The primary aim of the Centre is to build and maintain a stream of real estate research that is innovative, inter-disciplinary and industry-relevant.

INTRODUCTION

The Real Estate Research Centre co-ordinates and acts as a focus for research in real estate within the Department of Land Economy and across the University of Cambridge. It aims to ensure that real estate research in the University is world class and to raise the profile and impact of real estate research by members of the University in the wider academic, policy and business communities. The Centre works with other academic organisations, professional bodies and industry to ensure research is of the highest quality, is relevant and has maximum impact.

The Centre is extremely grateful for the financial and broader support of its partners and other supporters that have helped fund and enable its activities. This report aims to give an overview of all the activities of the Centre over the past year and highlight key initiatives and priorities for the year ahead.

A copy of the centre brochure can be downloaded from the Cambridge Real Estate Research Centre website.

The Centre continues to act as a hub for the various data sources available on real estate for staff and students. The Centre is continually engaged in discussion for new or improved data sources. Readers of this report that wish to help can contact crercdat@hermes.cam.ac.uk.

OUR RESEARCH

RESEARCH PROJECTS FOR INDUSTRY BODIES / PUBLIC SECTOR

A full list of publications and working papers is contained in the appendix. The strength and quality of the research produced is consistent with our goal of being rated as “world class” in real estate research. Research has been produced and undertaken under a broad range of thematic areas that are priorities for the centre.

Our work has examined topics ranging from key issues in real estate performance and the impact of size in real estate companies through to behavioural loss aversion studies and projects looking at capital flows and migration through to issues around urbanisation and housing.

An Investigation of Hurdle Rates in the Real Estate Investment Process
Colin Lizieri, Nick Mansley, Zilong Wang

A Research Project for the Investment Property Forum (joint with the University of Aberdeen) was completed in early 2017. The Centre led this project which examines the investment decisions of UK and international investors and the role played by hurdle rates or target rates of return in those decisions. The findings, based on extensive interviews, focus groups and survey work, show that real estate investors rarely conform to recommended practices from financial theory, making extensive use of informal methods and subjective adjustments. In part this reflects the nature of real estate as an asset, data issues and the structure of the industry – in particular, where target returns are determined externally by clients and competitors. However, there is some evidence of a skills gap that should be addressed. The research is available through the IPF website and was presented at an IPF event in May 2017 (the best attended research launch event for many years according to the IPF!)
Review of Wet Lab Space in the Cambridge area
Nick Mansley, Dimitra Karvarnou

This research looked at the supply of real estate to meet the needs of the life sciences sector and looked at both incubator space and follow-on space as well as the broader supply issues for this growing industry. The report was fed into the BEIS industrial strategy and ways to support the expansion of the life sciences sector in the UK along with being shared with a broad range of those involved in addressing these issues at a more local level.

IPF – Managing Currency Risk in International Real Investment
C Lizieri, N Mansley, Z Wang

This project is looking at how investment managers think about the impact of currency when investing internationally and if and how they attempt to manage and control currency risk arising from investing across currencies.

EPRA – Size Effects and Economies of Scale in REITs
Nick Mansley, Franz Fuerst, Zilong Wang, Brent Ambrose

This research investigated how increased size in organisation, assets and other measures affected performance and costs. The research found economies of scale exist for European real estate companies - larger companies have lower costs and higher profitability. However, the benefits of increasing scale are greater for small companies than larger companies. Furthermore, there appears to be no evidence that M&A activity in and of itself leads to efficiencies from scale suggesting that the benefits of economies of scale with size come from internal growth.

Nudging Towards a Better Financial Future: Applying Behavioural Insights in the Development of Financial Systems in Rural China,
Helen Bao, Colin Lizieri

Leading of a joint research project funded by the Economic and Social Research Council and Natural Science Foundation of China (Jan 2017 - Dec 2019). The objective of the project to investigate the applications of a proven behavioural approach, namely, Libertarian Paternalism, in the development of rural financial systems in China. This approach promotes choice architectures to nudge people into optimal decisions without interfering with the freedom of choice. It has been rigorously tested and warmly received in the UK public policy domain. This approach also fits the political and cultural background in China, in which the central government needs to maintain a firm control over financial systems as the general public increasingly demands more freedom. In the next year, Helen will conduct intensive fieldwork in China to move the research project forward.
Incentives through Transparency: European Rental Housing Framework for the Profitability Calculation of Retrofitting Investments
Franz Fuerst

This research project which brings together research institutions from eight European countries under the auspices of the Horizon 2020 European Union research programme aims to analyse and assist energy efficiency retrofits in the private rental sector a sector with considerable upgrading potential throughout the EU. Over the course of three-years, consortium partners compiled evidence on the legal and financial frameworks in EU member states and mapped the barriers and incentives available in each country. A key output of the project is the development of an innovative tool which allows landlords to calculate the profitability of future investments under a number of specific assumptions. The Cambridge project team led by Principal Investigator Franz Fuerst includes assistants Hassan Adan, Donald Stevens and Ramandeep Singh. The total value of the grant is €2.0 million.

The Impact of the North West Cambridge Development on House Prices (NWC)
Franz Fuerst, Nikodem Szumilo

This project funded by the UK Higher Education Innovation Fund evaluated the impact of a new campus and housing units on affordability in the Cambridge region using an econometric model, Principal Investigator (PI) Franz Fuerst and Research Associate Nikodem Szumilo found in their analysis of the local housing and labour markets that any hypothetical decrease in house prices due to increased supply is likely to be offset by increasing local wages. Overall, Cambridge is deemed to be well positioned to increase its competitive advantage over similar locations in the UK and globally.

Research Projects – Other Collaborations and International Research Projects

Helen Bao


Franz Fuerst
University of Melbourne and THRIVE research grant for data and research assistance (AUD13,000).


“A Long-Run Study of Real Estate Risk and Return”, Isaac Newton Trust, July 2016 – Aug 2017
**Research Themes and Priorities—for the year**

*Risk Characteristics and Performance of Real Estate Vehicles:* it is increasingly recognised that the risk and return of real estate depends not only on the income and capital appreciation of the underlying assets but also on the vehicle in which the properties are held: its institutional and capital structure. Meanwhile, investors increasingly are looking beyond traditional asset class boundaries to classify assets into groupings that reflect their sensitivity to particular types of risk factors. The Centre continues to build on its work on leverage, capital structure and the drivers of real estate performance;

*Real Assets and Non-Traditional Real Estate Investments:* we have produced research that investigates the performance of non-traditional real estate investment areas in relation to the traditional core investments of office, retail and industrial property and to explore the relationship between commercial real estate and other real assets – a theme given added importance with the growth in investment in student accommodation and private rented residential property as well as the focus on infrastructure as an investment;

*Sustainability, Resilience and Performance:* the Centre is undertaking and leading research initiatives on sustainability and real estate markets at different scales - continued research on the energy performance and environmental sustainability at building level and its link to value and return, complemented by a broader perspective on sustainability and urban resilience, promoted by, for example, the Urban Land Institute and by the World Economic Forum’s agenda council on the future of cities and real estate;

*Ownership, Globalisation and Yield Structures:* prompted by the growing dominance of non-domestic purchasers in central London and other world gateway cities, the focus of this research is around understanding capital flows and their implications on market performance and values;

*Technology, Risks and Opportunities:* an emerging theme has been the impact of technology on all real estate markets, the ability to gather new data and analyse data in new ways, the impact on the players in the real estate market, the financing of real estate and the performance of real estate portfolios. The Centre has forged links with the Big Data Initiative, the Department of Engineering and the Centre for Alternative Finance to help explore this area and this forms a theme in the Future Cities initiative discussed later;

*Real Estate Risks in a Multi-Asset Class Portfolio Context:* drawing on a number of themes above this work explores the problems of identifying both known risk factors and uncertainties in investment and how to integrate real estate into multi-asset class frameworks for risk analysis;

*Investor perceptions and behavioural factors:* this research looks at how these influence decisions and preferences in real estate and how behavioural insights can be used in policy to achieve better outcomes;

*Long run real estate performance:* this research theme explores long run performance across property segments and examines the factors that have led to depreciation and appreciation and looks at long-term changes in land use and density and their impact;

*Placemaking and regeneration:* this theme looks at the impact of large scale and/or mixed use developments both in terms of investment performance and socio-economic impact.

*Real estate businesses and strategy:* this area builds on our research on investment performance and looks at influences on overall business success in raising capital and delivering shareholder returns as well as a number of governance and strategic, business model and operational decisions for corporations.
CONFERENCES AND OUTREACH
Members of the Centre presented research papers or spoke at a range of conferences and meetings including:


Nick Mansley:
- Panel Chair “Diversification, densification, new strategies, sectors and locations” Urban Land Institute UK conference, London, May 2016
- Speaker, EPRA conference “Size effects in European real estate companies”, Paris, September 2016
- Lead organiser and conference chair, Cambridge Future Cities Conferences, July 2016 and July 2017
- Speaker, Real Assets and Pension Fund Investment Conference, Bfinance, London, November 2017

Colin Lizieri:
- Conference Chair, 5th Cambridge University International Real Estate Finance and Investment Conference, Hong Kong, Sept 2017
- Keynote speaker, 4th Cambridge University International Real Estate Finance and Investment Conference, Beijing, September 2016, “Ultra Low Interest Rates and Brexit. Possible Implications for Real Estate”
- Keynote speaker, Cambridge Cleantech Futures Conference, Trinity Centre, Cambridge, June 2016 “Growth, Ideas & Innovation for Connected Cities”
- Invited Speaker, JLL Seminar, A New World of Cities, Davos, Switzerland, January 2016, “Delivering a New World of Cities: The Investment Perspective”
- Expert Witness, Upper Chamber (Lands Tribunal), [2016] UKUT 0223 (LC), Sloane Stanley vs Mundy and others. 2015-2016.


Helen Bao:
- Speaker, “Housing Markets in China”, Centre for Real Estate and Urban Economics, University of Connecticut, 19 May 2017, Storr, USA.
Speaker, “Housing Wealth and Energy Consumption: A Behavioural Analysis”, Department of Public Policy, City University of Hong Kong, 21 September 2017, Hong Kong.


Franz Fuerst:

Melbourne Construction and Property Industry Breakfast 2016, “Sustainable REITs”.

Invited Speaker: Melbourne Construction and Property Industry Breakfast 2016, “Sustainable REITs”.


Speaker: Pacific Rim Real Estate Society (PRRES), Annual Conference, Sydney, Australia (2017)

Invited Speaker: Research Seminar, Faculty of Economics, University of Tasmania, Australia (2016).

Speaker: Energy Efficiency Ratings and House Prices, Australian Capital Territory Government, Canberra, Australia.

Speaker: European Real Estate Society (ERES) Annual Conference, Regensburg, Germany (2016)

Invited keynote speaker: EBS Real Estate Symposium, Wiesbaden, Germany. March 2015


Speaker: Sustainable and Responsible Property Investment Conference, Sausalito, California.

A number of members of the centre continue to play leading roles in supporting industry and other bodies with Colin Lizieri serving on the EPRA Research Committee, the World Economic Forum industry council on the future of real estate and cities, and programme director of the Society of Property Researchers’ property research course. Nick Mansley serving on ULI UK executive, the ULI Europe Content Advisory Group, the IPF/INREV Nick Tyrrell Research Prize judging panel, Chair of the Lord Chancellor’s Strategic Investment Board and on the Technical Advisory Group for Cambridge Ahead.
Our People

The Centre is led by Professor Colin Lizieri, Centre Director and Nick Mansley, Executive Director; who both have over 30 years of real estate research experience. The Centre has a number of key Department staff with the expertise and proven capability of delivering the highest calibre of applied research and a breadth of research interests.

Colin has advised international bodies, governments, professional bodies and private organisations on real estate investment, and has published widely on real estate finance, investment risk management and office market dynamics.

Nick draws on extensive experience in investment management including as head of the global multi-manager business at Aviva Investors responsible for c.$20 billion of investments across all asset classes as well as a long track record of applied economics and real estate research.

Dr Helen Bao, university senior lecturer in real estate finance, is a real estate economist with a research focus on behavioural finance and real estate/housing markets, urbanization in China and strong links with Chinese state and private organisations, research institutes and real estate investors.

Dr Franz Fuerst, university reader in housing and real estate finance, has an extensive portfolio of research on sustainable/green buildings and the impact on rent and value, on the drivers of property company and real estate market performance and on the relationships between knowledge industries and real estate values.

Dr Thies Lindenthal, university lecturer in real estate finance works on very long-run real estate performance and on the impact of technology on the analysis and behaviour of property markets.

Gillian Barclay, Centre and MSt programme co-ordinator, project and events manager

The Centre has made two appointments, increasing our research resources:

Dr Dimitra Kavarnou: joined us as a Senior Research Associate in October 2016 from Nottingham Trent University, where she was a Lecturer/Senior Lecturer in Real Estate, Economics and Finance in School of Architecture, Design and Built Environment. She completed her PhD on Housing Economics in Real Estate & Planning department at Henley Business School, University of Reading, UK. She has experience in the construction, shipping and real estate sectors.

Research Fields: Dynamic interactions across urban and regional markets; real estate prices modelling; residential market dynamics; housing and tourism, effects of tourism on real estate development and prices, the impacts of immigration on real estate and macroeconomic factors affecting housing.
In line with our aim to foster researchers, a number of PhD students associated with the Centre graduated successfully over the year. They include the students listed below with their research thesis title:

- **Nikodem Szumilo**: What are the real financial implications of energy efficiency improvements in Real Estate? An empirical study of the current assumptions.
- **Donald Stevens**: Big Data in Real Estate Research.
- **Hassan Adan**: Microeconomic Analysis of Energy Efficiency.
- **Jose Vallejo Bermeo**: De-risking housing finance in emerging economies, through alternative data and carbon finance, the case of Quito.
- **Pawel Krasny**: How can we assess the non-financial benefits of urban development and regeneration initiatives supported by Financial Instruments in the EU?
- **Daniyal Labib**: Essays on the growth and convergence of the transition economies of Eastern Europe, the impact of the 2007 financial crisis and the policy responses at the national and European level.
- **Cynthia Miao Gong**: Successfully defended her thesis on Prospect Theory and Housing Decisions in China on 29th Nov 2016.
- **Charlotte Chunming Meng**: Won the best paper award at the 2016 American Real Estate and Urban Economics Association (AREUEA) International Conference in Spain.
CENTRE INDUSTRY EVENTS

THE CAMBRIDGE REAL ESTATE LONG TERM INVESTOR EVENT

The Centre hosted another Long Term Investor event in June 2016 at Trinity Hall. The event gives long term investors (including GIC, Norges, Canada Pension Plan, Wellcome Trust, PGGM and M&G) a chance to come together to discuss current issues as well as providing interesting insights for current research in the Centre. Topics discussed included the benefits of long term ownership and place making and the potential impact of Brexit. The event was financially supported by CLEAB.

CAMBRIDGE REAL ESTATE RESEARCH CLUB

October 2016 saw another gathering of CIOs/heads of strategy and research from across the industry to discuss research and strategy issues. We had some 20 attendees including representatives from the main institutional investors in the UK (e.g. Aviva Investors, L&G, TH Real Estate, Grosvenor, Hermes) and the leading advisers (e.g. JLL, Savills). The day included a broad range of topics ranging from lessons from the UK from Continental European Residential markets, to property yields and bond yields and from the changes in debt markets/non-bank lending to how new sources of data can be used in research. For each topic, someone from industry spoke along with someone from the Centre to facilitate discussion. A number of areas were identified for further research across all of the above topics notably around understanding the dimensions and drivers of real estate

THE FUTURE CITIES PROGRAMME

This programme is led by the Centre and includes a conference, the award of prizes to PhD students through a University-wide competition and a visiting fellowship. The conferences bring together academic experts, investors, developers, researchers and policy makers to discuss how best to design, develop, govern and thrive in cities, and explore the challenges and opportunities presented in developing sustainable cities for the future.

The first conference was held at Clare College Cambridge in the summer of 2016, Professor Edward Ng of CUHK, gave the keynote address on high density cities, setting out the issues associated with high density design and sustainability, using Hong Kong as a case study. Other speakers included Lord Smith,

The second conference in July 2017 at Jesus College Cambridge, had the theme of “Growing well” and explored technology under two sub-themes of intelligence and information and connectivity data and networks, as well as looking at issues of governance and growth, and migration and demographic change. Professor Carlo Ratti, Director of the Senseable City Lab, MIT, gave the keynote speech. As well as centre members and other academics, speakers included Alice Charles (World Economic Forum), Mark Kleinman, Director, Economic and Business Policy at the GLA; Chris Choa (Aecom) and Charlie Leadbeater (former adviser to Tony Blair).

The conferences have included the work of the PhD prizewinner, including; the impact of multi-channel retailing on town centres and retail spaces and how it can be reintegrated into digital and spatial policies, heritage’s role in place making and the benefits of building anew or adapting buildings, adaptive facades, autonomous vehicles and ageing and the city.

The initiative aims to build inter-disciplinary collaboration among academics and practitioners. The Future Cities programme is supported by Capital and Counties Properties PLC (Capco). Further details of the Future Cities Programme, including conference, visiting Fellow and Prizewinning PhD Fellows can be seen on the Future Cities website.
CAMBRIDGE REAL ESTATE FINANCE SYMPOSIUM

The Centre hosted the first Real Estate Finance and Investment Symposium in Cambridge in September 2016, with the Centre playing a leading role in organisation and delivery (Dr Thies Lindenthal assisted by Gillian Barclay) and supported the second Symposium in September 2017 in Singapore.

The event, which was jointly organised with the National University of Singapore and the University of Florida, brought over 20 internationally renowned scholars to the University to present and discuss new work on real estate finance and investment. Presenters came from universities in the US, the Netherlands, Turkey, Switzerland and the UK. Topics explored included mortgages, commercial real estate and urban economics.

This event really strengthens Cambridge’s visibility in the research community. The 50 submissions competing for 10 slots on the programme is an indicator of the success of the event, as well as the quality of the papers presented. A special issue in the Journal of Real Estate Finance and Economics is dedicated to a selection of the presented papers and edited by the organisers. This allows Cambridge to positively shape the research agenda on real estate finance and investments.

EDUCATION, TRAINING AND DEVELOPMENT

As well as acting as a focus for research the Centre has continued to work in collaboration with real estate organisations on design and delivery of solutions to meet their individual company executive training and development requirements, running a number of courses and programmes throughout the year and collaborating with The Judge Business School.

TAILORED EXECUTIVE EDUCATION FOR BRITISH LAND

The Cambridge Real Estate Research Centre (CRERC) organised its fourth “Leadership in Real Estate” programme for British Land, which took place in beautiful weather in Cambridge in September 2017. The tailored three-day programme developed with British Land aims to give the attendees a deeper understanding of real estate markets along with broader management skills. The feedback was hugely positive included “brilliant” and “hugely interesting and insightful”

NEW COURSE IN 2017 IN PARTNERSHIP WITH REMNIN UNIVERSITY

The Land Economy department sealed a new partnership with Remnin University of China in Beijing As part of this partnership the Centre organised and delivered a five-day Executive MBA training course took place in June 2017 for 35 students. This looked at real estate finance issues and investment trends, behavioural economics, environmental economics and policy along with a field trip to London (Covent Garden and Broadgate – thanks to British Land and Capco).
Masters in Real Estate

The Centre has led the development and delivery of the new part-time Masters in Real Estate. The inaugural cohort of part time Masters students have completed their first year of their course in Cambridge and are embarking on their second year, whilst the second cohort started in September 2017.

The students come from a range of disciplines including architecture, structural engineering, residential development, finance and rural property investment, as well as those involved in commercial investment management and finance. The international mix includes students from Canada, China, Colombia, Kenya, Lebanon, Malaysia, New Zealand, Poland, South Africa, Thailand and the US.

The programme is delivered through a mix of distance learning making use of an online Virtual Learning Environment [VLE] and Adobe connect online session combined with self study and attendance at five residential sessions in Cambridge throughout the two year course.

The modules are delivered by faculty/centre members with guest presentations from industry experts, case studies and tours. A number of CLEAB members contributed to the course by presenting or hosting students on site visits. Site visits have been hosted such companies as British Land, Capital & Counties, Axa, Argent and Workspace. Industry speakers include: Madeleine Cosgrave and colleagues from GIC; Lars Dahl, Norges; Roger Orf, Apollo; Jenny Buck, Tesco; Andrea Orlandi, Canada Pension Plan and Christophe Tanghe, Aventicum.

The course gives students a broader understanding of real estate as well as research and technical skills — the mix between theory and hearing from industry practitioners, case studies and site visits makes the programme intense but varied. The feedback from the students has been overwhelmingly positive and that they leave Cambridge “buzzing” with everything they have learned and experienced.

Further details of the course and a downloadable course prospectus can be found on The Department of Land Economy website.
Looking Forward

The Centre intends to build on its strengths and successes as outlined in this report in order to enhance its position as a leading centre of rigorous and relevant research into real estate markets. We will seek further funding and partnerships to pursue work in the key research themes and priorities detailed below. We will bring together researchers and practitioners to explore emerging issues in the market that merit analysis and to share best practice in research and we will work to ensure that real estate research is central to our educational and executive programmes at Cambridge.

As a hub for international research, we will bring researchers (both academic and professional) to Cambridge as visitors and as associate members of the Centre and through meetings, seminars and symposia.

The Centre will benefit from an additional academic member of staff with research interests in the real estate and urban economics field, to be appointed from 2018; and from the appointment of a new lectureship in Chinese Urban Development, generously funded by a donation from Dr Justin Chiu and the Pecan Foundation. This latter position will further strengthen our research interests in the property markets of emerging cities and the key role of real estate in urban development and is an example of how partnerships between industry and the Centre can grow our research resources.

We will actively seek doctoral students interested in undertaking research in our research priority areas: these are the next generation of professional and academic researchers and a key source of new ideas in the market. The critical constraint they face is funding and we will look to find ways of providing financial support – we would welcome partners in this effort.

The centre’s research agenda has a number of strands as outlined earlier and some of the research activity planned under each is highlighted below:

**Partners and Supporters**

We are extremely grateful to all those who continue to support our research mission, including:

- **GIC** for their financial support for our research activities along with engagement with students etc.,
- **Capital and Counties** for their sponsorship of the ‘Future Cities’ initiative.
- **Aubrey Adams’s** personal support for the Centre continues to provide the foundation on which the Centre has been built.
- **Mansford** continues to support research in the department and a MPhil dissertation prize.

We aim to build a broader range of longer term strategic relationships with organisations and individuals to give the Centre the resources to drive forward cutting edge research on real estate and the built environment.
**Key Research Themes and Priorities**

*Risk Characteristics and Performance of Real Estate Vehicles:* investigations of the drivers of performance of unlisted funds and real estate companies.

*Real Assets and Non-Traditional Real Estate Investments:* exploring the performance on non-traditional estate investment areas – risk premia, spatial distribution and determinants of yields etc.

*Sustainability, Resilience and Performance:* research on the impact of energy performance and environmental sustainability at building level as well as broader research on sustainability and urban resilience.

*Ownership, Globalisation and Yield Structures:* we will continue to investigate the impact of capital flows on market performance and values;

*Technology and New Data Sources:* this research strand looks at a range of themes around the real estate needs of technology orientated business e.g. life sciences and ICT business, the impact of technology on real estate markets, the ability to gather new data and analyze data in new ways. Work will continue on how to use neural networks to analyze information and images from Google etc.

*Real Estate in a Multi-Asset Class Portfolio Context:* we will continue to explore the risk factors in real estate and its integration into multi-asset class frameworks for risk analysis;

*Investor perceptions and behavioural factors:* using behavioural insights to achieve better outcomes;

*Long run real estate performance:* we continue to working on long term rent indices and performance – for Paris back to 1400! We have identified records of c220k properties in Central Paris from 1810-1914 with rents, tax values and transaction prices and if we have the resources we will digitise this to create a unique database which can be used to explore a variety of research ideas.

*Placemaking and regeneration:* the impact of large scale and/or mixed use developments both in terms of investment performance and socio-economic impact.

*Real estate businesses and strategy:* investing drivers of business success and governance and business model factors in performance and risk.
Appendix 1

Published Research


**Appendix 2**

<table>
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<th><strong>Operating Summary</strong></th>
<th>£000</th>
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<tbody>
<tr>
<td>Income *</td>
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<tr>
<td>Expenses*</td>
<td>198</td>
</tr>
<tr>
<td>Net operating expenditure</td>
<td>(88)</td>
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<th><strong>Reserves</strong></th>
<th>£000</th>
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<tbody>
<tr>
<td>Brought forward</td>
<td>425</td>
</tr>
<tr>
<td>Net operating expenditure</td>
<td>(88)</td>
</tr>
<tr>
<td>Carried forward</td>
<td>337</td>
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</table>

<table>
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<tr>
<th><strong>Reserves Held</strong></th>
<th>£000</th>
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<tbody>
<tr>
<td>Cambridge University Endowment Fund [CUEF]</td>
<td>200</td>
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<tr>
<td>Other</td>
<td>137</td>
</tr>
<tr>
<td>Total funds in reserves</td>
<td>337</td>
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</tbody>
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*Figures shown exclude Departmental revenue and expenses, such as Research Staff costs.*
Appendix 3

RESEARCH, WORKING PAPERS
The centre has been active in publishing a significant number of working papers, which can be downloaded from our website CRERC working paper series.


2. **Kavarnou D.** How Does Location Matter in Regions of Significant Spatial Heterogeneity? submitted to Journal of Local Economy


7. **Bao H. X.*, Charlotte C. Meng and Jing Wu.** Are We Humans or Are We Econ? - The Effect of Sunk Cost Fallacy in Real Estate Development Decisions? Submitted to Journal of Real Estate Practice and Education, under review.

8. **Morshed MD Alam, Bao H. X., Patrick Xiaowei Zou, and Jay Sanjayan.** Behavior change of building users and energy consumption, in Encyclopaedia of Sustainable Technologies, edited by Martin Abraham. Under review.


11. **Cynthia, M. Gong, Colin Lizieri, and Bao H. X.*.** Can information disclosure nudge people to close deals? Field evidence from the housing market. Submitted to Experimental Economics, under review.


13. **Yuting Xu*, Xianjin Huang, Bao H. X., Xiang Ju, and Taiyang Zhong.** Rural Land Rights Reform and Agro-


17. Cajias, M; Fuerst, F; Bienert, S: Are Energy Efficiency Ratings Ignored in the German Housing Market? – Evidence from a Large-Sample Hedonic Study. 1st round review at Ecological Economics


23. Geiger, P., Cajias, M.; Fuerst; F. A Class of its Own? The Role of Sustainable Real Estate in a Conditional Value at Risk Multi-Asset Portfolio. Accepted at Journal of Sustainable Real Estate.


CRERC is a non profit making organisation with any surpluses used to support further research and education in the Centre, the Department of Land Economy and wider university.
“A leading international research centre at the forefront of driving the development of the real estate agenda in the UK and beyond”

WORLD CLASS REAL ESTATE RESEARCH

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Supporters of The Cambridge Real Estate Research Centre:

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