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Real Estate Research

Centre report

Autumn 2018



Introduction from the Dean

I am delighted to introduce the first output of the newly established Real Estate Research Centre at Cass. Real estate has long been integral to Cass – and our education, research and community missions. This new Centre will further cement and enhance its role with the practitioner community, while enabling increased visibility and benefits for our students. We look forward to your engaging with the Centre and in its future development.

Marianne Lewis

Dean, Professor of Management
Cass Business School

Introduction from the Centre Director

I am delighted to introduce the new Real Estate Research Centre at Cass. Commercial Real Estate is currently undergoing a whole series of cyclical and structural challenges, which means that the need for innovative and fresh thinking across disciplines has never been greater. Cass is at the forefront of this change and we look forward to engaging with you in this process.

Alex Moss

Director, Real Estate Research Centre
Cass Business School



Cass Business School

In 2002, the School was renamed Sir John Cass Business School following a generous donation towards the development of its new Bunhill Row premises.

Sir John Cass's Foundation

Sir John Cass's Foundation has supported education in London since the 18th century and takes its name from its founder, Sir John Cass, who established a school in Aldgate in 1710. Born in the City of London in 1661, Sir John served as an MP for the City and was knighted in 1713.



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In this section we highlight projects which members of the Centre have been commissioned to produce. These include a study on the size and structure of the UK property market, a commercial real estate loan book database, and the role of REITs in real asset funds.

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We have a number of events planned for the forthcoming months across a wide variety of topics. Here we outline their structure

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Part of the role of the Research Centre is to promote papers and work presented by members at academic conferences worldwide. Here we highlight the papers which have been presented in the last 3 months.

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Find out more about the opportunities and benefits of sponsorship available with the Real Estate Research Centre (including for data sponsors) and how to get involved

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Finally, a brief guide to the current team, their areas of expertise and interest and contact details.

Aims and Objectives of the Real Estate Research Centre at Cass

The Centre's purpose is to provide a dynamic link between the academic community and practitioners involved in real estate. Its aim is to build on the foundations of existing rigorous research, with a particular focus on real estate finance. By integrating existing real estate expertise within the broader finance and management capabilities at Cass, we aim to provide wider and deeper perspectives and insights across all aspects of real estate and real estate finance.

The Centre will:

- establish a forum for dialogue with researchers in the industry and production of collaborative projects
- produce reports on a commissioned and ad hoc basis on under-researched areas of industry interest
- host events on topical issues for the industry
- publish periodic Research Activity Reports
- facilitate the production of academic papers for publication in journals and conferences
- offer dedicated Executive Education courses for industry practitioners

About Cass Business School

The Sir John Cass Business School is consistently ranked amongst the best business schools in the world and holds the rare gold standard of 'triple-crown' accreditation from the Association to Advance Collegiate Schools of Business (AACSB), the Association of MBAs (AMBA) and the European Quality Improvement System (EQUIS). Together with a 50-year reputation for excellence in business research and education, Cass attracts outstanding academics, students and businesses from across the globe into our energising Cass community. Cass is not an ivory tower: our world-leading faculty create knowledge by working closely with industry leaders.

As well as the existing real estate academic research team the Centre will be able to leverage other areas of academic and practitioner led expertise at Cass including:

- Strategy
- Management
- M&A
- Pensions
- Asset Management

Ongoing commissioned projects

Members of the Real Estate Research Centre have recently been commissioned for the following projects:

Size and structure of the UK Property Market – Tony Key

The IPF has commissioned Cass Business School, led by Professor Tony Key, in association with Intrinsic Value Real Estate Advisers, to undertake a thorough review of this research, which will include a rigorous review of methodologies and an exploration of the new data sources that have emerged over the 13 years since the original study. Rob Martin, Director of Research at LGIM Real Assets, is chairing the Project Steering Group (PSG), which, together with Dr. Ed Trevillion, Honorary Professor, Heriot-Watt University and Sue Forster, Chief Executive of the IPF, will oversee the research.

An end-2017 update of the UK market will be available before the year end and the full report and end-2018 update are due to be published in Q2 2019.

CRE loan index – Nicole Lux

Nicole has obtained funding from a City, University of London Enterprise Grant to pilot a UK lending database study with the aim to create a mortgage performance index. The index will demonstrate the “asset class” performance of CRE lending in general return and risk analysis.

Lenders will be able to benchmark portfolio risk and credit quality and or lending styles against the overall market or matched peer-groups. The study works with key UK lenders and the Bank of England.

Listed real estate securities in real asset funds – Alex Moss

Alex has obtained funding from EPRA for a study on the use of listed real estate securities in real asset funds.

The purpose of this report is to examine:

- the rationale for a real assets strategy, and provide a clear understanding of the criteria used
- how current real assets fund strategies differ, in terms of investment objective, investable universe and benchmark
- the current and potential role of real estate securities for a real assets strategy
- implementation issues involved in executing a real assets strategy
- which infrastructure sectors might be included with real estate to produce a suitable real asset securities benchmark

Forthcoming events

We have a number of events in the pipeline and will be publishing full details and dates shortly. The list below provides a flavour of the events we will be hosting:

Real Estate and Strategy: a new chapter

Historically real estate firms have had little need for traditional corporate strategy, as a rising market and leverage covered over any shortfalls. Now, however, with a structural change afoot in occupational patterns and lower beta returns available firms and funds have to rethink their approach. We partner with the strategy team at Cass to provide a fresh insight into potential approaches.

Factors Affecting Loan Default Levels: a fresh examination

Research explores the impact of loan underwriting criteria in terms of LTV, DSCR, geography, loan size and choice of lender on expected loan default. The research is based on the Cass/De Montfort commercial real estate lending report 2007 – 2017. It finds that while the average 10 year default rate was 12 %, significant differences were found depending on type of lender resulting in a higher average default rate for investment banks (26%) compared to building societies (6%). The research also shows that other factors such as concentration in development lending and regional concentrations have a significant impact on expected loan default.

Identifying Turning Points in the Cycle

Following GFC there has been intense research on advance warnings for asset price developments and real time forecasts based on accurate and timely information. Such signals are generated by a variety of indicators including financial series, monetary variables and survey data. These indicators summarize expectations, sentiment and uncertainty in the market in a timely manner. This research assesses empirically the capacity of a range of indicators to predict forthcoming price changes and turning points in the commercial sector in the form of probabilistic forecasts. It represents a tool to accompany the 'gut feel' of the investor.

Capital Market Flows and their impact on market pricing

With overseas investment at all time high levels, in conjunction with RCA we examine the impact of capital flows on market pricing and the liquidity premium and risk involved.

Real Asset Funds

The term Real Assets is almost as widely (ab) used as Smart Beta. We examine the potential definitions, the investment universes available to meet the risk/return criteria and how institutions are structuring funds to meet the demand for, and challenger of, this area.

Research papers presented at recent academic conferences

**25th European Real Estate Society (ERES) Meeting,
Reading UK, 27th – 30th June 2018**

Presented Papers:

Paper 1: The use of listed real estate in Real Asset Funds

Author: Alex Moss

The purpose of this paper is to examine the impact of combining listed real estate securities with infrastructure and real asset allocations. The study looks at how the time variant the results are, as well as the extent of regional variations. Following on from the academic evidence, the paper examines the practical applications of this strategy.

Paper 2: The Performance of REITs in Advancing and Declining Markets Revisited

Author: Stephen Lee

The purpose of this paper is to examine the risk-adjusted performance of Equity Real Estate Investment Trusts (EREITs) and Mortgage REITs (MREITs) in advancing (bull) and declining (bear) markets. Fabozzi and Francis (1977) stress however that no one definition of advancing (bull) and declining (bear) exists therefore we use a number of different definitions. The empirical findings show that the risk-adjusted performance EREITs and MREITs differs in the phases of the market. Conclusions that continue to hold under the alternative definitions of advancing and declining markets. Although, advancing and declining markets were evaluated ex-post, the finding that the risk-adjusted performance of EREITs and MREITs perform differently in different phases of the market is of significant importance for the decision-making of portfolio management.

Paper 3: The joint dynamics of European office yields

Author: Sotiris Tsolacos, Yi Wu and Samuel Duah

We examine office yield behaviour in key European cities which account for the bulk of investment transactions in Europe. A number of studies investigate the cross sectional influences on real estate yields identifying factors which drive the geographical variation of yields. These studies also highlight global factors driving yields in addition to geography specific influences. Research work using time-series data ascertain the impact of dynamic drivers of yields such as the business cycle and yields in alternative asset classes. This study examines the response of yields to dynamic influences that reflect changing macroeconomic and investment conditions. We explicitly examine the relevance of investor sentiment in yield movements by including both direct and indirect measures. The empirical investigation extends to include the flight-to-quality/liquidity phenomenon in bond and real estate markets. We pool the Prime European office yield data provided by BNP Paribas for 22 cities during period of 2003 to 2017 and opt for a fixed

effect panel regression model and Pooled Mean Group estimation. We found that government bond yield and economic sentiment highly significant on office yield. But European prime office yields not as sensitive to interest rates and GDP growth. Furthermore, we found that the low sensitivity to rent growth which is consistent with existing studies. The PMG results show that the government bond yields will only have a measured effect on prime offices even in the long-run.

Paper 4: Could Airbnb in Hong Kong be responsible for higher housing rents in Hong Kong?

Author: Sotiris Tsolacos and Ervi Liusman

The growth of sharing platform of Airbnb, one of the pioneers of the share economy, allows suppliers to supply underutilized short-term accommodation. At the demand side, consumers eagerly welcome these services due to fee sharing benefit. Since its introduction in 2008, more than 50 million guests has utilized its service. Its growth in fact has brought disruption to the hotel industry, particularly those targeting budget customers and non-business travellers. In this paper, we use Hong Kong as our case to empirically test whether Airbnb is responsible for higher housing rents. We hypothesize that the impact of Airbnb may not be of significance in Hong Kong the result of a small market for short-term rental as opposed to the market for long-term rental. There is an actual strong demand from local residents to occupy the space rather than lease it to non-residents tourists. We use hedonic framework in which rents are examined with reference to key housing characteristics and Airbnb rentals. This analysis provides the initial steps for a fuller treatment of the impact of Airbnb on residential rents in Hong Kong and makes direct contributions to the relevant international literature. This analysis contributes to a fuller treatment of the impact of Airbnb on residential rents in Hong Kong.

Paper 5: Media and Foreign Institutional Ownership of European REITs

Author: Yi Wu

Institutional real estate investors commonly invest in real estate via investments in publicly traded real estate investment trusts (REITs). Recently, the increasing flow of investment from international investors into REITs sector come from foreign institutional investors. The wave of news from media has largely changed the structure of investors' information, which affect investors investment preferences (Ron and Robert 2017). This paper aims to investigate whether foreign investors rely more on home media (than domestic media) to make their foreign investment decisions. Furthermore, institutional investors hold large ownership stakes in European REITs. The traditional view is that institutions are both long-term and passive investors (Devos et al.2013), so the institutional investors tend to find out the more efficient information. Most literature suggests that media coverage reduces the information asymmetry in financial markets (Bushee et al. 2010; Blankespoor et al. 2014) and plays a corporate governance role (Dyck et al. 2010; Dai et al. 2015). However, it is not clear whether the domestic and foreign media play a different role in providing information to foreign investors in European REITs. This paper aims to resolve the puzzle by answering that whether higher media coverage from a particular foreign country is expected to increase

European REITs' foreign ownership from that country or not. I investigate this relationship over the period from 2000 to 2017 by matching the second-rate media news with the yearly European REITs ownership data. This paper highlights the different sources of media news impact on foreign institutional investors' ownership of European REITs, which provides important implications for European REITs managers.

Paper 6: Exploring issues in calculating robust estimates for discount rates of leasehold relativities within Central London
Author: Mark Andrew and James Culley

Recent tribunal decisions upon the use of hedonic models for assessing the extent of the price impact on dwellings due to the length of unexpired lease term have pushed the topic into the spotlight once again. A major focus of this study will be testing the robustness of the lease dummy approach, as this is the method currently finding itself increasingly adopted/accepted in the industry in explaining relativities. Within this analysis we will examine whether the differing geographical constraints of sample properties that constitute traditional graphs of relativity could lead to the differing levels of relativities produced by those graphs. Our study will cover issues that we have found on data quality, model constraints and the impact of factors such as alternate methods of incorporating locational constraints have on the calculation of leasehold enfranchisement relativities within the London residential market.

(2) 2018 Asian Real Estate Society Annual International Conference, 8th – 11th July 2018, Incheon, Korea

Panel: Global Infrastructure Investing.

The panel took a global view on infrastructure investing. Useful comparisons were made on the need for infrastructure across continents revealing a significant infrastructure gap. Types of infrastructure, methods of funding and public-private sector engagement were discussed. The panel extended discussion on the risk-return profile of these investments and international experience was shared.

Paper 1: The role of emotion in a housing purchase: An empirical analysis of the anatomy of satisfaction from off-plan apartment purchases in France

Author: Mark Andrew and Fabrice Larceneux

This paper examines empirically the role of an emotion of owning a new build apartment, derived from its representation through mental imaging ('visualization') from marketing techniques, in influencing off-plan purchases in France, and how its effect on satisfaction evaluations of the apartment purchased affects buyer ratings of developer performance. Through structural equation modelling we show that psychological measures of perceptions influence buying decisions via satisfaction of the apartment purchased. Buyer evaluations are cognitively dominated by the assessment of utilitarian benefits but emotion plays a significant role among homebuyers as well as investors. Our analysis also sheds light on how buyer satisfaction could potentially augment the reputation of a developer to achieve off-plan sales targets.

Sponsorship Opportunities

Opportunities are available to sponsor the Real Estate Research Centre as well as to commission specific projects and White Papers. Benefits include:

- Access to academic and practitioner expertise and knowledge within the Real Estate sector
- Access to wider Cass academic expertise and faculty
- Opportunities for collaboration and partnership in knowledge sharing
- Opportunities for corporate naming, marketing and branding
- Access to discounted customised and off the shelf executive education programs
- Access to a pool of student and alumni talent for short term projects as well as longer term recruitment
- Opportunities to attend a wide range of Cass events throughout the academic year

To discuss **sponsorship opportunities** please contact:

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In addition to corporate sponsors we are also seeking **data sponsors and support and awards for student projects**. To discuss these opportunities please contact:

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