROPERTY FUNDS

All sectors in real estate market have been affected by the global financial crisis. The recession stopped the investments, and, in some sector, value has been destroyed and money just vanished. Despite the property market crisis, the touristic sector in Italy, and in particular marinas and harbors, showed some positive signal thanks to the new tourist flow coming from East Europe and China. Recently, some Italian Property Funds have been introduced in the markets focusing mainly in investments in marinas and in the development of residential, retail and services for recreational boating. Investors interest in opportunities in this sector has grown year over year due to the undersupply, particularly in places with high potential, where the touristic sector is a chance in terms of growth and occupation. Low land prices, growing yields and the chance of the reuse/redesignation of brownfield land in the coast have attracted the interest of investors.

Investments in this sector are characterised by high irreversible sunk costs and uncertainties over future demand and returns. To help property funds to develop and manage investments in marinas and touristic harbors, a model has been tested. It is quite common today to design marinas which can be expanded by sequential or modularized investments in order to meet the requirements of facing and adapting to changes in the state variables (e.g. demand, rate of return, etc). Traditional DCF methods have inherent limitations when it comes of valuing investments copying with highly irreversible sunk costs, significant operating costs over time and uncertain future revenues. The paper analyses according to the real option approach the optimal investment strategy of an investor who wants to invest in marina development programs characterised by corporate growth options that set the path of future opportunities. We model the investor decision taking into account not only the value of the immediate investment, but rather the value of subsequent investment opportunities and real options interactions. We consider interdependent projects, where investing in the first project provides the opportunity to acquire at maturity the benefits of the new investment by making a new outlay. The model will be tested on an Italian Property Fund, which invests in the construction of new marinas to show the opportunity, for public and private investors, of implementing new decision making tools.

**Keywords:** Interdipendent projects, growth options, property investments, Italian Property Funds, risk analysis, marinas and touristic sector

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## INTERNATIONAL COMPARISON OF SUSTAINABLE RATING TOOLS-UPDATED VERSION 2010

In recent times there have been a rapidly increasing number of sustainable buildings entering the global real estate market. Many of these buildings differ considerably with respect to their sustainable features from a design and/or performance basis, although a wide range of sustainable building assessment tools are now promoted and readily available throughout the world. Unfortunately many of these tools differ considerably with regards to what they actually assess, how they operate and whether they can be compared directly with assessment tools from other countries. Some global rating tools require a complex series of analytical steps whilst others are conducted on-line via a questionnaire approach and are also substantially less expensive.

This paper is based on the last year paper "International Comparison of Global Sustainability Tools" and examines their characteristics and differences. As the previous paper showed the market for rating tools is worldwide growing. Most importantly the focus is placed on which tools from different countries can be directly compared with each other i.e. is a five star building with one rating system directly comparable with a four star rating another rating system? And a second focus should have a look on the trends in this market i.e. which rating system is the most popular or which tool is the cheapest one? The results of this paper are designed to lessen some of the confusion that accompanies assessment tools for sustainable buildings, which in turn will assist investors, developers, tenants and government bodies to make informed decisions about green buildings. In addition it is envisaged that removing some of the uncertainty associated with sustainable buildings will increase the transparency for stakeholders and assist them to embrace sustainable buildings with more confidence.

**Keywords:** Real estate, sustainability, green buildings, productivity, rating tools





**BOOK OF ABSTRACTS** 

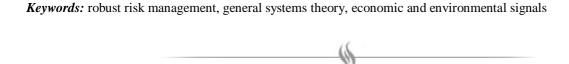
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## INVESTIGATING A SYSTEMS FRAMEWORK FOR PROPERTY RISK MANAGEMENT

Although the Global Financial Crisis raised the profile of risk management (RM) the current framework remains largely ad hoc and descriptive. The research investigates how general systems theory (GST) could contribute to a more rational development of RM. It then conducts a preliminary inquiry into the effectiveness of current industry practice. The paper is organized into three parts. In the first, theoretical one, a robust systems RM framework is developed. In its second, empirical, section RM policy and practice is reviewed in a selection of prominent real estate entities. Entity policy and performance is analysed and some telephone or face to face interviews are conducted for a sample of key respondents. Responses are then systematically analyzed. The results suggest some disconnect between robust RM theory and actual corporate practice.

Finally, a discursive policy section draws out the implications for future robust RM practice in imperfect and turbulent markets. The framework has practical implications for property sector RM development. Recommendations are made to improve RM and, therefore, entity performance and resilience.







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# INVESTIGATING SHOPPING CHOICE PREFERENCES IN HELSINKI AND TAMPERE URBAN REGIONS

This paper focuses on researching specialty store shopping choice preferences of consumers in the Helsinki Metropolitan Area and Tampere region. The aim of the paper is to analyze the change in specialty store preferences between different parts of a city. Moreover, this paper also studies the differences in preferences between two differently sized urban regions. Understanding the causes of change that can occur in customers' preferences when analyzing different regions of a city will provide us with a better understanding of the consumers' specialty store choice orientation. Also, analyzing and comparing the consumer's choice orientation in two different cities provides valuable addition to the research.

The survey was sent to a random sample of households in two major urban regions in Finland. In total 24 000 questionnaires was sent out. First round of the questionnaire was conducted in early June 2009. The survey was sent a second time for the households which did not respond in September 2009. Total number of the respondents were 6 295.

Initially a broad exploratory analysis of a sample of the survey respondents answers will be conducted using a variety of statistical methods including Principal Component Analysis and different clustering methods. A variety of geostatistical methods will then be utilized to analyse the spatial aspect of the research. The method that will provide the most significant results will then be used to analyse the full survey.

Keywords: Customer preference, specialty store choice, cluster analysis, geostatistics







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#### INVESTING IN POSSIBILITIES; EXTENDING THE LIFESPAN OF OFFICE BUILDINGS

Office buildings depreciate at an ever increasing pace. Due to functional or aesthetical obsolescence or relative ageing as a result of new building additions, office buildings are left vacant and become redundant. Often these office buildings are not older than 10-15 years. Adaptive reuse or transformation into housing are possible ways of dealing with these buildings, albeit previous research shows that there are many obstacles to be thrived. Next to location characteristics, the main obstacle is the estimated financial non-feasibility, caused by high costs of acquiring the existing structure and high building costs.

As an increased lifespan contributes to the sustainability of office buildings, it seems logical to already consider a second use and anticipate upon adaptability and future programmatic change when developing new office buildings. Designing and developing adaptability has been opted for during the last 40 years, but is still not very popular. This paper will answer the following research questions: Which building characteristics enhance the functional lifespan of office buildings? Under which conditions are investments in adaptable office buildings interesting to real estate

By reviewing existing studies we study building characteristics that enhance the functional lifespan of office buildings and building characteristics that enhance adaptability. Henceforth, we study the initial and transformation costs for new office buildings, focusing on two standard office building types, the tower and the slab. As a final step, we discuss the willingness to invest in adaptable buildings and investors' social responsibility in a sustainability context by reviewing our research results in a focus group interview with real estate investors.

**Keywords:** Adaptation, transformation, sustainability, lifespan, willingness to invest

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## IPO LOCATION, PRE IPO PERFORMANCE, POST IPO PERFORMANCE

Abstract: There has been a significant growth in the number of Chinese companies going public in recent years. Some of them listed their shares locally in Shanghai and Shenzhen, while others chose a stock exchange with better access to international capital (e.g. Hong Kong). The existing literature argues that initial public offerings (IPO) locations might affect their subsequent performance. For example, Wei and Wong (2009) showed that Chinese real estate firms listed on the Hong Kong stock market exhibited better post-IPO performance than those listed on the mainland China stock market. This paper extends the analysis to the underlying sources for these firms' IPO location choice. One possible source is associated with self-selection: if the Hong Kong stock market has stricter listing requirements, then firms with better pre-IPO performance would self-select to issue shares in Hong Kong and are likely to continue with better post-IPO performance. Another possible source comes from the agency theory: if the Hong Kong stock market has a better legal infrastructure to mitigate agency problems, then firms listed in Hong Kong would have a larger performance increase (measured by the difference between post and pre-IPO profitability) than those listed in mainland China. First of all, we showed that, in the mainland stock market, the divergence between firms' real profitability and their predicted profitability during IPOs is larger than in the Hong Kong market. That is, in mainland stock market, firms tend to have more over-estimation about their post-IPO performance. Secondly, firms which conduct IPOs in Hong Kong had better pre-IPO profitability than those listed in mainland. The above results support the theory that the mainland market provides less rigorous requirement for IPOs, so that firms with low performance self-select to do IPO in mainland. Thirdly, after controlling firms' pre-IPO performance and other factors such ownership structure, size, and timing effects, firms listed in Hong Kong still exhibits better post-IPO profitability than those listed in mainland China. Thus, the Hong Kong stock market provides better corporate governance after IPOs. Overall, our analysis highlights that both pre-IPO self-selection and post-IPO corporate governance affect firms' IPO location choices. The approach would also allow us to identify the relative importance of the two sources and provide policy implications on whether a stock market should put more resources in promoting post-IPO monitoring or in screening firms more strictly during

*Keywords:* Corporate governance, listed property companies, IPO location, Pre IPO performance, Post IPO performance





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# IRRATIONAL BELIEF AND CREDIT SPREADS PUZZLE

In this paper, we extend the Merton's structured approach to incomplete market economy, in which investors may have irrational or distorted belief about the corporate's future cash flow. Our theoretical model implies irrational belief generates an additional risk. In detail, as distorted belief increases, the corporate values decreases, but the corporate value volatility and negative risk neutral skewness increase. Furthermore since risky corporate bonds are proportional to a short put on the corporate value, credit spreads widen. So irrational belief help to explain the credit spreads puzzle. Finally, we use empirical analysis to test our model results and find that the coefficient of distorted belief in the regressions for credit spreads, in control of many variables, still significant positive.

**Keywords:** Irrational belief, credit spreads puzzle, Subprime financial crisis



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#### IS A RECOVERY OR A BUBBLE?: WHAT HAPPENED TO CHINA'S REAL ESTATE MARKET?

China's National Bureau of Statistics said that the annual growth of housing price reached 24% in 2009 after the financial tsunami. Is it a recovery or a bubble? What makes the housing price increasing so quickly? Price-to-Income Ratio is by far the commonest measurement method to housing affordability. And the relatively high housing price-to-income ratio in Asian cities, especially in Mainland China has been aroused many researchers' attention.

In this research, the writer use panel regression based on monthly data from 2005 to 2009 of Mainland China cities, to analyze the driving factors of housing price-to-income ratio and also housing price and household income separately. And the test results suggest that the housing price boom might lead to a bubble.

**Keywords:** housing price boom, housing price-to-income ratio, household income







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# IS THERE A COMMON TREND IN SECURITIZED REAL ESTATE MARKET CORRELATIONS WITH THE REGIONAL STOCK MARKET AND THE WORLD STOCK MARKET?

This paper searches for a common trend in the securitized real estate—regional stock market and securitized real estate—global stock market correlations. Although previous studies have reported that correlations between international stock returns, and to a lesser extent, real estate securities returns have increased in the context of globalization and financial integration, there has been little work on the common behavior of the real estate securities market correlations with the regional stock market as well as with the global stock market themselves. This is where this study intends to contribute.

Using weekly local return data from the S&P Property database over the period January 2000 – January 2010, we examine long and short-term behavior of return co-movements between 11 European securitized real estate markets (Austria, Belgium, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and UK) and the regional stock market as well as the global stock market after controlling for volatility spillovers across the markets. We first use the Asymmetric-Bivariate BEKK-GARCH methodology to estimate the time-varying correlation between each of the real estate securities markets and the regional stock market and between each of the real estate securities markets and the global stock market after controlling the effect of own- and cross-volatility spillovers. Then we apply the Autoregressive Distributed Lag (ARDL) linear cointegration as well as the Gregory-Hansen (GH) approaches to check whether the estimated regional and global conditional correlation series share at least a common trend in the respective long-term relationships. One key advantage of the ARDL approach is that it can be applied to the conditional correlation series regardless of whether they are I(0) and I(1), and this avoids pre-testing problems associated with the Johansen FIML test which requires the classification of the correlation variables into I(1) and I(0). The GH methodology allows for a structural break in the correlation relationship especially in light of the current global financial crisis which is covered by the present study. Under this approach, the timing of the structural change is estimated endogenously. Finally, the short-term adjustment will be investigated via a standard vector-error correction model. Additionally, we also repeat the analyses by including the US (regional and global) correlations into the cointegrating space and both set of findings (i.e. with and without the US real estate securities markets) will be compared. Our study is important as investors continue to search for diversification in international real estate securities and mixed-asset portfolios.

Keywords: common trend, cointegration, time-varying correlation, securitized real estate markets, stock markets







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# IS THERE A LINK BETWEEN SPATIAL THEORIES AND RETAIL PROPERTY INVESTMENTS WITHIN THE URBAN AREA? THE SITUATION OF GERMAN DISCOUNTERS

Retail property is generally associated with Shopping Centres or Real Estates in the CBD, which are much more prestigious than big boxes in the suburbs. But from a quantitative point of view, the impact of Retail Properties like supermarkets, discounters or hypermar-kets has been increasing for the last 30 years. Spatial based theories on retail locations as stated by Agergaard and Lange, which explain the retailers' siteselection assuming a rising income and increasing mobility on part of the consumers in addition to a permanent en-hancement of operational forms, predicted a relocation of retail properties to suburban ar-eas. However, these theories disregarded the characteristics of real estate markets.

The following article shows, exemplified by the German discounter-market, how characteris-tics and protagonists of real estates submarkets influence the retailers' siteselection. There-fore, economic elements of real estate appraisal and spatial analysis are combined in a theo-retical approach in order to account for retailers' future siteselection within the urban area based on economic and spatial facts.

Keywords: Retail propertylocationreal estate markets

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# IS THERE FUTURE FOR ENERGY EFFICIENT RESIDENTIAL BUILDINGS IN SWEDEN? PROPERTY DEVELOPERS' INSIGHTS ON GREEN HOUSING MARKET

In 2008 just about 200 passive house dwellings were built in Sweden, in beginning of 2009 the amount doubled and reached in the end of 2009 about 900 dwellings (http://www.passivhuscentrum.se). The growth is clear, however still not that fast as it might be expected. Uncertainties of cost and benefits have been recognised as one of the most significant barriers for rapid development of green projects. Property developers have claimed insufficient interest and demand from investors, and in return developers' motivation (or lack of it) to build energy efficient buildings has been questioned.

This paper presents results of the survey conducted between residential property developers, on subject of cost, risks and experience in building green residential buildings in Sweden. The paper provides valuable insights into market development of energy efficient residential buildings, business opportunities and incitements that may contribute to more rapid grow of green housing market.

The results reveal that green residential buildings are generally more expensive than traditional buildings; however the cost difference decreases, and even becoming comparable. Developers recognize business opportunities that green buildings have to offer, declaring willingness to build more energy efficient houses. At the same time development especially in building technology and standardization of construction elements as well as incitements (like for example tax reductions) are believed to be crucial contributing factors in achieving more rapid grow of green residential building market.

Keywords: energy efficient buildings, residential homes, cost, sustainable development

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# ISSUE-BASED AND PROBLEM-BASED LEARNING APPROACH FOR TEACHING PROPERTY AND CONSTRUCTION ECONOMICS

The changes in the university system have led to a larger proportion of students in higher education. As a result, the range of abilities in classes is now considerable and variable. Students are now more diverse in age, experience, cultural background and even their motivation for study. Biggs (1999) argues that an increasing proportion of students will not be at university because of their love of a subject but in order to obtain a qualification for their future career. The teaching and learning environment will have to change in order to response to these challenges. Different teaching methods occur which aim to encourage students' engagement and devise related learning activities. Economics is one of the subjects which is often branded as 'boring' and 'theoretical'. The traditional 'chalk and talk' approach for teaching macro-economics is criticized for running the risk of being divorced from the needs and practise of practitioners in the 'field' (Becker, 2000). Becker (2000) draws the similar pessimistic conclusion for microeconomics and argues that textbook discussions of markets are often hypothetical and unconnected with observed phenomena. The textbooks describe 'fairytale' or 'perfect competition' conditions rather than the situations which actually exist.

Teaching economics for 'non-specialist' learners imposes even bigger challenges as students usually exhibit varying degrees of commitment to the subject and various pre-requisite knowledge of the relevant principles. In addition, non-specialists are more likely to experience difficulties with the method of economics, particularly in relating abstract concepts, diagrams and models to real world economics issues and problems (Forsythe, 2002).

The aim of this paper is to discuss a new approach to teaching the 'Property and Construction Economics' module. This module is an Undergraduate Year One module for students in the Property Management and Development cohort in the School of Architecture, Design and the Built Environment in the Nottingham Trent University.

The module is about the application of economic theory to explain the operation of property and construction markets. It is different from more traditional approaches to teaching economics, which tend to be theory-based. The issue-based and problem-based learning approach has been adopted to teach Property and Construction Economics in the current academic year (Garratt and Taylor, 2004 and Forsythe, 2002). In addition it is taught in a blended learning approach and with support from a virtual learning environment, the Nottingham Trent University Online Workstation (NOW). This paper will discuss the design of the new approach for teaching Property and Construction Economics. It also discusses the tutor's reflection on using the new teaching approach. Furthermore, evaluation feedback from students on their learning experience will also be included. Finally, recommendations for future changes to the approach of teaching the module will be made.

**Keywords:** Issue-based learning approach and problem-based learning approach





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## JUDGEMENTAL BIAS AND HOUSING CHOICE

It is firmly established that human judgement and decision making often falls short of the standard required in the Behavioural Decision Theory of von Neumann and Morgenstern (1947). Consumers in particular seem vulnerable to systematic errors of judgement which affect their choice behaviour (Thaler, 1980; Simonson and Tversky, 1992; Ariely, Loewenstein and Prelec, 2003).

Critics argue that such errors are minimised by market experience and in situations where the stakes are sufficiently high. When households and individuals make choices over housing these are among the most important personal finance decisions made during a lifetime. The stakes could hardly be higher. Yet these decisions are made infrequently and with little experience. Individuals may not be sure of their own preferences and have little context in which to form them. Thus it is an important area to examine whether behavioural phenomena occur and in what form.

This paper examines the impact of several judgemental biases on housing choices, considering in particular the role of estate agents as choice architects, influencing behaviour and resulting in predictable biases in outcomes.

The study indicates several areas where individuals are susceptible to manipulation of this kind including asymmetric dominance, compromise effects and value anchoring.

Keywords: judgement, bias, housing choice





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# KEY COMPONENTS OF REAL ESTATE MARKETS FRAMEWORK POLICY PRINCIPLES AND GUIDANCE FOR THE DEVELOPMENT OF A COUNTRY'S REAL ESTATE MARKET FOR SOCIAL AND ECONOMIC BENEFITS

During seminar organized at United Nations Economic Commission fo Europe (UNECE) Headquarters in Geneve by the relative Real Estate Market Advisory Group (REM) and the UNECE Secretariat, it was highlighted that the current global financial crisis is the result of inadequate regulation of real estate and financial markets. Real estate bubbles were allowed to inflate, mortgage lending was inadequately supervised, financial markets were allowed to develop complex financial instruments that few understood, credit risk was inadequately modelled, and credit rating agencies failed to carry out their fundamental role. Investors also failed to properly understand the instruments they were buying and consumers failed to evaluate the risks they were undertaking in buying inflated property with innovative

Experts in the meeting agreed on the need to develop a framework for Real Estate Markets (and financial sectors related to Real Estate) that could be useful to promote stability and sustainability and to minimize the effects of the crisis.

The "KEY COMPONENTS OF REAL ESTATE MARKETS FRAMEWORK" represents a specific attempt to address the current lack of regulations and guidance but, taken alone it cannot provide an exhaustive solution to the more complex issues related to the lack of adequate housing present in several countries in the UNECE region, which require comprehensive polices and the direct intervention of Governments.

To that end the document is structured as follows: Following each of the ten principles the underlying rationale is briefly explained, always followed by a number of key indicators that should be taken into account when implementing the given principle for improvement of the real estate market. The study also advocates bringing greater harmonization to the sets of national town-planning and building laws, which – in some countries – are often regulated by very diverse and contradictory local laws. Good governance is in need of harmonized and appropriate regulations in the building and real estate sector as well.

The main aims of this document are to:

1.promote the understanding of some critical issues of the real-estate sector, in order to better develop management tactics and strategies that may assist to different extents depending on the level of development of national economies - in the identification of solutions to the current financial market crisis world-wide; and

2. define rules and principles that may promote the development of solutions within different enforcement frameworks according to the development level of the national real-estate markets and in compliance with the respective legal systems, so that medium and long-term economic and social benefits may be drawn.

Keywords: Integrated Legal Framework, Efficient Land Register and Cadastre, Efficiency of Services, Bases for Developed Real Estate Markets, Good Governance, Sustainable Financing, Transparency and Advanced Financial Products, Property Valuation, Social Housing, T





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# KNOW WHAT YOU'RE LOOKING FOR: A THEORETICAL FRAMEWORK FOR HEDONIC OFFICE **STUDIES**

Hedonic pricing studies of commercial real estate, specifically offices, have been popular since the 1980's. Since then, numerous hedonic office studies have been published. However, the theoretical underpinnings of these models often seem lacking. The inclusion of location and building variables is commonly driven by data availability and not based on theoretical footing. This is illustrated in the extreme number of employed variables and their diverse interpretation. Furthermore, while urban economics, specifically location theory, provides a sound and valid theoretical underpinning for location characteristics, this is often not true for building features: explaining office users' willingness to pay for building features could be be strengthened using corporate real estate management theory.

Under the assumption that office firms are profit maximising entities, the increased willingness to pay for specific location characteristics and office features, can only be explained by perceived productivity gains related to those aspects. Location theory provides sound theoretical footing regarding the influence of location choice on productivity, whereby the dependence of service organisations on face-to-face contact is often stressed. However, the influence of office features on productivity is less clear and remains an active area of research. Some evidence exists that comfort level of the office environment might influence employee productivity. Furthermore, a flexible office layout might decrease the space use per employee and more sustainable properties reduce energy costs. Both effects decrease the occupancy cost for the organisation.

This paper presents a theoretical framework illustrated and supported by an empirical analysis of the Amsterdam office market. The framework draws on urban economic and corporate real estate management theory to identify theoretical relationships between office location and building characteristics and productivity gains. In the first part of the paper urban economic and corporate real estate management theory is reviewed and combined in a theoretical framework. Consequently, an extensive hedonic office rent literature review is presented that identifies the used variables and discusses their interpretation in the analysis. The paper is concluded with an empirical investigation of the Amsterdam office market employing the proposed framework.

**Keywords:** Hedonic pricing, theoretical framework, urban economics, corporate real estate management



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# KNOWLEDGE MANAGEMENT IN REGIONAL NETWORKS: EMPIRICAL RESULTS FROM THE GREEN BUILDING CLUSTER OF LOWER AUSTRIA

In this paper, I develop a knowledge-based view on the organization of knowledge transfer in clusters, by exploring the Green Building Cluster of Lower Austria. Starting with the information richness theory, I argue that tacitness of the partners' knowledge determines the information richness of the knowledge transfer mechanisms in clusters. The following hypotheses are examined: (a) If the cluster partners' knowledge is characterized by a low degree of tacitness, knowledge transfer mechanisms with a lower degree of information richness (e.g. email, intranet, documents, newsgroups) are used; (b) if the cluster partners' knowledge is characterized by a high degree of tacitness, knowledge transfer mechanisms with a higher degree of information richness (e.g. seminars, workshops, formal meetings) are used. I test these hypotheses by using data from the Green Building Cluster of Lower Austria. Using complexity, teachability and codifiability as measures for tacitness of the cluster partners' knowledge, the empirical results from Green Building Cluster in Austria partly support these hypotheses. The results indicate that an increase in teachable knowledge results in the use of more knowledge transfer mechanisms with a lower degree of information richness, and an increase in complex, but articulable knowledge results in the use of more knowledge transfer mechanisms with a higher degree of information richness. In addition, I show that trust positively influences the use of all modes of knowledge transfer.

The paper is organized as follows: After the Introduction in Section 1, Section 2 reviews the relevant literature related to knowledge transfer in networks. In Section 3, I develop the knowledge-based view of knowledge transfer mechanisms and derive testable hypotheses. Finally, in Section 4 I test these hypotheses using data from the Green Building Cluster of Lower Austria.

*Keywords:* Knowledge transfer, knowledge-based theory, tacitness of knowledge, Green Building Cluster of Lower Austria







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# KNOWLEDGE SHARING IN CONDUCTING THE BUILDING CONDITION SURVEY AND ASSESSMENT FOR SUBSALE HOUSING MARKET

Building performance will be broadly attributed with the levels of defects and deteriorations. As the life cycle of a building requires for more interaction between people and surroundings, the impact towards property value is very much affected. With regards to the inspection conducted by the valuers, the scope of inspection is limited for the purpose of valuation only. By using the building surveying knowledge, the importance of a Building Condition Survey and Assessment (BCSA) is anticipated to provide a high accuracy of valuation on the existing building condition. In relation to undertake a precise assessment on the property, the building inspection report should include enough information which indicate the significant level of building defects whereby the causes of defects, state of repair including the remedial works and cost are technically predicted. Therefore, this study attempts to elicit the valuers perception on the BCSA approach particularly for sub sale housing market as a value added in representing the building depreciation cost. In line with the input of BCSA by the building surveyor to the valuers, both professions can work together in assisting the buyers to purchase the sub sale housing type.

Keywords: Knowledge Sharing, Condition Survey, Assessment, Building Inspection, Subsale Housing Market

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## LAND LEVERAGE DYNAMICS IN HOUSING MARKETS

This paper develops an empirical test of the land leverage hypothesis applied to the Perth (Western Australia) housing market over the period 1988-2009. Land leverage reflects the proportion of the total property value embodied in the value of the land (as distinct from improvements), as a significant factor for establishing the future path of house prices. It follows that the value of land and value of improvements on that land are likely to evolve differently over time. Since total property price change is a weighted average of change in both land value and improvements, properties that vary in terms of how value is distributed between land and improvements will show different price changes over time. The land leverage hypothesis suggests that the magnitude of price responses should be positively correlated to the level of land leverage. The hypothesis is empirically tested using data on individual housing transactions in Perth Western Australia. Vacant lots subsequently selling as improved properties are identified and analysed in order to measure the influence of land leverage over a sample period 1988-2009. The results confirm a significant relationship between the extent of land leverage and house price changes over time together with some significant temporal influences corresponding with variations in housing market conditions throughout the sample period.

**Keywords:** Housing, housing markets, urban land markets, land leverage hypothesis





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# LAND USE REGULATION & RETAIL: SPACE CONSTRAINTS AND TOTAL FACTOR PRODUCTIVITY

Introductory economics tells us there are three factors of production: land, labour and capital. Unless a student of agricultural economics, land as a factor of production will never be mentioned again. Yet space for some industries is a significant input and that would seem to be true of retailing. This is a sizable sector of the economy – on a reasonable measure of employment the second largest industry in the UK. Land use policies in the UK have the effect of restricting the availability of land for retail; in addition 'town-centre-first' policy concentrates retail development on expensive central land and so increases the cost of retail space. In British cities in the mid 1980s the most expensive land for retail was 250 times as expensive as the most expensive retail land in comparable US cities. This paper uses a unique micro data set of store specific information to estimate the impact on productivity of space and the specific effects of planning restrictiveness on the productivity of retailing. It is the first paper to analyse the contribution of space to productivity and to relate that firmly to land use regulation policies. Our results suggest that TFP rises with store size and that planning restrictiveness directly reduces productivity in retailing thereby increasing retail prices.

Keywords: Land use regulation, regulatory costs, firm productivity, retail





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# LAND-BASED FINANCING OF THE EU JESSICA INITIATIVES

Land has long served as an instrument of urban infrastructure finance. Public-private collaboration lies now at the heart of land-based projects. JESSICA is an initiative developed by the European Commission and the European Investment Bank, in collaboration with the Council of Europe Development Bank (CEB). Under this initiative, States can use some of their ERDF (Structural Funds), to make repayable investments in projects forming part of an integrated plan for sustainable urban development. In many countries, broader public sector and municipalities own large amounts of urban land that virtually may be a source of land-based financing of urban projects, in many urban locations and many ways. However, land-based financing is in the early stages of development. There are large opportunities for public policies and private sector, but they are not out of risks. This paper identifies some political, institutional and legal risks of land-based financing, regarding the imperatives of the globalized market economy, in Balkan countries. These risks may be misunderstood by the public and private economic agencies that drive JESSICA initiative at the national levels, and thus leading to its deterioration.

Keywords: Municipal property, PPP, land, JESSICA





**BOOK OF ABSTRACTS** 

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#### LEARNING ORGANIZATION AND MENTORING PRACTICE: AN EMPIRICAL INVESTIGATION

The Architecture, Engineering and Construction industry (AEC) of the 21st century is undergoing significant changes to address issues such as the economic integration, international partnering and globalization. These changes initiate a challenge for the AEC industry in education, training and continuous professional development of personnel. A needsdriven approach to mentoring recognizes the fact that employees in the workplace are required to engage in continuous learning to keep pace with changes within the organization. The foundation of this challenge focuses on how to facilitate learning in organization and establish continuous human resource development throughout all levels of the organization. Organizations are gradually transforming into learning organizations. A quantitative research is developed and conducted: 1) To validate the 'learning organization' concept in AEC organizations in Hong Kong; 2) To map out the profiles of organizational learning culture; 3) To evaluate the implementation level of mentoring practice; and 4) To determine the relationship between learning organization and mentoring practice. The Dimensions of the Learning Organization Questionnaire (DLOQ) is adopted to assess various aspects of learning organizations. The questionnaire was administered to young professionals, and drew on responses from a total sample of 151 employees to gauge the progress towards learning organization and mentoring practice in AEC industry in Hong Kong. Emphasis has been placed on young professionals' view towards organization to ensure learning and knowledge transfer as a means of increasing their knowledge base and improving performance. Factors affecting the transformation of organizations into learning organizations are explored. Implications on improving the performance of the young professionals as well as the organizations are discussed.

Keywords: Learning organization, mentoring practice,





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Keywords: Retail, liberalization, master plan

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#### LIBERALISATION OF RETAIL ACTIVITIES IN MILAN NEW MASTER PLAN

At the beginning of 2010, in Milan city council, the discussion aimed at the adoption of the new master plan (PGT -Plan for government of territory) started. PGT represents the most important administrative act of the local government, which will update after thirty years the old zoning plan.

The PGT, on the basis of the related regional law (Legge Regionale Lombardia n. 12, march 11th 2005), is composed of three documents: the Plan Document (Documento di Piano) which expresses strategies and general objectives of local government town-planning policies, the Regulation Plan (Piano delle Regole) which rules transformations of the inner city settlements, while the Facilities Plan (Piano dei Servizi) foresees urban facilities and infrastructures necessary to equip the public city.

Among the most important news, we observe the discipline of retail activities (4th Title of in force technical regulations of "Piano delle Regole"), a topic introducing very important innovations.

Milan is in fact one of the first cities in Italy which fully assumes the liberalization national law of retail branch (Decreto Legislativo 114/'98, Legge august 4th 2006, n. 248), limiting settlements of retail premises only according to town-planning compatibility principles, and no more considering market shares assumptions and distances between stores.

One of the most important innovation of PGT regulations deals with the calculation of areas for urban facilities (standard), related to new retail settlements. It is stated an original principle in Italian town-planning regulations: new premises located in strongly accessible areas, such as pedestrian street or traffic limited areas, don't demand new public parking spaces, in order to promote pedestrian accessibility. This principle removes one of the most significant access barrier for new great sales areas stores into historic center.

Another strategic innovation contained within PGT, of great potential impact on the urban market, deals with the removal of the traditional zoning and the introduction of the free mixed land use, which makes possible to build up all possible activities (retail, office, hotel, residential, ...), with exception of heavy industries and great sales areas stores.





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# LIFE CYCLE ORIENTED IMPROVEMENT OF BUILDING QUALITY

The focus of the research project "life cycle improvement of the building quality" is to develop, analyze and evaluate methods to assess planning decisions about their consequences on the life time of a building. The calculation of investment costs often serves as the only basis for decision-making in the building planning. The existing set of approaches for assessment is used only in a limited number of decision processes. The purpose of a certain building does not only lie in cost efficiency or in environmental compatibility—its main purpose needs to be focused on usability. This inevitably is connected to the planned and accomplished quality. The project has two main outputs. One is the creation of a common database on building life cycle data; the other is a comprehensive guideline on sustainable building. The comprehensive guideline will be structured on the life cycle of a building and contain defined time slots, where decisions are necessary and what information will be helpful for a decision maker. The focus of the common database will lie on data, which have to be estimated during the planning of a building. These are LCC- and LCA-Data. As both of these Analyses need a calculation of the energy demand, the data are to be accomplished with the data from the energy performance certification. The comprehensive guideline and the data base will be placed in an internet portal, which shall give pubic and quick access to the scientific data. As this Internet portal is still in programming and the collection of scientific data is continuously but will also take some time to be useable, a quick prototype within excel is created to show our goal. It is an enhanced energy certificate.

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## LIFECYCLE RISK ANALYSIS OF BUILDING PROCUREMENT ROUTES

**Keywords:** Life cycle analysis, integrated decision support, sustainability

Risk management today is an integral part of project management. The risks and opportunities within the scope of a project are managed through by Project Management with the allocation of functional responsibilities to members of the project team. Ultimately, the responsibility of the effectiveness of risk management lies within project management, since the project manager is responsible for the achievement of goals of project management. There is a direct correlation between effective Risk Management and project success. Risk management is a tool for managing projects effectively throughout their life cycles. This paper is to contribute to the body of knowledge on Risk Management in Building Procurement Routes and help Project Managers to adopt / recommend the appropriate route based on clients' goals after diligent risk analysis and measurement and follow through to a successful outcome.

Keywords: Building lifecycle, Risk, Risk Management,





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## LIQUIDITY PRICING IN UNLISTED REAL ESTATE FUNDS

Traded securities have been mainly used to study the two-way causality between returns and liquidity in the finance literature. We argue that this issue is even more important for unlisted funds, particularly if they invest in very illiquid assets. Using the investment performance of UK Real Estate open-ended unlisted funds, we also analyze the impact of managerial, economical and investor variables on the pricing of real estate mutual funds.

Our empirical results show that both illiquidity is attached to a higher expected return as investors are willing to pay a price for liquid assets, and higher returns attract more investors driving liquidity up. Particularly, we find that overall transaction volumes contain little information unless we separate between inflows and outflows. Furthermore, we find that returns are influenced by the direction of flows (either buying or selling side) and that fund types and some asset manager's characteristics are not significant and should then be dismissed in the asset allocation process. Finally, through a montecarlo simulation we show a smart-money effect where using this set of information to build portfolios of funds may have a significant impact on the likelihood of over-performing the benchmark.

**Keywords:** Liquidity Flows Total return redemptions





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# LIQUIDITY RISK EXPOSURE FOR SPECIALIZED AND UNSPECIALIZED REAL ESTATE BANKS: EVIDENCES FROM THE ITALIAN MARKET

Liquidity is the ability of a bank to collect money necessary for financing assets and meet obligations as they come due, without incurring unsustainable losses; the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk (Basel Committee on Banking Supervision, 2008). As banks specialized on real estate finance show an average high duration of the assets (Booth, 2002), liquidity risk is extremely relevant to ensure the stability of the financial intermediary. Under an asset and liabilities management approach (ALM), the paper is aimed to analyze the impact of the maturities structure on the liquidity position, discriminating between residential property specialized lenders and others.

Yearly and half-yearly balance sheet data are collected from the ABI Banking Data database over the period 2000-2008. Data attain the individual balance sheet and all consolidated balance sheets are excluded from the analysis. In order to construct a sample that is representative of the Italian market, all banks available in each semester are selected independently from number of semesters for which the data are available

The asset / liability structure analysis considers the banking book of each bank and computes, for each semester, measures of the liquidity risk exposure as: contractual maturity mismatch (Drago, 2003); concentration on funding (Matz and Neu, 2007); available unencumbered assets (Resti and Sironi, 2007). The sample is classified on the basis of the percentage of residential loan exposures on the total assets using a threshold the 40% per cent (Eisenbeis and Kwast, 1991). Total active banks are stratified in three groups according to the number of years in which they could be classified as specialized real estate banks (Blasko and Sinkey, 2006). A comparison of ALM measures for different subsamples is released in order to evaluate if the choice to specialize in the real estate sector affect the exposure at risk of the bank

Results obtained will show that misalignment between asset and liability structure affects the liquidity position of the bank. The borrower's business sector and characteristics affect the bank's liquidity risk exposure. Banks that are structurally more exposed are those that are specialized in the real estate sectors. Empirical evidence provided demonstrates that the current debate on the need to define asset/liability maturity regulatory constraints could have relevant implication for the Italian banking sector, especially for the banks involved in the property market.



Keywords: liquidity risk, real estate financing, italian banks





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#### LOCAL HOUSING SUPPLY AND THE IMPACT OF HISTORY AND GEOGRAPHY

This paper considers the impact of existing land-use patterns on housing supply elasticities in local areas of England, under existing planning policies. The paper demonstrates that, despite common national planning policies, local supply responses to market pressures vary considerably, because of differences in historical land uses. The study area covers the Thames Gateway and Thames Valley, which lie to the East and West of London respectively. However, whereas the latter is one of the wealthiest areas of England, the former includes some of the highest pockets of deprivation and is a government priority area for increasing housing supply. Due to differences in historical land use and geography, the price elasticity in the least constrained area is approximately six times higher than the most constrained. Given the considerable local variations, a question arises whether it is reasonable to expect all local authorities to meet the same targets.

*Keywords:* Housing supply, land-use patterns, planning policy, persistence

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## LOCATIONAL DETERMINANTS OF LEED AND ENERGY STAR CERTIFIED PROPERTIES

Despite the increased awareness and understanding of the benefits of sustainable design, the distribution of green buildings has not been uniform across major US cities, nor has the pace of adoption of green building practices been most rapid in cities with largest commercial business districts. The proposed project explores the locational determinants of LEED and Energy Star certified buildings across cities in the United States. Drawing on a unique database that combines data from a large number of sources and using logistic and ordinary least squares regression techniques, we intend to predict the supply of 'green' buildings for more than 300 metropolitan markets in the US. Given the increasing importance of sustainability standards in the real estate industry and wider society, the proposed research will enhance the understanding of the locational determinants and spatial diffusion of sustainable buildings, allowing for more informed decision-making and targeted policies to maximize the share of green buildings and minimize a city's environmental impacts. Additionally, from the perspective of the real estate industry, this research has the potential to identify markets with high demand for additional eco-certified properties.

Keywords: Green buildings, sustainable development, locational determinants, spatial analysis

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# LONG-TERM INFLATION HEDGING PROPERTIES OF DIRECT REAL ESTATE INVESTMENT: A METHODOLOGY TO STUDY INFLATION'S PROTECTION GIVEN THE LEASE STRUCTURE AND THE INDEXATION USES

This study suggests a model to analyze the inflation's hedging characteristics of direct real estate investments taking into consideration the lease structure, the indexation's typology and the current and forecasted state of the market. Using both Monte-Carlo simulations for the price of the assets and the market rental values and options for the tenant's behavior, we afford to study inflation's protection of any direct real estate investment given the current and the forecasted state of the market. In particular we are able to study the risk possibly incurred by this protection by studying the possible reversion of the indexed rents. The model uses Monte-Carlo simulations to measure differences between simulated market rental values and indexed rents and analyses the impact of this evolution to the tenant's behavior. Our model makes one able to study how this behavior impacts the cash flows paths distribution and consequently the likely inflation's protection. More specifically, one is able to determine according a predicted future evolution of the market if the indexation's methodology will weaken or not the lease. This paper innovates by making possible a comparison of all the leases' properties at the hands of inflation's hedging.

After a brief review of literature on inflation's hedging and particularly on real estate inflation protection features, the paper describes the suggested model. We focus on tenant's behavior regarding the state of the market and regarding its lease and how this behavior influenced the inflation's hedging protection. We conclude by a comparison of some of the major European lease structure.

*Keywords:* Monte-Carlo Simulations, Inflation, Hedging, Leases, Direct real estate, Rents indexation, Portfolio Allocation, Options





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# LOW HOME OWNERSHIP RATES AS A PROXY OF WEALTH - THEORY AND EMPIRICAL **EVIDENCE**

Although the high and growing home-ownership rate during the nineties in the US is known as one of the determinants of the later property and subprime crisis, many countries like Germany still have the further increase of the home ownership rate on the political agenda. This paper has to parts. In the first part an overview of the theoretical framework to understand the renting of a flat as a type of debt finance contrary to the home-ownership, which is interpreted as a form of equity finance is given. Identifying renting as a financial issue, modern financial theory from Oliver Williamson, based on transaction cost economics in the form of rules on optimal capital structure can be applied to answer the question of optimal proportion of home ownership. We do know that financial intermediation and debt are crucial for income growth and wealth. Therefore it should also be possible to see low home ownership rates in areas with high income. As for Williamson the idea of asset specificity is important, we can also assume, low home ownership rate will be found in areas with a high density of population. In the empirical part of the paper both aspects are analysed with data from all administrative districts of the former part of West-Germany.

**Keywords:** home ownership, subprime, theory of finance, Germany

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#### MACRO MEASUREMENT AND VALUATION OF THE BUILDING STOCK

Measurement (m2) and valuation (euro's) of non-residential property suffer from a lack of integral statistical observation. This limits the applicability in market analysis, (spatial) planning and forecasting of building activity. Aim of this research is to obtain on macro and sectoral level more insight in the available stock of buildings, in the stock in use and in the need and demand for expansion and renewal of the building stock in the coming decade. Fixed Capital Statistics - based on OECD-standards - are concentrated on the historic fixed capital formation (in euro's) and depreciation afterwards, along the life time. This offers limited insight in the actual stock in use and does not provide a base for forecasting future growth and adaptation of the Building Stock. Otherwise - for instance within the context of the Dutch property law - the non-residential property is registered and valuated to. This valuation is for marketable buildings based on the market price, which individually reflects the joint value of land and the building on it. The registration of floor area is on macro level incomplete.

In this paper an alternative approach of macro valuation of the stock of buildings will be presented. By combination of the National Accounts 1990-2008 and construction statistics it is possible to split the sectoral capital formation in buildings in an expansion and a renewal component. Additionally cumulated expansion in a certain period is linked to the growth of the sectoral production capacity and if more relevant linked to the growth of the sectoral employment, of the number of users and/or of the accommodation capacity.

The final result is a valuation (in euro's) of the Stock of Buildings and measurement of the Stock in Use (m2), with decomposition in 9 sectoral stocks, with their own typological structure in terms of offices, shops, warehouses, glasshouses, schools and so on. This provides an useful base for – structural - forecasting of non-residential building activity. The framework for macro and sector analysis is also applicable on regional and corporate level, even to integrate and assess partial and specific registrations by real estate agencies and others. This may "colour" what is behind the macro view.

Keywords: building stock, property, measurement, macro valuation, fixed capital statistics, stock in use



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#### MAKING FORECASTS MORE HOLISTIC –DEFINING A RISK FRAMEWORK

Forecasting returns for particular sectors and markets is perforce an exercise in generalities. Forecasting models use historical relationships between returns and their drivers to estimate likely future returns for an office market, for example. The risk to that forecast is defined in terms of the historic variability of the series being forecast.

The provision of these forecasts provides an useful context to any investment decision but the actual performance of that investment over time will be determined by a range of spatial, political and socio-economic factors that will only have been incorporated loosely in the forecasting model, if at all.

Worse, in the excitement of the pre-recessionary bubble in real estate investment, in many cases these risk factors were disregarded completely.

The objective of this paper is to define an holistic risk framework that captures the potential risks in a market at a more granular level than forecasts provide. This model will then be tested against conventional econometric forecasts for sample market sector combinations.

Keywords: risk uncertainty forecasting

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# MANAGEMENT OF COASTAL AREA LANDS IN LAGOS STATE OF NIGERIA- AN EMERGING MARKET PERSPECTIVE

Lagos State of Nigeria has been acclaimed as the only Mega city in sub-Saharan Africa. It consists of 3,755square kilometers of land with 70% of it being wet lands and water bodies. In recent times, the Lagos State Government has had to contend with issues of land tenure system, physical planning and its related problems of overcrowding, shanty developments, negative use of urban free lands, and the issue of environmental degradation. In addition there are other concomitant problems of illegal dredging, illegal land reclamation, and sand mining activities which have threatened sustainability of the coastlines resulting in surges, flooding and general negative environmental consequences. This paper has therefore looked into the coastal area management practices, using Lagos State Ministry of Water Front Infrastructure Development as a case Study with a view to redirecting the haphazard development taken place in these zones to conform to contemporary coastal area best management practices.

Keywords: Megacity, Coastal Area Management, Infrastructure Development and Environmental Sustainability

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# MANAGERS' COMPENSATION, CAPITAL STRUCTURE AND REITS' PERFORMANCE. DO NAV-BASED REITS OUTPERFORM GAV-BASED REITS?

The paper investigates how (public) REITs managers' compensation schemes influence capital structure and, consequently, REITs' share value. The analysis focuses on "gross asset value" [GAV] versus "net asset value" [NAV]-based compensation of managers – typical of many European REIT structures – and investigates the issue if NAV-based REITs outperform GAV-based REITs.

The empirical investigation is performed upon Italian REIT market data and considers the Italian regulatory context. Due to regulatory and market constraints, the analysis shows that Italian GAV and NAV-based REITs have a strong incentive to leverage in order to maximize management fees. However, NAV-based REITs are expected to be more selective in investment decisions compared to GAV-based REITs which might engage also in negative net present value investment decisions because of the different compensation base. Moreover, leverage produces different effects on share value if measured upon market price or net asset value due to the different implicit valuation methodologies. The empirical results seem to support the theoretical expectations. GAV-based REITs experience higher debt trends in respect to NAV-based REITs. At the same time, GAV-REITs register lower real estate asset returns net of management fees both for current as well as for growth returns. Differences in net real estate returns seem to lead to permanent higher performances of NAV-based REITs in respect to GAV-based REITs measured upon total return benchmarks.

*Keywords:* Managers Compensation, Reits, Capital Structure, financial decisions, performance, net asset value, gross asset value





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#### MANAGING THE SHOPPING CENTRE FORMULA: SATURATION OR NEW DEVELOPMENT?

The marketing and financial success of a shopping centre is dependent on many factors. Among the main features, the relevant literature (Ghosh & McLafferty, 1987; Wrigley, 1988; Cliquet, 1992; Guy, 1994; Cohen, 2000) suggests the follows: the quality of location and accessibility, the catchments size area, the car-parking provision, the design and the environment. A full line-up of strong and well-placed traders (tenant mix) is also important because the sales performance is dependent on the level and type of footfall attracted and may also be relying on micro-retail linkages. The success of individual tenants and the success of a centre as a whole are interdependent and enhanced by the cumulative synergy generated by the mix of stores. The combination of all these factors is decisive on whether or not a developer/owner will find a successful formula from the standpoint of the potential tenants and consumers. This contribution begins to describe the recent development of planned shopping centres in Italy with the emphasis on the current crisis of consumption. The analysis shows how, over the last decade, shopping centres in Italy has almost doubled, but as this growth is not uniform. New spatial hierarchies with different commercial polarity emerge clearly. The main question is: are we in a scenario of spatial retail demand saturation – in front of the alternative sale channels - or will be possible to push up the shopping centre formula in the future? To answer this question, our work takes under consideration the valuation tools able to describe and capture the consumer behaviour changing and to translate it in the market share patronage and retail management dimension. In this direction a brief taxonomy of different approaches is sketched and a demonstrative case is showed.

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Keywords: shopping centres formula, retail management, tenant mix, consumer behaviour analysis and valuation

# MARKET EFFICIENCY IN THE EMERGING SECURITIZED REAL ESTATE MARKETS

This paper conducts tests of the random walk hypothesis and market efficiency for twelve emerging securitized real estate markets as well as for four developed securitized real estate markets from 1992 to 2009. Random walk properties of equity prices influence return dynamics and market efficiency is often considered as an essential criteria for judging the functionality of markets and the asset pricing process which is of significant relevance for emerging markets in particular. The analysis is based on autocorrelation tests and the single variance ratio tests of Lo and MacKinlay (1988) as well as the multiple variance ratio test of Chow and Denning (1993). Weak-form market efficiency is tested directly using non-parametric runs tests. Empirical evidence shows that the efficient market hypothesis in its weak form is not rejected by any statistical test for seven out of the twelve analyzed emerging securitized real estate markets. This result is surprising since all four analyzed developed securitized real estate stock markets do not follow a random walk.

*Keywords:* Securitized real estate markets, market efficiency, random walk hypothesis, variance ratio tests, runs test, trading strategies





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# MARKET SEGMENTATION AND PORTFOLIO MANAGEMENT – AN ANALYSIS OF THE ITALIAN **MARKET**

Real Estate investors rely on diversification as a tool to reduce the volatility of their portfolios' performances. Diversification is the main channel to achieve overall risk reduction via combining together assets with different risk/return characteristics, as illustrated in Harry Markowitz's Modern Portfolio Theory (MPT). However, property maintains a certain degree of uniqueness, due to the local and fixed nature of the assets, and its behaviour is idiosyncratic, unlike other financial assets. Market segmentation is a technique to achieve diversification by means of clustering together those assets sharing similarities, as far as performance is concerned. Grouping property assets in segments maximises the variance of returns across segments whilst minimising that of individual assets within each segment. The study has been carried out in the UK market showing insightful results for portfolio managers, and is now replicated for the Italian market, moving from the IPD standard segmentation to explore alternatives.

Keywords: Market Segmentation, Portfolio Management, Risk, Performance, Variance



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# MAXIMISING INVESTMENT PERFORMANCE IN RESIDENTIAL PROPERTY: A BRISBANE CASE **STUDY**

One of the major fall outs from the Global Financial Crisis has been the decline in residential property construction, home lending and residential property prices. This has lead to an extent in a reduction in the number of small investors willing to commit funds to an investment market that is not seen to perform as well as other investment assets, particularly in relation to income return.

With a decreasing supply of rental accommodation in the housing markets, less public housing being constructed by both State and Commonwealth Governments, there is the [potential for the residential property market to provide more substantial returns than previous years.

This paper will analyse the current residential housing market in Brisbane, Australia to determine if there are sectors in this market that are outperforming the average income and total return for residential investment property and the variation in investemt performance across the various housing sub-markets.

Keywords: Residential property, investment performance, total returns, housing markets, house prices, property values, residential rents





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# MEASUREMENT OF RETAIL CONCENTRATION AND VARIETY IN VERTICALLY-USED LARGE-SCALE RETAIL PROPERTIES

One of the features of compact city is high density and more vertically-used of floorspaces. A multi-unit retail property is the agglomeration of retailers and service providers seeking maximum profit in an architecturally unified building or buildings. Owing to its consumer-oriented nature, the smoothness of pedestrian flows and the efficiency of space allocation are the major concerns for developers and operators. Thus the design of the shopper's circulation needs to consider product varieties, the purposes and behaviours of incoming consumers, and other operational issues. Normally, even with elevators and escalators, vertically movements for shoppers are advised to be avoided. This is because the higher the floor levels the less the motivation; and the higher the searching costs for shoppers. Therefore, the maximum number of floor levels in 148 UK regional shopping centres in 2002 is only 4 levels. However, it is difficult to prevent vertical use of retail buildings in precious central urban areas. In the existing 70 large-scale (over 300,000 sq ft.) shopping centres and department stores, these buildings are with 10 floor levels in average and two of the department stores even with 19 levels. With the spatial data generated from GIS software, this paper aims to reveal the efficiency concerns of the usage of floorspace. And one of the reasons for departmentalizing of retail categories in these high-rise retail properties is to transform non-purposive shoppers into purposive and guided shoppers, which is an opposition from the dispersion result suggested by Carter and Haloupek (2002). The higher and more complex the building is, the more purposive and logical of product variety is needed for customer searching. Hence, retail concentration is a necessity in these properties.

*Keywords:* space allocation, shopping centre, high-rise property, Geography Information System (GIS)

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# MEASURING ADAPTIVE BEHAVIOUR IN A RETAIL PLANNING CONTEXT; A MULTI-STAKEHOLDER CONJOINT MEASUREMENT EXPERIMENT

In the Netherlands new retail concepts regarding peripheral locations have been introduced recently. This is the result of changes in Dutch retail planning policies. Whereas in the past the national government had a strong hand in determining the program and location of new retail facilities, nowadays there are no restrictions for retail organizations to development retail properties at peripheral locations. With this new legislation, the Dutch government tries to stimulate innovation in the retail landscape and anticipate the rapidly changing retail system. As a result, the interaction between public and private actors is an important determinant of local retail planning decisions. The purpose of this paper is to reveal behavioural aspects underlying these types of decisions. Three groups of stakeholders (real estate developers, retail organizations and local governments) were invited to take part in an online conjoint choice experiment. They were asked to choose different retail plans that help to enforce the retail structure of the imaginary city "Shop City". The results of this experiment uncover the viewpoints of the three groups of stakeholders towards different retail plan alternatives. Most importantly, however, it gives insight into the degree these viewpoints depend on the viewpoints of other stakeholders. Results suggest that compared to the two private stakeholder groups local governments are more hesitant to locate new retail facilities on peripheral locations. Retail organizations are the most persistent in their viewpoints while real estate developers are most sensitive to the viewpoints of others.

Keywords: retail planning, decision making, choice modelling, conjoint measurement, behaviour





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#### MEASURING ECONOMIC VALUE ADDED IN REAL ESTATE SECTOR IN BELARUS

In the presented paper we make a pioneering attempt to calculate economic value aded (EVA) for Belarus at the industry level using aggregate indicators according to the common business methodology. For this we generally assume that economic value is created by investment in excess return compared to its cost. To calculate EVA we engage primary data such as net book profit, investment and cost of capital aggregated for each sector in Belarus defined in Industrial Classification System only recently built in Belarus and internationally comparable with NACE industry classification system. We adopt EVA indicator to Belarusian general economic conditions and specifics of available aggregate sector data by adjusting return on investment and cost of capital.

The findings of our calculations present the fact that four sectors in Belarusian economy create no economic value and have negative EVA indicator: education, health, community, social and personal services, and, suprisingly, real estate activities. Such negative EVA indicates that either cost of capital for an industry is higher than return on capital (the firms are currently earing less than expected giving the their cost cost of capital) or capital invested does not create enough of value for specific investment projects. The first three mentioned sectors have clear "social" charakter in Belarus by recieving substantial governmental support and subsidies. We can state that these sectors and real estate operate "at the cost" of other industries.

The most striking finding of our estimations is that the lowest EVA indicator among all Belarusian industries shows the division called "Real estate acvtivities". This can be explained by having a close look at the sector's further structure. According to NACE "Real estate activities" behind direct services of selling estate and real estate agencies includes also management of estate on a fee or contract basis. In Belarus the latter are simply maintanace services for housholds which is traditionally low-profitable and government-subsided. A huge governmental straight involvment in construction sector production, providing of preferential rates for housing construction credits and other economic peculiarities in Belarus have led to a deplorable result that firms from a should-be profitable NACE class "Development and selling of real estate" destroys economic value.

We strongly believe that EVA as a qualitative indicator of investments among firms in different sectors including real estate better illustrates potential of economic development of Belarusian business unlike gross macroeconomic indicators of output etc. EVA indicator also provides us with more objective information about current situation at the market when no stock exchange information is available.

**Keywords:** Real estate sector, NACE, economic value added, performance analysis





**BOOK OF ABSTRACTS** 

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### MEASURING RETURNS IN THE SWISS RENTAL MARKET: A NEW REPEATED-MEASURES INDEX

The real estate market is well-known for its illiquidity. The lack of regular transactions renders the measurement of returns a complicated matter. In this paper we construct an index of the Swiss residential market starting as early as 1950. Given the data sample at our disposal of roughly 1000 paired data points we focus on the repeated-measurement methodology to evaluate both an equally-weighted and a value-weighted yearly price index of rental residential property spread across all of Switzerland. We also develop an alternative of the SPAR method (Sale Price Appraisal Ratio) and compute an index based on this new method. The newly developed ISPAR method yields similar results as the repeated-measurement yet is less influenced by the sample size in the years with little data.

**Keywords:** long run index, repeated measures index construction, sale price appraisal ratio index





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# METHODS FOR AN ASSESSMENT OF THE DEVELOPMENT OF REAL ESTATE MARKET VALUES FOR IMPERFECT RAW DATA

Presumably, real estate appreciation indices based on appraiser values do not reflect actual market value developments on real estate markets. Also the return volatilities of these indices do not reflect the actual risks on real estate markets. The reasons for this educated guess are that even in an efficient proceeding, errors in the real estate appraisal and index construction processes cannot completely be eliminated. So the question arises, whether there are possibilities to gain true market returns from appraiser based index returns. In the past, some researchers developed methods and recommended to apply them on index returns to obtain return series, which presumably fit better to true market returns. But since there are not exact information about the true market returns and types and extents of errors in the index returns, the construction of correction procedures for index returns seems to be arbitrary. It may be questioned, whether an approximation to actual market returns can be achieved at all by applications of correction procedures on index returns. Further it is of interest, whether estimated market returns series gained from applications of different correction procedures on reported index returns series match or deviate more or less from each other. These questions are the pivot of the present study. In fact, authors report very different results for their correction procedures – judged by the for investors relevant statistical characteristics of corrected returns series. Most researchers report for their correction procedures estimated market returns series that are more volatile than their underlying reported index returns series. But in the recent past Bond and Hwang (2007) found that the volatility of property returns is less than indicated by the UK IPD index returns. So there is a wide range of results for volatilities and statistical properties of real estate market returns. But since the results of different authors refer to different time segments, they are not directly comparable. So in the present study the correction procedures are applied on equal terms. They are revised and compared for identical time segments of an index. In a second step, a rolling window approach is applied on U.S. NPI and UK IPD index returns series to observe the magnitude of revisions by time in the statistical properties of unsmoothed return series. Further, it is suggested to modify the procedure of Bond and Hwang (2007) to fully meet the quality characteristics of the NPI index returns. Additionally to several kinds of errors already considered by the authors it is proposed to adjust the NPI index returns series also by the phenomena of stale appraisal and seasonality in appraisals. It is suggested that this potentially can be done by an incorporation of additional moving-average time lags in ARFIMA-models compared to the ARFIMA-models suggested, parameterized and estimated by Bond and Hwang (2007) for quarterly returns series. Alternatively, it is suggested that the phenomenon of "stale appraisal" inherent in NPI returns series can maybe be regarded by an application of an ARFIMA(1,d,1) on returns series in annual periodicity. Also the phenomenon of seasonality in appraisals is maybe captured by an autoregressive term of time lag four in quarterly returns series.

In the present study, not only the result of Bond and Hwang (2007) is confirmed that the IPD index return volatility is upward biased by systematic errors. As opposed to Bond and Hwang (2007) it is also gained for NPI returns series that the volatility is upward biased.

**Keywords:** appraisal-based indices, smoothing phenomena, risk measurement

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# MODELING STAKEHOLDER DECISION MAKING PROCESSES IN THE CONTEXT OF BROWNFIELD REDEVELOPMENT

Several important changes have recently influenced urban planning and redevelopment process. At first, the scope and scale of urban redevelopment projects has increased. Secondly, a traditional linear planning process from government to the building industries has been replaced by public-private collaborations that changed the characteristics of the developer and governmental agency; their roles play now the major influence in urban development processes. Therefore, an important cause for stagnation in redevelopment of Brownfield is the lack of consensus amongst key actors due to shared, overlapping concerns or individual conflicting interests. In particular, this research focuses at possible stagnation in relation to: (a) the features of a Brownfield, (b) the preferences of two groups of actors and (c) the characteristics in the negotiation process between the two groups of actors. To structure the features a Fuzzy Delphi Method is used. Stated Choice Method provides an insight in the individual preferences of both stakeholder groups. The outcomes of the decision-making process are not only depending on an individual choice made, but also including the influence of the choices of an actor's opponent. Therefore, we focus specifically on non-cooperative games (Game Theory) aiming on finding possible sources of conflicts in negotiations concerning Brownfield redevelopment. Based upon the findings on conflicting games, interaction between the selected two actors will be simulated, calculated and modeled. The final outcomes of the research project will assist decision makers to predict possibility of stagnation and to overcome the challenges of conventional negotiation. The construction of alternative plan proposals within these models is a relative unstructured process. Little work has been done to develop models that systematically relate the characteristics of the Brownfield areas and redevelopment plans to the behavior of actors thereby giving insight in the most important points of interest and in possible sources of conflicts.

Keywords: Development process, real estate features, stakeholder's decision making, negotiation, game-theory

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#### MODELLING AFFORDABILITY IN HOUSING MARKETS

Recent euphoria surrounding housing markets has aroused a vast outpouring of learned and popular literature. The boom and bust cycle which characterised housing markets in most advanced economies over the last decade has had a profound and significant effect on the operational mechanics of housing provision. Indeed, this evident dysfunctionality within housing systems has resulted in affordability issues surfacing as a fundamental intrametropolitan issue. Affordability materialises in many forms and guises, fuelling the debate of how to best conceptualise and measure housing affordability. Accelerating house prices nurtured the affordability debate during the boom years, however, in more recent times, the events of the sub prime mortgage market and subsequent subsidence in the housing market has dominated affordability concerns. Indeed, this malignant financial environment has emerged as the primary barrier, deteriorating affordability for those on lower incomes or in marginalised positions.

This paper examines the salient drivers which serve to contextualise the disequilibrium within the residential housing market in Northern Ireland. It further proceeds to conceptualise and measure affordability. In order to achieve this, the paper presents a hierarchical framework which disseminates the indicators identified as most important for modelling affordability. The paper applies a Delphi-based methodological paradigm to rank salient indicators identified in the framework, using an eclectic range of key property market experts.

An upper quartile method is subsequently applied culminating in the production of a leading catalogue of indicators specific to affordability. Indeed, this composite approach is employed as it captures a host of demand and supply side variables and offers an enhanced analytical platform for modelling affordability than other traditional ratio techniques. The upper quartile set of indicators are applied at the Northern Ireland level using regional and national data-sets which are firstly analysed for key trends, and secondly analysed using correlation analysis to capture the synergies residing between the indicators. Indeed, this in an attempt to drill down and distill the associated relationships and movement of the significant indicators of affordability.

Principal component analysis is applied to establish whether the indicators can be reduced down to an underlying dimension of affordability. From this, the extracted components serve as predictors in a multiple regression analysis, which culminates in the formulation of a weighted affordability index for the Northern Ireland jurisdiction. Conclusions are then drawn, which advocate for a reform in monetary and housing policy and discourse.

Keywords: AFFORDABILITYHOUSING MARKETMORTGAGE FINANCEFIRST TIME BUYERSHOUSE PRICE





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#### MODELLING EFFECTIVE OFFICE RENTS ACROSS EUROPEAN MARKETS

Prime office rents are often criticized for lack of responsiveness to market pressures. Recent papers have sought to explain the asymmetric nature of rental movements in central London office markets with models designed to exploit asymmetric movements.

This type of rental movement is usually the result of incentivisation in the form of rent free periods. Rent free periods along with other less common forms of incentive, with the UK being the most prominent case, are becoming more common across Europe. Many European markets are implementing increased incentives in the face of falling rents and values. In this paper we examine the significance of rent free periods in creating asymmetrical rental movements by examining several markets across Western Europe with a focus on central London offices. We are seeking to explain the impact of incentives on effective prime rents in terms of volatility and value protection.

*Keywords:* Effective rents, rent free periods, property and capital market influences, econometric modelling, forecasting, office markets, Europe





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### MODELLING THE RELATIONSHIP BETWEEN DEVELOPMENT DESIGN AND FINANCIAL **VIABILITY**

Fifth author: Ms Ning Zhao, University of Sheffield (N.Zhao@sheffield.ac.uk). Abstract: The paper describes the development and application of physical-financial modelling techniques to the analysis of relations between development design - covering the broad characteristics of a scheme, such as land use mix, development density and built form – and financial viability. It is divided into two parts.

The first part covers the development of the model. Existing work on development and design processes gives limited attention to the engagement of the two. This circumstance is mirrored in design and development appraisal techniques and software. We use a real time 3D visualisation system to represent a proposed development. It allows the user to control the viewing position to explore all aspects of built form for a given site and to categorise and experiment with land and building use. This 'live' visualization is linked through a plug-in to a financial appraisal in a way that enables the financial structure (viability) of the scheme to be estimated instantaneously. The resultant model permits multiple alternative development strategies - incorporating a wide range of changes in uses and building designs - to be explored quickly and in detail.

The second part presents examples of the application of the model to demonstrate its potential. The tools available to developers to explore development strategies on particular sites are limited. Time and cost constraints often result in a combination of sketch schemes and outline (or even 'back of the envelope') appraisals being used to explore the relation between design and viability. Consequently, relatively few alternatives are considered in relatively little detail. The model addresses this problem and offers the potential substantially to increase developers' capacity to consider alternative approaches to site development. This is illustrated with reference to a case study site. The model also allows analytical generalisation. Using this approach, the relations between built form and financial structure are explored. The results challenge some of the claims made by New Urbanists and other similar protagonists about the value of 'good' design.

**Keywords:** Development, Design, Viability, Modelling





**BOOK OF ABSTRACTS** 

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#### MODELLING THE TENTANT MIX OF A SHOPPING CENTER

In nowadays financial crisis, consumption reluctance concerning daily and durable expenditures will affect the retail markets and the shopping center industry in the near future. Thus, it is crucial for real estate developers and managers to understand the importance of the success factors of shopping centers in order to create premium customer traffic, higher than average sales productivity and rents as well as low vacancy rates. An ideal tenant mix in a shopping center creates a competitive advantage in this challenging market situation.

This paper aims at analyzing the interdependencies between relevant external variables and their impact on competitive parameters of a shopping center. Moreover, a model is built to create the optimal tenant mix of a shopping center while taking into account variables like the local high street retail mix, demographic factors, consumer trends or purchasing power. The purpose of this model is to build an optimal tenant mix which differentiates the center from competing retail agglomerations, build customer loyalty and a reputation which attracts more desirable tenants.

A review of previous literature, largely based on retail property specific papers, will provide a framework for the discussion and evaluation of different valuable impact factors.

Recommendations will be made for the development and application of an optimal tenant mix and strategies adapted to competitive characteristics of a shopping center in order to improve its overall performance will be derived.

Keywords: retail property, shopping center, tenant mix





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#### MODERN CONDITION: MARKET VALUE OR USER VALUE?

Methodology of valuation most widespread now is based on the assumption of stability of the market of a valuation subject (a real estate). This assumption has consequence the concept of the market value, in particular, in the definition of International Valuation Standards [1] (which for clients' purposes equates to fair value under IAS 40). This is a conception of a value in exchange, where a willing seller and a willing buyer decide to change a valuation subject for a calculated sum of money on the valuation date on the base of well-done marketing. Some time ago it seems that the approximation of a market value looks strange only for emerging markets [2] with its non-transparency. But last halfdecade changes the situation. Thinking on the reasons of poor-quality valuation since times of scandals with Enron company etc. up to modern mortgage crisis many analytics have come to conclusion, that, apparently, the stable markets exist only in imagination, as a model. In the contemporary world prices are not established by what has gone before or even what exists now, but by buyers' and sellers' future needs and expectations. Whether for this reason, or on the basis of intuition, more and more valuers' clients (owners, buyers, investors) are interested not in a present condition of the market, but its future. Making a decision they wish to know the future incomes of use of a real estate (valuation subject). Differently, a willing seller and a willing buyer have typically ignored market value, but are interested in value in use. The concept of the value in use is well-known. The value in use is a value of concrete property at concrete use for the concrete user and consequently not connected with the market (e.g. [1]). In book keeping a value in use is the value of calculated future cash flows discounted to a present situation which presumably will arise from continuation of use of an active and from its sale in the end of its term of useful services (see IFRS 5, app. A). Nevertheless often a potential real estate investor is not interested in value in current use, but value in the most profitable use (highest and best use). We shall name this kind of value as the "user value". It can be defined as follows. User value is a current value of the future incomes of valuation subject in highest and best use. Being based on this definition, it is simple to fix an algorithm of calculation of the user value. At the first stage it is necessary to define the highest and best use of a valuation subject. Further, to forecast the incomes of this use, including return of the capital by sale in the end of use. At last, to predict changes of capitalization rate in the market of valuation subject and to discount future incomes to the valuation date. As it shows, in conditions of changing markets the using by the valuer of the user value as the basis of a valuation often meets greater understanding of clients, than calculation of the market value.

Keywords: appraisal, basis of valuation, changing markets, mortgage crisis, valuation standards, value in use

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#### MORTGAGE CONSTRAINTS: IMPLICATIONS FOR UK HOUSING MARKETS

The shift in regulated financial markets and global economies induced by globalisation has had significant impacts on housing in many cities of the world. This feat was largely assisted by de-regulation within the banking sector which affected manoeuvrings in the housing finance system, making mortgage finance readily obtainable through the end of credit rationing. As a result, the flow of funds into the property sector via liberalised lending policies and subsequent competition within the mortgage market has simultaneously introduced increased demand for housing products as housing wealth has become more liquid.

Importantly, the advent of finance streams resulted in the demutualisation of financial institutions, resulting in improved mortgage liquidity and an increase in gearing rates in the marketplace, leaving mortgage rates dependent on interest rates. This dependency heightened the sensitivity of the housing market to macroeconomic fluctuations on debt and consumption (Kasparova and White, 2001) and introduced an era of destabilisation. Furthermore, it could be argued that this has served as an underlying driver of house price inflation.

The demise of global money markets post-financial crisis has curtailed inter-bank lending and borrowing creating a tepid mortgage lending environment. As banks strive to rebuild their balance sheets the contraction in mortgage lending has had a profound impact upon access to the property market, most notably within the first-time buyer cohort. The constrained availability of mortgage finance and subsequent reduction of loan-to-value ratios has manufactured an impasse in housing market activity as mortgage providers with limited credit supply have adopted an overtly conservative approach to their lending capacity and strategy.

This paper explores the current position relating to the availability of mortgage finance within Northern Ireland. The research will examine the range of mortgage products currently available, the criteria being applied by lending institutions to prospective purchasers. The dynamics of the mortgage market will also be explored, including an examination of long run trends relating to mortgage approval rates and relative affordability indicators. Comparatives between the Northern Ireland market and the wider UK will be drawn.

Keywords: Housing MarketsMortgage FinanceFinancial CrisisLiquidity ConstraintsBorrowing Ratios





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# MOVING TOWARDS AN UNDERSTANDING OF THE FACTORS THAT CONTRIBUTE TO STUDENT SATISFACTION IN HIGHER EDUCATION

In the quest to identify the key indicators of student satisfaction in Higher Education (HE) the authors have developed a model that encapsulated this experience. This model is a work in progress and is predominantly drawn from the literature available. The model has been broken down into sub-sets to isolate the different sectors of the HE experience. The goal is to test the relative importance of all these characteristics for students, when they make their decisions about their level of educational satisfaction.

Most student satisfaction surveys are developed by academics, but this research focuses on the characteristics that students in the property and construction disciplines within Australia, believe are important to them. The components of the HE experience are many and varied and before developing a questionnaire to examine student satisfaction, the authors must ensure they have captured the relevant criteria within the model. To this end the model will be tested on students in focus groups to ensure that it represents a broad student view of a HE experience and forms a picture of what is important to them in their educational journey.

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# MULTIPLE EQUILIBRIA IN GAME THEORY: SHARING PROFITS VS. MARKET PRICE

Keywords: student satisfaction, higher education experience, student centred research

The application of game theory to real option analysis is useful to understand the interaction between agents and the reason why developers tend to develop earlier than expected. Using a discrete time model, we critically present the limits of the Smit and Ankum (1993) model and propose a modified version of the same by assuming a profit sharing market environment to overcome multiple equilibria (i.e. situations where rules of thumb are used to determine the agents' profit). Finally, we introduce a speed of reaction to test different competition levels and we numerically show that the aggressiveness of developers reduces option values.

Keywords: Game Theory, Real Options, Real Estate Development





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# MUTUAL RELATIONSHIP OF APPRAISER WHITH BANK STRUCTURES IN THE CRISIS CONDITIONS AND MONITORING OF THE BANK PORTFOLIO

Present economic recession has formed the basis:

- •of decrease in inflows for appraisers' orders
- •of formation of relationships between market agents
- •of working out new hypotheses

Subjects tent to understand market value, which is based on best and most effective utilisation, in traditional assessment practice. The crisis has identified new requirements in assessment activities. Appears the need: to focus less on assessment of the exchange operation and more on creation of investment property. Dictionary of Modern Economics defines the essence of the investments as long-term investments – this is an undeniable argument in terms of its determination.

In this paper we investigate the analysis as the basis of the investment process. Targeting on the exchange operation, does not reflect the full market. It has to be focused on the investment attractiveness of the object. This is important especially when it comes to investment portfolio of real estate. Mortgage portfolio is formed not as an investment tool, but as an insurance of investment. Therefore it must meet all the characteristics of the investment process (time and directions) and be build on the analysis. Formation of mortgage portfolio and its researches should be based on classification of objects and analysis. The cost should take into account not only customer properties of the most effective use of the object, but its investment attractiveness.

**Keywords:** valuation, investments, investment opportunity, real estate portfolio.





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### NEIGHBORHOOD BRANDING: THE UNDERESTIMATION OF PHYSICAL ATTRIBUTES

In the present globalized world place branding has developed as a strategy to distinguish a place from other places in order to attract tourists, financial capital and certain specific target groups (e.g. knowledge workers) or to hold on to present inhabitants. Especially, the branding of nations, regions and cities has gained a lot of attention. Recently, the idea of branding neighborhoods has been introduced in urban revitalization processes by several municipalities and housing associations in the Netherlands. It is applied in order to counteract the stigmatization of deprived neighborhoods and to revitalize these places into physically and socially differentiated entities based on the perceived atmosphere, feelings and emotions of the neighborhood. Central in the neighborhood branding process is the search for the (aspired) identity in terms of the key values of the neighborhood.

It is often stressed that the branding of deprived areas has positive effects on support among residents for redeveloping deprived areas and on communication between parties. In this paper, however, it is argued that neighborhood branding is not only a mean to stimulate the process of revitalization but also that the outcome of it (the actual brand) should be present and perceived in the physical environment. By this approach a residential environment can be created with which present and future users of the neighborhood can identify. Based on literature and several interviews this paper, which is based on an ongoing PhD study, explores how the identity of neighborhoods is being constructed. Specifically, it examines which physical attributes are important in the creation of the identity of residential places. In the first section an outline will be given on urban renewal policy in the Netherlands and its shift towards a more marketing-oriented approach. Next, the phenomenon of place branding and neighborhood branding in particular will be discussed. Subsequently, the concept of identity of place will be described and an overview of important physical attributes is given. The paper ends with some conclusions and recommendations for this ongoing PhD project and future research.

Keywords: Neighborhood branding, revitalization, identity of place





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# NEW AND INNOVATIVE INFRASTRUCTURE PROCUREMENT MODELS – THE NEED FOR NEW FINANCING MODELS IN FINLAND FOR SOCIAL AND ECONOMIC INFRASTRUCTURE

This paper describes the challenges in public financing of essential infrastructure investments. Infrastructure is, after all, the key issue in the global competition between different countries and locations.

Infrastructure allocations are relatively low compared to real-estate allocations of institutional investors in Europe. According to OECD's report Pension Fund Investment in Infrastructure, OECD Working Papers on Insurance and Private Pensions No. 32, Jan. 2009, it will be important to open new investment opportunities in infrastructure projects for institutional investors. Public authorities and decision makers play a key role in opening the public infrastructure market for private investors.

This paper describes two actual cases in Finland, which are realized as part of a program for innovative procurement in the public sector. The program is partly funded by TEKES (the Finnish Funding Agency for Technology and Innovation). This paper clarifies the process of public procurement in Finland, the challenges of fitting in the needs of both investors and public authorities, and summarizes some findings from the literature. This paper also describes the importance of the regional concept in financing of infrastructure.

The major methodology for this conference paper will be literature research.

Keywords: Public Finance, PPP, PFI, Innovative Procurement, Regional Concept





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#### NEW TOOLS FOR SOCIAL HOUSING DEVELOPMENT IN ITALY

The development of housing policies has returned to be a main topic in the Italian government agenda: in the last ten years, the growth of real estate values turned out to be far more important than the real incomes and led to a new social housing demand.

Public supply for ownership and rent at social values, however, was reduced significantly in recent years due to the end of national funding. It follows that local authorities, especially municipalities, have to promote the development of social supply with innovative tools.

The aim of the paper is the analysis of the different ways have emerged in recent years for the social housing development through public private partnerships.

The paper, in particular, investigates three possible forms of partnership than can be used by municipalities with no need for additional resources in order to promote innovative social housing development. The first one relates to PPP arrangements in urban planning, in which the administration grant development rights and obtains a fraction of the units developed. The second involves the use of public vehicles such as the urban transformation companies, similar to the French société d'Économie mixte. The third one requires the use of real estate ethical funds.

The conclusions of the paper show that the three models present strengths and weaknesses and require local governments to clear priorities including, in particular, the level of risk to be taken in such operations and willingness to hold property in the long term.

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Keywords:

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# NOMENCLATURE, SCOPE OF SERVICE, AND INTERFACES OF REAL ESTATE INVESTMENT-, PORTFOLIO-, ASSET-, PROPERTY AND FACILITY MANAGEMENT BASED ON THE "BASIC CONCEPT OF REAL ESTATE MANAGEMENT"

Everybody uses the terms and there are multiple definitions as well as a heterogeneous understanding of "Real Estate Management (REM)" aspects. What has been missing is a unifying framework that integrates existing knowledge of REM, logically structures those topics, is expandable for new developments, and at the same time ensures consistency with other fields of business administration, especially Finance. Therefore, the authors propose such a thorough, logical and sustainable framework named the "Basic Concept of Real Estate Management". Focal points of the paper at hand are the management levels and perspectives of REM for which a standardized nomenclature is introduced. In addition, the framework and the nomenclature are concretized by describing the scope and tasks of specific REM services and their interfaces.

The specified REM services are the "Real Estate Investment Management (REIM)" on the investment level, the "Real Estate Portfolio Management (REPM)" on the portfolio level, the "Real Estate Asset Management (REAM)" on the strategic object level, and the "Property Management (PrM)" as well as the "Real Estate Facility Management (REFM)" on the operative object level. Those services are characterized and defined and their individual scopes as well as their tasks within the management cycle are described in detail. Commonalities and differences between the "return-oriented" and the "use-oriented" perspectives are pointed out where necessary. In addition, the authors suggest a new term — "Institutional-Investment Real Estate Management (IIREM)" — for the management concept that covers institutionally owned real estate assets that are managed with the goal to optimize total return, risk, and liquidity, thereby complementing the "CREM" and "PREM" concepts and clarifying the confusing use of "REIM" in Germany. The attempt to logically and consistently define and standardize the nomenclature of REM and to systematically associate REM services with their respective management tasks is by no means a theoretical exercise; instead it provides the preliminaries to clarify and manage the interfaces between involved participants that in all areas of REM are resulting from increasing focus and specialization. Thus, the paper lays the ground for easier communicating and contracting of parties, for effectively organizing companies, and for designing jobs that fit, in sum, to optimize performance, the overarching goal of real estate management.

*Keywords:* Real Estate Management, Framework, Nomenclature, Definitions, Scope of Services, Investment Management, Portfolio Management, Asset Management, Property Management, Interfaces





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# OBJECTIVE VS. PERCEIVED AIR-POLLUTION AS A FACTOR OF HOUSING PRICING: A CASE STUDY OF THE GREATER HAIFA METROPOLITAN AREA

Sale prices of residential properties are not necessarily affected by objectively measured property attributes, but rather by attributes which sellers and buyers perceive as factual. To verify this assumption, we examined the effect of air pollution on market prices of 926 housing units sold between 1998 and 2007 in the Greater Haifa Metropolitan Area, Israel. First, we compared the ambient levels of SO2 and PM10 pollution, measured by air quality monitoring stations, with subjective evaluations of air pollution levels in the city neighborhoods, obtained via interviews of local residents. These two types of air pollution estimates were then used in the multivariate analysis as property price predictors. As found, subjective evaluations of local air quality performed significantly better in explaining the variation of local apartment prices than objectively measured air pollution levels.

**Keywords:** Real estate, housing values, air pollution, perception, objective evaluation

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#### OCCUPANCY COSTS INDICATORS OF MUNICIPAL BUILDINGS

To maximize the returns on a real estate investment, it is essential that property owners intelligently manage all the variables that could negatively impact the long-term value of the asset. Occupancy costs have historically represented a large percent of what is spent over the lifetime of a real estate investment. Therefore, to maximize the returns on their investment, it is important that property owners, first, make a cost benefit analysis of various options, and second, reduce the occupancy costs associated with the chosen option by either eliminating or better managing the underlying drivers.

This study is addressed to facilitate the decisions made around the second point by gaining a better understanding of the causal relationships between identified drivers and occupancy cost indictors.

In refer to Pfarr (1976) and Stoy (2005) the amount of occupancy costs always depends on the following factors: usage, building characteristics, strategies, location and market dynamics. By examining the costs of 150 municipal buildings (schools, sport facilities) and all the factors that go into those costs, the research looks to both build on the investment versus occupancy cost analyses done by GSD (2003) and Stoy (2005, 2008) and help property owners identifying how they can better reduce occupancy expenditures and manage their investments more intelligently. The current collection of data forms the main part over the course of the study and comprises the investigation of occupancy costs (dependent variables) and the definition of relevant cost drivers (independent variables). Subsequently the collected data will be analysed by conducting a series of univariate analysis. First results will be presented in spring 2010.

Cost-optimized and financially sustainable real estate can only be planned, built and used if the causal relationships existing between occupancy costs and their identified drivers can be confirmed and translated into practice. This empirical study seeks to make such a confirmation by quantifying the relevant drivers of occupancy costs. Based on these findings it will be possible to create occupancy cost benchmarks for early project phases and to specify design rules and basic conditions for planning, building and using financially sustainable real estate.

**Keywords:** occupancy costs, economical sustainability, cost estimation, benchmarking, municipal buildings





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#### OFFICE MARKET AND LABOUR MARKET: THE CASE OF GERMANY

Using a panel data approach the relevance of labour market fluctuations for rents and vacancy rates in the German office property market are investigated. Based on occupational labour market data the number of office workers in Germany and in the 20 biggest cities is thereby calculated. For the office market, two different datasets have been used: Quartely data for the main six German metropolises and annual data for 20 cities. As it turns out, changes in office employment have a significant impact on the office market. Additionally, the office market is lagging behind the labour market. Thus, labour market developments are an helpful early indicator for property market investors.

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for owners and developers to look at a more efficient and sometimes "sexy" way of proposing their stock to the market. A number of different factors can drive tenants to the Asset. Some are intrinsic like a more visible or better served location; some are immediately known - old good tools - like price and incentives strategies, or marketing and communications capabilities of the agency team. Some others may be less evident from the beginning but can do the difference once the potential client has considered the building and is in the process of comparing the market offers. That is the case of a clever repositioning of the building to better cope with a competitive market and new Corporate and End-Users needs.

This paper investigates the importance of technical and design issues for real estate portfolio managers and also for office occupiers from various organizations in Milan and Rome. The research focuses on existing single and multitenancy buildings located in the city centre and peripheral areas.

The research is based on direct professional experiences, interviews and questionnaires gathered in 2010 between organizations that were looking for new office space to ask them about their attitude towards several issues. Informal meetings and interviews were also conducted with real estate agents and asset manager of some of the primarily industry sector leaders.

This paper may therefore suggest a more efficient approach to reposition existing stock, market empty assets and retain corporate users also once new properties will be available.

corporate users also once	new properties will be available.	
Keywords: offices, design	, efficiency, performance, end-users	
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#### ON OPTIMAL CREDIT EXPANSION

We derive a model of lending under imperfect information for investments with embedded real and financial flexibility. Risk-shifting is shown to be not inherent in loan agreements. Under certain assumptions, there exists an optimal credit expansion policy that fulfils the dual objective of stimulating investment and preventing risk shifting behaviour. Its existence helps in explaining why less volatile countries have a higher growth rate. More importantly, it suggests that a policy response of raising interest is not only impotent but it actually exacerbates speculative investments that cause credit-induced asset-price bubbles. Instead, a policy of de creasing interest rates with simultaneous tightening of lending requirements is a more effective tool for dealing with the damaging consequences of speculative investments.

Keyword	ls:
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# ON THE RELATIONSHIPS BETWEEN SUSTAINABILITY STRATEGY AND FIRM PERFORMANCE IN RESIDENTIAL TRADE AND INDUSTRY

The request for a sustainable development challenges both managers and consumers to rethink habitual practices and activities. While consumers are challenged to develop sustainable consumption patterns, companies are asked to establish managerial systems and structures considering economical, ecological, and social issues. This is in particular true for housing companies. Although there are numerous studies that address environmental aspects of housing and construction, by now there has been no comprehensive assessment of all the aspects of sustainability in residential trade and industry (RTI) except some initial broad takes. Focusing on the subject of sustainability strategies in commercial operations, the research of existing sources yields an even more urgent need of scientific attention. For instance, McGee 1998 explicitly points out the need to devise sustainability strategies in commercial enterprises. Further, Salzmann et al. 2005 conclude a significant lack particularly of branch-specific research which prevents development of precise measurement tools. The subject of sustainability strategy in housing enterprises currently lacks attention in scientific sources, amounting to an actual research gap.

The present article intends to close this gap. Based on the competence-based view (Penrose 1959; Selznick 1957) and the dynamic capabilities view (Eisenhardt and Martin 2000), this research suggests a conceptualization of sustainability strategy in RTI including the tree dimensions of ecology, economy, and social issues. Further, this paper develops a research framework linking sustainability strategy in RTI and firm performance. Based on prior research by Vorhies and Morgan 2005 firm performance is conceptualized as a three-dimensional construct reflecting the facets of tenant satisfaction, market efficiency, and profitability.

Analyzing the relationships between sustainability strategy in RTI and firm performance leads to nine key propositions. We argue, that each dimension of the sustainability strategy in RTI construct positively affects the dimensions of the firm performance construct. Considering ecological aspects in terms of managing housing stocks, housing companies are able to reduce emissions, increase energy efficiency, and avoid environmental pollution. From a managerial perspective, these issues address (1) environmental concerns of tenants resulting in higher levels of satisfaction with the housing companies, (2) competitors, and in turn market efficiency, by establishing competitive advantages, and (3) profitability, by saving costs due to a reduction in energy consumption. Focusing on the economical issues of property management, an efficient and profitable management of apartments and/or houses results in higher tenant satisfaction caused by market-driven rental fees and plausible service charges. Further, considering economical aspects of managing residential entities assumably affects market efficiency as well as profitability of housing firms as these issues determine a company's competitiveness and internal operational efficiency. Pertaining to the social issues of property management, the consideration of needs of actual and prospective tenants as well as residents during planning, maintenance, or refurbishments of residential entities influences not only tenant satisfaction, but also market efficiency, as those companies are perceived as caring about their customers' needs and wishes, which results in a positive image as an attractive landlord. Moreover, considering social aspects in managing housing stocks and apartments influences firm's profitability due to a reduction of tenant fluctuation and thus, stabile rental charges.

In sum, this research sheds light on the role of sustainability strategy in RTI by suggesting a conceptualization of this construct and analyzing the effects on critical business success factors, such as firm performance.

Keywords: firm performance, sustainability strategy, residential trade and industry





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# ON THE RELATIONSHIP BETWEEN LEVERAGE AND DEBT MATURITY FOR US REAL ESTATE FIRMS

The leverage and debt maturity decisions of real estate firms are related. However, most empirical capital structure studies implicitly assume that they are made independently. We explore both these dimensions of capital structure in US real estate companies and REITs and find that leverage and maturity are indeed related, but that the nature of this relationship varies significantly between REITs and non-REITs. Further, we explore the firm-specific and market-wide determinants of leverage and maturity in US real estate firms and REITs. While the determinants of leverage are similar for REITs and non-REITs, the determinants of maturity differ substantially between REITs and non-REITs.

Keywords: capital structure, REITs, indirect investment

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#### OPTIMAL GLOBAL REAL ESTATE PORTFOLIO – A PRACTICAL APPROACH

Modern Portfolio Theory has become the standard tool to construct and analyse equity portfolios. Applications to alternative asset classes, in particular private real estate, are much less wide spread and have mostly an academic character. The main hurdles faced by researchers and practitioners are the availability of sufficient data history and adequate capturing of specific properties of real estate investments, especially their illiquidity and the lack of transparency. In this paper, we develop an approach to constructing an optimal global real estate portfolio that takes into account the existing practical limitations. The analysis is conducted in several steps: In the first one, a neutral global portfolio based on invested real estate stock is defined. The second step involves formulating constraints that allow for investor specific requirements regarding liquidity, transparency, country risk, and a number of other criteria. In the third step, optimisation is conducted to arrive to an optimal long term portfolio defined in terms of target allocation ranges. Within these ranges, short term tactical adjustments can be applied depending on the current market outlook. The approach constitutes a trade-off between a rigorous methodical portfolio optimization and a practicable method to arrive to a global real estate strategy.

Keywords: Portfolio Theory, Direct Real Estate, Investment Strategy, Global Portfolio





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#### OPTIMAL SELLING MECHANISM, AUCTION DISCOUNTS, AND TIME ON MARKET

First, I obtain some new results that are applicable to all continuous distributions on a finite support. Second, I make major corrections to the results of the partial recall scenario. Third, I discuss whether the mean-variance preferences are suitable for the seller in the sequential search with recall model.

*Keywords:* Property price, Time-on-market, Stochastic dominance, Risk neutral, Risk averse



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#### OPTIMAL TAXATION THEORY AND THE TAXATION OF HOUSING IN THE USA AND THE UK

In the last few years a number of papers have been published applying the principles of optimal taxation to the housing market, primarily with regard to the United States. The conclusions reached are that investment in housing is under taxed, resulting in overinvestment in housing and in underinvestment in business assets. In this paper we survey these contributions, but argue that the researchers' conclusions are reached by ignoring the Property Tax. The grounds for ignoring it seem to be that it is a local tax which pays for local services. This may be true but in most other countries the same services, such as education, are largely paid for through other forms of taxation and residential property is lightly taxed. Moreover while the provision and quality of these services may vary between local governments in the US, the provision and consumption of these services is largely unaffected by the amount of housing that any household purchases, so that house buyers presumably take the property tax into account in deciding the size of their investment in housing in any area. The implication is that when the property tax is taken into account the bias in favour of over investment in housing in the US is much less than has been suggested, if it exists at all. In the UK a bias exists and is also low, but for largely different reasons. Firstly, tax relief on mortgage interest has been phased out; secondly, investment in business assets through pension schemes is given tax relief; thirdly, the planning system, through its constraints on the availability of land, imposes an implicit tax on housing. But the UK system, while in its investment towards housing, is regressive in that it favours the better off and the old because its property tax, the Council Tax, is a higher percentage of the capital value of smaller homes than it is of larger homes. A bias which does exist in the UK, however, occurs because industrial and commercial real estate is taxed, through the rates, at a much higher level than is residential real estate. This discourages the use of the limited available land for industrial and commercial use, and encourages its redevelopment, as a brown field site, for housing.

Keywords: Taxation, Housing, Optimal Investment



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### OPTION PRICING UNDER STOCHASTIC VOLATILITY OF US REITS

Margrabe (1978) developed the first option pricing model to value the exchange of two financial assets. One of its main applications is the pricing of M&A activities. In the real estate industry, however, the development of some sector-specific measures and the (real) nature of underlying assets require an adaption of the model to study M&A activities for the REIT (Real Estate Investment Trust) industry. We argue that an application to this specific equity sector allows us to study the impact of internal and external funding more carefully because of the presence of a specific measure of funds created internally (FFO) and assets used to guarantee lenders. Both external and internal funds are treated as additional items to the existing capital structure of the company/project, with the latter being treated as cash flows of the project and the former as additional value to the project NPV.

The empirical study demonstrates that there is an emerging optionality when one REIT takes over another. Moreover, consideration of funding for expansion should lead to a REIT trading at a premium to its NAV and the introduction of a stochastic volatility should increase the option value. Finally, we show that our model explains the behaviour of M&A pricing better than any traditional method and that an appropriate calibration enhances the pricing capabilities of the model under different scenarios.

Keywords: Exchange Options, M&A, REITs and Stochastic Volatility



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#### PANEL ESTIMATES OF OFFICE RISK PREMIA IN EUROPE

Significantly falling and rising property yields, which characterized the European real estate investment scene in the last 10 years, raise the key question of whether market pricing has been in line with fundamentals and rationality. Was the magnitude of the yield shifts, in particular the fall in yields by 2007, the result of investor over-reaction which now continues to affect pricing but in the opposite direction? A growing number of researchers argue that time-series patterns in returns are due to investor attitudes. This paper is concerned with measuring this impact, that is what premia office investors were prepared to accept for their investments. A sizeable research literature, and not only in the real estate field, tells us that these premia are time varying reflecting the changing factors and weights investors take into account in estimating them.

This empirical paper seeks to determine the relative impact of investor attitudes on yields in the past ten years. Within a model of yields which contains underlying market and capital market variables to control for the cyclical influences on yields we aim to provide empirical estimates of the additional impact on yields and thus risk premia. There is a plethora of explanations how access to debt and behavioural factors were driving pricing.

More specifically the paper has a number of objectives:

- to estimate time varying risk premia in the office market as spelled out by the panel model
- to examine whether the pattern of risk premia has been similar or distinctive across European markets
- to assess whether this analysis can be used for generating warning signals for over- and under-pricing
- discuss the implications of this analysis for expected risk premia in European office markets

The paper makes use of the data collated by Property & Portfolio research and it focuses on twenty large office centres in Europe. A panel model is deployed which contains key capital market and real estate market series as determinants of yields. This specification of this model draws on the literature in yield determination. The predictive ability of this fundamentals methodology is assessed. Subsequently the panel model is augmented with common time specific components to capture the cross cities dependency and investor attitudes common to all cities in the sample. Statistically significant time components would support the argument that investors had a further impact on the yield variation.

Keywords: Office yields, risk premia, panel models





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#### PEDESTRIAN MOVEMENT ANALYSIS AND SIMULATION IN PUBLIC SPACES

The paper is the initial phase of a larger project aiming for a complete simulation model for pedestrian movement in public spaces such as shopping centers. The goal of the project is to create a tool for shopping center management and for the designers of future shopping centers to assist them with their work. In the introduction an extensive literature review on the subject will be carried out focusing on a more detailed research criteria on the field of agent based modeling. In the first phase a minimum of three parallel pedestrian movement tracking systems, located in an educational facility containing offices, will be installed. These will be utilized to gather data for the simulation model and also to promote the use of this mode of tracking system in public spaces. In the future phases of research the focus will concentrate on the scalability of the model from small scale commercial buildings to large shopping centers. The desired project destination will be the development of a model that can be utilized in vast complex building networks such as airports. This model will allow research analyzing and measuring hot spots inside the public space to create accurate models on pedestrian movement that can then be compared to economies of space.

Keywords: agent based modeling, pedestrian tracking sensors, space utilization, pedestrian mobility



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# PENSION PLAN ALLOCATION TO REAL ESTATE WHEN PLAN TRUSTEES HAVE REPUTATIONAL UTILITY

This paper offers a new way to explain the puzzling stylized fact that there is a large mass of institutional investors with very little assets in real estate. The paper develops a model in which pension fund trustees will generally skew their holdings of assets toward investments with the potential for high returns, afraid that if they do not invest in assets with high returns, they may not achieve their target return. To that end, pension fund trustees will devote very little resources to investing directly in real estate. Further, the paper finds evidence that pension fund trustees will conform to group consensus (which explains why there is considerable consensus among institutional investors with respect to their actual real estate allocations. The paper also finds that portfolio allocations are quite persistent over time.

Keywords: Pension Fund, Real Estate, Reputational Utility, Optimism





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# PERFORMANCE AND EFFICIENCY ASSESSMENT OF LISTED REAL ESTATE COMPANIES: AN EMPIRICAL STUDY OF CHINA

This study aims to develop a selection criterion of Listed Real Estate Companies (LRECs) from a perspective of performance and operating efficiency, which is measured by a frontier-based Data Envelopment Analysis (DEA) approach. The DEA is a powerful, non-parametric technique that allows the comparison among diverse decision-making units (DMUs) as well as provides assessment of performance and efficiency for comparable production units such as companies. Based on the DEA approach, we conduct an empirical analysis on the Top-30 LRECs in China stock markets (both Shenzhen and Shanghai Stock Exchange) according to the 2009 Annual Financial Statements. The outstanding of selected LRECs is ranked in terms of their efficiency scores; besides, we verify whether the selected companies have minimized their input utilization (i.e. Human resource, market capitalization et al.); if not, we will further indentify and quantify those attributes influencing the performance of LRECs respectively. In general, the research will deliver three outcomes: firstly, an integrated assessment system will be established; secondly, it could be used as a useful reference for shareholders of LRECs; finally, it will provide important information for both institutional and individual investors who are seeking for indirect investment in Chinese real estate market.

Keywords: Listed Real Estate Company, input-output, efficiency, DEA, China

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# PERFORMANCE DYNAMICS AND DIVERSIFICATION BENEFITS OF EUROPEAN PROPERTY **SECURITIES**

This research assesses the role of European property securities traded in Austria, Belgium, Finland, France, Germany, Italy, Spain, Sweden, Switzerland, United Kingdom and United States in domestic mixed-asset and international investment portfolios over a 10-year period, 1999-2009. This is an extension of the study conducted by Newell (2003) for the European property companies over 1993-2002. While Newell (2003) uses EPRA property stock series and MSCI common stock series, this study extracts both common stock and property securities data from a single source, i.e. S&P BMI (for common stock) and S&P Property (for property securities).

By comparing the risk-adjusted performances and correlation profiles of different asset types (i.e. common stocks, property securities, bonds and cash), the objective is to assess whether European property securities enhance portfolio performance. In addition, local and U.S dollars are used to examine whether currency has negated the diversification benefits over the study period. This research spans over a 10-year period beginning from May 1999 to April 2009. In order to assess the stability of correlations during varying market conditions, two sub-periods from 1999 to 2004 and 2004 to 2009 are also adopted in the research.

The findings show that most of the European and U.S real estate securities have outperformed the other asset classes over the entire study period. However, it is noted that the risk-adjusted performance of the property securities is not ideal when compared to cash and bonds. Most of the European real estate securities tend to have more superior riskadjusted performance than common equities in the long-run.

Unlike the correlations of property securities with cash and bonds, the correlations of the real estate securities and common stocks have grown stronger in the second sub-period as compared to the first sub-period. This is likely due to the higher inter-regional correlation caused by the sub-prime crisis. As such, diversification benefits of property securities in the domestic mixed-asset portfolios have been greatly reduced.

The results have also shown that despite the increasing global financial market integration, the European real estate securities can still offer international diversification benefits, even though the diversification benefits of property stocks during the period of high market volatility are not pronounced.

**Keywords:** investment performance, diversification benefits, global financial market, mixed-asset portfolio





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#### PILOT PROGRAM FOR INDEPENDENT SENIOR HOUSING IN KRAKOW

Little attention and study has been performed regarding the needs of senior citizens in Poland regarding their housing needs as they age. In general, people are living longer and in many cases, healthier lives. However, the housing stock has generally not kept up with the senior culture and lifestyles in the 21<sup>st</sup> century. Independent seniors in Poland, and Krakow in particular, have few residential living options tailored to their unique needs.

I will focus on the evolving lifestyle of senior citizens, including but not limited to, what it means to be a senior citizen now and how the lives of seniors are changing due to living longer and potentially healthier. I will also discuss how culturally, things are changing with respect to the care of parents by children.

In order to conduct this research, I use statistical demographic data from the Central Statistical Office in Warsaw combined with an independent survey and interviews with senior citizens, as well as theoretical indicators concerning social relationships within families and communities.

The aim is of this analysis is to recognize that the 21<sup>st</sup> century independent senior citizen has unique housing needs that are currently not being met in the residential real estate marketplace and that there is significant demand for independent senior housing units.

**Keywords:** senior housing





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# POLICY MAKING WITHOUT LEGISLATING; THE SELF-REGULATION OF COMMERCIAL PROPERTY LEASING

The terms of a commercial property lease covers aspects such as rent, alterations to premises and the ability to leave; consequently they have a significant impact on cash flow and the ability of a business to develop.

In contrast to the heavily-legislated residential sector, commercial landlords and tenants in the UK are largely free to negotiate the terms of their contract. Yet, since the property crash of 1989/90, successive governments have taken an interest in commercial leasing; in particular there is a desire to see landlords being more flexible.

UK Government policy in this area has been pursued through industry self-regulation rather than legislation; since 1995 there have been three industry codes of practice on leasing. These codes are sanctioned by government and monitored by them. Yet, 15 years after the first code was launched, many in the industry see the whole code concept as ineffective and unlikely to ever achieve changes to certain aspects of landlord behaviour.

This paper is the first step in considering the lease codes in the wider context of industry self-regulation. The aim of the paper is twofold: First a framework is created using the literature on industry self-regulation from various countries and industries which suggests key criteria to explain the effectiveness (or ineffectiveness) of self-regulation. This is then applied to the UK lease codes based on research carried out by the authors for the UK Government to monitor the success of all three codes. The outcome is a clearer understanding of the possibilities and limitations of using a voluntary solution to achieve policy aims within the property industry.

Keywords: Commercial leases, self-regulation, UK





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# POST-CRISES STRATEGIES IN CORPORATE REAL ESTATE MANAGEMENT (CREM) HINSIGHTS AND NEW REQUIREMENTS AS A RESULT OF THE "CRISIS YEAR" 2009

In 2009 ICME has carried out a Internet-based study of selected Corporates and Industry Experts.

We interviewed a panel of 50 Corporates, thereof 30 DAX and 20 foreign companies in Germany, Switzerland and Austria.

Moreover, we met with 12 Real Estate Industry Experts (Top Managers, Service Providers, Professors, Management Consultants) to discuss the impacts of the 2009 crisis on the practices of Corporate Real Estate Management (CREM). In detail, our Study has focussed on the following themes:

- 1) Which impact had the crisis on the CREM industry?
- 2) Which actions have been put in place to counteract or minimize this impact?
- 3) Which of these actions will have a long-term positive effect for the Corporates and –specifically- for the CREM
- 4) Which are the future requirement for Corporate Real Estate Managers?

Our study has the following structure:

- 1) Introduction
- 2) The Crisis Year: 2009
  - a) Initial Situation
  - b) Impacts on Corporates and CREM
  - c) Goals of CREM during the crisis
- 3) Areas of Actions and Objectives pursued
  - a) The lessons of 2009
  - b) The steps for 2010
- 4) Recommendation for 2010 and beyond

The final results focus on the major areas of actions that Corporate Real Estate Managers have put in place to navigate through the crisis to ensure the achievement of their strategic and operative objectives.

These actions refer to the following management areas:

- 1. Service Provider & Partner Strategies
- 2. Procurement Strategy & Outsourcing
- 3. Space Planning & Optimization
- 4. Building Management & Transparency
- 5. Process Optimization
- 6.HR Management
- 7.Liquidity
- 8. Procurement Optimization
- 9. Energy Mangement

Keywords: Crisis of 2009 Impact on Corporate Real Estate Management (CREM) Repair and Maintenance Service Provider And Partner Strategies Procurement Strategy and Outsourcing Space Planning and Optimization Building Management & Transparency Process Optimization HR





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# PRECISELY WRONG OR ROUGHLY RIGHT? AN EVALUATION OF DEVELOPMENT VIABILITY MODELS

In the UK, the financial viability of real estate development has become increasingly central to planning policy formation and implementation. As the range of users that relies on viability appraisals has widened considerably, viability modelling has become increasingly contested and the composition of viability models has come more detailed scrutiny. Development appraisal techniques are recognised to contain a number of unrealistic and flawed assumptions. Essentially, this paper investigates the extent to which these limitations of development viability models matter. We examine whether model composition in terms of the complexity of information content and choice of development viability approach has significant effects on models outputs. In the first section, viability models are briefly discussed in the wider context of model formation. In the second part, drawing upon a review of the literature, the composition of viability models is critically evaluated and previous research in this area is reviewed. In the empirical section of the paper, simulation techniques are applied to a range of viability models in order to assess the extent to which choice of model affects the output or decision.

Keywords: Viability model, development appraisal, uncertainty





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# PRICING OF CREDIT-SENSITIVITY RESIDENTIAL MORTGAGE ASSET BACKED SECURITIES **TRANCHES**

The main objective of this paper is to lay out a methodology for optimal sizing, or subordination, and pricing of the credit-sensitive Residential Mortgage Backed Securities (RMBS). To that end, we combine a Monte Carlo simulation framework with a model of cash flow waterfalls across multiple credit

tranches defined within a security. The developed model is used in a two-stage sequential sizing pricing analysis: that is, first, generating an internally-consistent tranching given an empirically-fit loss distribution along with a set of stress scenarios defined a priori; and, next, estimating a riskneutral

pricing of credit risk embedded in each tranche. Our preliminary results show that: the sizing differences between ARM and FRM are negligible, implying that, as long as loan- and borrower specific idiosyncratic risks factors being equal, the effects of systematic risk drivers (i.e., home price and interest rate scenarios) should be similar to both loan types; in terms of risk-adjusted return, mean IRR increases as rating goes to lower grades, and so does its dispersion across economic scenarios and, the subordination level (the sizing) for AAA decreases (increases) under a more geographically diversified mortgage pools, but not so in the NR (non-rated) tranches, implying that the diversification benefit is shown in the tail size, but not necessarily in the mean, of the loss distribution.

Going forward, we will add more empirical results and will also elaborate policy implications thereof.

Keywords: Residential Mortgage, Subordination, Rating





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# PROPERTY BRANDS – DEVELOPING A STRATEGIC BRANDING MODEL FOR THE REAL ESTATE **BUSINESS**

In the field of consumer goods branding is constantly in the focus of companies' efforts to gain an advantage over their competitors by reaching a beneficial positioning of their products in the mind of consumers. Research and practice continuously document the power of brands in influencing individuals' quality perception, loyalty, and willingness-to-

Facing an ongoing intensification of competition in the market, property developers more and more invest in developing property brands aiming at lower vacancies and a premium in rents and sales prices. However, too often real estate actors adopt only a part of the necessary branding process, not going beyond a catchy slogan and the design of a logo. Thus, the full potential of branding a property is not utilized.

Against this background this paper aims at developing a strategic model for the establishment and management of strong real estate brands. Following a benchmark approach, a behavioral brand equity model is developed and applied in a survey identifying the strongest brands in Germany's commercial office market. From there, a conceptual framework for real estate branding processes is deduced. In this way the existing gap of knowledge concerning real estate branding should be partly closed and valuable insights for the daily management practice should be derived.

**Keywords:** Real Estate Marketing, Real Estate Branding, Property Branding

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# PROPERTY INVESTMENT RESULTS OF DUTCH PENSION FUNDS (2004-2008): INTERNATIONAL **DIVERSIFICATION IS DISAPPOINTING**

In this study 30 Dutch pension funds were analysed in respect of the results achieved on their property investments over the period 2004 – 2008. The conclusion is that the pension funds that mainly invest internationally have incurred a higher risk than those that invested mainly in the Netherlands. At the same time that higher risk has not produced a higher return. Along with the fact that the return-risk profile of the international property investments (IPD Global) in the period measured was less favourable than the Dutch investments (ROZ-IPD) the most important explanation of the unfavourable risk profile lies in the implementation of the property investment strategy. Dutch pension funds that invested mostly internationally in property have realized a much less favourable return-risk profile in the implementation of the strategy than might be expected on the basis of the global index.

Keywords: Property investment, international diversification, risk-return profile, pension funds





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# PUBLIC ASSETS DEVELOPMENT: ANALYSIS OF THE OPPORTUNITY OF APPLYING REAL ESTATE FINANCE TOOLS IN THE URBAN REDEVELOPMENT PROCESSES IN LOMBARDY REGION (ITALY)

The development chances of public assets, both present in a wide number on the national territory and represented by high quality and considerable properties, are a fundamental opportunity for the Public Administrations and the local communities. With the purpose of facing the emerging issues that affect cities and territories, above all in terms of governance, the management policies in this sector, are an essential element for deepening the thinking over the Public Administrations behavior, especially, in this period of economic crisis. In this context, therefore, issues as tools for the expenses reduction in the public assets management, the rationalization of uses in the properties' development processes, in order to improve the public/private and public/public partnerships through the so-called PUV (Programmi Unitari di Valorizzazione) have become very important aspects of the national debate.

In regard of these statements, this paper outlines the outcomes of the research program "Public assets valorization: analysis of the opportunity of applying real estate finance tools in the urban redevelopment processes in Lombardy region (Italy)", started and developed through survey carried out by the use of questionnaires, administered to a stable and representative sample of 60 Townships in Lombardy region and focused on the local Public Administrations preferences about different real estate development tools, both considering what is provided by the article n. 58 of the Act 133/2008 ("Piano delle alienazioni e valorizzazioni immobiliari") and analyzing the most important tools that local authorities could use to achieve the development purposes of their own real estate assets.

The outcomes of this survey show both high capabilities and wide development potentialities, in terms of availability of properties and of vocation of the Public Administrations of considering the issues in discussion. At the same time, it has been possible to identify which are the most considerable threats to further development of the current practice.







**BOOK OF ABSTRACTS** 

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### PUBLIC AWARENESS OF "GREEN" AND "ENERGY EFFICIENT" RESIDENTIAL PROPERTY

Over the last few years more stringent environmental laws (e.g. the German "Energie¬ein-sparverordnung ENEV" - Energy Performance of Buildings Directive) and soaring energy prices increased the need for the real estate industry to react. Therefore the Property Group at Queensland University of Technology in Australia and Nuertingen-Geislingen University in Germany carried out research in relation to sustainable housing construction and public awareness of "green" residential property; this research resulted in two different surveys. One of surveys analyzed the situation in New Zealand, the other was focused on Germany.

The purpose of this paper is to examine the buyer awareness and acceptance of environmental and energy efficiency measures in residential property markets. This study will provide a greater understanding of consumer behaviour in the residential property market in relation to green housing issues.

This paper is a follow up to the previous paper, which was presented in 2009. Part of this research is to gain an understanding of the level of knowledge and importance of these issues to the house buyer and vendors to determine the importance of sustainable housing to the general public.

This paper is based on a new survey from spring 2010. The paper compares this survey with data from the two empirical studies carried out by the authors in 2009.

*Keywords:* 'green' residential property, green building, real estate companies, energy per-formance of buildings, customer demands, awareness of environmental questions, solar energy, ecology and real estate





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## PUBLIC PROPERTY MANAGEMENT FOR ITALIAN MUNICIPALITIES. FRAMEWORK, CURRENT ISSUES AND VIABLE SOLUTIONS

The management of real estate properties has become a critical issue for Local Governments. From a first exam of Italian experiences in this field, it is emerged a widespread tendency at divesting real estate properties. The main factors that have steered these processes can be summarized as follow: reduction of debt accrued; budgetary constraints; the transition from a logic of "conservative management" to a more "market oriented" approach, aimed at obtaining financial resources from the divestments of these assets. On the other hand, there is a misperception of the contribution offered by real estate assets in favor of the functions, processes and services provided by LGs, as well as lack of expertise in the management of these assets.

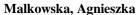
According to these issues, the divestment of real estate property was assumed as a "first best solution", in absence of a wide-ranging and multidimensional vision of the "real estate management issues" and in light of the short-term political needs.

The research aims at defining the main answers to public property management issues among Italian municipalities, through an analysis of the subject from two different perspective:

"academic, aimed at defining a theoretical framework for the decision-making process in the field of public property management for politicians and managers involved in the definition of these aspects;

"operational, concerning the identification of the most effective tools in order to analyze the financial, economic and social fallouts of the decisions assumed.

Keywords: Public Property Management, Public Management, Portfolio Segmentation, Local government performances, Cluster analysis



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# PUBLIC REAL ESTATE ECONOMY AS A FACTOR OF LOCAL DEVELOPMENT FOR THE MALOPOLSKA PROVINCE

The presented concept of this PhD paper covers the following subjects:

- •the local development at parish level in the light of the theory of local and regional development, factors and barriers of parish development in Poland,
- •the role of parish authority influence in the active support of local development
- •real estate and its significance for local development
- •use of real estate economy and its instruments for stimulating the process of parish development

The local development is the process that in the main extents and depends on the activities of local communities and their parish representation. The parish council is the owner of significant sources of real estate in Poland: lands, buildings and premises. On one hand this real estate serves to perform their statutory responsibilities, and on the other hand it is used according to long-term strategy of parish council targeted at supporting processes of local development. Besides real estate management, the parish council - through a wide range of actions in its capacity as planner and executive- (i.e. area regulations, land use planning, property taxation, public investment in local infrastructure) relating to indirect real estate, influence the attraction for local investment.

Within the scope of the described issues, the author is going to investigate the relationships between broadly-defined real estate economy executed at the parish level and grass root social-economic parish development.

The main goal of the thesis is further explored through the following points:

- 1. Characteristics and evaluation of the degree of differentiation of parishes in Malopolska Province as regard to social-economic development and real estate economy
- 2.Diagnosis of links occurring between the social- economic development and real estate economy in parishes
- 3. Appraisal of the significance of parish councils' activities, undertaken within broadly-understood real estate economy, to stimulate and manage social- economic development
- 4.Measurement and evaluation of the operations of parish council in Malopolska Province in term of use and application of real estate economy tools
- 5.Identification of similarities and differences in the range/scope of real estate economy, applied among parish of high and low level of social- economic development and attempting to interpret their causes and reasons. The investigation has been planned in two stages:

The first consists of the analysis conducted on available data in public statistics and using the methodology of taxonomic analysis.

The second stage consists of opinion polls of parishes in Malopolska Province in view of their application of real estate economy tools for local development

The equality of research depends first and foremost on the accessibility of statistical data in the public domain and statistical resources and on the willingness and cooperation of parish councils.

The results of the research should give some answers to the general question about the relationships existing between local development and real estate economy executed at parish council level.

*Keywords:* Public real estate economy, Real estate economies instruments, Local government/parish council, Local economic policy, Local development, Community property, Local real estate, Social-economic development



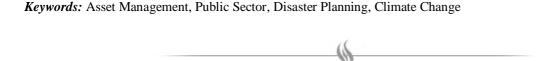


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# PUBLIC SECTOR ASSET MANAGEMENT PLANNING TO MITIGATE CLIMATE CHANGE DRIVEN NATURAL DISASTERS - A STUDY OF UK DISASTER AND BUSINESS CONTINUITY PLANNING

This paper describes the current climate change predictions and the likely consequences for European building assets. It addresses the role of Public Sector Asset Managers with particular emphasis on UK practice. It highlights the need for asset managers to mitigate the adverse effects of climate change and prepare for extreme weather events and other associated natural disasters.. The paper is based on a literature review of current climate data and best practice public sector asset management. The role of property managers and strategic property planning is becoming increasingly important as climate change is predicted to have a significant effect on the frequency of extreme weather events and the occurrence of natural disasters. This will have adverse effects on the ability of buildings to withstand these events and for the resilience of the organisation to continue its core service delivery function..

A survey of public sector asset managers working at senior levels in their organisation was designed and distributed to gather data on the current levels of disaster and business continuity planning. The survey design sought to establish the level of risk assessment across the organisations and illustrate the integration of property management into government's disaster planning process. The results reveal that asset managers need to mitigate and prepare for future events, however, current practice, shows that little risk assessment is currently undertaken. A significant number of authorities are not preparing integrated disaster management plans nor business continuity plans. There is a need for further research into the impact on assets and the role of the public sector real estate manager in assessing the risks and developing strategies to prepare the organisation to mitigate the effects of natural disasters and severe weather events.







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#### PULL FACTORS TO FINNISH SENIOR HOUSES

The population is aging in Finland as in other Western countries. While most elderly residents prefer to age in place, some relocate because of push factors that create stress in their current homes and pull factors that attract them to a new dwelling. In last ten years, independent living facilities (senior houses) were developed in Finland as a housing option for seniors. This study examines the important pull factors for seniors who have relocated to a senior house. The analysis is based on survey data collected from residents living in three kinds of senior houses. Overall, grocery shop nearby is the strongest pull factor followed by hospital nearby and access to public transportation. Factor analysis reveals property and neighborhood attributes can be grouped into three factors: onsite services that allow the residents to maintain an active lifestyle with some luxury, everyday services and facilities that would enable aging in place, and physical activity facilities. Activities and onsite services are more important to residents in locations that offer services. Residents have found the type of senior house that supports their lifestyle. Meanwhile, socioeconomic characteristics do not explain differences in what features attract residents. These findings are similar to studies in other countries; seniors look for retirement housing that allows them to maintain their lifestyle and demographic-based segmentation does not offer the best solution for estimating demand for senior housing or marketing units to prospective residents.

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Keywords: senior house, push and pull factors, decision making process





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## REAL ESTATE APPRAISAL PROCEDURE - DO THE EASEMENTS INFLUENCE RESULTS?(A COUNTRY BASED APPROACH)

During the ownership reforms, that were started simultaneously with the II independency, in Estonia as in all the Baltic States a lot of properties as the basic objects of restitution based ownership reform were returned to the former owners. During this procedure a permanently growing of importance of real estate appraisals is followed. On the other hand the development of the national legal system and its arrangement ex ante and ex post of the association with the EU in 2004 founded a gross and up till today permanently changing bundle of legal acts. These acts are surrounding the real estate space and also some of them are supporting the real estate issues. In spite this huge formality, the appraisal procedure itself is not a legal act based one and the explanation of the connections between the procedures of appraisal and legal acts is needed. More ever, the influence of some legal acts to the appraisal procedure and its results may be summarized as analyze of the different legal stresses. In the lights of the aims to explain the nature and the connections between appraisal practise and the legal regulation concluded into nature of easements, was carried out a questionnaire. The survey engaged mostly the certified real estate appraisal professionals and was concentrated to the affect of the basic easements on valuation results and procedure during the last years of decade. In the stage of conclusions the suggestions of the Certification and Examination committees, as some applied actions, were also considered. As a result of the survey were drawn down basic liens of relationship between the appraisal procedure and the contemporary legal space, i.e. space of easements and the proposals for the professional activity according the cohabitation with easements were also represented.

Keywords: Ownership reform, appraisal procedure, legal space, easement, influences, survey, appraisal procedure results





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### REAL ESTATE ASSET MANAGEMENT FOR INSTITUTIONAL INVESTORS

The dissertation at hand analyzes the organization structure and remuneration structure of direct real estate asset management services for institutional investors in Germany, both theoretically and empirically.

Real estate asset management is a widely used term in literature and practice, but different definitions and approaches go along with this term. These varying definitions and organizational structures for real estate asset management services result in increased costs for investors as a comparison with real estate asset management-services can be classified as difficult. On the other hand and due to the importance of the market volume, real estate asset management-services and especially the outsourcing of real estate asset management services and yield optimization have become increasingly important within the last years.

Therefore, the dissertation at hand firstly theoretically integrates this discipline within the institutional and managerial structures of real estate and organizes real estate asset management with its strategic and operative tasks. Within the conducted theoretical analyses, 36 key variables were distracted and classified, describing real estate asset management. Secondly, the dissertation analyses two areas of real estate asset management in depth: the organizational structure for real estate asset management-services and the optimal remuneration/incentive fee for real estate asset management-services. The theoretical background therefore is based on the new institutional economics, especially the Transaction-Cost-Theory and the Principal-Agent-Theory.

In a further step, the findings are analyzed empirically within a study conducted in 2009 focusing on the 36 keyvariables for real estate asset management-services. Within this empirical part, the dissertation focuses on life insurance companies, pension funds/staff pension funds and pension schemes of the liberal professions for members of professional associations, that own direct real estate valued at more than €26,5 bn (book-value) in total in 2009 and plan – as recent surveys confirmed – to further increase investments in real estate as real estate is considered as an attractive and valuable asset-class.

Therefore, a questionnaire with 15 questions and several sub-questions was sent to all institutions and associations registered in Germany. The questionnaire was split up into 5 parts focusing on general information about the investments in real estate, general insights in the real estate asset management, the organizational structure of real estate asset management, criteria for the outsourcing of real estate asset management tasks and remuneration/incentive structures for real estate asset management tasks.

In total, 37% of the relevant institutions answered the questionnaire. They were grouped into 3 different clusters based on the WARD-Method for cluster analyses. Using these three clusters, the different parts of the questionnaire were analyzed, especially the organizational structures and remuneration structures. Finally the empirical results were connected to the theoretical outcomes.

Keywords: Real Estate Asset Management, direct real estate investments, WARD-Method/cluster analyses, organizational structure, remuneration/performance fee





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### REAL ESTATE INVESTMENT IN BRITISH PROVINCIAL CITIES: TOO MUCH OR TOO LITTLE?

It has been argued that investors overlook investment opportunities in the real estate markets of the UK outside London. This paper examines the fundamentals of real estate markets in British provincial cities. It analyses the diversification potential for investing and differences in expected returns. It begins by presenting an analysis of the key economic drivers across provincial cities in comparison with London, the South East and the UK as a whole. This is followed by an analysis of total return and rental growth in individual cities. The paper then presents a correlation analysis of total returns and rental growth between the cities. This provides evidence of association between the patterns of returns and rental growth and indicates where there is statistically significant association between patterns of returns and rental growth across sectors and cities. Direction of causality is tested. The paper then proceeds to examine what investment patterns should be given market fundamentals compared to actual investment patterns and provides evidence of under or over investment.

Keywords: Investment and Fundamentals, Market size, Granger-Causality



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### REAL ESTATE MARKETS AND RENTAL CONTRACTS IN THE MODERN AGE: MILAN, 1570-1670

In this paper we study the real estate markets in modern age in the city of Milan over the period 1570-1670. In particular, by using a unique dataset of more than 1,000 rental contracts signed over the period, we estimate a hedonic price index for the housing market which allows us to identify pure price changes from changes in qualitative attributes. This index also highlights the timing of early housing cycles in modern age and documents the rise of spatial spillovers across neighborhoods. Our data are from the records maintained by the Fabbrica del Duomo, which was the owner of the houses in our sample. In addition, and even more importantly, we find evidence of market power and clietelism as the status of tenants is found to be significantly and negatively correlated with rent.

Keywords: Hedonic prices, housing price index, Milan, Modern age

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#### REAL ESTATE PORTFOLIO OPTIMAL DEBT STRUCTURE: A PAN-EUROPEAN APPROACH

This paper presents a methodology to examine real estate portfolio's debt structure. Using Monte-Carlo simulations and real options, our approach refines the analysis of the debt structure applicable to real estate portfolio. More precisely, the volatility of the fund, the loan to value, the default probability as well as the Interest Coverage Ratio are analyzed taking into account the state of the market and the various lease structures. We simulate simultaneously numerous trajectories for both the price and the market rental value and compute for each scenario the evolution of the fund's net asset value given the terms of the loan and taking into account the behavior of the tenants and thus the possible lack in cash flows. We also draw a set of risk levels according to leverage showing how the loan is affecting the overall portfolio risk level.

The originality of this paper resides in the forward approach. Instead of relying on historical data, our model makes it possible to take into account one's beliefs or one's forecasts. Indeed our model is designed to serve risk management team, credit analyst as well as fund manager. We can use our model as tool to assess credit risk of a given portfolio. Furthermore this paper pave the way of several measurements such as the Credit-Var or the Loss Given Default which are traditionally difficult to compute in real estate finance.

First we review the literature on fund's debt structure and on Monte-Carlo methods in real estate finance. Then the paper describes the suggested model. We particularly focus on net asset value and cash flows analysis. Lastly, we proceed to an empirical analysis over the period 2000-2009 using Property Market Analysis for a pan-European portfolio. We conclude by recommendations concerning the optimal debt level.

*Keywords:* Monte-Carlo Simulations, Inflation, Hedging, Leases, Direct real estate, Rents indexation, Portfolio Allocation





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## REAL ESTATE QUALITY ASSESSMENT PROBLEMS IN THE ESTONIAN REAL ESTATE MARKET

During the boom years in the Estonian real estate market, real estate developers, buyers and appraisers did not pay much attention to the real estate quality and its assessment because demand in the market was considerably higher than supply due to the favourable conditions of finance, and all objects, notwithstanding their quality, were sold or rented out. When the market declined and reached a depression it turned out that unsold or not rented out were real estate objects which had low quality. In expectation of a new real estate market rise real estate quality and assessment related problems have arisen in the Estonian real estate market.

The new Estonian real estate quality rating system, which is designated for valuation of real estate, but is not a mandatory part of an valuation report, embraces improved real estate for residential, office, business, storage and production use. The quality grade in this system characterises competitiveness of the object to be attractive to a similar type of investors or tenants. The quality grade of a real estate object is determined on the basis of the earning capacity of this object considering the sustainability of this object, i.e. the principles of sustainable development and usage have to be taken into consideration in the assessment of every factor. The earning capacity is assessed on the basis of three characteristics: location and use of the plot; quality of construction and real estate management. This research seeks to identify whether and to what extent real estate market participants (investors, developers and consumers) attach importance to real estate quality assessment, what is the hierarchy of the indicators preferred by them and how does the new valuers' quality rating system meet their needs.

Keywords: real estate, quality, rating system, valuation





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### REAL ESTATE STRATEGIES FOR PUBLIC CORPORATIONS

Restricted financing options in non-profit organisations are a result of budget constraints. Real Estate Management is challenged by the financial problems as well as by the deferred building maintenance. This is why non-profit organisations have to develop real estate strategies for future planning and decision-making.

The focus of the real estate strategy is to establish clearly-defined aims that take account of stakeholders. The process of target definition pays attention to the strategy programme and the framework conditions of the non-profit organisation. The overall goal of real estate strategy is the efficient provision of real estate according to an agreed business process. A target concept has to be developed based on defined areas of activity. Finally, recommendations for further action have to be made for a successful implementation of a real estate strategy.

In conclusion the development of a professional approach will be illustrated by using the example of implementing a real estate strategy for the Technische Universität Darmstadt.

Keywords: Real estate strategy, public real estate management

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# REAL ESTATE TAX POLICY IN CHINA: CAN PROPERTY TAX COOL DOWN THE OVERHEATED MARKET?

Macro control measures for real estate have been the focus recently in China, as the government has launched series of measures to pull down the soaring property prices and maintain the stability of the real estate market, such as taxation and limitation of housing mortgage. As previous taxation measures shows little impact on the control of housing prices, the State Taxation Administration has considered the collection of property tax which is under preparation as a powerful instrument to suppress speculation. Whether property tax is adequate for China has been a controversial topic due to different views of the reason of the rising housing prices.

This study aims to investigate the current real estate tax policy in China, which deals with stamp duty, contract tax and so on. To examine the existing problems in the real estate taxation system in China, theories about taxation, supply and demand are incorporated into the analysis of the relationship between housing prices and current tax policy. Also, whether real estate sector and economic environment in China is ready for the property tax is another question in the study. Although there is a long history for property tax in other capitalist countries with private ownership, property tax in countries with public ownership may exhibit different track. Furthermore, this study tries to address the causes of the existing reasons and explore solutions to making the current tax policy more efficient in the perspective of property tax.

Keywords: Tax Policy, China, Property Tax		
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# REAL ESTATE VS STOCK MARKET: APPROACHING THE VALUE CREATION THROUGH THE TREYNOR AND BLACK MODEL

Real estate should be part of any well diversified portfolio. Its inclusion in an efficient portfolio is justified by its expected return and its risk features, among which it becomes remarkable their low correlation with financial assets, especially with common stock. Nevertheless, its low liquidity when compared with financial assets, its operating and transaction costs require that real estate enables investors to expect an alpha that absorbs these specific costs. On this basis we apply the Treynor and Black model to study their proportion in a portfolio constituted by real estate and common stocks. This model analyses the optimal combination between undervalued assets and the market index. The proportion of real estate in the new portfolio can be studied as the outcome of the combination between its own features and the properties of the market index. We perform a sensitivity analysis between the values of real estate weight and its alpha, which, after realizing that the specific risk of real estate is among the independent variables, gives way to a new relationship between the real estate proportion and its appraisal ratio. Next, we study the value created by the resulting new portfolio between real estate and the market index. The Sharpe ratio on the new portfolio is a function of the appraisal ratio of real estate, and, on this basis, we analytically relate the value created by the new portfolio to the appraisal ratio and the Sharpe ratio of the market index. Finally, we focus on the negative effect of the lack of divisibility of real estate on value creation and on securitization as a way to overcome it.

Keywords: Real Estate Investment, Portfolio, Value Creation





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## REAL ESTATE, GOVERNANCE, AND THE CRISIS

Real estate has been at the forefront of the financial crisis, with the intransparency of securitized products, such as MBS, CMBS, and CDOs, playing a critical role. Real estate equity investments have received less attention during the crisis. Listed property companies (REITs) offer an interesting perspective on the behavior of institutional investors in the real estate equity market. In this chapter, we study the influence of the recent crisis on the relation between corporate governance and the performance of listed property companies in the U.S. We first investigate the effect of corporate governance structures on abnormal stock returns during the pre-crisis period, and then address the effects of the financial crisis on this relationship, during the recent period of economic distress. We find that firm-level corporate governance did not influence performance of real estate equity investments before the crisis, but the structure of corporate governance has become an important performance driver of real estate equity investments during and after the market downturn. One of the interpretations is that institutional investors have just started to recognize the importance of transparency in real estate equity investments during the recent crisis, which is fully consistent with the herd investments in securitized debt products, where opacity of the investments was so blissfully ignored.

Keywords: Real Estate Investment Trusts, Crisis, Corporate Governance, Stock Performance, Stock Ownership

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## REAL OPTION ANALYSIS IN INCOMPLETE MARKETS: THE PRICING OF SIMPLE AND COMPOUND **OPTIONS**

In modelling real estate assets, the assumption of market completeness is violated. In this work we introduce indifference pricing in the valuation of development projects for the first time in the context of real option analysis. We model both a simple call option to defer and a compound put option to return the land to the local authority. Using a real estate fund index as correlated asset, we show option prices and their sensitivities to parameter values. Particularly, we find that for incomplete markets the convergence to the Black-Scholes value seems to require a higher number of steps, and initial price oscillations tend to be definetely smaller than for complete markets. This result would suggest the need to revise investment strategies more frequently.

Keywords: Real Options, Indifference Pricing, Incomplete Markets, Real Estate Development





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## REAL OPTIONS AND GAME THEORETICAL APPROACHES TO REAL ESTATE DEVELOPMENT PROJECTS: MULTIPLE EQUILIBRIA AND THE IMPLICATIONS OF DIFFERENT TIE-BREAKING **RULES**

This paper contributes to a novel and fast growing literature which introduces game theory in the analysis of real options investments in competitive settings. Specifically, in this paper we focus on the issue of multiple equilibria and on the implications that different equilibrium selections may have for the valuation of real options and the investment strategies. We present some theoretical results on the conditions for multiple equilibria. We apply our analysis to the valuation of a real estate development in South London.

Keywords: Real estate development, strategic investment, Game theory, real options, equilibrium selection



### REAL OPTIONS PLANNING IN REAL ESTATE DEVELOPMENT

Real options, the right but not the obligation to conduct an action, still plays a minor role in the practice of real estate development and investment. Taking into account the numerous options to behave, that exist during the lifecycle of real estate especially for real estate and portfolio managers means:

- accept the existence of uncertainties,
- design and prepare possible future behaviours
- appraise option prices
- design and prepare monitoring systems

Real option planning means a new way of thinking. Both, architects and investors, trained to reduce uncertainties and to reduce the complexity of techno-social and physical systems, have to start to accept uncertainties and manage complexity.

The results of five years research and development concerning the design and appraisal of real options in the operation phase already in the development phase proved:

- real options lead to improved investment decisions, better managements concepts and improved building design
- discrete event simulations (DEVS) are a relatively easy and appropriate mean for real options valuation
- real options planning has preconditions, e.g. an improved understanding of possible events and the possible behaviour of building and management

Real options planning with DEVS makes uncertainties manageable and enhances the business decisions especially concerning corporate and public real estate.

The research results prove, the disregard of uncertainties reduces the complexity of the real world in unacceptable way. Keywords: real options, real estate development, discrete event simulation





**BOOK OF ABSTRACTS** 

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### RECOVERY FAITH ON THE REAL ESTATE SECTOR

The need for a indefeasible system for the transfer of real property that preventively limits the scope for litigation is now felt in every country in the world: this is due both to economic considerations (real estate represents about two-thirds of national wealth in OECD countries) and to the need for legal certainty.

The subprime crisis was a financial crisis arising from the collapse in the value of "toxic" debt, i.e. bonds whose repayment (interest plus capital) was theoretically supposed to be guaranteed by the underlying mortgages, home loans that the original bank "securitised", i.e. passed on to third parties who had no way of checking the reliability of the

The problem was that the underlying mortgage related to real estate whose real value did not cover the debt to be repaid, either because the property was overvalued, or because in reality mortgage loans had been granted to false owners or because the value of properties had fallen as a result of foreclosures.

For certain kinds of fraud (false identity, false ownership of assets, misleading of the mortgagors as to the true legal contents of the documents they were signing) the intervention up front of a truly independent third party,

"representative" of the State (gate-keeper) like the Latin notary would have prevented – or in any case much reduced – the possibility of mortgage fraud.

Our paper will be focused on a comparison between civil and common law orders, trying to suggest new ways of legal standards useful for save-protect-recover the international real estate sector trying to elaborate new ideas for feasible legal standards which could be useful to save-protect-recover the real estate sector at an international level.

*Keywords:* conveniences, real estate, mortgage fraud, foreclosure, subprime, civil law notary, latin notary, toxic, home loans, secutirization, fraud, legal standard





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### REDESIGN OF AFFORDABLE HOUSING FACADES. PREPARATION OF A VISUAL EXPERIMENT

Housing in Europe counts for 27% of the European energy consumptions which makes sustainable transformation of existing housing a relevant topic, especially in the view of the energy targets set for 2020. The energy efficiency as well as the architectural value of the post-war residential buildings is particularly poor, but since in the coming years this part of the stock will be renovated, there is a chance to improve the present performances of such blocks. To deal with energy efficiency, decay and livability problems improvements of building facades seem to be indicated. However, in order to deal with especially livability problems, it is not only relevant to consider technical aspects of façades but also involve residents' preferences for architectural aesthetics.

Important questions addressed in this study are to what extent are tenants willing to pay higher rent, and whether their willingness to pay higher rent depends on selected characteristics of facades that have a combined effect on the energy efficiency and the aesthetics value of buildings.

In this paper it is reported the preparation of a visual experiment on the described issue and in particular the development of a questionnaire to asses preferences of tenants. For the development of the questionnaire it is adopted the Discrete Choice Method which is applied with the purpose of evaluating tenants' preferences in innovative façade directed renovation approaches.

Keywords: housing, renovation, energy efficiency, aesthetics, façade design





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#### RE-EXAMINING THE MODELLING OF YIELDS IN A VOLATILE MARKET

Real estate yields have demonstrated significant movement and therefore been a key driver of returns in recent years. Strong investor sentiment and ample liquidity contributed to a marked inward yield shift in the years leading up to the onset of the crisis in 2007-08, boosting investor returns. Since then, they have shifted out rapidly with a consequent negative impact on investor returns. The increased movement we have seen in recent years, and the consequent large impact on investor returns has highlighted the importance of accurately forecasting yield movements. Formal yield modelling is not, however, as well established in practice as the modelling of rents and vacancy and previous research has highlighted significant econometric difficulties in this area.

We view the recent experience as an opportunity to re-examine formal modelling in this area, given that the movements seen in recent years provide more opportunity to establish meaningful relationships, in contrast to the relative stability of yields in the decade prior to this.

On the back of this work we shall then look at the different characteristics of the regional markets and the prospects for forecasting yields going forward both in Europe and the Asia Pacific region, back testing the accuracy of our modelling techniques.

Keywords: Yield modelling, comparative analysis, Europe, Asia Pacific, forecasting, back testing





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# REGIONAL AND URBAN ECONOMIES AND COMMERCIAL REAL ESTATE IN THE UK: EXPLORING THE LINKAGES

The paper will explore the relationship between UK commercial real estate and the patterns of economic development in the United Kingdom over the last thirty years. Commercial real estate – office, retail and industrial property – plays a significant role in economic development and regeneration and forms a significant component of the built environment. At the same time, it is an investment class, represented in the mixed asset portfolios of institutional funds and private investors; investors who are increasingly global in nature. It also acts as collateral for much business lending and capital investment. The paper will trace out the competing theoretical models of the relationship between real estate investment and economic activity and subject them to empirical testing.

An initial empirical exercise will describe the spatial distribution of the stock of institutional and non-institutional investment real estate in the UK. The distribution of stock will be compared to the distribution of economic activity to see if there are mismatches between current provision of space and space requirements as proxied by regional and urban employment and output statistics.

Next, the relationship between economic growth and commercial real estate performance will be explored over the period 1980-2009. First, local-level real estate returns will be related to local economic performance. A wider question relates to investment patterns, property performance and economic development. Does investment follow strong economic performance and/or strong real estate performance? Does real estate investment activity influence economic performance? Changes in regional/urban investment allocations and net investment flows will be related to property returns, property volatility and to economic performance statistics, using quantitative techniques (for example Granger causality and, subject to data constraints, cointegration and error correction frameworks) to explore the dynamics of the relationships between economic and property variables.

While primarily empirical in nature, the paper will provide a foundation for an informed discussion of the role of the supply of, and investment in, commercial real estate in local economic development.

Keywords: commercial real estate, regional development, urban economics





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### RENTS AS INCENTIVE FOR SAVING ENERGY: AN EMPIRICAL ANALYSIS FOR AUSTRIA

In this paper we deal with the question of whether there exists an incentive for landlords to invest into energy efficiency of buildings in the Austrian real estate market. We discuss the general framework of the issue, which is characterized by the fact that landlords control the energy efficiency of buildings while renters pay the heating costs, and the legal framework in Austria. Then, based on data from the EU-SILC survey, we test in a hedonic price framework whether renters are paying a higher rent for (otherwise equal) properties with lower heating costs. It is argued that only in this case landlords would have an incentive to invest in the energy efficiency of their buildings. The analysis provides no support for this hypothesis. For two different years and a range of model specifications we always get positive coefficients for heating costs, some of them highly significant. This indicates an adverse incentive which has substantial implications for policy.

**Keywords:** energy use, heating, incentives, regulations, Austria, hedonic price estimation





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# RESIDENTIAL PROPERTY DEVELOPMENT PROFESSIONALS ATTITUDES TOWARDS, AND EXPERIENCES OF, SUSTAINABLE DEVELOPMENT IN AUSTRALIA

The energy used by Australian buildings account for around 20% of Australia's greenhouse gas emissions, shared fairly evenly between homes and commercial buildings (DEWHA, 2009)., According to McKinsey and Company (2007) improving energy efficiency of buildings and appliances is the most cost effective way of reducing greenhouse gas (GHG) emissions. A new National Strategy on Energy Efficiency released by the Council of Australian Governments in July 2009 aims to accelerate energy efficiency measures in buildings.

About three-quarters of spending on buildings, over the last five years, have been on dwellings which have a mean asset life of 88 years for brick homes, and 58 years for timber homes. The remaining 27% of spending on buildings has been for non-residential buildings. Commercial and industrial buildings are considered to have a 38-58 year life (DEH & AGO, 2006, p. 23). These figures show the importance of a focus on the residential sector due to the size of the spending and the longer life of these buildings compared to the non-residential sector.

This paper outlines the results of research carried out in Australia in 2009. A nation-wide survey was conducted of householders to identify their attitudes towards climate change and the drivers and barriers towards energy efficiency in the home. Part of this involved determining their lifestyle choice in terms of house size and location; the types and usage of electrical appliances selected; the motives behind these choices, and their user behavior as related to energy consumption. The results from this survey will help to identify methods that encourage behavior change and increase the uptake of sustainability practices to reduce greenhouse gas emissions in new and existing residential buildings.

1. By comparison, US buildings account for 38% of America's GHG emissions, while the figure for the UK is around 42%. 2. DEWHA - Department of the Environment, Water, Heritage and the Arts (2009), http://www.environment.gov.au/sustainability/energyefficiency/buildings/ [Accessed 8 February 2010].3. McKinsey (December, 2007) "Reducing U.S. Greenhouse gas emissions: how much and at what cost?" http://www.mckinsey.com/clientservice/ccsi/pdf/US\_ghg\_final\_report.pdf [Accessed 8 February 2010].

**Keywords:** Sustainability, energy efficiency, greenhouse gas emissions, residential





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## RESPONSIBLE PROPERTY INVESTMENT-SUSTAINABLE STRATEGIES FOR GREEN BUILDING **FUNDS IN EUROPE**

Evolving changes in EU building legislation and certification are opening new opportunities for sustainable investments in real estate. Responsible property investors are offered new choices from a growing variety of green building funds. But due to the complexity of sustainability and the lack of transparency it is often difficult for investors to recognise the sustainable quality of green strategies as opposed to the passing look of green marketing. Therefore this study is aiming to identify sustainable strategies of green building funds and to compile a classification of green building funds in Europe in terms of the sustainability of their strategic investment potential. In this paper, the ongoing development in European building legislation and certification is analysed. Sustainable investment potentials are characterised based on changes in the relevant building standards. In order to turn these sustainable investment potentials into sustainable performance, sustainable strategies are derived for sustainable property investment products. And finally, a synopsis of the available investment products in Europe is providing strategic guidance to investors in Green Building Funds.

Keywords: real estate, investment, strategy, sustainability, green building





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### RETHINKING BROWNFIELD REDEVELOPMENT FEATURES APPLYING FUZZY DELPHI

A Brownfield is well described in various definitions and supported the idea to redevelop while indentifying numerous benefits for the society. Further on, the existing literature covers a broad range of different aspects of the Brownfield redevelopment thus elaborating different features. Still at present, there is no overview of the Brownfield features from the perspective of the real estate that focuses on the place and property, two fundamental principles of the development. At first this paper contributes with the literature survey that was deployed based on this perspective. Additionally, it focuses on the quantitative features relevant for the Brownfield Redevelopment that served as an input for the Fuzzy Delphi technique. It derived from the traditional Delphi method and fuzzy set theory. This rigorous procedure is based upon group thinking of the qualified experts that assures the validity of the collected information. It advanced the traditional method by downsizing the number of questionnaires in the survey and assuring that there is no misinterpretation of an expert's prime opinion thus genuinely reports their responses. This survey was deployed among the experts that are grouped and each one played a roll of a well described actor with the specific goals and tasks. This paper aims to give an answer if the different groups value the relevance of the Brownfield Redevelopment features same or not? Fuzzy Delphi technique proved to be an excellent tool to gather and abbreviate information for realizing the key features of the Brownfield redevelopment. This technique benefits on the operational dimension as well since accessing the relevant information through the huge database is often not accessible due to the different reasons.

Keywords: Brownfield Redevelopment Features, Fuzzy Delphi

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### RETURN OF THE BRICKS

What is green investing in real estate? Is it about trees in high rise? Is it the use of a solar panel curtain wall? Or is it a sophisticated choice between steel and concrete? What is green management? In the Dutch language green is easily associated with unripe. This is certainly correct for the approach of green investing so far. Investors, especially institutional investors, are still searching for the meaning of the Environmental, Social & Governance aspects. As far as real estate is concerned, it is about ranking of sustainability, adjustability, transformation potential, but also transparency of the process. Sufficient knowledge of building characteristics is essential for the definition of the proper research questions. This paper suggests the answer is in the bricks.

Keywords: building characteristics, ESG-aspects, sustainability, real estate policy





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### REVISITING THREE APPROACHES OF REAL ESTATE APPRAISAL

Keywords: methods, cost, income, price, market value

**Keywords:** Risk-takingFinancial insitutionssecuritization

This paper revisits the three classical approaches of real estate appraisal: cost summation, income capitalization and market price comparison. It brings a different perspective of analyzing these three methods and shows the importance of using them concurrently in order to better estimate market value of a certain catogory of property. It also revisits classical supply and demand model of economic analysis.

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### RISK TAKING, SECURITIZATION AND THE OPTION TO CHANGE STRATEGY

This paper analyzes the risk-taking behavior of financial intuitions that have guarantees and/or institutions that find it beneficial to develop a reputation for not taking risk. It focuses on two questions: Is it rational for them to take on less risk than they can get away with, and if it is rational, under what conditions will they shift strategies and increase their risk? To answer the question we allow for future benefits from survival in the form of "franchise value." With franchise value they might take less risk than they are allowed; however, if they experience large enough negative shocks, they reach a tipping point where they will change their strategy discontinuously, and "gamble for resurrection." For instance, a decline in franchise due to increased competition can lead to abrupt changes in risk-taking. This is a possible explanation for changes in quality of pools of securitized loans. Similarly a decline capital can lead financial institutions ramp up risk-taking.





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# ROLE PLAYED BY THE LOCAL PAS IN TOWN TRANSFORMATION AND REDEVELOPMENT PROCESSES

The Gesti. Tec Lab of the Milan Polytechnic and NCTM have recently launched a joint project: the creation of the Osservatorio Permanente sulla Pubblica Amministrazione Locale (OPPAL – the Permanent Observatory on the Local Public Administration), an agency intended to map and analyse in depth the methods and the time requirements for Public Agencies to pass town-planning implementation instruments.

The Osservatorio was discussing the major issues burdening real estate investments in Italy, the project aimed at analysing the status quo in some of the most important Italian Local Public Administrative Agencies, being both deeply convinced that the Local PAs play a decisive role in town transformation and redevelopment processes.

**Keywords:** Local Public Administration, Development of the territory, town transformation

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# RURAL COMMUNITIES AND THE VALUATION OF RURAL AMENITIES, EVIDENCE FROM HOUSING LITERATURE AND CASE STUDIES

Affordability of rural housing has been highlighted as a critical problem by commentators in the UK as part of a wider housing affordability problem which persists despite the recent house price adjustments. The price of rural housing has been implicated in the decline of rural communities as the lack of affordability prevents the setting up of new households by local young people. Both in-migration from urban areas and planning policies in the UK which largely restrict development on Greenfield land may have contributed to the affordability problem. However, most previous studies of rural house price have concentrated on mean prices which have not considered the differences in property mix between rural and urban areas.

The different notions of what comprises a rural dwelling have also been little addressed, research into the concept of rurality having been largely divorced from research into the valuation of rural property. A review of literature from the rural research community has been combined with an analysis of housing studies which value amenities identified as constituents of the rural ideal. Further empirical analysis of the distribution of housing within two case study areas in England has shown that different property mix also contributes to the rural affordability issue. This has yielded insights which may inform planning policy and valuation of rural property but will also be valuable for future research into the valuation of rural amenities and the rural location

which may inform planning policy and valuation of rural amenities and the rural	valuation of rural property but will also be valuable for l location.
<b>Keywords:</b> Housing, valuation, rural	
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### HOME EQUITY, FISCAL POLICY AND THE DEMAND FOR HOUSING

There is strong evidence of a seasonal pattern in Dutch house prices; prices tend to increase stronger in the second quarter of the year. This is reported both in popular reports from banks (e.g. Rabobank, the largest mortgage supplier of the Netherlands) and in academia (e.g. De Wit & Van der Klaauw, 2010).

One of the potential explanations for this pattern is that households are timing their purchase of a new house before the summer holiday, such that they can move in (and do some DIY) during the summer holiday. By planning the move in a holiday the transition from one house to the next should be as smooth as possible: plenty of time to pack and move, do refurbishing et cetera. More specifically, by moving in the summer holiday kids are able to enter gently into their new schools. This argument leans on a large body of scientific research that proves that certain predictable changes in life's course trigger residential mobility (e.g. Clark & Huang, 2003). Alternative explanations have been suggested as well, such as Ngai et. al. (2009) market matching explanation. In this study we seek if we can explain the commonly reported Q2-peak in transaction prices of residential housing according to the life course hypothesis.

We specifically focus on the potential influence of the summer holiday on the housing market. Especially to households with children it is beneficial to purchase a new house before the start of the summer holiday: households without children are less stringently tied to the summer holiday. Moreover, households without children are less stringently tied to house types (or at least to size). These two results of the life course hypothesis therefore leads us to expect that housing that is not suited for households with children (i.e. small multi-family dwellings) displays less seasonality.

We use the database of the Dutch Association of Real Estate Agents and Real Estate Experts (henceforth: NVM) for our study. This database contains roughly 70% of all residential housing transactions in the Netherlands from 1985 onwards. The information we have on transactions includes dates (on and off the market), price and numerous characteristics.

In the Netherlands schools are free to set most holidays. The summer holiday is the only holiday prescribed by the government. In setting the dates of the summer holiday the government distinguishes three regional areas for spreading holiday peaks (thus seeking to avoid congestion on roads and lengthening the holiday season for e.g. the catering industry). The summer holiday starts and ends at different dates for each area with a time gap of 3 weeks between the early and the late area.

Our initial analysis focuses on the general holiday season and national patterns of seasonality using the common hedonic and seasonality dummy approach. We will then try to further exploit our extensive database and venture into a natural experiment where we try to find small shifts in seasonal patterns given the above described holiday spreading policy.

Keywords: Seasonality, life course, residential mobility





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### SECTOR, REGION OR FUNCTION? A MAD REASSESSMENT OF REAL ESTATE DIVERSIFICATION

This paper re-examines whether it is more advantageous in terms of risk reduction to diversify by sector or region by comparing the performance of the "conventional" regional classification of the UK with one based on modern socio-economic criteria using a much larger real estate data set than any previous study and the MAD portfolio approach. The general conclusion of which is that property market sectors still dominate regions, however defined and so should be the first level of analysis when developing a portfolio diversification strategy. This is in line with previous research. Then when the performance of Functional groups is compared with the "conventional" administrative regions the results here show that when functionally based groupings provide greater risk reduction. In particular Functional groups may be much more insightful and acceptable to real estate portfolio managers.

Keywords: UK, Sectors and Regions, MAD optimisation, functional groups



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# SEEING THROUGH THE MILANESE FOG: AN EMPIRICAL EVIDENCE FROM INVESTMENT TRANSACTIONS ANALYSIS

Italian real estate sometimes is still a mystery for the foreign investor, although in the last 10 years a lot has been done by the real estate industry in order to achieve more transparency in the market. It is still not enough, and one of the most frequent questions among foreign investors is: why is Milan so expensive? In this study we would like to try to answer this question through the empirical analysis of 9 years' office investment comparables in Milan. Thanks to our presence on the market, we now have a reasonably reliable time series for investment transactions that allows us to infer some conclusions. The aim of this study is to establish a profile for the most frequent buyers and sellers in the Milan market since 2000, the most frequent size of the investment, the kind of investment, the geographical distribution of the assets between the CBD and other urban and sub-urban areas and the evolution of prime yields. The result of this empirical observation, although not exhaustive, answers the initial question, and will help to improve the understanding of Milan office market fundamentals, and will lay the foundations for further studies.

Keywords: Office sector, investment transactions, prime yields







**BOOK OF ABSTRACTS** 

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### SEGREGATION ACCORDING TO HOUSEHOLD SIZE IN A MONOCENTRIC CITY

Over the last two centuries, household size has decreased considerably. Within a theoretical model I investigate the relationship between household size and the structure and size of cities. Household utility is assumed to depend on household size, in addition to the consumption of housing and a numeraire good. This basic building block is combined with a Muth-type urban model. The model is used for examining the impact of household size on the sorting of households according to household size, the geographical extension of the city, household utility, forms of housing etc. These issues have previously received some attention in empirical studies, but I am not aware of theoretical examinations.

Keywords:			
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# SOCIAL RETURN ON INVESTMENT OF MUTUAL SUPPORT BASED HOUSING PROJECTS – POTENTIAL FOR SOCIO-ECONOMIC COST SAVINGS AND HIGHER LIVING QUALITY

Our paper describes the results of a Social Return on Investment (SROI) analysis of four new housing projects in Germany. A common characteristic of all projects is the central importance of mutual neighborly support to meet the demand for assistance of older residents. All projects share some common architectural features and infrastructural characteristics. Furthermore, in each housing project some form of support by social workers takes place. Using a propensity score matching approach, we compare for the first time systematically the costs for support of older people in mutual support based housing projects with a control group of people living in conventional settings. Our results, based on a sample of more than 700 residents, point not only to improvements in living satisfaction, but indicate also a huge potential for socio-economic cost savings. This can partly be explained by better development of residents' health status.

Keywords: Senior Housing, Cohousing, Mutual support, Assisted Living, Long term care





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# STATE REGULATION OVER PROPERTY RIGHTS TRANSFERRED TO INDIGENOUS PEOPLES THROUGH THE TREATY SETTLEMENT CLAIMS PROCESS IN NEW ZEALAND

It is correct to conclude that, in many instances, indigenous peoples have incurred harm as a result of western colonisation. And it is also correct to ensure reparation for that harm is both sought from and, where appropriate, effected, by the State. However, whilst reparation agreements have been negotiated, often the corresponding obligations or duties that arise from the transfer of State 'assets' to indigenous peoples are not properly accounted for. This paper looks at some newly created rights and the absence of State control over those rights. In particular, this paper analyses rights created in lakebeds, riverbeds, the foreshore and, the seabed in New Zealand. It also explores the apparent lack of, or lag in, legislation providing local authorities (or town councils) with sufficient flexible powers to set, assess, and, collect rates and other 'land' based taxes to fund their usual activities from these newly created rights. However, the traditional definitions of land improvements may need to be revisited to incorporate 'things' that historically have not been considered real estate. Finally, this paper considers whether, in a modern world, traditional definitions can survive or a new species of property rights need to be created.

*Keywords:* Foreshore, Government Policy, Improvements, Indigenous People, Lakebed, Land, Land Tax, Legislation, Maori, Obligations, Property Rights, Property Tax, Rating, Real Estate, Regulation, Riverbed, Seabed, Settlement Claims, Taxation, Treaty Settlement, Trea





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# STEERING ON CUSTOMER PERCIEVED VALUE. TOOLS FOR CUSTOMER-ORIENTED ASSET MANAGEMENT BY DUTCH HOUSING ASSOCIATIONS

As a consequence of a paradigm shift that took place during the 1980ties Dutch housing associations operate increasingly customer oriented. In this approach the (non-profit) landlord tries to match his supply of dwellings better with the developments in the housing market and with the wishes and possibilities of the dwelling seekers. Or he is successful in this regard depends on the degree in which he creates customer perceived value and in which he reinforces the relation with his tenants. According to Woodruff it is the customer himself that determines or customer value is created. Because a residential situation is a high involvement product customer value will be created during the use of the product. To measure customer value, tenants' satisfaction is seen as an indication of customer percieved value. In addition, the strength of the relation is measured by customer loyalty.

The paper shows by means of several cases how a housing association can steer its asset management on customer perceived value. After a short outline of the paradigm shift, the paper explores the way in which housing associations can create customer value and which geographical level is relevant for measuring and steering. However, because satisfied customers are not always loyal, it will be argued that steering on customer value alone is not enough. Also the strength of the relation should be taken into account in the decision-making process. Furthermore a third parameter turns out to be relevant: the price/quality ratio of the product. Next, a decision table is presented to select the proper strategy at the level of a residential estate. The outcome shows that in our pilots the housing association creates in most estates enough customer perceived value. In other estates an adaptation of the management is necessary. Before choosing a final strategy, the remaining lifespan of the estate should be taken into account. In the evaluation of the developed method some dilemmas will be discussed. These are solvable within the existing steering paradigm.

Keywords: Asset Management, Customer Percieved Value, Customer Orientation, Housing Associations

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#### STRATEGIC ALIGNMENT OF CORPORATE REAL ESTATE

Purpose/value: With the growing complexity of organizations, it becomes increasingly important to tune the strategies of different business functions. In order to add maximum value to the organization, real estate strategies have to be aligned with corporate strategy. The purpose of this paper is to provide more insight in the alignment process itself, instead of focussing on distinguishing different possible strategies and their outcomes like most previous papers. Method: We compared and evaluated 8 models that claim to align corporate and real estate strategies and tried to pinpoint the mechanisms behind these alignments. The clearest alignment process is then applied to the rapidly changing care sector of the Netherlands. This sector was chosen because current developments place care institutions in a much more competitive market then before, so a change in driving forces is eminent. In total, 20 experts in this sector were interviewed extensively.

Findings: Studies on alignment of corporate real estate tend to use many different corporate strategies, which is the main reason that there exist so many different alignments. And although possible real estate strategies are clear, the alignment itself is where most models become vague and rely on expert knowledge. To start alignment, the focus should be on the first step of strategy formulation, represented by the concept of driving forces from Tregoe & Zimmerman (1980). Results from the application to the care sector provide insight in the importance of each real estate strategy for each driving force for this sector specifically. But more importantly, they show how strategy alignment is still a disputable field with a lot of necessary research ahead.

Keywords: CRE, alignment process, care sector, model comparison

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# STRATEGY FOR URBAN REDEVELOPMENT OF TAICHUNG CITY IN THE ERA OF HIGH SPEED RAIL

The impact made by Taiwan High Speed Rail (HSR) upon Taichung City (Taiwan) since early 2007 is as extensive as what Taiwan Railway brought to Taichung a century ago. In the era of HSR, Taichung City faces another historical moment of urban development. The global competitiveness of the city relies upon the co-development and interaction of the new district in the west part of the city and the old town in the east.

The commercial possibilities rolling out of HSR since early 2007 have reassured the eastward development of Taichung City. Since 2004, the rapid growth of Central Taiwan Science Park (CTSP) has made the east side of Tadu Plateau known as "Taichung Tech Corridor". As a gate to the corridor, the HSR station in Wurih further fuels the momentum of the area between CTSP and the HSR Station, where is very likely to become the growth engine of Taichung Metropolis.

The spatial structure and real estate of Taiwan will be reconstructed by HSR, and Taichung City should endeavor to play a decisive role because of her location and population. The study will analyze spatial and real estate planning issues derived from HSR, and some suggestions will be brought up for public and private sectors.

Keywords: era of High Speed Rail, urban redevelopment, urban re-generation





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# STUDIES AND RESEARCHES ON MARKET VALUE ESTIMATES OF REAL ESTATES CONSIDERED AS SPIRITUAL HERITAGE FOR COMMUNITIES

In many communities there are constructions and structural edifices considered part of the real estate patrimony, representative through the historical or architectural value.

Beside its value, calculated as usual in compliance with the legal requirements and International Valuation Standards, the above-mentioned constructions enhance also an extra-value accorded by the spiritual contributions to that community.

The authors proposed to present as a synthesis their studies and researches prepared in this field, presenting the parameters with influence over the valuable component of the property and also the methodology to quantify them in an appraisal report.

Keywords: market value, heritage, estimation, spiritual value, methodology





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#### STUDIO TEACHING FOR NON-DESIGN DISCIPLINE: THE CASE OF PROPERTY ANALYSIS STUDIO

Studio teaching has formed the major mode of teaching and learning activities in Built Environment schools around the world – especially for the design disciplines of architecture, landscape architecture and urban design. This study investigates studio teaching for a final year undergraduate property subject at a time of significant change being part of the Australian university education reform 'pilot tested' at the University of Melbourne. This research uses a modified version of Brookfield's (1995) "critically reflective lenses" and Schön's (1985) education model towards the "reflexive practitioner" to investigate and develop studio teaching mode for a real estate subject that is regarded as "non-design based" subject. We identified that the studio teaching model, through the purposeful application of its 'model of interaction' and 'model of space', provides the tools that can address the pertinent challenge at the particular juncture of the university reform in Australia. We found that the 'model of interaction' at least has significant parallels with the Assessment of Professional Competences (APC) of professional bodies such as the RICS. We also found that the success of the application of the studio model to non-design subjects will depend on the additional teaching resources and funding that are required. The study has strong theoretical relevance of this study to university teaching and also practical value in benefiting the industry and professional practice.

*Keywords:* Studio teaching, non-design discipline, property discipline, Australia, reform





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#### SUSTAINABILITY AND OBSOLESCENCE IN THE PROPERTY MARKET

The long-standing theoretical approach for assessing the depreciated value of a commercial property has commonly been linked to the identification, quantification and assessment of the level of obsolescence. The future income streams of a property may be misunderstood if obsolescence is not correctly recognised and dealt with in the management of the property. The value of the property is related directly to the degree of obsolescence evident in the building (Reed 2007; Myers 2009); accurately estimating the adverse influence on both the income levels and outgoings, particularly capital and operating expenditure, is critical. This is applicable to a wide range of land uses in the built environment including residential housing, commercial, industrial and retail (API 2007). Understanding exactly what obsolescence is and how it affects a property asset is critical although arguably is not fully understood outside the property field (Robinson et al. 2003). A consensus within valuation practice about the treatment of obsolescence and sustainability is difficult to achieve, consequently affecting the perception of value in sustainability.

The debate about sustainable obsolescence must be conducted in light of the changing nature of the property market and increasingly important influences such as corporate social responsibility, the higher profile of the environment and the increased importance of sustainability from view of stakeholders including the government and younger generations. Already it is not possible to undertake a valuation of a property asset without a comprehensive understanding of how sustainable an existing building is, how it is defined and how it relates to property. However, the treatment of sustainability as a direct form of obsolescence, or being acknowledged within the traditional obsolescence categories has surprisingly received limited attention in valuation practice. This paper analyses evidence gathered from large commercial investment funds and practising valuers in Australia and New Zealand, addressing the relationship between sustainability and obsolescence in the valuation of commercial property. The findings will assist property market stakeholders to understand the links between sustainability and obsolescence, as well as the subsequent effect on value.

Keywords: Sustainability, obsolescence, depreciation, value, capital expenditure





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### SUSTAINABILITY AND RISK PREMIUM ESTIMATION IN VALUATION OF PROPERTY AND WORTH

From the point of view of risk analysis property is treated as just another asset class. This is because of the current modelling paradigm where only a financial – not physical or functional – definition of the model is applied. The problem thus is that the definition is essentially based on the macro- and not micro-economy. We argue that this is a flaw. Therefore, in this work we propose an alternative method to assess risk premium for property valuation and valuation of worth directly originated by the property market without considering the financial model on which risk premium determination traditionally is based on. The proposed method is based a on empirical relationship between DCF inputs and output, and can be based on comparable properties instead of deriving risk premium through financial modelling. The fact that financial modelling approximates real property to a financial asset class in fact emphasizes the illiquid nature of real property. As a consequence all the attributes – among them sustainability – are normally not taken into account by property valuers and consultant. This paper diagnoses a lamentable professional backwardness, which it, to a modest extent, also attempts to correct. To be be more precise: we assume the market is more and more requiring green buildings adn developemnt. Only if we include this need in the research of data for risk premium estimation we are able to include sustainability in the valuation process.

Keywords: Sustinability, Real Estate Appraisal



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#### SUSTAINABILITY METRICS FOR COMMERCIAL REAL ESTATE ASSETS – ESTABLISHING A **COMMON APPROACH**

As sustainability has become more central to property industry thinking a multitude of tools, using many different metrics have emerged, designed to measure and assess the sustainability of real estate assets and their owners and managers. This profusion in tools has been healthy in helping the industry to address sustainability in practical ways. However, it is increasingly apparent that a coherent, common set of metrics focused at asset level, needs to be established by the industry to consolidate the progress that has been made and move forward. To this end a group of UK industry bodies brought together under the Property Industry Alliance\* has been working with industry to establish a set of metrics that can be adopted by industry as a common approach to measuring sustainability at property asset level. To ensure compatibility with existing practice the work took a review of measures currently used as its starting point. Consultation with practitioners and a cross-industryworkshop including representatives from property companies, investors, occupiers, consultants and Government has enabled a distilled set of metrics to be produced. This paper sets out the progress that has been made, presenting findings for wider discussion and debate.

**Keywords:** sustainability metrics commercial real estate





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#### SUSTAINABLE DEVELOPMENT IN URBAN RENEWAL IN HONG KONG: A SOCIAL ASSESSMENT

Authors: Daniel Chi Wing HO, Chi Kwong LAW, Yung YAU, Sun Wah POON, Ernest Wing Tak CHUI, Yu Cheung WONG, Kar Mut LEE, Lisanne Suk Fun KO, Hak Kwong YIP, Albert Kwok Hung KWAN. Abstract: Coupled with the high ages of the private buildings, the lack of proper building care culture has led to serious problems of building dilapidation and urban decay in Hong Kong, particularly in old urban areas. Not only is the cityscape ruined, but also are the health and safety of the residents and general public as a whole jeopardized by the problems. To arrest urban decay, redevelopment has long been adopted to renew the rundown areas. However, the approach usually has a negative impact on the existing social fabric and causes a reduction in social capital. Given that older buildings usually have a larger proportion of older residents, and that the present profile of the elderly population is one that tends to be financially less well-off, this group of residents are more adversely affected by the negative impact of social destruction due to redevelopment. In the meantime, building rehabilitation is gaining its popularity. Yet, with a view to a sustainable strategy for urban renewal, it is necessary to balance the interests of different stakeholders. In this light, how the community perceive the costs and benefits of different approaches of urban renewal in Hong Kong worthwhile studying. In this study, the existing social conditions that are conducive to a balanced approach of urban renewal in Hong Kong would be examined through a structured questionnaire survey. In particular, the survey covers the relative significance of the social network in the community perceived by the responding households, their attitudes, willingness, and perceived cost and benefits towards different strategies of urban renewal (i.e., redevelopment and rehabilitation). The survey findings are then discussed and policy implications follow. Recommendations can be drawn with respect to the community engagement process that would enhance the development of a balanced urban renewal strategy.

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Keywords: Urban renewal, sustainable development, social assessment, community engagement, Hong Kong

#### SUSTAINABLE FARMERS MARKETS IN AUSTRALIA & NEW ZEALAND

This paper discusses issues related to the establishment and operation of farmers' markets in Australia and New Zealand. These include site selection, management models and market governance and the membership model that is used in South Australia. The paper includes insights into successful farmers' markets from both the literature and the experience of stall holders and market managers. This paper also examines some of the property issues related to the establishment of farmers' markets and their operation. It also seeks to encourage further research into the operation of farmers' markets as they have similar issues to urban retail centres and would benefit from considerations on stallholder product mix, stall location and internal stall layout

Keywords: Farmers' markets, governance, management issues, membership model





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## TERM-STRUCTURE OF INFRASTRUCTURE INVESTMENTS- A COMPARISON TO MAJOR ASSET CLASSES

The economic importance of infrastructure has been the subject of extensive research since the late 1980s and is free of controversy. The World Economic Forum (2008) lists infrastructure as one of the most crucial elements to a country's productivity and competitiveness. In recent years, private investments in infrastructure have increased significantly and investors have begun to perceive infrastructure as an attractive asset class enhancing the efficiency of their investment portfolios. Since infrastructure and real estate exhibit many common characteristics, this research aims at contributing to the debate on whether infrastructure can be regarded as real estate or constitutes a separate asset class. With focus on the investment-horizon, the expected returns and expected volatilities of assets shift over time in predictable ways. Based on vector equilibrium correction model for the US market we analyze the short- and long-term dynamics of infrastructure returns, the dependences on infrastructure to the major other asset classes (stocks, bonds, cash and commercial real estate) and ultimately the influence of infrastructure investments on the asset allocation over the investment horizon.

Keywords: Infrastructure, Real Estate, Asset Allocation, VECM, Return Predictability

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## TESTING FOR THE RELATIONSHIP BETWEEN TURNOVER RATE AND BUSINESS CYCLE IN TAIWAN'S REAL ESTATE MARKET

Because of the lower interest rate, loan on favorable terms of the government, lower ratio of land value increase tax and inheritance tax, the housing price keeps increasing after the first season of 2003 in Taiwan. At the same time, the people real income growth ratio is negative which made the higher housing price become the first of the people's grievance in 2009. So far the studies of real estate boom or the relationship between of price and volume are used the variables as transaction volume and price (or price index) to discuss about the trends and the bubble of real estate. Therefore, we can describe the market transaction more simply by the turnover rate than by the volume. The turnover rate is the percent of transaction volume divided by the stock of housing represented the regional floating which be related to the regional investment rate, but most researchers has paid little attention to this. We would use time series analysis to test the stationary of the turnover rate. In this paper we want to answer if the turnover rate stationary. Does the higher turnover rate cause of the housing price keep increasing? If the answer is not, we would to test the stationary under different real estate cycle. We hope could find a simple index as turnover rate for everyone to describe the real estate cycle.

Keywords: turnover rate, price-volume relationship, stationary, real estate cycle

**BOOK OF ABSTRACTS** 





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#### THE ANALYSIS OF TENANT RISK IN THE ITALIAN REAL ESTATE MARKET

The volatility of tenant periodical cash flows produced by investment property can dramatically affect the expected return as estimated ex-ante, especially in recession times. Therefore tenant risk is a crucial factor for real estate investors' strategies and asset allocation choices.

The paper analyses the Italian institutional real estate market and aims at assessing tenant risk on the basis of lease events and market movements.

The paper starts with a literature review of the major contributions in the field, produced by both academics (Ambrose B.W., Hendershott P.H., Klosek M.M., 2002; Crosby et al., 2000; McAllister, O'Roarty, 1999) and real estate institutions. Thanks to Investment Property Databank (IPD), who provides aggregate data of the Italian real estate market, the research offers an empirical analysis on actual leases signed in Italy in the years 2006 through 2008. The Italian lease market is further investigated in its features, in order to highlight different risk profiles across sectors and locations, with particular emphasis on break clauses. The results are compared with other IPD studies on other European markets, namely UK and France.

Keywords: Tenant risk, break option clauses, lease





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## THE ASSESSMENT OF BUILDING PERFORMANCE: A PROPERTY RATING MODEL FOR THE OFFICE AND LOGISTIC BUILDINGS

The property market and, more specifically, the market of the buildings for service activities typically rates as "A-Class buildings" those facilities that meet high quality standards.

This definition drawn from financial rating models, is not always sided by a precise, objective and scientific identification of the elements that characterise it.

This paper will illustrate the criteria that can usefully determine which variables support a property rating model targeted at the identification of those elements that may define the "quality" level of buildings according to performance-based criteria.

The research method applied has produced a classification of the most popular and internationally applied systems of building performance rating, based on functional and/or technological criteria. More specifically, this paper describes the assessment domains and the reference context/market taken into consideration by the various rating systems. The research activity has materialized in the identification of the parameters that can be usefully applied to build a "property rating" model for the service-sector buildings and for the industrial plants used for logistics activities, these parameters being suitable to represent the overall performances of buildings in a synthetic manner.

Keywords: real estate management, building performance, rating system

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## THE ATTRACTIVENESS OF 66 COUNTRIES FOR INSTITUTIONAL REAL ESTATE INVESTMENTS: A COMPOSITE INDEX APPROACH

We address the attractiveness of 66 countries worldwide for institutional real estate investments by the construction of a composite index. For the index" composition we refer to the results of prior research papers that investigate the parameters determining real estate investment activity on an aggregated level. We conceptualise a composite index and receive a global country ranking that correlates reasonably with investment activity running a back-test over six years. We increase the transparency of market variables for decision-making in global asset allocation and provide the key determinants that shape national real estate markets. The results highlight the strengths and weaknesses of developed, transition and emerging economies and provide guidelines for political improvements and for institutional investors" country allocations. We finally compare the attractiveness of the United Kingdom, Germany and Italy for real estate investing.

Keywords: Real Estate Investments, International Asset Allocation

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## THE BEAUTY OR THE BEAST? THE INFLUENCE OF AESTHETICS ON STRUCTURAL VACANCY IN THE CASE OF AMSTERDAM

Financial and real estate crises and "the new way of working" reduce the need for office space, and office markets become replacement markets without a quantitative need for new office buildings: New buildings drive out bad buildings. In the Netherlands, currently 13% of the office space is vacant, of which 60% is regarded redundant or structurally vacant, meaning vacancy of the same square meters for three or more years, without perspective of future tenancy. The Amsterdam office market comprises 6.7 million m2 office space, of which 1.2 million m2 is vacant. Due to the current financial crisis and the ongoing construction of new buildings, the vacancy is expected to increase over the next few years.

When relocating, organisations consider buildings and locations within geographically defined markets. Though location characteristics are important, eventually their choice depends on building characteristics. Organisations prefer office buildings that facilitate their main processes, and support their image and financial yield.

This paper presents results of our study on the association between structural vacancy and the exterior appearance and internal specifications of the office building. We consider the revealed preferences of office organisations by relating structural vacancy to building characteristics. Based on a stated preferences study we identified building- and location-characteristics that we expect to influence the building appreciation (value-in-use) of office users. Henceforward, we studied the physical characteristics of 200 office buildings and applied logistic regression analyses to determine if a relation exists between the physical characteristics of office buildings and the occurrence of structural vacancy. Understanding office user preferences is important to understand movements within the office market. In our study we reveal that building characteristics have a strong influence on office user preferences. Consequently, building characteristics are important when determining the potential future use of the existing office stock, and when developing new office space.

Keywords: offices, vacancy, user preferences

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#### THE BENEFITS OF PROXIMITY TO OPEN SPACE: A CASE OF ABERDEEN, SCOTLAND

Recent research shows the benefit of access to public open space differs by housing density, suggesting that public recreational open space can act as a substitute for private open space. We explore spatial externalities from different forms of open space across housing densities. We also test whether the value of open space varies by neighborhood quality. We find that open space in high priced neighborhood is valued more than open space in low priced neighborhoods. Also, for a given neighborhood quality, we find that not all forms of open space are valued equally by households. Finally, holding neighborhood quality and open space type constant, we find a higher willingness to pay for open space for higher density housing units.

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#### THE BENEFITS OF PUBLIC AND PRIVATE REAL ESTATE

**Keywords:** housing markets, public open space, spatial externalities

There is extant literature using showing that private real estate has a major part to play in the mixed-asset portfolio. There is also a good deal of evidence showing that Real Estate Investment Trusts (REITs) makes a substantial contribution to the mixed-asset portfolio. But only two studies have explicitly examined what risk/return benefits real estate actually offers the mixed-asset portfolio. However, neither study examined whether real estate, either public or private, offers a benefit to the mixed-asset portfolio if such a portfolio already includes the alternative real estate asset class. This paper examines this issue using the method suggested by Liang and McIntosh (1999), which decomposes the overall risk-adjusted benefits of an investment to an existing portfolio into its diversification benefits and return benefits.

Keywords: Public and Private Real Estate, Benefits, Mixed-asset Portfolio



**BOOK OF ABSTRACTS** 

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#### THE COSTS OF RIGHTS ISSUE CAPITAL RAISING BY AUSTRALIAN REITS

Rights issues are a common method for raising additional equity capital by Australian Real Estate Investment Trusts (A-REITs). This study investigates the A-REIT capital raising costs of the renounceable and non-renounceable equity rights issues during 2001 to 2009. Potential influencing factors on direct and indirect (as measured by the percentage discount to subscribers) costs will be investigated. Issue size, percentage underwritten and concentration of ownership are expected to significantly influence the percentage direct costs while whether the issue is underwritten is expected to influence the percentage discount. Identifying factors that influence the direct and indirect costs may help A-REITs better control their rights issue capital raising costs.

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Keywords: REITs, rights issues, costs of capital raising

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#### THE DETERMINANTS OF FUND OPENINGS: THE CASE OF GERMAN REAL ESTATE FUNDS

This paper examines the major determinants of fund openings based on a large set of Germany investment families. For a sample of 2611 fund openings over the period 2004 to 2008, we find preliminary evidence suggesting that initiations are positively related to the fund family's assets under management, positively related to the family's inflows, and negatively related to the trailing mean returns of the family. These results are consistent with scale economies and opportunistic behavior on the part of fund family organizations. Additional analysis differentiates among the determinants of real estate fund openings and the openings of funds that invest in other asset classes. The empirical approach is based on Khorana and Servaes (1999, Review of Financial Studies).

Keywords: Information, Markets, Real Estate

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## THE EFFECT OF COMMERCIAL LEASE STRUCTURES ON LANDLORD-TENANT BEHAVIOURS AND EXPERIENCES

Commercial rents are of primary importance in determining the investment value of properties and as a consequence the literature relating to property leasing has mainly been directed towards examining the financial characteristics of leases and the effect of various lease covenants on investment returns. However, little attention has been given to understanding the impact of different lease structures on the behaviours and experiences of key market agents in leasing: landlords and tenants. Employing a multi-method research design, that involved large scale questionnaire surveys and key informant interviews, this study examined the experiences and behaviours of landlords and tenants in New Zealand under gross and net lease structures, the two most commonly used lease types in New Zealand. The study identified the extent to which lease structures have significant financial implications for net returns and also non-financial outcomes including: landlord/tenant perceptions of a lease, the operation and maintenance procedures of premises, the landlord-tenant relationship, and ultimately, overall landlord/tenant satisfaction. Despite the landlords' strong preference for fully recoverable net leases, their leasing strategies and behaviours significantly varied across submarkets in New Zealand, and in particular, with the sector and size of the tenant. Major differences between the perceptions, behaviours and experiences of private and public sector tenants, as well as international and national corporate tenants, were identified. These findings are significant for understanding the dynamics of the New Zealand commercial property markets, and for understanding international leasing environments, since different markets are dominated by different lease regimes. The research highlights the importance of understanding the dynamics of key market agents that actively create lease environments and how these agents interact and behave within these contexts.

Keywords: Lease structures, landlord-tenant relationship, property management, landlord tenant satisfaction





**BOOK OF ABSTRACTS** 

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#### THE EVOLUTION OF CHINESE OFFICE MARKETS: A COMPARISON OF BEIJING AND SHANGHAI

The past two decades have witnessed substantial change in the Chinese economy. Consequent upon this has been significant new office development. Beijing and Shanghai are the two largest commercial property markets in China. These two markets emerged since 1990s and have been growing and becoming relatively more transparent. Office stock has increased rapidly in both cities. This has been accompanied by large fluctuations in rental value and vacancy rates. There are similarities and dissimilarities between the two markets in terms of cyclical patterns, oversupply and occupier mix. Shanghai offices are mainly occupied by multi-national companies; while in Beijing, large-scaled state owned Chinese companies take an equal, if not more, important role in developing, investing and occupying office buildings. As the political and administrative centre of China, Beijing office market development may be more influenced by national political and economic factors. This paper examines the performance of office markets in these cities, highlighting the role played by foreign direct investment, differences in occupier mix, and the impact that the amplitude of fluctuation in rents and vacancy rates have on market adjustment processes.

Keywords: Offices, Market Adjustment, China

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## THE EVOLVING EUROPEAN REAL ESTATE RESEARCH AGENDA – A SEVENTEEN YEAR RETROSPECTIVE

This paper provides a seventeen year retrospective on the contributions made to the evolving European real estate research agenda at the annual conferences of the European Real Estate Society (ERES) over the period 1993-2009. Using a recently constructed database of conference records it identifies a total of over two thousand eight hundred individual conference contributions made over the period. The mix of topics has shifted over time from a focus on research related to valuation and specific developments in individual markets to an increasing focus on finance and investment research and cross-border comparisons. Throughout the period housing research has remained a very important topic of contribution. The paper also examines how the evolving real research agenda reflects the process of structural change which has taken place in the European real estate over the same period. At a wider level this work provides a benchmark of how the European research agenda has evolved overtime and seeks to stimulate debate on its future evolution.

Keywords: Real Estate Research, Europe, European Real Estate Society





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#### THE FEEDBACK FOR USER- CENTERED DESIGN FROM CONSUMER'S PERCEPTION OF THE **SMART KITCHEN**

In the ever-evolving market of household equipments, luxury and high cost equipments or kitchen appliances are longer the main stream. Consumers look for smarter and more functional kitchen design. The high inflation and high energy cost reality of today also drives the trend of eco-friendly and energy-efficient kitchen design. This trend is therefore a focus of our research on the smart kitchens. Moreover, we believe that a user-centered design can create better consumer satisfactory results. This is a departure from the past philosophy of designer-oriented design which tries to sell what the designers like. The study try to see from the user's viewpoint, and adopt the methodology of "Scenario design", and poll survey questions concerning how users feel when interacting with smart kitchen appliances. Then we use statistical method and deep interview to analyze what makes a group of consumers different from other groups, and what special considerations are favored by a particular group. These discoveries about consumer preferences will be sent as feedback to the designers for the consideration of future designs and improvements.

Keywords: smart kitchen, user- centered design, deep interview





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#### THE FORMATION OF HOUSING PRICE EXPECTATIONS IN CHINA: A CASE STUDY OF BELJING

Despite numerous studies have been devoted to test the rational expectations hypothesis, as well as the efficient market hypothesis in the housing market since the 1980s, there are still many questions need to be answered. Hence the last decade the intense housing price volatility in China provides a good opportunity to study the formation of housing price expectations and its role in the price volatility.

China is undergoing an unprecedented urbanization and high-speed economic growth, which leads to a lasting bull market since the housing reform launched in 1998; on the other hand, the housing market in China is strictly control by the government, which is significantly different with the scenario in western countries. Consequently, the formation of housing price expectations in China is believed to be different with the expectations studied in the previous researches. In this study not only the rational expectations hypothesis will be tested in Beijing, the capital of China, but also the adaptive expectations hypothesis, which is usually not included in the previous studies. Additionally, most of the existing studies on the housing market expectations rely on the macro level data, these researches can only test if the 'market' forms expectations rationally or adaptively on the market level, which could not reveal how the specific market players form their price expectations. In this research a more comprehensive survey will be conducted in Beijing to reveal how the housing market players form their price expectations individually. In terms of coverage, both the home buyers and potential buyers will be included to get an overall perspective of the formation of housing price expectations.

Keywords: Housing Market, Expectations, China





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## THE GRADEMETER:A CLEAR,OBJECTIVE AND SIMPLE TOOL TO MEASURE THE QUALITY OF OFFICE BUILDINGS AND HELP INVESTORS,DEVELOPERS AND OCCUPIERS IN CHOOSING THEIR PROPERTY

The GradeMeter is a measurement tool that assigns a Quality Grade to office buildings. The main objective of the GradeMeter is to serve as an objective, clear and simple tool for occupiers, developers and landlords in measuring the quality of all office buildings, based on an international benchmark. The difficulties linked to an excessively subjective definition of quality, in conjunction with increasingly strong pressure by occupiers and the growing need to make the market more transparent and align products to European standards, have driven Jones Lang LaSalle to create this new tool.

Today's practice to asses the Grade of a building is generally subjective and related to the real estate characteristics of the Country in question and often based on the subjective considerations of the individuals in charge of evaluating the quality of the building. The starting point for the construction of this simple tool was the awareness that the selection of a building depends on three factors: Location, Quality and Cost. The GradeMeter measures one of these factors: Quality. The features and technical characteristics of a building impacting its Quality are grouped into three macrocategories:

- 1.Technology
- 2. Commercial Quality and Comfort
- 3. Efficiency and Flexibility.

For each of these aspects Jones Lang LaSalle set a series of characteristics to which a score has been assigned. The final score calculated by the model provides a number associated to a Grade, which varies from A+ to C. For the first time, wherever you are in the world you could easily "Grade" a property. This revolutionary tool could ensure occupiers and investors about the quality of their buildings, and support developers in "raise the bar" and built product that will exactly respond to market request.

Keywords: Office Building, Quality, objectivity, benchmark





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#### THE IMPACT OF 2008 BEIJING OLYMPICS ON HOUSING CONSUMPTION: A CONTINGENT VALUATION APPROACH

There is a rich body of literature studying the effects of Mega-events (i.e., major sporting spectacle and cultural events) on economic development and environmental improvements in the host cities. Evidences are also found that Megaevents can enhance national pride and bring other intangible benefits. This paper adds to the literature by investigating public voice/perception about mega-events' impacts on their living quality from aspects such as urban infrastructure, housing condition and environment. The Contingent Valuation method is adopted in this study to test the hypothesis that the Beijing 2008 Olympics brought both tangible (e.g. transport accessibility) and intangible (e.g. better air quality) benefits to Beijing residents. Willingness to pay (WTP) models are constructed to quantify and contrast the responses from the public and private housing sectors.

Our results show that, overall, 78.4% of respondents were willing to pay a premium for the improvement of their living quality as a result of hosting the Olympics. Residents from public and private housing sectors placed different values on the Olympics' tangible and intangible benefits. Respondents' demographic characteristics also influenced their WTP, although the effects vary between the two sectors. Our findings provide new evidences of the positive impact of hosting Olympic Games. To better promote and prepare for Mega-events, policy makers and private investors should recognize and address different needs from the public and private sectors.

Keywords: 2008 Beijing Olympics, Housing Consumption, A Contingent Valuation Approach



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#### THE IMPACT OF AVAILABILITY OF FINANCE IN MATURE AND EMERGING REAL MARKETS: A DESK REVIEW OF THE UK, THE US AND BRAZIL

The recent collapse of the sub-prime mortgages in the US has highlighted the intertwined nature of our world's systems (Farshchi and Rafferty, 2009). The detrimental effects of the exceptional growth of the housing market in the Anglo-Saxon world (i.e., the US and the UK) in the late 2000s driven by low interest rates and as the emerging structural changes in developing economies, e.g., in Brazil have posed new questions for the research community. Using secondary sources, this paper will first examine the historical trends in housing finance, interest rates in the US and UK and then explores the interrelationship between the financial and housing markets in the US, the UK and Brazil with the aim of drawing comparisons and contrasts between policy

Keywords: Housing finance, subprime mortgages, innovation





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#### THE IMPACT OF DEMOGRAPHY ON THE HOUSING AFFORDABILITY IN GERMANY

The change in demography which means for Europe less children, longer lifes and a shrinking population has major impact on everydays life. Especially in Germany will these developement cause big changes in population, public social system and the labor market.

The impact of demography on real estate prices has been investigated especially for the US in the sence of Mankiw and Weil (1988).

A special case for the German real estate market is the fact, that just 43% of all households are owners – the rest, more than 50% are renters who are not at first in the development of the German real estate prices but of rents.

Therefore will this paper concentrate on the question if housing affordability for renter households will also be impact by the strong demoraphic changes in German population.

At first, under a theoretical investigation does it seems like, the situation for renters, especially in big cities and metropol regions will become worse, under the aspect of reurbanisation even if the population will shrink.

In a second step will the empirical part show how the affordability of rental living space is influenced by demography in general, to verify the theoretical hypothesis.

One result in the empircal work is, that especially the character of the labor market a strong influence on the affordability situation of a city has.

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#### THE IMPACT OF GOLF COURSES IN HOUSING DEMAND

**Keywords:** demography, affordability, housing, Germany, reurbanisation

The paper undertakes the role of golf courses to housing demand mobility in Valencia and Murcia regions, Spain. The study analyzes those characteristics of the golf players owning a golf-course house and their reasons to move to the golf course residential area. The exercise uses methods of Panel econometric analysis applied on primary data obtained from about 1300 questionnaire gathered in main golf courses. Results show how golf courses could have played an important role diversifying residential areas in all regions and attracting new housing demand

Keywords: housing market and golf courses development, local economy, planning strategies, environment





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#### THE IMPACT OF PUBLIC FACILITY SETTING CONFLICT ON RESIDENTIAL PROPERTY VALUES IN PARIS'S SUBURBAN ZONES

The presence of nearby public facility contributes to real-estate's value, that's why the market may expect impact of public project on house's price. But undesirable and semi-desirable facility location choices can be contested by close inhabitants, because they are source of negative externalities or negative expectations. In suburban zones of Paris's agglomeration, the oppositions to these infrastructures become frequent, and an official project's announce does not mean automatically its implementation. Through 3 study cases, and with data from the Paris Chamber of Notary, we explore the way the expectation mechanism is affected by juridical conflicts driven by close inhabitants. We suppose that the process depends on the to-be-realized-chance of the project. As the conflict activities amplify or reduce the certainty on the new facility's arrival, market's perception on the infrastructure varies among the different periods of conflicts. The variation is captured by our hedonic model.

**Keywords:** House's price, Facility sitting conflict, Market's expectation



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#### THE IMPACT OF REAL PROPERTY GAINS TAX (RPGT) EXEMPTION IN REAL ESTATE SECONDARY MARKET - A MALAYSIAN CASE STUDY

The first legislation to tax gains from the disposal of real estate was by the enactment of Land Speculation Tax Act 1974 which came into force on December 6, 1973. It was later replaced by Real Property Gains Tax Act 1976 from November 7, 1975. The Act was introduced to curb speculative activities in properties as such activities were rampant and has triggered artificial market demand in the real estate. Since its inception, the RPGT rate has been exempted twice and revised seven times. In March 2007, Prime Minister announced the exemption of RPGT with effect from April 1, 2007. The exemption was intended to "inject more excitement and dynamism into both the property and the financial sectors" in boosting the economic activities. The RPGT exemption however was restored in January 1, 2010. This paper examines the impact of RPGT exemption from April 1, 2007 – December 31, 2009 and reports on the real estate market condition during the exemption period. This study uses transaction data from National Property Information Centre (NAPIC) for the period of 2002 – 2009.

Keywords: real estate market, property gains, tax exemption

Forecasts





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## THE IMPACT OF THE GLOBAL FINANCIAL CRISIS ON SELECTED ASPECTS OF THE LOCAL RESIDENTIAL PROPERTY MARKET IN POLAND

The paper presents the results of a study of transaction prices on the residential property market of one of the largest Polish cities: Szczecin. The period of study covers almost four years from the end of 2005 to March 2009. This allowed the observation of market trends before and during the global financial crisis. The study divided the property market according to the criterion of the right to property exercised (freehold and cooperative member's ownership right to property) Although these rights are close to each in nature, they are different legal categories. An additional criterion of segmentation of the local property market taken into account was the floor area of the property. This has allowed to draw a conclusion as to whether the criteria mentioned above differentiate the local real estate market. It was examined whether properties subject to cooperative member's ownership right to property enjoyed the same interest as properties subject to freehold. It was determined whether the economic turmoil and the restrictive policies of banks have caused the property prices to fall and whether demand for smaller (and thus cheaper) flats has increased.

Keywords: property market, real estate development, local impact of global crisis





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## THE IMPACT THAT GOVERNMENT'S INCLUSIONARY HOUSING POLICY (IHP) WILL HAVE ON THE PROVISION OF HOUSING BY THE PRIVATE SECTOR IN SOUTH AFRICA: LESSONS TO BE LEARNT BY OTHER EMERGING COUNTRIES?

The institutionalized policy of apartheid in South Africa during the period 1948 to 1994 created not only segregation based upon race, but also inequalities and inefficiencies in terms of access to economic opportunities. The policy of separate development followed by the pre-1994 Government in South Africa meant that white and black people could not live in the same areas together. As black people were also denied access to resources, one the resulting effects of the policy of apartheid was that white people were able to live in suburban areas whereas black people had to live in designated townships away from white suburban areas.

The post-1994 democratic dispensation in South Africa has ensured that people of any colour may live where they wish to, but the fact is that many black people who were denied access to economic opportunities during the days of apartheid, do not have the resources to move into suburbs that were formerly exclusively inhabited by white people. The Government has introduced a policy known as Inclusionary Housing Policy (IHP) in order to try and reverse some of the economic effects of apartheid. In terms of the IHP, private sector developers will in future have to provide a certain number of housing units in new developments for affordable housing purposes. According to the policy, this should ensure integration of different socio-economic groups and allow people to live in suburban areas who were previously denied this opportunity because of their race.

South Africa still has significant income disparities between white and black people. The implementation of a policy like IHP may encounter significant problems in that people of different economic groupings may not wish to live together.

Although other countries have implemented their own version of South Africa's IHP, the eventual outcomes of the implementation of such a policy will naturally vary from country to country. The purpose of this paper is to share the results of research which has:

- •Compared South Africa's IHP to those of other countries;
- •Investigated the impact that the application of the IHP may have on private sector developers and the subsequent provision of housing;
- •Whether or not the policy is likely to ultimately have the intended outcomes that it is supposed to;
- •Potential problems that may be encountered when people from different economic groups live together; and
- •Suggested how other emerging countries that may wish to implement such a policy could do so successfully.

Keywords: Inclusionary Housing Policy Impact on provision of housing Application by the private sector





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## THE IMPACTS OF THE 2008 OLYMPIC GAMES ON BEIJING'S URBAN STRUCTURE AND RESIDENTIAL PROPERTY MARKET

The impact of the Olympic Games on the hosting cities has been the topic of a rich body of literature with mixed findings. The research topic is a challenging undertaking due to the scale of the event itself and the complexity of the preparation for the event. The Beijing 2008 Olympic Games is no exception.

After winning the bid for the Olympic Games in 2001, Beijing city invested more than 40 billion US dollars in infrastructure, of which 26 billion US dollars were contributed to transportation and the rest were devoted to urban environment, energy infrastructure and water resources. The unprecedented scale of investment, citizen involvement, and government support resulted in one of the most successful Olympic Games in its history and a tremendous boost of national moral in China. The event also changed many aspects of Beijing residents' life by improving transportation accessibility, amenity and air quality, among others. This study aims to investigate these impacts by focusing on the residential property market in Beijing and to provide policy recommendations to improve housing supply. This study investigates the development of Beijing private housing market and movement of urban structure by employing a hedonic pricing framework. We quantify the extent to which the distance to nearest transport network (subway station) and urban sub-centers have been capitalized into the property price. The data adopted for the hedonic model are 3,260 residential property transactions from 1998 to 2008. This selection of sampling period allows us to verify if house price determinants have the same effect on property prices before and after the major constructions of infrastructure and sport facilities for the Olympic Games.

The empirical evidences show that Beijing Olympic Games changed the marginal prices of housing attributes. Home buyers put greater values on transportation accessibility, quality environment and low living density after the infrastructure improvement was completed. It is also true that the area with least provision of infrastructure and amenity are likely to have benefited more from the Olympic Games than other well-developed regions. Meanwhile the Beijing urban structure has undergone a transformation from a bicentric form with the two centres being the CBD and Financial Street to a polycentric city with a new, burgeoning center at the Olympic Site. This area continues to attract great attentions after the Olympic Games and contributes significantly to local residents' cultural, social, and economic life.

Keywords: urban structure, residential property market, 2008 Olympic Games, policy recommendations

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## THE IMPAIRMENT RISK OF CORPORATE PROPERTIES: STRATEGIC AND OPERATIONAL APPROACHES TO ANALYZE SOME MISMATCHES BETWEEN THE PHYSICAL AND THE ECONOMICAL FUNCTION OF THE BUILDINGS

A control activity, able to prevent Corporate Properties from Impairment Risks, has becoming a strategic task also for the Italian Companies.

More and more various are, in fact, the services delivered by the Facility Management, either "within" or "in outsourcing", as well as many are the variables to look up to in order to identify risky events and, at the same time, to enhance the assets performance.

During the last few years the Italian Government has progressively introduced new regulations in two main areas of corporate properties management, in accordance with recent agreements signed in the Euro Area. The first class of provisions deals with a technological enhancing of buildings and plants (i.e. security systems, environmental quality certifications, etc...), while the second one concerns the IAS-IFRS principles adoption. This last provision requests an international alignment both in the book-keeping procedures and in the transparency criteria and implies, at the same time, to adjust the procedures for the tax-treatment of immovable assets (see, in particular, IAS 16).

These new rules highly expose corporate properties to impairment risks, above all Companies that make use of large buildings (Shopping Malls, Expo Districts, Congress Centers and other Special Purpose Buildings). Furthermore, this particular sector is compelled to invest in the competitiveness of its own Brands (in many cases quoted in the Stock Exchange). These investments introduce an additional strategic task that indirectly influences the physical value as well as the life-cycle of the real estate assets.

The study presented, supported by the analysis of international researches (technical literature, direct enquires, etc..), propose a synthetic "impairment risk" identification process. The approach suggested might be adopted to improve the instrumental properties management. In particular it relates different risks and variables diversified by typology and nature trough a 3 examination levels (general, sector-based, or specific).

Our final considerations recommend to improve the management of corporate properties "Impairment Risk" through more flexible solutions to activate among the three fundamental variables in the Balance Sheet (building life cycle, depreciation and maintenance costs). This approach let, at the same time, a better alignment of all those new regulations recently introduced for Properties and Plants.

In other words the paper intends to promote a more competitive vision of corporate properties moving from the idea of instrumental assets as a patrimonial stock reserve to the more dynamic concept of "corporate building" as "income factor".

Keywords: Impairment Risk, corporate properties, Risk Identification, Management strategy, Accounting Standards





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## THE IMPROVEMENT OF HOUSING APPRAISAL PROCESS WITH STREET BLOCK HOUSING PRICE INDEX

It is usually that appraisers running local factors adjustment is always subjective. This is due to the complex local environment and poor space price database. But there is trustless in the appraisal reports.

The purpose of local factors adjustment is that identified the local price difference. If we can generate a local space price index with street block, like as street block housing price index(SBHPI), it will be provided the reference of price adjustment of local factor. This paper will discuss whether traditional way is significantly different the way of SBHPI in local factors adjustment or not. How much improvement for accuracy of single appraisal and mass appraisal?

Keywords: Street Block Housing Price Index(SBHPI), Local Factors Adjustment, Appraisal



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## THE INCIDENCE OF COMPENSATIVE COSTS FOR PUBLIC STANDARD SERVICES ON THE VALUE OF AREAS TO BE TRANSFORMED IN CONSOLIDATED OR CENTRAL URBAN LOCATIONS: THE CASE OF TURIN

A key condition for the creation of balanced urban transformations is the introduction of appropriate public standard services beside the new Real Estate developments.

The Turin Plan in force indicates that, in urban lots (developing more than 4,000 sq.m. of gross floor area) to be transformed in consolidated and central locations, the areas for public standard services should be given for free. Anyway, the City of Turin can refuse the disposal of an area whenever its shape, location or dimension might compromise the adequate standard allotment. As an alternative, according to the local regulations, the City requests a compensative fee to remunerate the necessary expenditure to fit other more suitable free areas with public services. In this case the private proposer offers to the City a "compensative fee" that has to be verified by the Public Body on the basis of the "right of eminent domain". The amount of the expropriating compensation had been considered, up to 2007, at the 50% of the area "market value" (see the Decree n. 327- 8th June 2001). As a consequence, a fair apportionment of the costs and advantages induced by the transformation process between Public and Private subjects had generally been granted.

Anyway, during the last three years, some consistent changes took place: their impact on the estimation of the "compensative fees" has been so relevant to request a revision of their evaluation criteria. The first reason is related to the conjunctural economic and financial recession, perceived from 2007 in the Real Estate market as well as in the Land one.

As the present low mortgage activity is demonstrating, the European Central Bank reduction of the official rate, up to 1,00% (Spring 2009), wasn't helpful. Furthermore, the 2008 national budget Law (Legge Finanziaria n. 244 – 24th December 2007) has introduced the "market value" approach as the new expropriation criterion. In the present economic recession the full 100% market value appreciation for public domain areas, or compensative fee, produces an overcharged variable not more easily sustainable by the Public Body.

The paper aims to offer a contribution insight the economical-financial feasibility estimation of Real Estate urban redevelopments (carried out through Discounted Cash- Flow dynamic analysis) to identify a market value able to represent a fair "compensative fee" for standard public services.

Finally we present a compared analysis of some case studies concerning the re-development of former industrial areas in the city of Turin.

Keywords: Public services, compensative fees, transformation value, market value, discounted cash flow analysis





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## THE INFLUENCE OF OFFICE LOCATION ON COMMUTING BEHAVIOUR: JUST HOW BAD FOR THE ENVIRONMENT ARE OUT-OF-TOWN OFFICE LOCATIONS?

To fully appreciate the environmental impact of an office building, the transport-related CO2 emissions resulting from its location should be considered in addition to the emissions that result from the operation of the building itself. Travel-related CO2 emissions are a function of two criteria. The first relates to the location of the office relative to the location of the workforce, the market, complementary business activities (and the agglomeration benefits this offers), the availability and cost of transport modes. The second relates to the mode of transport between these locations and frequency of visits which, in turn, depends on the requirement for a physically present workforce and face-to-face contact with clients. This paper examines the commuting-related CO2 emissions that result from city centre and out-oftown office locations. Using 2001 Census Special Workplace Statistics which record people's residence and usual workplace and mode of transport between them, distance travelled and mode of travel were calculated for a sample of city centre and out-of-town office locations. The results reveal the extent of the difference between transport-related CO2 emitted by commuters to out-of-town and city centre locations. The implications that these findings have for monitoring the environmental performance of offices are discussed.

Keywords: Offices, commuting, out-of-town, CO2, location



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## THE INFLUENCE OF OWNERSHIP, SECTOR ALLOCATION AND INVESTMENT STYLE ON PORTFOLIO VOLATILITY

The German property market has shown a remarkably stable performance over the last decades. Especially in the worldwide financial crisis 2008 and 2009 German valuation practise has been questioned by international and especially UK market participants. The paper investigates the performance of German properties with a focus on the investor structure and controls for relevant portfolio differences.

The paper tests the hypothesis whether performance differences of German properties are attributable to the ownership structure, the portfolio differences regarding sector allocation and different levels of income return.

Findings suggest that portfolio ownership has been a significant factor for German property performance in the time of the financial crisis 2008/2009. Partly this can be explained by the different allocations to the sector "industry" that has the highest volatility within Germany. Furthermore, the selection of "riskier" assets is an explanatory factor.

# Keywords:





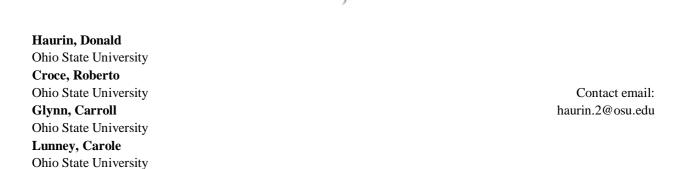
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#### THE INTEREST RATE SPREAD AND REAL ESTATE RETURNS ---- EVIDENCE FROM HONG KONG

As the capitalization rates are tightly related to the required rates of return, there are a number of dynamics driving capital markets can help to explain the observed cap rates over time. Anyway, there are few researches discussing about why and how real estate cap rates and capital market interact. This paper employs a model to explore why the cash flow of real estate market is influenced by the changes of capital market. Furthermore, we employ data from Hong Kong real estate and capital markets to investigate how cap rates are affected by the capital market dynamics. The findings reveal a moderate relation between cap rates and term-spread of interest rate, as well as evidence of influence of the capital flowing from foreign markets to domestic market.

Keywords: capitalization rate, cash flow, interest rate, foreign investment, expected rental growth



#### THE INTERRELATIONSHIP OF THE U.S. HOUSING BUST AND BOOM AND THE NEWS MEDIA

The primary question addressed in this paper is how media coverage of the U.S. housing market relates to changes in the housing market. Specifically, does the news about the residential real estate market lag changes in observed changes in the market (representing the case where the media simply reports the news), or does the news lead the market, possibly creating some type of media "frenzy", or do the news and the housing market evolve together? We test Robert Shiller's hypothesis that the media was influential in causing or contributing to the housing boom during the 1996-2005 period. We also test the influence of the media on the sharp downturn in the housing market following 2006. Our data are from a national survey that measures the level of households' housing demand and we create a new data set that measures various aspect of media coverage of the housing market. Using a VAR model, we test for relationships between housing demand and the content of the media, paying particular attention to whether this relationship differs comparing booms and busts.

Keywords: Housing boom Housing bust VAR model Media frenzy House price expectations





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#### THE ITALIAN TOURIST SECTOR: SOME WAYS TO CORRECT SEASONAL ADJUSTMENT

The Italian tourist sector is historically affected by seasonal problems: in many locations the tourist season lasts only for 4-5 months per year. For the remaining 7-8 months hotels and leisure activities are forced to close: in these months of low season expenses could be higher than revenues. Italian seaside tourist areas are the most affected by seasonal adjustments: even for this reason return on investment could not be so attractive for the main international brands. During the last years some operators tried to get round this matter diversifying the offer: SPA, wellness centres, business centres, etc.. These devices are only local and segmented operation that do not lead to a resolution of the problem.

The aim of this study is try to identify some categories till now ignored by the tourism sector and demonstrate that invest in these groups of people could help the renewal of the sector. Each category will be analysed in order to individuate the qualitative and quantitative aspects that can impact on the tourism sector:

- -demography: quantification and trends;
- -purchasing power;
- -propensity to travel;
- -the way of life;
- -etc.

For each analysed category we will estimate the increase of the number of travellers and the impact on the turnover of the Italian tourist sector that is possible to gain investing in these groups.

**Keywords:** Italy tourism seasonal adjustmentpropensity to travel travellers turnover

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#### THE PERFORMANCE ATTRIBUTION OF THE ITALIAN REAL ESTATE FUNDS: THE ROLE OF INCOME RETURN AND CAPITAL GROWTH

The performance of real estate funds is mainly influenced by the inflows and outflows during the life of the fund and by the value changes of the real estate properties (Cervone, 2006). Following international standards (CFA Institute, 2009; IPD, 2008), the overall performance of the real estate market can therefore be attributed to the appreciation return and/or the income return.

The role of each source of the performance of a real estate investment fund depends on the characteristics of the funds and the market (Baum and Devaney, 2008).

Investors' perception of the two performance sources could be different on the basis of the assets' liquidity and the debt structure of the funds (Young et al., 1995). Generally, the rent income component, under certain conditions, is the less relevant for the institutional investors that manage a diversified portfolio following a medium-long term strategy. (Lee and Stevenson, 2005).

The Italian property funds market has shown an enormous growth over the past few years, however, little is known about the key elements of the property funds performance.

The paper considers the Italian market for the last decade and analyzes the annual reports of all public real estate funds, separating the appreciation return from the income return. By considering a wide period of time, the paper also evaluates if the role of income return in respect to the overall performance is influenced by some characteristics of the fund (i.e. asset diversification, concentration, leverage, etc.).

The obtained results would be useful for the regulators and for the managing companies (SGR) as well, due to the lack of information about the performance components' dynamics for the Italian property funds' industry.

Keywords: Real estate funds performance, income return, capital growth





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#### THE PERFORMANCE IMPACT OF STRATEGIC CORPORATE REAL ESTATE IN FRANCHISE **ORGANIZATIONS**

te is

franchise organizations. Using data on all available US public franchise companies real estate ownership on the risk and return characteristics of franchise firms. Unlil negative performance effects of corporate real estate ownership in general, our stud franchise organizations. Although we include all available public franchises in our still limited. Nevertheless, our results show how corporate real estate ownership caperformances of franchise organizations.	s, we measure the effect of corporate ke previous findings that show dy shows positive effects for sample, however, the sample size is
<i>Keywords:</i> Franchises, Corporate Real Estate	
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THE PERFORMANCE OF PROPERTY COMPANIES ON THE AIM STOC	CKMARKET
The Alternative Investment Market (AIM) in the UK was establised in 1995 and his stockmarket for smaller, growth companies for both UK and international companies tockmarket comprised 1322 companies with a total market cap of 57 billion pounds companies with a market cap of 5.4 billion pounds.  The purpose of this paper is to assess the performance of the property company sec July 2005-December 2009. The risk-adjusted performance and portfolio diversification the AIM stockmarket will be assessed against the overall AIM stockmarket, other classes. The impact of the Global Financial Crisis on the performance of property classes.	ies. At November 2009, the AIM ds. This included 84 property ctor on the AIM stockmarket over ation benefits of property companies er AIM sub-sectors and related asset
<b>Keywords:</b> AIM stockmarket, property companies, performance analysis, diversification	tion,emerging markets





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## THE POTENTIAL FOR EFFECTIVE DIVERSIFICATION STRATEGIES BETWEEN THE UK AND IRISH PROPERTY MARKETS

This study investigates the potential for probable and potential diversification that can be achieved by limiting property portfolios to the geographical markets of the UK and Republic of Ireland. The specification of these geographical constraints is employed as a proxy to address the limited diversification observed by typical investor strategies and the a priori observation of a similarity in property tradition, but divergence in financial structures, regulation and economic policy, currency differences and the possible differences in investor behaviour expected in the two markets.

Keywords: Diversification, Portfolio, Risks Decomposition



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#### THE PRACTICE OF LAND PRICING ACROSS EUROPE

As primary good to develop, the price of land tends to be an important variable in the real estate market and is one of the main parameters of public private transactions. Despite this relevance, an explicit comparison of the differences in pricing land is somewhat scarce. Earlier studies have yet made clear that the institutional framework of land markets differs across countries (Van der Post, 2008). Nevertheless, the literature lacks the quantitative perspective to present the impact of these interventions in terms of land prices. This paper attempts to interpret and explain these differences between some prime countries and cities across Europe and will contribute to a better understanding of different land policy models.

The paper first briefly looks at the theory about the persistence of structural differences in the organization of land markets in some major EU countries and cities. After discussing the observable similarities and variations of land pricing methods, the second section offers a comprehensive overview of the empirical data of the selected land markets. Finally the concluding remarks are presented.

A few notes remain. First of all, unfortunately, in the field of land supply data problems are considerable. So given the relatively short period towards Milano, this paper is set up as a general start for a yearly held research about land prices and its explanations.

Keywords: Land Market, Land Pricing, Urban Economics, Real Estate Finance, Land Investments





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#### THE PRICING OF INFRASTRUCTURE INITIAL PUBLIC OFFERINGS: EVIDENCE FROM AUSTRALIA

This paper explores first day returns on infrastructure entity initial public offerings (IPOs) in Australia from 1996 to 2007. The study finds that first day returns, on average, are not significantly different from zero. There is evidence however that suggests higher dividend yields and higher percentage direct costs of capital raising influence these first day returns. The study also finds that infrastructure entity IPOs that seek to raise more equity capital leave less money on the table for subscribing investors.

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Keywords: infrastructure funds, IPOs, underpricing

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## THE READABILITY OF ACADEMIC PAPERS IN THE JOURNAL OF PROPERTY INVESTMENT AND FINANCE

The aim of the Journal of Property Investment and Finance is to keep industry practitioners informed on current thinking and developments in all aspects of real estate research and practice by informing and encourage debate between academics and practising professionals. To achieve this aim the Journal seeks to: "publish well-written, readable articles of intellectual rigour with a theoretical and practical relevance to the real estate profession." But some papers are likely to be more difficult to understand that others and may not be effective if the reader is unable to completely comprehend the contents. Thus, the readability of academic papers has a major effect on how well the reader is informed by the articles appearing in the journal. However, nothing is known about the readability of real estate journals. The purpose of this paper is to present the results of a study that analysed the readability of academic papers in one such journal, the Journal of Property Investment and Finance.

Keywords: Readability, Academic Papers, JPIF





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#### THE REAL ESTATE INVESTMENT OF INSURANCE COMPANIES IN POLISH CONDITIONS

Traditionally, the real estate is seen as a one of components of investment portfolio of institutional investors due to its diversification potential. Insurance companies, in particular, specializing in life insurance and collecting significant capital, in developed economies are important participants of the real estate markets. However, in Poland, the insurance companies are reluctant to use their resources to acquire the property. The authors seek to determine the causes of this situation by proposing to look at real estate investments from different points of view. To determine the viability of such investments they examine the size of the investment in real estate together with generated costs and revenues comparing to other investments. Secondly, they try to determine the impact of the acquisition of real estate on indicators of the profitability of the company which is the insurance company. The survey was conducted on the basis of annual data on the results of insurance companies in Poland, collected by the Financial Supervision Commission. The authors tried to look for investments in real estate from the perspective of the owner - the entrepreneur who strives to achieve the economic objectives, and from the standpoint of beneficiaries who bought life insurance policies.

Keywords: insurance companies, Poland, real estate

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## THE REAL ESTATE RISK IN CENTRAL AND EASTERN EUROPEAN OFFICE MARKETS: THINKING TOO BIG?

In this paper, we investigate the evolution of office market risks and property prices in Central and Eastern European (CEE) cities since the transition period. We develop a methodology assessing if office property markets have been accurately evaluated in CEE cities, using as a benchmark the past evolution of the office markets in Western European cities. We are then able to estimate a predicted property price and capitalization rate for each CEE cites, given their actual real estate and economic conditions. Results show that investors' valuations are in fact not too far apart from the predicted value based only on real estate and economic fundamentals. The macroeconomic environment, however, seems to have a stronger effect on property prices in CEE than real estate factors, contrary to Western European cities.

Keywords: Office property market, Central and Eastern European countries, Europe, Risk evaluation, Property prices







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#### THE REAL ESTATE VALUATION OF THE URBAN PLAZAS

Since the early 90s, European cities most affected by the crisis, sought to become attractive for residents, tourists and investors by launching extensive renovation programs. These have focused primarily on urban places due to their role as interconnection of transport networks and their ability to embed the history of the city. The planner must then consider the effect of these public investments on private property valuation.

We are here assuming that the proximity of certain features of urban spaces affects property values. However, we must determine whether the effect of proximity on the price is linear or not and if this effect differs according to a typology of spaces.

The significance of the statistical approach assumes to have a long observation period under duress of stability characteristics of the plazas.

For the field study we chose the city of Bordeaux in France because of its history and the availability of real estate data long term. 54 plazas are included in the sample.

Keywords: Urban Plaza Hedonic Method City of Bordeaux Real Estate Valuation

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## THE RELEVANCE OF REAL ESTATE ASSETS AND DERIVATIVES FOR INTERNATIONAL MONEY MARKETS AND THEIR PREEMINENT ROLE DURING THE SUBPRIME FINANCIAL CRISES

During the recent financial crises the relevance of the real estate sector for the stability of capital markets was clearly demonstrated. First, real estate assets have been the underlying for various derivative products, e.g. Mortgage Backed Securities, which enabled mortgage lenders to divide risks between investors while these could diversify portfolios or speculate on price movements of the fundamental asset. Second, the role of real estate assets and related derivative structures became increasingly important as collateral in money market transactions such as repos. Consequently, a large portion of the liquidity provided in money markets was directly dependent on the price development in the real estate sector. Hence, international regulatory authorities and policy makers as well as financial market participants need a better understanding of how these markets affect each other. Thus, in the following we will particularly analyse how different types of real estate assets and related derivatives influence the functioning of international money markets. Moreover, it will be examined wether such assets primarily drive liquidity or counterparty risk in these markets as soon as it comes to economic or financial crises. Therefore, the correlations between the continuous yields in various international real estate and money markets will be modelled by following a multivariate DCC-GARCH approach. This methodology will allow for accounting for the characteristics of time variant correlations, the common cause interdependence as well as possible structural changes in the inter-market correlations over time.

*Keywords:* Contagion, DCC-GARCH, Financial Crises, Money Markets, Real Estate, Subprime, Time Varying Correlations





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#### THE RELEVANCE OF REAL ESTATE MARKET TRENDS FOR INVESTMENT PROPERTY FUNDS ASSET ALLOCATION: EVIDENCE FROM FRANCE, GERMANY, ITALY AND UNITED KINGDOM

In the last decade, the development of investment funds specialized in the real estate investment, points out some interesting differences in the strategy adopted by fund manager in order to achieve an optimal portfolio allocation. An increasing number of real estate portfolio managers, manage several property classes because they recognize the benefits of an intra-asset diversification. Webb (1984) found that approximately 61 percent of institutional investors diversify by property type, and a more recent survey by Louargand (1992) found that 89 percent diversify by property type.

The introduction of the market cycles and trend study for the investment decisions represent one new topic for the real estate asset industry. Recent studies found out that cycle strategy is important especially in project development, portfolio management and real estate finance (Wernecke, 2004).

The aim of the paper is to study the usefulness of trend analysis, widely used in the asset management industry, in order to evaluate real estate time series and to define the best portfolio allocation strategy.

Trends of real estate market are analysed using IPD index for main European countries (France, Germany, Italy and United Kingdom). Information about the portfolio composition are collected from official real estate market association (Assogestioni, Scenari Immobiliari, BVI, Aref, IEIF) and, if necessary, from the annual report of each real estate fund.

The time frame is 2000-2009 and the frequency of the data is yearly.

**Keywords:** real estate, market cycles, portfolio allocation

A preliminary analysis of the trend of indexes available is released in order to identify the main differences in the market trends in each country and in each sector. An analysis of all investment funds listed in each country is released in order to evaluate if funds manager consider market trends in constructing new investment vehicles and /or modify the portfolio composition in order to benefit from this investment opportunity. The study proposed considers separately the new portfolios constructed and the existing ones: for the first type of fund an analysis of the coherence with optimal portfolio structure is released and for the latter the paper proposes a study of presence /absence of portfolio rebalancement correlated with the trend in the real estate sector.

Results obtained show that market trends in each country follow a different direction in each sector. Different property types are believed to be driven by different economic factors and consequently the study of market trends could have a positive impact on a sector diversification. Although a large percentage of managers do not consider the trends in order to modify their strategy, in some countries the portfolio allocation could be considered independent from the market trend.





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#### THE ROLE OF PRICE EXPECTATIONS IN THE U.K. MARKET HOUSING

The objective of this paper is to show the role of survey data published by Royal Institution of Chartered Surveyors (RICS) in forecasting subsequent U.K. house prices, three months ahead. Both the Halifax and the Nationwide indices are used to test the performance of the RICS survey based on bounded rationality.

Bounded rationality means that various agents, such as buyers, sellers, estate agents and chartered surveyors, play differing rôles in the overall formulation of expectations of prices. An S-shaped logistic effect with a diffusion path of expectations from surveyors to other agents is assumed. The empirical analysis makes use of the forwarding-looking price expectations data published by Royal Institution of Chartered Surveyors (RICS) with the actual observations produced by Mortgage lenders, the Halifax and the Nationwide.

The study provides econometric evidence for the validity of the logistic formulation and shows that bounded rationality can explain the predictions of agents. The conclusions from this paper is that the logistic function is a superior approximation to the true data generating process compared with the earlier standard Anderson/Pesaran/Thomas approach. An adjustment to the survey is used, which achieves perfect symmetry with 'up' and 'down' versions of the data, which is also tested.

**Keywords:** Housing, Price Expectations and forecasting



**BOOK OF ABSTRACTS** 

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#### THE ROLE OF RELATIVE ACCESSIBILITY IN URBAN BUILT ENVIRONMENT CHANGE

Location of real estate projects is one of the most important decisions to be made at the beginning of any development process. Once a property is constructed, it is attached to the place throughout the whole life cycle. Nevertheless, it also keeps affecting subsequent location decisions of other investments in the neighbourhood. Therefore, the development site selection behaviour, agglomerated at the city scale, transforms urban built environment pattern. In the literature, it is argued that knowing relative accessibility helps in understanding the morphogenetic process. Several techniques focusing on spatial configuration are usually used to explore relative accessibility of the components integrated in the urban structures and to explain how potential spatial interactions between people using these structures are affected. Furthermore, simulation models of the built environment change also suggest a critical influence of accessibility. In this context, the explanation power of relative location within the urban structures is supported by many studies. In this paper, we examine the relationship between relative accessibility and built environment density in Bratislava, Slovakia, with its emerging real estate market between 1991 and 2006. The early post-socialist development is generally considered with the less powerful regulation, which enables a virtually free competition for urban land. Our first hypothesis is that the best connected locations are more attractive subject to competition resulting in higher built environment density. Our second hypothesis is that the transition period covered by data documents a process of density gradient restoration driven significantly by relative accessibility.

**Keywords:** urban built environment, density, accessibility, post-socialism





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#### THE ROLE OF RISK MEASURES' CHOICES IN RANKING REAL ESTATE FUNDS: EVIDENCE FROM THE ITALIAN MARKET

Real estate industry is a fast growing reality in all European Countries and during the last years also Italian market shows a significant increase in the number of real estate funds available not only for institutional investors. The increasing role of retail investors in the industry makes necessary to study simple return/risk measures that could be easily understood also by not financial skilled investors. Measures frequently used in the asset management industry are the Risk Adjusted Performance Measures scale independent. Studies available in literature evaluate the fitness of these measures in order to select best investment opportunities under the simplified assumption of the normality of results achieved.

Looking at the Italian market, the paper studies the performance of Real Estate Funds traded in the Italian market for the time period 1999-2009 and verifies that the assumption of the normality of results is not coherent. Demonstrated the limits of this assumption, the paper compare ranking based on Sharpe ratio with those achieved using different RAP measure constructed using different risk measures. Results obtained demonstrate that rankings obtained are not strictly correlated and measures that do not assume the normality of returns identify rakings that are more stable over time.

Keywords: Real Estate Funds, Risk Adjusted Performan	ce, Non-normality of return distribution	ı
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#### THE ROLE OF SHOPPING CENTRES IN SUSTAINABLE DEVELOPMENT – STAKEHOLDER PERSPECTIVES IN FINLAND AND SWEDEN

In recent years there has been an increasing interest in sustainable development within the shopping center industry. Many current challenges, such as climate change, have forced shopping centers to pay attention to sustainability issues in their operations. Sustainable development has become a widely used concept to communicate corporate responsibility. However, thus far there has been little agreement on the concept itself which has therefore remained contradictory with a wide range of meanings. This paper seeks to address how stakeholders from the Finnish and Swedish shopping centre industry view the role of sustainable development in their business operations. The study is based on focus group discussions and it provides valuable insights into the sustainable practices in these two countries.

**Keywords:** shopping centres formula, retail management





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## THE SIGNIFICANCE AND PERFORMANCE OF LISTED PROPERTY COMPANIES IN DEVELOPED AND EMERGING MARKETS IN ASIA

Together with shares and bonds, property and property securities have become major global investment classes. Compared with other continental markets, listed property companies take a higher percentage in the Asian stock markets, thus reflecting a more significant potential role in investment activities. There are a number of papers assessing property investment in Asia with regard to individual countries for both developed and emerging markets. This paper presents a profile and performance analysis of the listed property companies in Asia in terms of their market maturity (developed, emerging and lesser emerging sectors) from the perspective of US investors for 11 countries in Asia over Jan. 1999 – Dec. 2009. This includes the developed markets (Japan, Hong Kong, Singapore), emerging markets (Malaysia, Korea, Taiwan, Thailand) and the lesser emerging markets (China, India, Indonesia, Philippines, Sri Lanka, Vietnam) with the sub-sector of the less emerging markets in Asia potentially providing enhanced property investment opportunities.

*Keywords:* listed property companies, Asia, developed markets, emerging markets, lesser emerging markets, sector index, performance analysis

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#### THE STAKEHOLDER MANAGEMENT IN REAL ESTATE

In this paper we would like to investigate which are the most relevant categories of stakeholders for the real estate business. In order to do so we initially define the cultural/managerial aspects of firms specialised in real estate. I.e. identify the nature of "project-based firms" as opposed to industrial and manufacturing firms as well as merely service providing firms. Second, we go back the main contributions about stakeholders, stakeholder management and the emerging field of project stakeholder management. Third, we try to identify the critical issues involved in the relationship between "project-based firms" and "stakeholders", whose consensus has to be managed in order to achieve project satisfaction in spite of the damages caused during site works. The identification of the main project stakeholders and the relevance of each of these for the real estate companies is done analyzing a few interviews we have realized on the field.

Keywords: stakeholder management, project based firms, relationship in real estate, marketing, communication, trust





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#### THE STRUCTURE OF URBAN RESIDENTIAL HOUSING SUBMARKETS OF HONG KONG

It has been widely agreed in real estate literature that housing submarkets should be adopted as a working hypothesis. This paper revisits the housing sub-market hypothesis and seeks to spatially delineate residential market segments using Hong Kong geo-coded transaction data. Spatial correlation information inherent in the Hedonic residuals is adopted to define property clusters, with which we define sub-market segments. Chow test is performed across the clusters to examine the segmentation of the market. The results are then compared with the prevailing structure of market segments. Weighted mean square test reveals that the defined sub-market structure can improve the accuracy of price forecast significantly, which is consistent with previous research findings.

Keywords: Housing submarket, Hedonic model, spatial autocorrelation, Hong Kong



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# THE STUDY OF ALLOCATION OF ACTIVITY TIME ON WEEKENDS BY USING ACTIVITY-BASED APPROACH

The focus of this proposed study is on weekend activities and associated travel behaviors. This study will preliminarily investigate time allocation behavior of individuals on weekends and construct a model of activity time allocation by activity-based approach. The proposed model will specifically take into account the state of the individual time allotment on weekdays and subjective evaluation of time use on weekdays. There are two features in this study: 1) This study tries to analysis the behavior of time allotment on weekends as previous studies focused only on the behavior on weekdays. 2) The study will develop an activity time allocation model for weekends which will consider the state of time allotment of individuals on weekdays along with subjective evaluation of time use during weekdays. Above two features will lead to a practical reference resource with theoretical underpinning for transportation planners who have to understand human behavior before planning and executing a transportation or infrastructure plan.

Keywords: travel behavior, model of activity time allocation on weekends, time use

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#### THE USE OF HEURISTICS IN VALUATION PRACTICE: IMPLICATIONS IN A CHANGING MARKET

Despite the existence of prescribed frameworks, valuation remains a cause of much controversy and variety of opinion. It does not matter whether procedures are undertaken in exactly the same way, the conclusion of 'value' will vary from valuer to valuer – sometimes considerably. This uncertainty within valuation is founded on property's heterogeneous nature and the imperfect market that is the property market; in addition to the unpredictability of human behaviour in making judgements (French and Gabrielli 2004). Uncertainty, in valuation is found in the amalgam of locational, physical and legal characteristics and innumerable other forces which control and energise the property market (Whipple 1995). Particular irregular occurrences, or drastic changes in property markets, from either within market evolution or external forces, for example the creation of global financial markets, cause further uncertainty for valuers and provides challenges in identifying 'market value' in valuation practice.

The praxis of valuation in a commercial sense navigates this complexity using a combination of algorithms and heuristics to identify the value of a property. The application of theoretical mathematical algorithms based on economic theory (Brown 1995), is augmented by valuers' ability to apply appropriate adjustment based on their knowledge of the market, their ability to analyse, assess and compare the attributes of a property in comparison to its market, and their practical experience (Sliogeriene 2008). Despite the necessity of algorithms, the application of appropriate adjustments and assumptions are important in arriving at a value.

This paper is a critical reflection on the basis of valuation practice as guided by standards, methods, and ethics (algorithms), and the use of heuristics in practice. This is important because changes within property markets challenge the inter-relationship between these two aspects of valuation practice. Through the authors' industry experience and a review of previous research and statements of practice norms this paper provides an analysis of the ability of valuers to address market change in their valuation practices.

**Keywords:** Valuation practice, heuristics, judgement, market uncertainty





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#### THE VALUE OF RENTAL DEPOSITS

The paper has two aims; to consider the negotiating strength of landlords and tenants in lease negotiations and to calculate the level of deposit which is necessary to mitigate income risk.

The paper reviews existing literature on the negotiation strength between landlords and tenants in different stages of the property cycle; investigates the well established deposit system in South Korea for lessons that might be applied in the UK; estimates the appropriate level of deposit using simulation methodology given different states of the market and places the contractual arrangement in a legal framework.

Evidence from the Seoul office market suggests that deposits can be very effective in protecting income return. In the UK during the down phase of the cycle, when supply of space exceeds demand and business conditions are uncertain, tenants are unwilling to pay deposits and landlords are more inclined to offer incentives in a bid to get the property let, even although the down phase is exactly the time when a deposit system is needed most. Landlords should be looking through the cycle and insisting that deposits are paid at the height of the market when their bargaining strength is stronger. The deposit should be sufficient to cover the probability of income loss in the down phase of the cycle. Based on market evidence in 2009, the amount of the deposit should be equal to at least 15 months rent.

The stability of the income return is one of the key features of real estate both as an investment and as security. The use of rental deposits is a practical and straightforward way of hedging the risk. This paper estimates the amount of deposit required and provides guidance on the key heads of terms which should be included in a deposit agreement.

Keywords: income risk, lease negotiations, rental deposits





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#### TO OWN OR NOT TO OWN? PROPERTY DECISIONS OF SME ENTREPRENEURS

Small to medium sized enterprises (SMEs) are regarded as the engine of many economies. While large corporations are conspicuous in their ownership and management of commercial properties, SMEs are less visible. Little attention has been given to research at the interface between property and SMEs. A study by Morrish, Levy and Dong (2009) found that SME portfolio entrepreneurs use property strategically in business decision making. These decisions relate to finance, building space and other business related issues. It was evident that portfolio entrepreneurs incorporate both business and personal wealth strategies in their approach to property ownership.

This paper reports on a two-part study consisting of a survey followed by an in-depth investigation utilising multiple case studies. The survey of 194 New Zealand SME entrepreneurs indicate that 80% of respondents found property ownership to be a sound strategic business decision. Reasons for property purchase and development varied accross the different stages of business operations. In-depth interviews further suggest that ownership of property is not only impacted by business strategy but also additional external factors, lifestyle and personal considerations together with specific property investment criteria.

This study advances theoretical understanding of the interface between SME operations/processes and strategic property management and devlopment, enhancing our understanding of the value property brings to business. In addition the results of this study provides practitioners with a deeper insight into the way SMEs view, acquire, manage and dispose of property.

Keywords: Entrepreneurship, property ownership, strategic decision making, SMEs (small to medium enterprises)
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#### TOLL ROAD INVESTMENT UNDER UNCERTAINTY

We model a portfolio of real options with cost contingency and government subsidy at the operation stage. We demonstrate that the investment value is highly sensitive to cost and revenue uncertainties. Our numerical analysis suggests that the investment value of risky project is higher when net income guarantee is used instead of minimum revenue guarantee.

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# TOWARDS THE UPTURN OF RESIDENTIAL MORTGAGE MARKETS: WHICH POLICIES FOR THE **EUROPEAN CONTEXT?**

From the beginning of the global financial downturn, the observation of residential mortgage market drivers has been focused in investigating the role in triggering the world crisis.

Today, we want to analyze how the residential mortgage market could support the upturn and, consequently, how it could help to solve the present situation.

What is the impact of the global financial crisis on European residential mortgage markets? Can we identify common drivers that can help us in understanding mortgage markets trends? And if this is the case, what suggestions for policy purposes can we derive from those trends? Also, alongside similarities, there are certainly significant and country specific differences that can support or restrain the development of European residential mortgage markets. This study enters the wide international debate about the global financial downturn and, as a first step, has the aim to supply a deep analysis of residential mortgage market trends in some of the most relevant European countries. As a second step, the survey will investigate the most relevant key variables of the residential mortgage supply with the goal of highlighting analogies and differences at cross-border level and to identify the most relevant trends. In particular, by identifying the most important drivers of residential mortgage markets across Europe, this paper wishes to provide some suggestions on possible policies for the upturn of residential mortgage markets and, also, it aims at verifying the opportunity of developing supranational or country-specific actions.

Keywords: European residential mortgage markets, residential mortgage market drivers, global financial crisis, market policies







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#### TRADITIONAL AND NON-TRADITIONAL TOOLS FOR THE DESCRIPTION OF REAL ESTATE VALUE

During the last years of the current decade the changes in the nature of tools that are used for the description of real estate value is dramatically changed. These changes involve the both parts of the tools as equipment used in the context construction while the real estate value description will be composed. Predominantly the diversification of the tools into traditional or non traditional one, those are regularly or spontaneously included, is not essential. In this case as a foundation of the indication of the changes will be placed on analyze of the sources, aggregates and factors of value, that are sorted and selected during their historically development and overvalued, reformed and over modelled during the new economically superposition which is adapting used up to the present superlative characteristics. The more coherent and transparent use some contemporary variables like sustainability, energy efficiency, environmentally friendly, etc will also provide the new approaches of description that will positioning how useful these adjustments are. In the stage of conclusions the forecasts of further movements applying the principles of interdisciplinary and multidisciplinary will form the tolerable package.

Keywords: Traditional tools, non traditional tools, sources of value, aggregates of value, factors of value, contemporary variables, interdisciplinary

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# TRANSACTION BASED INDICES FOR THE UK COMMERCIAL PROPERTY MARKET: EXPLORATION AND EVALUATION USING IPD DATA

The nature of private commercial real estate markets presents difficulties for monitoring market performance. Assets are heterogeneous and spatially dispersed, trading is infrequent and there is no central market place in which prices and cash flows of properties can be easily observed. Appraisal based indices represent one response to these issues. However, these have been criticised on a number of grounds; that they may understate volatility, lag turning points and be affected by client influence issues in relation to the underlying inputs. Thus, this paper presents an econometrically derived transaction based index of the UK commercial property market using IPD data and compares it with published IPD valuation indices for this market. The method is similar to that presented by Fisher et al. (2007) and used by the MIT Centre for Real Estate on NCREIF portfolio records, although it employs value rather than equal weighting. The results show stronger growth from the transaction based index in the run up to the peak in the UK market in 2007 as well as larger falls thereafter. They also show that the transaction index is more volatile than the valuation series, but, surprisingly, differences in the timing of turning points are not found. Hence, the paper concludes by debating why this might be so, as well as the applications and limitations that this transaction based series has as a practical market performance measure.

**Keywords:** Transaction-based indices, Property performance measurement





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#### TRANSACTION COSTS IN COMMERCIAL REAL ESTATE: A EUROPEAN COMPARISON

The real estate market is characterized by high transaction costs compared to other markets caused by its relative intransparency and the involvement of many agencies.

Transaction costs have been widely discussed in relation to the housing market with much attention to the role of public authorities. It is widely accepted that transaction costs prevent the optimal location of residences over households and thus have negative welfare consequences.

Much less is known about the nature and impact of transaction costs in commercial real estate. With increasing globalization a better understanding becomes the more relevant

Therefore this paper will start with an overview of the types of costs involved in transferring commercial real estate based on desk research. Attention will be paid to the nature of formal and informal, monetary and non monetary costs. In the second part the height and differentiation of usual transaction costs in the EU25 countries will be presented. The required data will be derived partly from public sources, partly from interviews with consultants. Both because of incomplete data and because of the variety of perspectives the presented overview will reflect only a part of reality. Most reliable information concerns formal monetary transfer costs.

In the third part explanations for the revealed differences in cost and cost regulations will be presented. Institutional factors are assumed to be partly responsible Recommendations about further research will be formulated.

Keywords: transaction costs, transfer costs, commercial real estate, EU25, institutional factors

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# TRANSMISSION OF EXTERNAL SHOCKS TO REAL ESTATE MARKETS AND IMPLICATIONS FOR ASSET ALLOCATION: RECENT EXPERIENCE FOR AUSTRALIA AND NEW ZEALAND

The onset of the global financial crisis (GFC) has triggered a series of external shocks across global investment markets and the global macroeconomy. Importantly, the nature of these shocks has been different across global property markets in terms of magnitude and duration.

This paper examines the transmission of external shocks associated with the GFC on selected global property markets. More specifically, the impact of these shocks on the Australian and New Zealand property markets is compared to those for the US and UK.

It is found that impact of these shocks across selected property markets is significantly different. Factors contributing to this variation include the strength of the local economy, the role intervention and the robustness of the financial/banking system.

The paper further explores the implication of such shocks on the investment asset allocation framework. Importantly, it highlights how these shocks will significantly distort the strategic asset allocation process, especially for property.

Keywords: transmission mechanism, external shocks, asset allocation





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#### TURNING POINTS OF FINANCIAL AND REAL ESTATE MARKET

In the literature, we always associate banking crises to currency crises, but the latest crisis brought specific attention to the real estate market and its movements. This study looks at the real estate and financial market turning points in the UK and USA. To achieve this, we conducted a study on their commercial, residential and financial markets. We applied both a parametric and a non parametric approach, deciding to use the Markov switching model and the Bry-Boschan algorithm. This study gives us conclusions as to which of the above approaches will present more accurate results when dating financial and real estate crises. The study also examines the effectiveness of the aforementioned methods when analysing residential and commercial real estate indices during a real estate crisis, and establishing which of these indices presents a more precise prediction. The results of this study may give some indication involving the dependence between the real estate market and the financial market, which is an important factor to consider to reduce risk in portfolio management.

Keywords: Turning points, Real Estate Market, Financial Market, Markov Switching Model, Bry-Boschan Algorithm



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# UNCOVERING A PRICING PREMIUM FOR GREEN OFFICES IN THE UK USING CURRENT ECO-**LABELS**

The aim of this PhD research is to investigate whether energy efficient offices in the United Kingdom command a price premium when compared to energy inefficient offices that possess otherwise similar characteristics. Several initiatives have emerged that attempt to achieve a reduction in overall energy consumption in the built environment in the UK. But the widespread adoption of environmental standards to assess both existing and new buildings in the commercial property market has thus far taken place relatively slowly. The introduction of energy ratings by the UK government is expected to be the first step towards government taxation measures aimed at penalising energy inefficient stock with a view to reducing CO2 emissions. But another issue is whether energy efficient office buildings command a rental premium as opposed to energy inefficient office buildings. Although such a premium for energy efficiency has been identified in the United States, no such evidence exists yet in this area in the

In order to reveal a premium for energy efficiency or green attributes, information is needed on the property characteristics, property transactions and ecolabels. None of this information is currently readily available in a single database in the United Kingdom. One of the goals of the PhD will be to create a database that will combine these three key tenets for London initially, and then to potentially expand this database for other cities in the UK. Data will be collected from commercial property data providers. The difficulty appears to be in bringing together all the various datasets that are needed to do this.

Various modelling approaches will be assessed on their usefulness for generating results from this database. They can help to reveal the potential premium that is currently paid for green features.

**Keywords:** Energy efficiency, sustainability, commercial office space, pricing





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#### UNDERSTANDING THE BARRIERS TO REAL ESTATE INVESTMENT IN DEVELOPING ECONOMIES

An increased investor appetite for global investment has generated a structural market shift observable since the mid 1990s. International or cross-border property investment has boomed, and indirect property investment (investing through securities and funds) has become commonplace.

Through a simple model, this paper relates the number of funds targeting particular countries to population and GDP per capita. We find that both GDP per capita and population explain the number of unlisted funds targeting emerging markets.

However, some countries received less FDI than our model predicted. This paper addresses the issues arising from this observation by providing a review of academic theories which suggest that a combination of formal and informal barriers limit investment in developing economies. We then confronted these theories with practice, by means of a survey of investors and fund managers.

Keywords: investment real estate fdi

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# UNDERSTANDING THE ITALIAN REAL ESTATE OFFICE MARKET: WHAT DOES MAKE IT DIFFERENT FROM THE OTHER MAJOR EUROPEAN MARKETS?

The purpose of the paper is to analyse the peculiarities of the Italian office market, focused on the cities of Milan and Rome, in comparison with the other major European markets.

The analysis would also concentrate on tenants requirements in the changing business and market environment, particularly in terms of location and building preferencies, factors influencing the demand for space, attention to sustainability.

Keywords: Grade A office space, Tenant requirements, Sustainability, Developments





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# UNIVARIATE ANALYSIS OF SEASONAL VARIATIONS IN BUILDING APPROVALS FOR NEW HOUSES: EVIDENCE FROM AUSTRALIA

The paper examines the impact of seasonal influences on Australian housing approvals, represented by the State of Victoria building approvals for new houses (BANHs), with the generic objective of enhancing the practice of modelling housing variables. The paper focuses on BANHs as they are seen as a leading indicator of investment and as such the general level of economic activity and employment. In particular, the paper seeks to cast some additional light on modelling the seasonal behaviour of BANHs by: (i) establishing the presence, or otherwise, of seasonality in Victorian BANHs; (ii) if present, ascertaining is it deterministic or stochastic; (iii) determining out of sample forecasting capabilities of the considered modelling specifications; and (iv) speculating on possible interpretation of results. To do so the paper utilises a basic structural time series model of Harwey (1989). Modelling results confirm that the modelling specification allowing for stochastic trend and deterministic seasonality performs best in terms of diagnostic tests and goodness of fit measures. The observed seasonality could be attributed to the 'summer holidays' and 'the end of financial year' seasonal effects. The analysis of out of sample forecasting power of the considered models reveals that the models with deterministic seasonal specification exhibit superior forecasting capabilities. The paper also demonstrates that if time series are characterised by stochastic trend or seasonality or both then a modelling approach solely based on the assumption of deterministic trend and deterministic seasonality would not identify seasonality in time series.

**Keywords:** Univariate time series analysis, out of sample forecasting, stochastic and deterministic trend, stochastic and deterministic seasonality, new housing building approvals





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### UNSMOOTHING REAL ESTATE RETURNS: A REGIME-SWITCHING APPROACH

We propose newly developed unsmoothing techniques which are based on a regime-switching Threshold Autoregressive (TAR) model. We first examine analytically conventional unsmoothing techniques which model the true returns by a linear Autoregressive (AR) process – and show that when true returns follow a TAR process, the conventional technique is misspecified, and hence still underestimates true variance. Our approach also addresses identification problems that may occur in the conventional method. The threshold/regime technique can be applied both to underlying return processes and to smoothing behaviour. We test these individually and in combination for UK commercial real estate returns, using a variety of exogenous variables. Two variables, FT all share returns and LIBOR interest rates, provide results that improve on the conventional single regime model. The results are intuitively plausible, capturing return behaviour and suggest that in extreme "crisis" regimes, returns fall explosively and smoothing effects intensify, by comparison to more benign regimes. These results support parallel work on asymmetries in real estate behaviour and shed important light on the risks of real estate and its diversification potential.

Keywords: Real estate risk, Smoothing, Asymmetries, Regime switching





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# URBAN ANALYSIS AND DEVELOPMENT STUDIES FOR THE AREA OF THE SANTA CHIARA HOSPITAL IN THE CITY OF PISA (ITALY): A COMPARISON BETWEEN DIFFERENT REDEVELOPMENT OPTIONS

This paper describes the use of the Discounted Cash Flow techniques to the 10 proposals for the urban design International Competition "Urban redevelopment of the hospital university of Santa Chiara, Piazza dei Miracoli", advertised by the city of Pisa in 2007. The area is strategically placed in the heart of the old city centre of Pisa, immediately nearby the Dome square, listed as Unesco's world heritage site.

The Free Discounted Cash Flow (FDCF) model applied to the case study is one of the evaluation methods of the investments' economic and financial sustainability broadly used by developers and investors, since it is an approach based on the concept of net operating incomes according to all the financing sources (equity and debts). The FDCF model has been applied to different operating options (selling/renting/managing) not considered in the competition's proposals, in order to verify their economical and financial performances. Taking into consideration the

outcomes obtained these analysis, the most profitable options have been selected considering the information given by

the Internal rate of return and the Net present value.

Keywords: REAL ESTATE FINANCE, DEVE	LOPMENT OPTIONS	
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#### URBAN CONTAINMENT POLICIES AND HOUSING PRICES

Keywords: Urban sprawl, Urban growth boudaries, containment policies

Sprawl is considered to be one of the main issues in contemporary urban planning and economics. Several economic instruments have been proposed to deal with it, from environmental taxation to standards and command and control mechanisms. In this paper, I aim to investigate the impact of urban growth boundaries and in general of urban containment policies on housing prices in US cities. In particular, by using CMHPI-Freddie Mac data on the period 1975-2009 and by using parametric and semi-parametric difference-in-differences models, I find that, contrary to previous literature, the introduction of urban and state-wide growth management programs raises housing prices.





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### URBAN REDEVELOPMENT CONCEPT FOR EXISTING NEIGHBORHOODS

Other authors: Barbara Havel and Kuronen Matti. Abstract: Europe faces a huge challenge in renovating the energy hungry concrete suburbs built in the 60s and 70s. These suburbs were constructed in Europe during a greatest rehabilitation project. Especially, in Nordic countries the concrete suburbs represent the largest single housing stock, which is now facing extensive renovations. The deficiencies of the traditional sequential planning to cope with this major challenge are becoming more and more evident and new ways to improve the dialogue between all the actors for low energy urban development are becoming crucial. Similarly, the studies in real estate development field have mainly concerned the feasibility of low-energy design options from the construction costs and process perspective. However, hardly any studies have approached the issue from the opportunity, i.e. value creation perspective. The purpose of this research is to rethink the "suburb challenge" and to innovate a value creation strategy for the concrete suburbs. The study presents an Urban Redevelopment Concept (URC) that tries to maximize the value of renovations to the users and owners of the buildings. The URC recognizes the multi stakeholder environment of urban innovations and presents a new urban development framework based on urban design management thinking. The new concepts tests the role and requirements of an external urban manager, as well as, a new financing approach based on logics of investment markets instead of traditional loan and credit markets. The URC concept was tested in one major neighborhood development project. The first results of the framework show a significant change in the direction of the suggested urban planning and design solutions. Instead of adding costs to the owners and tenants the framework has produced a solution where urban planning supports urban design innovations and value creation for both the internal (tenants and owners) and external (investors, authorities, customers) stakeholders.

Keywords: Urban DevelopmentReal Estate BusinessSustainable BuildingsLow-Energy





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# URBAN RENEWAL WITH A INNER CITY SHOPPING MALL AND APPROACH TOWARDS A GREEN BUILDING - A CASE STUDY OF KOMM IN OFFENBACH, GERMANY

The City of Offenbach is a small sister City next to Frankfurt/Main, the financial capital of Germany. There was a considerable drainage of spending power of the region towards Frankfurt.

An unused inner city news paper plant was demolished and an new shopping mall was integrated in the urban fabric of the city. By an engaged dialogue to the City administration an deal was achieved. The City got two new pedestrian zone with an upgrading of the urban fabric an we could got hold of a part of a street to join an existing car park with the newly constructed 3 storey shopping mall and offices on top. Part of the deal was to employ sources of geothermal energy by extracting warm water in the winter month and use the soil as a cooling resource for the summer month. A win win situation was achieved for the City of Offenbach and the HOCHTIEF Property Development. The author was responsible as consultant for overall building and tenant management. WLS and E+P Projektmanagement, with it's managing director, have been responsible for an number of shopping malls including an MIPIM AWARD winning scheme.

Keywords: shopping mall, inner city renewal, stopping of draining spending power out of Offenbach, green building, energy with ground source heat pump and bored piles by using geothermal resources





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# USER PREFERENCES OF OFFICE OCCUPIERS - DRIVER FOR WORK ENVIRONMENT DECISIONS IN ORGANIZATIONS

User orientation is and should be a driver for workplace development. The work environment has been identified to influence employee satisfaction and work performance. As the nature of work is changing, updated research is needed concerning office users' work environment preferences. In order to develop and provide work environments that meet the preferences of employees, more information about user preferences is required.

Additionally, there are implications that user involvement and being able to influence decisions concerning the work environment increases the users' satisfaction with their work environment. There is also a need for a better understanding on how involving users in the decisions made concerning the work environment affects their satisfaction.

This research has a twofold aim. The first aim is to increase the understanding of user preferences about the work environments in the offices. The second aim is to identify how the preferences of the office users are usually being considered in relocation processes of organizations. It is important to understand what kind of impact user involvement has on the office users' satisfaction.

Keywords: Work environment, Preferences, Relocation, Decision making





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#### VALUATION PRACTICE ISSUES: SUSTAINABILITY AND MARKET VALUE

Limited financial justification and viability of sustainable investment - through valuation and identification of the relationship between sustainability and market value - has hindered the commercial property market's adoption of sustainability (RICS 2008). Valuers have a pivotal role in the ascertaining and reporting of market values, and in an investment advisory capacity to investors (Lorenz, d'Amato et al. 2008, Levy and Schuck, 2000). To date, sustainability has received limited attention in valuation practice and as a result the relationship between sustainability and market value has not been clearly defined, making the investment community hesitant in regard to the necessary investment in sustainability (Sayce and Ellison 2003, Fuerst and McAllister 2008, Pivo and Fisher 2009). Existing research into the relationship between sustainability and market value has concentrated on normative models and theory, identifying the positive affect sustainability should have on market value of commercial property, illustrated by case studies. However, previous research has not yet provided the industry with substantial rationale for sustainability investment, as the market value of sustainability has been difficult to distinguish through valuation (Muldavin 2008). This paper reports on findings from an investigation into valuation practice processes in relation to the treatment of sustainability in commercial property and the assessment of market value. The research analysed aspects of valuation procedures and the ability of valuers to incorporate the concepts, characteristics and attributes of sustainability within these procedures. The research used a qualitative methodology to investigate valuation practice methods of comparison and assessment, and valuers' interpretation and understanding of sustainability and its affect on market dynamics. This was conducted in Australia and New Zealand, in order to compare the skills, perceptions and practices across similar countries at differing stages of market evolution.

The research found that valuers are currently inadequately skilled to accurately assess and compare the relationship between sustainability and market value in commercial property. Although valuation methods used in practice at present are appropriate, the methods used to assess the level of sustainability in commercial property are inadequate and may lead to inaccurate reporting of values. The amount of evidence relating to sustainable property in comparison to conventional property is limited, which is restricting analysis and interpretation of the evidence and identification of a relationship between sustainability and market value. Valuers' assessment of the market dynamics and the trends of stakeholders were not correlated with investors' actions and investment strategies.

The research identified the challenges valuers' face in the assessment and quantification of sustainability in commercial property, particularly in the comparative analysis of sustainability levels in property. The research has highlighted methodological issues inherent in valuation practice, and the reliance on heuristics as barriers to effectively identifying the relationship between sustainability and market value. The research identified the requirement for further research and recommendations for the valuation profession, particularly in addressing the need to develop the level of education, assessment techniques and evidence-based knowledge of market value in relation to sustainability.

Keywords: Valuation, market value, sustainability, commercial property





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#### VALUE CREATION IN REAL ESTATE BUSINESS

Organisations need real estate, premises and spaces for their business activities. The role of real estates, premises and spaces has changed from a necessary cost to a support function for organisation. Albeit the importance of real estate has been recognised, the actual value creation in real estate services has gained less attention. Service providers that can provide more value for their customer can achieve a greater success and become a more integral part of the value network of the customer. In this research the aim is to understand how real estate service providers could create more value in an efficient way for the end-customer. The focus is on value flows and value creation processes of real estate service providers.

The research has four steps. First, the value from the end-customer perspective is studied in order to understand what kind of value to generate. Second, the situation how the current value flow is generated for the customer is illustrated. After this the principles of lean management, a management theory developed by Taiichi Ohno a former CEO of Toyota, are applied into the value flow in order to increase its efficiency. Finally, a new framework, leanREB (lean real estate business), is presented to support the value creation in the service providers' organisations. Because lean management is a general management theory the research has a deductive approach. The leanREB framework will be grounded upon multiple case studies. Through the cases studies the preliminary leanREB framework will be developed and finally tested.

The leanREB framework guides service providers in how they can create more value for their end-customers with fewer resources. The goal is to create a win-win situation between the service provider and the end-customer in order to create long-term relationships.

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#### **VOLATILITY DECOMPOSITION OF AUSTRALIAN HOUSING PRICES**

Keywords: value creation, value flow, lean management, case study

This study examines volatility patterns in Australian housing prices. This is undertaken by decomposing the conditional volatility of housing prices into a "permanent" component and a "transitory" component via a Component-Generalised Autoregressive Conditional Heteoskedasticity (CGARCH) model. The results demonstrate that the shock impact on the short-run component (transitory) is much larger than the long-run component (permanent), whereas the persistence of transitory shocks is much less than permanent shocks. Moreover, the permanent and transitory volatilities have different determinants. The results give important insights into the volatility patterns of housing prices.

Keywords: Housing prices, permanent and transitory volatilities, Component-GARCH, Australia





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### VULNERABILITIES OF VISEGRAD REAL ESTATE MARKETS – LESSONS FROM THE PAST

The implementation of economic and political reforms and inclusion of the Visegrad countries (Czech Republic, Slovakia, Hungary and Poland) to European Union enabled to develop the real estate markets that were virtually non-existent twenty years ago. The local demand and the international speculation combined together enabled the serious developmental boom. Yet the crisis brought the end of the boom. The former enthusiastic investors have stopped their investments, and the economic activities on real estate markets were substantially reduced. Although Visegrad countries seem to be very similar, yet the markets and submarkets differ, economic and political situation has its peculiarities, the real estate markets did not attained the same level of the maturity. In the proposed paper we study these aspects from the local and global perspectives.

Keywords: real estate market, Visegrad countries, crises

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# WAITING FOR EURO - HOUSING MARKET IN POLAND

Poland is indicated as a country, which thanks to strong internal demand, was not deeply affected by the economic recession seen in most of the EU economies. Although, housing market after a rapid and enormous price growth until 2008, experienced a slight slowdown, there are no signs of price bubble and its negative consequences. It should be borne in mind that housing needs in Poland in the light of statistical data are on one of the highest levels in the EU. The authors pose questions about the further development of Polish residential market in the light of the experience of Ireland and Spain and the possibility of Poland's accession to the euro zone in the future. The research problems concern both instruments to

increase the availability of housing (supply stimulants) as well as methods of mitigating the risk of a speculative bubble in the future.

Keywords: housing, Poland, price bubble





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### WELFARE EFFECTS OF HOUSING PRICE CHANGES IN THE GENERAL EQUILIBRIUM SETTING

This paper explores the aggregate welfare effects of housing price changes in the heterogeneous agent general equilibrium model with multi-sector production side. The model includes two types of households:credit-constrained households and unconstrained households. These types differ not only because of the presence or absence of credit constraints but also from the point of view of their time preference rates and factors of production which they own. The modeling of the production side of the economy is based on Davis and Heathcote (2003) and includes composite good production sector housing production sector and intermediate goods production sector. Besides welfare comparisons between steady states, the welfare changes during transition between steady states are also calculated

**Keywords:** general equilibrium model, housing price changes, aggregate welfare, binding credit constraints, multi-sector production side

**BOOK OF ABSTRACTS** 





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#### WELFARE IMPLICATIONS OF HOUSING SUBSIDIES IN THE NETHERLANDS

Housing service are enormously subsidized in the Netherlands (e.g. Conijn, 2008). Home-owners are subsidized mainly through mortgage interest deductibility and tax free capital gains over home equity. Renters receive two kinds of subsidies in the Netherlands: first, there is an income dependent housing allowance to support low income households. Second, there is an implicit subsidy that results from i) rent regulation and ii) rent setting behavior of dominant market players. Koning et al. (2006) and Romijn and Besseling (2008) report that in each sector housing was subsidized for over 14 billion euro in 2006.

The extensive subsidization of housing services has strongly disruptive effects on the housing market (e.g. Conijn and Schilder, 2009). Recently the debate on housing market reforms has increased (partly) due to the strongly increasing government expenditures on mortgage interest deductions (Rouwendal, 2007). Spurred by this vivid debate on housing market reforms a number of studies have applied welfare analysis in the Dutch housing market. In general all studies report overconsumption of housing services, across all income groups and in both sectors of the market. Two sets of publications have recently been published concerning subsidization and housing demand. There is a series of papers by Ras et al. (2005, 2006) and Eggink et al. (2007) that model implications of several policy changes on housing demand. In these papers a regional constant quality price index is used to define housing demand. The other series of papers, including Koning et al. (2006) and Romijn and Besseling (2008), do not differentiate regionally. In our analysis we estimate demand curves using and comparing both approaches. Furthermore, we follow Ras et al. (2005, 2006) in applying a Heckman procedure for correcting for a non-random distribution of households over both sectors.

We add to current literature by modeling explicitly the impact of home equity. There is a tax incentive to roll over (tax exempt) capital gains on owner-occupied housing into new dwellings. Hoyt and Rosenthal (1992)report increasing excess burdens with increasing incentives to roll over capital gains, even when controlling for other subsidizations of user cost of owning. By explicitly taking up home equity in our models we attempt to control for the impact that home equity has on the demand for housing services and thus on our welfare cost estimates.

Keywords: Welfare loss, housing, subsidies





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# WHAT DRIVES CEOS TO TAKE ON MORE RISK? SOME EVIDENCE FROM THE LABORATORY OF REITS

This paper studies the impact of CEO discretion within the incentive structure of U.S. REITs. In contrast to the existing governance literature we focus on a specific sector with a specific legal setting (e.g., restrictive payout ratios), and organizational structure (e.g., little threat of a hostile takeover) to avoid issues of heterogeneity across industries. Restricting the focus to REITs allows us to simulate CEO behavior over the life cycle of the company and to generate and test empirically some interesting hypotheses how different CEO characteristics may affect the company's growth, its debt growth, and its performance. Testing is done on a panel of 101 U.S. equity REITs over the time period from 2003 to 2007. The empirics explicitly accounts for threshold effects in most continuous variables. The key empirical result is that a company's debt growth, and hence its exposure to risk, is inversely related to CEO stock ownership, but positively to a combination of the CEO also serving as chairman of the board of directors and large bonus payments.

Keywords: Corporate governance, corporate performance, firm value, leverage, managerial ownership, REITs



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### WHAT IS THE VALUE OF A NAME? CONSPICUOUS CONSUMPTION AND HOUSE PRICES

This is the first study to lend empirical support to anecdotal media reports that indicate that real property buyers pay price premiums based on property names. Using a standard hedonic price model, we explore the price effects of property names that include the terms "country" and "country club" within a neighborhood. Buyers assign a premium of 4.2 percent for the term "country" and an additional 5.1 percent for the term "country club" in the property name. Wealthier buyers tend to be the leaders in paying this price premium, but buyers are less willing to pay these premiums during recessionary times.

**Keywords:** hedonic house price, property names, subdivision specific amenities, conspicuous consumption





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# WHAT SHOULD BE TAUGHT? – THE BODY OF KNOWLEDGE FOR REAL ESTATE ECONOMICS COURSE

Compared with the researches undertaken in other disciplines, the research in real estate education drew less attention from academics and professionals. This research will deal with how to appropriately construct the design of the Body of Knowledge (BoK) for Real Estate Economics (REE) course in postgraduate real estate programs at higher education institutions.

A questionnaire survey was conducted to investigate the design and teaching of the contents for REE course at universities in the UK. The receivers of the questionnaire were asked to select the topics, out of 11 given topics, which they think should be included in REE course under 5 postgraduate real estate programs. Built on the survey results that revealed the practices and opinions of British academics about what appropriate topics the REE course should cover, this research discussed what the good content design of REE course should embrace. We do hope this research could help to contribute to a better understanding and design of the BoK for REE teaching and learning at UK universities.

**Keywords:** Real Estate Education, Body of Knowledge, Real Estate Economics, Course Design





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# WHICH CENTRAL EASTERN EUROPEAN COUNTRY HAS THE GREATEST POTENTIAL FOR HOUSING MARKET RECOVERY?

This paper is concentrated on analyzing the CEE countries' housing and lending market development in 2002-2009. Some of the CEE countries (Bulgaria, Latvia, Lithuania, Romania, and Slovakia) have experienced 250-400% price increases at the peak of the real estate boom in 2007-2008. Other countries in the region (Hungary, Slovenia, Czech Republic, Poland, and Estonia) have had less extensive price increases between 160% and 250%. By the time of 2009 and early 2010 the real estate prices have declined in the region mostly 10-30% from the peak. Most of the CEE countries experienced 50-90% annual increase in housing debt, which by 2009 was highest in Estonia and Latvia (42.6% and 35.4% of GDP). For example Estonia's housing debt to GDP is above the euro zone average (38% in 2008, ECB). The second group is Czech Republic and Lithuania – they both have approximately 21% housing debt to GDP ratio and the others have less than 15%. The aim of this paper is to understand: which of these countries have the greatest potential for housing market recovery?

I have conducted comparable analysis of these countries and their real estate and lending market. I have collected data from central banks, national statistic offices and real estate companies.

The results suggest that countries with higher housing debt had stronger real estate booms and the current bust-cycle has caused much steeper decline in prices. The outstanding housing debt in 2009 is in some cases 2-5% smaller than the previous year and only in Slovenia, Slovakia, Czech Republic and Poland have seen 6.75-10.59% increase in housing loans. The total of outstanding loans may have been decreasing or slightly increasing for some countries, but overall housing loans to GDP ratio has been growing even after the recession started, because the GDP of the CEE countries (exception is Slovakia's forecast for 2009, Eurostat) has contracted. This has had paralyzing effect on the demand for homes and therefore has caused the steep fall in real estate prices. It has to be mentioned that big part of lending has been made in Euros and some of the currencies, which are not pegged to Euro (CZK, HUF, PLN, RON), have lost 14-33% of their value comparing to Euro (ECB). This means that with falling GDP and rising unemployment, many lenders have to pay their Euro-based loans with weak currency.

As a conclusion it can be stated that real estate markets in countries with similar macroeconomic conditions, that are less exposed to housing loans have highest potential for faster recovery in housing market.

Keywords: real estate bubble, lending boom, CEE countries





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#### WHY VOLATILITY IS AN INAPPROPRIATE RISK MEASURE FOR REAL ESTATE

The adequate measurement of real estate risk is of utmost importance for asset management and real estate portfolio management. Most real estate academics agree that volatility, commonly used as a measure of real estate risk, is inappropriate for that purpose. However, volatility is still a favored measure of many practitioners, especially for comparing the risk of real estate with other assets such as securities. And even real estate academics still use this measure due to its simplicity and because the perfect alternative has yet to be found.

This paper, which is based on an extensive literature overview, expert interviews, and new empirical evidence, provides plausible reasons for the proposition that volatility should not be used for measuring the risk of real estateneither within its asset class, nor in a multi-asset environment. Furthermore, a detailed comparison of three currently discussed perceptions regarding appropriate real estate risk measures is provided. In this context, the paper also discusses whether qualitative risk measures might be more appropriate or could be combined with quantitative risk measures. However, empirical evidence based on the data of two large German real estate asset managers shows that a scoring method, for example, is in-appropriate as well. Eventually, this paper provides some requirements for more appropriate real estate risk measures.

Keywords: risk management, volatility, portfolio management





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# WINNING IN THE LONG RUN-A QUANTIFIED APPROACH TO THE UNCERTAINTY OF SUSTAINABLE FINANCIAL VALUE ON REAL ESTATE

This paper presents the methodology and first intermediate results of a RICS Education Trust supported research project, aligned with the international university research programme s-i-r-e Sustainable Investment in Real Estate. The paper aims to contribute to responsible real estate investment decisions under uncertainty by identifying the potential impact of sustainability characteristics on financial performance. A methodology is presented for analysing financial data against their fundamental economic data and their complementary sustainability data. Based on selected office and retail properties from portfolios in several European countries, intermediate results of an empirical study are discussed, giving indication of quantifyable evidence for those sustainability characteristics linked to financial performance.

Due to the lack of standardised building certification in mainland Europe, this work concentrates on the assessment of the measurable underlying sustainability criteria. The methodology builds on other research (like Ellison and Sayce 2006; Eicholtz et al 2009; Fuerst and McAllister 2008 and 2010), the sustainability rating tool BREEAM produced by Building Research Establishment and the benchmarking system ISPI produced by IPD/IPF and the Green Rating Initiative (inter alia Bureau Veritas). Alternative sets of systainability criteria are tested in order to consider different preconditions and perceptions across Europe. Economic fundamentals and the uncertainty inherent in sustainability issues are taken into account based on a multi-factor regression model and a real options approach (Bernet 2007). This analysis is accounting for the flexibility of property investors regarding the uncertainty of evolving changes in builiding legislation, quality standards and energy prices.

**Keywords:** real estate, sustainability, uncertainty, methodology



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#### WORKSPACE APPRAISAL – A MODEL FOR CORPORATE REAL ESTATE MANAGERS

Increased levels of personal technology have made some types of work much more mobile than ever before. This creates a potential dichotomy between mobile, flexible personal workspace and static, inflexible, inelastic workplaces. As occupiers of property struggle to balance demand with the efficiency of workplaces, it becomes even more important to take stock of the suitability of the workplace in a planned and formal way.

The viability of any given workspace is determined by a range of different factors over the life of a particular occupation. External factors include:

- •The relationships with stakeholder groups;
- •Economic and market cycles current and forecast;
- •Legislative, social, technological and environmental contexts.

Internal factors will include:

- •Planned changes in the occupiers business;
- •The operational cost base of the workspace;
- •The current and future carbon profile.

The impact of these variables may be determined through a holistic appraisal that takes into account both internal and external factors. This paper:

- •Proposes a detailed taxonomy for workspace;
- •Identifies and quantifies the key variables that impact the operational performance of workspace in the context of the workplace;
- •Defines a conceptual model for workspace and workplace appraisal.

Keywords: workspace corporate





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# WOULD SOME MODEL PLEASE GIVE ME SOME HINTS? AN EMPIRICAL INVESTIGATION ON MONETARY POLICY AND ASSET RETURN DYNAMICS

This paper empirically investigates the forecasting performances for the housing and stock returns of a series of SVAR models, including various combinations of the federal funds rate, term spread, external finance premium, TED spread, and GDP. Using US data 1975Q2-2008Q3, we find that, for both the in-sample-fitting and out-of-sample forecasting, the single-regime version always underperforms the regime-switching counterpart. The term spread and TED spread outperform other variables in predicting the stock returns. We also find preliminary evidence that the housing return may help predicting the stock return since 2006. None of the models we examine predict the 2008 downfall of housing returns.

Keywords: monetary policy, term spread, stock prices, house prices, Markov Regime Switching, forecasting

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# WOULD THE REPUTATION AND BEHAVIOUR OF THE CHINESE STOCK EXCHANGE BE A DISINCENTIVE TO INVESTORS CONSIDERING A CHINESE REIT?

China has drawn the world's attention with the emergence, rapid growth and increasing maturity of its real estate market in the past twenty years. Currently the world's third largest economy, China was the second largest Asian country for commercial property transaction capital flows in 2006 (JLL, 2007). Urbanisation in the country is expected to increase from 40 percent of the population in 2006 (estimated 1.3 billion) to 60 percent by 2030 (RREEF, 2007), creating substantial demand for property development and in turn further potential assets for investment. International investors have also recently shown considerable interest regarding property investment in China, via both direct and indirect property. China is yet to develop a REIT market despite investors, both domestic and international, eagerly seeking exposure to property. Chinese REITs would provide the opportunity for investors to access "property" returns with liquidity and flexibility. The Chinese government has stated its intention to run pilot REITs aiming to take advantage of their significant role in stabilising the Chinese capital market in the medium and long term (Wang et al, 2009).

This purpose of this paper is to examine whether the reputation and behaviour of the Chinese stock exchanges is a disincentive to investors considering a Chinese REIT. This is addressed firstly by assessing the Chinese stock markets' volatilities compared to the Hong Kong and Singapore stock exchanges. Secondly it investigates the performances of two REITs which own Chinese real estate and are listed in Hong Kong and Singapore, to distinguish the critical factors influencing their risk/return profiles: the fundamental tangible nature of the investment or equity market movement. Finally, a survey approach is proposed to explore investors' attitudes to future investment in Chinese REITs listed on different stock markets and their opinions of the reputation and governance of the three main Asian stock exchanges where Chinese REITs might potentially be available.

Keywords: China, Real Estate Investment Trust (REIT), Investors, Reputation, Attitude





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#### YIELD DEVELOPMENT IN THE REAL ESTATE OFFICE MARKET THE EFFECT OF OBSOLESCENCE

The ROZ/IPD Property Index publishes the performance of the institutional investors in real estate in The Netherlands for the past 15 years. The index is based on property valuations. The valuation data is collected and creates a unique dataset. This large dataset gives great research opportunities and is therefore used for this article to analyze the obsolescence in the office market in The Netherlands. The last couple of years obsolescence had been hidden because of continuing sharpening of yield. Therefore this study will focus on four different approaches to show and analyze the obsolescence. The first approach covers an analysis of the reversionary yield compared to the exit yield. For the second approach the initial yield in relation to the year of construction of the property is analyzed. The third approach compares the yield of held properties (properties that are in the index for ten years) to the market yield in the benchmark. For the fourth and last approach we will look at the rents for office properties in relation to their year of construction. The study shows that the effect of obsolescence has been underestimated.

Keywords: Valuation, yield, obsolescence





**BOOK OF ABSTRACTS** 

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# ZERO CARBON SUSTAINABLE DEVELOPMENTS IN THE UK AND POTENTIAL CHALLENGES TO THE CODE FOR SUSTAINABLE HOMES

Climate change is the greatest threat to the global environment and economy. This, when coupled with fears over energy security of supply, has stimulated energy efficiency and improved environmental performance to combat carbon emissions and the climate change impacts due to CO2 and other greenhouse gases as well as reducing reliance on imported fossil fuels. The Code for Sustainable Homes is the current energy efficiency and environmental impact rating system for new housing developments in the UK. It provides a strong basis for future sustainable building standards but is facing a range of challenges regarding the development of Zero Carbon Homes, which include technical, legal & regulatory, economic, social & cultural and delivery capacity. The UK government needs to adopt a proactive approach for carbon reductions from the housing sector bearing in mind different housing types and future trends under prevailing land use policies and strategies. Informed delivery options under Code, minimising all social, economic, technical and environmental challenges will be the key drivers for Zero Carbon targets and the way forward for a code for urban development in the broader context.

Keywords: Code, Climate, Standard, Sustainable, Zero Carbon





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