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University

Centre for Applied Economic Research (CAER)

Annual Report 2016



CENTRE FOR APPLIED
ECONOMIC RESEARCH



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1. Centre for Applied Economic Research (CAER) – key facts

1.1 Presiding faculty

UNSW Business School

1.2 Schools, centres, faculties and other organizations with which CAER interacts

CAER has significant linkages with the academia, industry and government. The following table summarizes the schools, centres, faculties and other organizations with which CAER interacted during 2016. The nature of the interactions is also indicated. Further descriptions of the interactions are provided in the sections to follow of this report.

Entity	Nature of interaction
Within UNSW	
School of Economics, UNSW Business School	On-going engagement; CAER's management, majority of CAER members, and part of the Steering Committee members are academics at the school; Collaboration and coordination of teaching and research supervision activities; Provision of in kind facilities.
School of Banking and Finance, UNSW Business School	On-going engagement with the Real Estate Initiative; Part of CAER members and the Steering Committee members are academics at the school; Collaboration and coordination of teaching activities.
UNSW Law	On-going engagement with the Law and Economics Initiative; Part of CAER members and the Steering Committee members are located at the school; Coordination of research supervision activities.
Outside UNSW	
Australian Bureau of Statistics	On-going engagement with the Economic Measurement Initiative.
Australian Bureau of Agricultural and Resource Economics and Sciences	On-going engagement with the Economic Measurement Initiative.
Department of Communications and the Arts	On-going engagement with the Economic Measurement Initiative.
OECD	On-going engagement with the Economic Measurement Initiative.
U.S. Bureau of Economic Analysis	On-going engagement with the Economic Measurement Initiative.
The Australian National University and the University of Melbourne	Collaboration with the Economic Measurement Initiative on an Australian Research Council Discovery Project Grant.
School of Economics, the University of Queensland	On-going engagement with the Economic Measurement Initiative and the Real Estate Initiative.
The Australian Treasury	On-going engagement with the Economic Measurement Initiative and the Real Estate Initiative.

Entity	Nature of interaction
Outside UNSW – Cont.	
Statistics Netherlands	On-going engagement with the Economic Measurement Initiative and the Real Estate Initiative.
RF Capital	On-going engagement with the Real Estate Initiative; Industry partner on joint Australian Research Council Linkage Grant.
CorVal Partners Limited	Industry partner on joint Australian Research Council Linkage Grant with the Real Estate Initiative.
Jones Lang LaSalle (JLL)	On-going engagement with the Real Estate Initiative.
The Urban Taskforce Australia	On-going engagement with the Real Estate Initiative.
Property Council of Australia	On-going engagement with the Real Estate Initiative.
Reserve Bank of Australia	On-going engagement with the Real Estate Initiative.
Herbert Smith Freehills law firm (Sydney)	On-going engagement with the Law and Economics Initiative; Key donor of the Law and Economics Initiative.

1.3 Governance and management of CAER

Director

Professor Kevin Fox, School of Economics, UNSW

Deputy Director

Associate Professor Peter Kriesler, School of Economics, UNSW (till October 2016)

Associate Professor Mariano Kulish, School of Economics, UNSW (from October 2016)

Steering Committee

Professor James Morley (Associate Dean Research, UNSW Business School)/ Professor Elizabeth Carson (Acting Associate Dean Research) – Chair

Professor Kevin Fox (Director, CAER)

Professor Jerry Parwada (Head, School of Banking and Finance)

Mr Tim Harcourt (J.W. Nevile Fellow in Economics)

Ms Fei Wong (General Manager, UNSW Law)

1.4 CAER's research initiatives and their members in 2016

CAER's research activities are carried out through its research initiatives where each initiative focuses on a specialised research area. The following is a list of CAER's research initiatives and their members during 2016. The research agenda of each initiative is described in section 2 of this report.

Economic Measurement Initiative 2016

Professor Kevin Fox - School of Economics, UNSW

Professor Erwin Diewert - School of Economics, UNSW and Vancouver School of Economics, the University of British Columbia

Associate Professor Glenn Otto - School of Economics, UNSW

Real Estate Initiative 2016

Research team

Professor Kevin Fox - School of Economics, UNSW

Professor Erwin Diewert - School of Economics, UNSW and Vancouver School of Economics, the University of British Columbia

Associate Professor Glenn Otto - School of Economics, UNSW

Associate Professor Mariano Kulish - School of Economics, UNSW

Dr Maggie Hu - School of Banking and Finance, UNSW¹

Dr Nigel Stapledon – Andrew Roberts Fellow in Real Estate/voluntary Real Estate Research Fellow, CAER²

Dr Iqbal Syed - Senior Research Associate, CAER

Research affiliates

Mr Andrew Roberts - UNSW alumnus and key founder of the Real Estate Initiative

Mr Luan Ferreira - Quantitative Researcher, RF Capital

Dr Minxian Yang - School of Economics, UNSW

Dr Christopher Gibbs - School of Economics, UNSW

Dr Nalini Prasad - School of Economics, UNSW

Mr Aaryn Lally - Honours Student, School of Economics, UNSW

Dr Xiangling Liu - Research Fellow, CEPAR

Dr Shanaka Herath - Vice Chancellor's Post-Doctoral Research Fellow, Faculty of Business, University of Wollongong

Professor Jan de Haan - Delft University of Technology and Statistics Netherlands

Associate Professor Alicia Rambaldi - School of Economics, the University of Queensland

Mr Tom Cusbert - Reserve Bank of Australia

Dr Peter Tulip - Reserve Bank of Australia

Mr Mohamad Mourad – JLL

Mr Vince De Zoysa – JLL

Mr Keith Lee – JLL

Mr Ryan Farrow - Property Council of Australia

Herbert Smith Freehills Initiative on Law and Economics³ 2016

Professor Richard Holden, Initiative Director - School of Economics, UNSW

Professor Rosalind Dixon, Initiative Deputy Director - UNSW Law

1.5 CAER's administrative staff in 2016

In 2016 Carmit Schwartz was working as a full-time Centre Coordinator of CAER and Oded Shrier was working as a full-time Research Officer. They were hired to assist CAER's Director in the administration of the Centre and in coordinating the research activities of CAER's initiatives. Both positions were funded by CAER.

Administrative support was also provided by the UNSW Business School, mainly consisting of HR, IT, finance and marketing support.

¹ In late 2016 Dr Hu ceased her association with the Real Estate Initiative as she has taken a position at the Chinese University of Hong Kong.

² Dr Stapledon was appointed as Andrew Roberts Fellow in Real Estate within CAER till late July 2016 (a remunerated position); after which he was acting as a voluntary Real Estate Research Fellow within CAER.

³ Hereafter: Law and Economics Initiative.

1.6 CAER's mission, objectives and history

Mission

CAER's principal mission is to undertake, support and advance applied economic research in established or emerging areas of high research priority so as to deliver benefits to the academic and broader communities, both within Australia and world-wide. In achieving its mission CAER may also play a role, where appropriate, in developing and advancing educational activities. CAER's research activities are carried out through its research initiatives where each initiative focuses on a specialised research area. In selecting its research initiatives and agenda CAER gives great emphasis on interdisciplinary and multidisciplinary research, thus complementing and exceeding the research activities and outcomes that can be achieved by individual schools and faculties. It also ensures that its research activities align with the strategic goals and priorities of UNSW.

Objectives

In pursuing its mission CAER has the following strategic objectives:

- Carry out, encourage and enhance applied economic research with an interdisciplinary and multidisciplinary focus that addresses current policy issues both within Australia and globally.
- Encourage and support collaborative research across schools and faculties both at the national and the international level.
- Support and facilitate research training and career opportunities for outstanding Australian and international students and researchers.
- Build and enhance UNSW research capacity and outcomes through stimulating network opportunities and exposure to cutting-edge research.
- Raise the profile, around Australian and internationally, of applied economic research at UNSW.

History

Founded in 1976 CAER is one of the oldest centres in the University and the first centre to be established in the former Faculty of Commerce and Economics (now the UNSW Business School). CAER's primary emphasis is on applied economic research relevant to policy issues. For more than thirty years a significant body of such research has been carried out and the results published in academic journals, books and the Centre's own publications. CAER's work is valued by its internal and external stakeholders and its years of built up impact have contributed to its brand name achieving a high level of external recognition. CAER is proud of its contribution to UNSW and the broader community. It remains relevant, having changed with times, and continues to attract top class international visitors, research funding and research collaborations.

2. CAER's performance in relation to its identified objectives

The following is a summary of CAER's performance in relation to its identified objectives during 2016. A detailed description of CAER's operations in 2016 is provided in the following sections of this report.

- Carry out, encourage and enhance applied economic research with an interdisciplinary and multidisciplinary focus that addresses current policy issues both within Australia and globally.

In 2016 CAER's research activities were carried out and advanced through the following research initiatives:

Economic Measurement Initiative

The appropriate measurement of economic variables is of high importance as data of economic variables is used by a wide range of researchers and policy decision makers, spanning the social sciences, humanities and the physical sciences. Therefore, the research undertaken by the Economic Measurement Initiative is dedicated to improving measurement techniques of economic variables to more accurately reveal empirical facts. To achieve its aim the initiative applies advanced and innovative tools from economic theory, econometrics, aggregation theory, experimental economics, mathematics, and statistics. The initiative research areas include: performance measurement, inflation measurement, index number theory, functional form specification and measurement issues in international comparisons.

Real Estate Initiative

With the encouragement and financial support of UNSW alumnus, Mr. Andrew Roberts, the Real Estate Initiative was established in 2012 under the umbrella of CAER within the UNSW Business School. It is a multi-disciplinary initiative, with collaboration between CAER, UNSW Business School and UNSW Built Environment. As the real estate sector represents a substantial share of the capital assets and savings of businesses and households in the economy and is a major influence on the performance of the economy, the Real Estate Initiative was established to develop a research program to explore real estate-related issues from multidisciplinary perspectives and also to develop education programs to boost skills in the sector. The research areas of the initiative are organised under two broad themes: Financial Stability, and Housing Affordability and Urban Policy. Within the Financial Stability theme, the initiative's research topics include: identification of property market bubbles and implications for financial markets and policy; the role of real estate in multi-asset portfolios (diversification, volatility, hedging); real estate markets and future trends in other financial markets; real estate and corporate risk management; the role of real estate in multi-asset portfolios; pricing of unitized real estate investments for retail and institutional investors; Chinese investment, real estate market risk, and the wealth and welfare of Australians. Within the Housing Affordability and Urban Policy theme, the initiative's research topics include: housing and the macro economy - lifecycle (diversification, volatility, hedging) wealth accumulation, tax treatment of owner occupied housing, economic fundamentals and real estate prices for retail and institutional investors; infrastructure policy and urban development; competition policy and housing affordability; land supply and house prices; understanding regional demand for housing; price indices - methods for accounting for quality change, spatial indices, decomposing indices into land and structure components; price-rent ratios - understanding the evolution of real estate markets; productivity of the real estate services industry.

Law and Economics Initiative

The Herbert Smith Freehills Initiative on Law and Economics is a collaboration between CAER, UNSW Business School, UNSW Law and the Herbert Smith Freehills law firm (Sydney). Its main goals are to help establish law and economics in the Australian academia, begin a dialogue with practitioners about developments in the field and developments in practice, and to establish UNSW as a key leader in the field. The research of the initiative aims to analyse and understand law and legal institutions from economic perspectives rather than the legal realistic tradition. This

is achieved by applying the latest developments in the field of economics, including the incorporation of tools from labour economics and the insights of information and behavioural economics on the limits of neo-classical economic models.

CAER's diverse research activities clearly indicate its role in leading research that crosses discipline boundaries, and as such it adds great value to UNSW research capabilities, supports UNSW's research strength "Law, Business and Economics", and significantly contributes to promoting the UNSW research brand.

➤ Encourage and support collaborative research across schools and faculties both at the national and the international level.

CAER's collaborative research during 2016 is demonstrated by its following undertakings:

- In 2016 the Real Estate Initiative continued its work on the research project: "The Economic Measurement of Property Markets: Prices, Bubbles, Economic Growth and Productivity". This project is part of an Australian Research Council Linkage Grant which involves collaboration between the Real Estate Initiative and property investor RF Capital together with its associate property fund manager and investor CorVal Partners Limited. The research project builds on both firms' research capacity on property markets, including their data availability and industry expertise.
- In 2016 the Economic Measurement Initiative submitted an application for funding within the Australian Research Council Discovery Grant Scheme 2017 for its research project: "Natural Resources and Ecosystem Services in Productivity Measurement". The research project involves collaboration with the Australian National University and the University of Melbourne. The application for funding was approved in November 2016 and the project is planned to commence in 2017. The Australian Bureau of Statistics, the Australian Bureau of Agricultural and Resource Economics and Sciences, and the Australian Productivity Commission also expressed their interest to collaborate and support this research project.
- In 2016 CAER supported domestic and international collaboration and stimulated its research activities by hosting nineteen distinguished visitors.
- As a research centre, CAER's collaborative activities are mainly concentrated on research. However, CAER also undertakes educational collaborative activities where they are deemed appropriate in achieving its mission. In 2016 Dr Nigel Stapledon and Dr Maggie Hu, both members of the Real Estate Initiative, delivered two of the courses offered as part of the UNSW Business School's Real Estate major. In addition, Professor Kevin Fox delivered a short training course to staff at the Australian Bureau of Statistics and at the Australian Treasury as part of the Economic Measurement Initiative activities. Professor Fox also participated in a video interview which was held as part of a Teaching and Learning Enhancement Project being carried out by Dr Alice Shiu of Hong Kong Polytechnic University in collaboration with School of Economics Lecturer Judith Watson.

➤ Support and facilitate research training and career opportunities for outstanding Australian and international students and researchers.

During 2016 CAER members have supervised two Honours students and four PhD students. CAER employed Dr Iqbal Syed as a Senior Research Associate and the Real Estate Initiative facilitated the appointment of UNSW honours student Mohamad Mourad as a Market Research Analyst at JLL thanks to its industry engagement activities. Moreover, five early career academics

(Dr Maggie Hu, Dr Christopher Gibbs, Dr Nalini Prasad, Dr Xiangling Liu and Dr Shanaka Herath) and one Honours Student (Mr Aaryn Lally) participated in the research activities of CAER's Real Estate Initiative. CAER's support and mentoring of UNSW postgraduate students and early career researchers in 2016 was further enhanced by hosting international visitors and organizing events while encouraging their involvement in these visits and events. For example, UNSW early career academic Dr Nalini Prasad participated as a chair at CAER's second annual Real Estate Symposium.

- Build and enhance UNSW research capacity and outcomes through stimulating network opportunities and exposure to cutting-edge research.

CAER's commitment to building and enhancing UNSW research capacity and outcomes is shown by the following activities undertaken in 2016:

Visitors

In 2016 CAER supported domestic and international collaboration by hosting nineteen visitors. These visits of distinguished and internationally-recognized visitors assist stimulating CAER's research activities and provide staff and students the possibility of interactions with leading researchers in diverse areas of investigation. Among other activities, these visits usually involve a formal presentation given by the visitor.

Conferences, workshops and special events

In 2016 CAER organized the EMG Workshop as part of its objective of helping academics and students become leading and internationally-recognized researchers. The workshop typically involves academics from overseas and around Australia, and representatives from the public and private sectors. The success of the workshop has led it to become a regular and well-attended event of international standing.

In addition, CAER hosted its second annual Real Estate Symposium in September 2016. The Symposium aims to gather academics, industry researchers, and government policy makers to discuss real estate related issues and their implications on policy. The Symposium opened with a keynote address by Professor Fred Hilmer, former Vice Chancellor of UNSW and influential expert on national competition policy, and featured a mixture of both academic and industry speakers and chairs. The Symposium was a showcase of some of the latest research into Australian real-estate and it was covered in a TV report on Channel 9 News. The success of this second Symposium demonstrates CAER's on-going role in fostering new engagements relevant for a wide range of sectors.

Lastly, the Law and Economics Initiative of CAER organized two special lunch talks in 2016. The first talk was delivered by Associate Professor Betsey Stevenson of the University of Michigan who discussed the five challenges the labour market faces and the implications for economic growth. The second talk was delivered by Professor Eric Talley of Columbia Law School who presented his analysis of the shareholder activism debate within a theoretical securities-market framework, offering a new theoretical account of managerial long termism and hedge-fund short termism, and new insights relevant to behavioural corporate governance. Presentations such as these provide a stimulus to research at UNSW and great exposure to recent developments in areas of high research priority.

Academic, industry and government engagements

In 2016 CAER continued to foster and expand its linkages with the broader academic community, industry and the public sector:

Academic engagements

- During 2016 Dr Iqbal Syed visited the University of Amsterdam and Delft University of Technology and held discussions with its academics staff on possible future research collaboration and engagements on various real estate related topics.
- In July 2016 Professor Erwin Diewert organised a well-attended session on “How Best to Measure Hedonic Property Price Indexes” at the Society of Economic Measurement Conference held in Thessaloniki, Greece.
- Dr Nigel Stapledon organised a competition for UNSW student teams in order to select a representative team to compete in the University of Sydney Real Estate Case Competition. In the later competition two Australian teams were to be selected in order to compete in the Cornell University Real Estate Case Competition in New York. Six teams competed for a place in the two heats and the winning team performed creditably in the US competition, which included teams from Melbourne University and University of Queensland.

Industry engagements

- In September 2016 Professor Kevin Fox provided expert opinion on the measurement of the digital economy for McKinsey & Company (Sydney branch).
- In November 2016 Professor Kevin Fox provided expert opinion on the analysis of Free Trade Agreements for Ernst & Young.
- As part of the Real Estate Initiative’s Australian Research Council Linkage project (2014-2017) on “The Economic Measurement of Property Markets: Prices, Bubbles, Economic Growth and Productivity”, the Real Estate Initiative held monthly research meetings during 2016 with the active participation of the Real Estate Initiative research team, the industry partner (RF Capital) researchers and the Real Estate Initiative research affiliates, among whom are representatives from the Reserve Bank of Australia, the Property Council of Australia and JLL. In addition, the Real Estate Initiative made four research presentations at the offices of RF Capital.
- After extensive discussions held in 2014 and 2015, a Memorandum of Understanding (MOU) was signed in January 2016 between the Property Council of Australia and the UNSW Real Estate initiative. The MOU formalised both sides’ commitment to collaborate around research, education, and industry and policy engagement in the field of real estate.
- Professor Kevin Fox and Dr Nigel Stapledon provided contracted expert opinion and produced a report for the Urban Taskforce Research Foundation. The report “Value Capture is Not a Magic Pudding: Options for Funding Infrastructure” was launched at a Breakfast Forum event on the 20th of September 2016 at Clayton Utz. In the report Professor Fox and Dr Stapledon outlined their findings on the current trends of using value capture as a way to fund infrastructure by various levels of local governments. The report found that value capture is not the magic pudding that local governments were hoping for. The report outlined detailed economic analysis of funding options for infrastructure and the relationship between transport infrastructure and land value. The report also looked at case studies in other countries.

- In May 2016 Dr Nigel Stapledon made a presentation to a group of US hedge funds on the Australian property market at Macquarie Securities offices in Sydney CBD. Dr Luci Ellis, head of financial stability at the Reserve Bank of Australia, also presented at this gathering.
- The Urban Taskforce Australia and CAER's Real Estate Initiative organized a Morning Tea Seminar/Forum with Associate Professor David Albouy of the University of Illinois on Housing Demand, Cost-of-Living Inequality, and the Affordability Crisis. The event was held on the 26th of May and was hosted by Norton Rose Fulbright at their offices in Sydney's CBD.
- Dr Nigel Stapledon was an invited guest speaker at an Industry Lunch on the Negative Gearing Debate organized by the Urban Taskforce Australia in June 2016.
- As part of its teaching program the Real Estate Initiative hosted Bryan Reid (MSCI) as a guest lecture in Professor Kevin Fox's ECON4309/6309 Economic Measurement course in the second semester 2016. In his lecture Bryan discussed the methodologies employed by MSCI in producing real estate related regional and global indexes, benchmarks, performance modelling, data metrics and risk analytics.
- As part of its teaching program the Real Estate Initiative hosted Theo Onisforou of Angus Property as a guest lecture in Dr Nigel Stapledon's ECON3130 Real Estate Economics and Public Policy course in the second semester 2016. Theo Onisforou is a highly successful property developer and also former chief investment manager for Consolidated Press Holdings. In his lecture Theo explained how the real estate market works in Sydney from a developer's perspective and illustrated this with a number of case studies.
- During 2016 Professor Kevin Fox held discussions with Alastair Nash, real estate associate of Blackstone, on possible future collaborations between Blackstone and the Real Estate Initiative.

Government engagements

- In 2016 Professor Kevin Fox provided contracted expert opinion on R&D spill-overs for the Department of Education and Training.
- In 2016 Professor Kevin Fox provided expert opinion (contribution) to the White Paper on Environment-adjusted TFP Measure prepared by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) for the Fifth Meeting of the G20 Agricultural Chief Scientists (MACS) held in China in May 2016.
- During 2016 Professor Kevin Fox was a voluntary member of the Department of Communications and the Arts' Digital Productivity Reference Group. The Reference Group provided informal views and advice on measuring and understanding the contribution of the economy's digital platform to national, sectoral and enterprise-level productivity growth. Professor Fox has also provided peer review on the department's report that followed.
- During 2016 Professor Kevin Fox provided feedback and advice to the the Australian Bureau of Statistics on "Making Greater Use of Transactions Data to compile the CPI".

- During 2016 Professor Kevin Fox was a member of the Australian Bureau of Statistics Methodology Advisory Committee and of the Australian Bureau of Statistics Productivity Measurement Reference Group.
- During 2016 Professor Kevin Fox was a member of the Committee for Economic Development of Australia (CEDA) Advisory Group and provided expert advice on their research report on improving the productivity of services.
- In February 2016 Professor Kevin Fox met with Ian Ewing (Program Manager, National Accounts Branch, Group Strategies and Governance Unit, Statistical Services Group) and Kathrine Keenan (Director, Productivity Analysis) of the Australian Bureau of Statistics to provide expert advice on their productivity research agenda.
- In March 2016 Professor Kevin Fox was invited to visit the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES, Canberra) and present his work on “Natural Resources and Ecosystem Services in Productivity Measurement”.
- In June 2016 Professor Kevin Fox met with Luiz de Mello, Deputy Director for Public Governance and Territorial Development of the OECD, to discuss Professor Fox’s work on productivity in the public sector.
- In July 2016 Professor Kevin Fox visited the U.S. Bureau of Economic Analysis and presented his work on “Decomposing Value Added Growth over Sectors into Explanatory Factors”.
- In September 2016 Professor Kevin Fox met with Lisa Wardlaw-Kelly (Program Manager for environment and agriculture statistics programs) and Mark Lound (Director Environmental Statistics Section) of the Australian Bureau of Statistics to provide expert advice on the development of the environmental accounts program, especially around ecosystem accounts and SEEA agriculture.
- As part of its teaching program the Economic Measurement Initiative hosted Josef Manalo (Department of the Prime Minister and Cabinet) as a guest lecture in Professor Kevin Fox’s ECON4309/6309 Economic Measurement course in the second semester 2016. During the lecture Josef made a presentation on “Economic Measurement for Policymakers”. The presentation and the discussion that followed emphasised the importance of good economic measurement in informing real world policy decisions, highlighting the practical importance of the material taught in the course.
- In November 2016 Professor Kevin Fox visited the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES, Canberra) and provided expert opinion on environmental and ecosystem services accounting. He also explored and discussed possibilities for future research collaborations.
- During 2016 Dr Chris Gibbs provided expert advice and assistance to the Reserve Bank of Australia on the inclusion of housing in their Dynamic Stochastic General Equilibrium modeling of the Australian economy.

- During 2016 Professor Kevin Fox provided expert advice to the Australian Bureau of Statistics on the measurement of land estimates thus leading to their further work on improving these estimates.

➤ Raise the profile, around Australian and internationally, of applied economic research at UNSW.

In 2016 CAER continued to create impact through the following activities:

Publications

To enhance the profile of UNSW's high-impact research and researchers CAER publishes and communicates its research achievements in journals and outlets of the highest standing internationally. In 2016 members of CAER published four book chapters, eighteen articles in highly regarded international refereed journals and two discussion papers. They also wrote one non-refereed introduction to a journal special issue and one commissioned report for the Urban Task Force Research Foundation.

Conferences, workshops and special events

In 2016 CAER organized the EMG Workshop and the UNSW Business School second annual Real Estate Symposium. Events such as these raise the profile of applied economic research at UNSW in the broader community and strengthen CAER's position as a leading research centre in the region.

Professional engagements and scholarly achievements

The professional engagements and scholarly achievements attained by CAER members in 2016 further contributed to its community impact. In particular,

- Professor Kevin Fox was a member of the Policy and Advocacy Committee and of the Panel B Committee, both of the Academy of the Social Sciences in Australia.
- Professor Kevin Fox was elected as a member of the Council of the International Association for Research in Income and Wealth.
- Professor Richard Holden was elected as a President of the Australian Law and Economics Association at the Australian National University.
- Professor Richard Holden was a member of the Program Committee and session organizer of the 2016 Econometric Society Australasian Meetings.
- Professor Kevin Fox was an invited speaker at the workshop on "CPI Scanner Data Strategy", hosted by the Australian Bureau of Statistics.
- Dr Nigel Stapledon was an invited speaker at an industry lunch event on "the Negative Gearing Debate", organized by the Urban Taskforce Australia.
- Professor Kevin Fox was an invited speaker at the workshop on "Shaping the Next Decade: Economic trends in the Global Economy", organized by the Australian Treasury and the Centre for Applied Macroeconomic Analysis at the Australian National University (CAMA).
- Professor Kevin Fox was an invited participant and chair at the "Delivering the Future - Policy Roundtable", organized by the Academy of the Social Sciences in Australia.

- Professor Richard Holden and Professor Kevin Fox were invited speakers at the Australian Law and Economics Association National Conference, organized by the Centre for Law and Economics at the Australian National University.
- Professor Erwin Diewert and Professor Kevin Fox were invited speakers at the workshop on “Productivity insights and firm-level data analysis”, organized by the Australian Treasury.
- Professor Richard Holden was an invited speaker at the 2016 Econometric Society Australasian Meetings.
- Professor Richard Holden was an invited speaker at the 2016 Australasian Organizational Economics Conference.
- Professor Richard Holden and Professor Rosalind Dixon were invited speakers at the “UNSOMNIA - What keeps you up at night?” event, organized by the UNSW Grand Challenges program.
- Professor Richard Holden was an invited speaker at the 10th Japan-Taiwan-Hong Kong Contract Theory Conference.
- Professor Kevin Fox was appointed as an Advisor to the Australian Treasury.
- Professor Richard Holden was elected as a Fellow of the Academy of the Social Sciences in Australia.
- Professor Richard Holden was elected as a member of the Australasian Standing Committee of the Econometric Society.
- Professor Rosalind Dixon and Professor Richard Holden have been appointed to lead “Inequality”, the third of UNSW Grand Challenges.
- Professor Richard Holden was elected as a PLuS (Phoenix-London-Sydney) Alliance Fellow. The PLuS Alliance is a collaboration in research and education between Arizona State University, King’s College London and UNSW to contribute to a sustainable future.

It is evident that CAER’s work is valued by external stakeholders and its brand name has achieved a significant level of recognition.

Media engagement

To raise the profile of CAER and UNSW, members of CAER’s research initiatives were actively engaged with the media and were extensively interviewed on various topical issues during 2016. In addition to Professor Holden’s on-going media engagement on SkyNews Australia, the Australian Financial Review and the Conversation, there were thirty nine media engagements during the year with media engagements taking place almost every month.

In summary, CAER delivers its stated mission and objectives in a financially sustainable manner and continues to add significant value to UNSW.

3. CAER's planning for the coming year 2017

In accordance with CAER's planning activity for 2016⁴, the Director in coordination with the Steering Committee implemented the following steps during 2016:

- As part of CAER's strategic planning, the succession plan for the leadership of CAER has been completed. In particular, the agreement of the Head of the School of Economics for Mariano Kulish's appointment as Deputy Director was received in October 2016 and the appointment is now finalized. As for the appointment of initiative leaders, the Steering Committee together with CAER's Director have decided that Kevin Fox should continue to lead the Real Estate Initiative and the Economic Measurement Initiative and Richard Holden should continue to lead the Law and Economics Initiative and there is no real need to appoint initiative leaders.
- The Director, in consultation with the Steering Committee, continued to work on CAER's strategic plan for the future. In particular, CAER's mission and objectives have been revised and it was decided that they should be re-phrased to better align with UNSW's 2025 strategic plan.
- CAER's administrators continued to work on the revision of the website, specifically, on the web sections which are not affected by the strategic planning. The "events", "news", CAER's management, and initiatives sections were updated. The revision of the Real Estate Initiative section has been completed while the Economic Measurement Initiative and the Law and Economics Initiative sections are still under development. The updating of the website was made in a future-friendly manner (e.g., use of images, accordions, etc.) so that the website remains compatible with the continual release of new devices.

The following steps were remained to be implemented in 2017:

- CAER's strategic plan for the coming years to be finalized. In particular, CAER's mission and objectives to be rephrased and KPIs to be tailored accordingly.
- Initiatives Guidelines to be finalized.
- Remaining sections of the website to be revised and updated once the strategic planning process is completed and the final content is confirmed.

⁴ See section 3 of CAER's Annual Report 2015.

4. Statement of financial performance certified by the UNSW Business School's Finance Manager for the year ended 31 December 2016

Ctr for Applied Economic Research		UNSW SYDNEY			
Statement of Financial Performance		2016	2015	Difference	
For the Year Ended December 2016		\$'000	\$'000	\$'000	%
REVENUE					
Research Revenue:	1	472	654	472	-28%
Donations & Bequest - Draw downs		245	171	245	43%
UNSW Contributions		-	-	-	-
Faculty Contributions	2	0	(0)	0	-127%
Other Restricted Revenue	3	(0)	1	(1)	-100%
Commercial Activity - Fees for Service		-	-	-	-
Sundry Other Revenue		1	-	1	-
Total Revenue		718	826	717	-13%
EXPENSE					
Salaries, Oncosts and other staff costs		494	529	494	-7%
Scholarship Stipends		3	1	1	100%
Contract & Consulting Services		1	1	1	131%
Repairs and Maintenance		-	-	-	-
Consumables		14	16	(1)	-9%
Travel		169	189	(20)	-10%
Equipment Non Capitalised		5	7	(2)	-26%
Entertainment		3	5	(2)	-43%
Marketing		-	-	-	-
Miscellaneous Expenses		(12)	(2)	(12)	660%
Total Non-People Costs		184	217	(35)	-15%
Total Expenses		678	746	(68)	-9%
TOTAL CONTRIBUTION - SURPLUS/(DEFICIT)		\$ 40	\$ 80	784	-50%
Depreciation		-	-	-	-
SURPLUS / (DEFICIT) after Depreciation		\$ 40	\$ 80	(40)	-50%
Cashflow Funded Capital Expenditure (CAPEX)		-	-	-	-

NOTES:

1 Revenue in Advance will be noted in Creditors & Other Liabilities.

Research Revenue generated (cash basis).	\$ 506	\$ 477	28
Category 1 Research Revenue therein	356	196	160

2 UNSW Budget model includes other revenue items

Teaching Revenue	-	-	-
Block Grants	-	-	-
Indirect Cost Recoveries	-	-	-

3 Other Research Revenue includes internal fund transfers.

4 Restricted Funds - Cash at year end

	\$ 125	\$ 48	77
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5 Funds available in Division of Advancement

	\$ 167	\$ 381	(214)
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Comments on the Statement of Financial Performance by the Centre:

Certified by Faculty Finance Manager

Name: *J M Herra* Signature: *JMH* Date: *3/5/17*



Statement of Financial Position

As at December 2016	Note	2016	2015
		\$000	\$000
UNSW Australia Internal Cash	6	129	49
Accounts Receivable	7	-	-
Sundry Assets		0	34
Investments		-	-
Property Plant & Equipment	8	0	0
Creditors and Other Liabilities	1	3	0
NET ASSETS		\$ 126	\$ 82

NOTES:

- 6 Statements are prepared on UNSW Accounting principles - Operating & Strategic funds adjusted revenue
- 7 UNSW has central provisions in respect of payments made to employees and taxation. Such provisions will not be reflected in this Centre's Statement of Financial Position.
- 8 Cash balance includes the GST centralised daily on Debtor and Creditor balances.
- 9 Accounts Receivable are gross value - inclusive of applicable GST.
- 10 Property Plant & Equipment is depreciated over the expected useful life of the asset.
- 11 UNSW Division of Advancement holds donated funds centrally. Draw down of funds to the Centre is reflected in the Statement of Financial Performance.

Additional notes:

- The expenses of the Real Estate Initiative are administrated through an FC101 project on UNSW accounts. Every year funds from the UNSW Foundation accounts are transferred to the FC101 project to cover the expenses and appear as donation income in the FC101 project. On the 31st of December 2016 the remaining donation balance within the UNSW Foundation accounts of the Real Estate Initiative was \$1,882.
- The expenses of the Law and Economics Initiative are administrated through an FC101 project on UNSW accounts. Every year funds from the UNSW Foundation accounts are transferred to the FC101 project to cover the expenses and appear as donation income in the FC101 project. On the 31st of December 2016 the remaining donation balance within the UNSW Foundation accounts of the Law and Economics Initiative was \$213,761.
- CAER would like to acknowledge the generous support of \$5,000 from the UNSW Business School's Research Office for the EMG Workshop 2016. The support was transferred into CAER's operating project and was incorporated in the above annual financial statement.

5. Details of research grants and projects associated with CAER during 2016

The following is a list of research grants and projects held by CAER's research initiatives in 2016 as part of their activities⁵. CAER members are marked in bold.

- Australian Research Council Linkage Grant, 2014-2017, "The Economic Measurement of Property Markets: Prices, Bubbles, Economic Growth and Productivity", \$625,000, investigators: **K.J. Fox**, **G. Otto**, **N. Stapledon**, **M. Kulish**, **M. Hu**, **W.E. Diewert** and **I.A. Syed**, industry partners: property investor RF Capital and its associate property fund manager and investor CorVal Partners Limited. The research project is a collaboration between the Real Estate Initiative and the two industry firms, building on both firms' research capacity on property markets, including their data availability and industry expertise. Funds of this project (both ARC and industry partners') are administrated by CAER.
- Australian Research Council Future Fellowship Grant, 2013-2017, **R. Holden**, \$910,034. The project aims to further the understanding of non-price institutions such as firms, voting rules, trading mechanisms, bargaining protocols, and publically owned assets. Fifteen percent of this project is devoted to research which is undertaken by the Law and Economics Initiative. Funds of this project are administrated by the School of Economics (UNSW).
- Australian Research Council Discovery Grant, 2015-2019, "Productivity Measurement, Drivers and Trends: A New Analytical Framework", \$551,400, investigators: **K.J. Fox** and **W.E. Diewert**. The project aims to advance new concepts and methods for productivity measurement that have the potential to improve policy and national welfare, with special attention to: productivity in the mining industry, the increased holding of precautionary cash balances by firms during financial crises, innovative examination of firm productivity dynamics, and a more realistic approach to capitalisation of research and development and other intangible investments. The project is part of the research agenda of the Economic Measurement Initiative. Funds of this project are administrated by CAER.

In addition, the Economic Measurement Initiative submitted in 2016 a research proposal to be funded within the Australian Research Council Discovery Grant Scheme 2017. The title of the research proposal is: "Natural Resources and Ecosystem Services in Productivity Measurement". The investigators named on the research proposal are: **K.J. Fox** (CAER), Q. Grafton (ANU), C. Obst (U. Melbourne) and **W.E. Diewert** (CAER). The success of the proposal was announced in November 2016 with the project commencing in 2017. With the announcement of the proposal's success, the Australian Bureau of Statistics, the Australian Bureau of Agricultural and Resource Economics and Sciences, and the Australian Productivity Commission all expressed their interest to collaborate and support this research project.

⁵ Research grants and projects which CAER members obtained outside the activities of CAER's research initiatives are excluded from the list.

6. Statement of in-kind contributions, cash contributions, infrastructure and other resources provided to CAER during 2016

6.1 In-kind contributions

Estimated value of CAER members contribution to CAER's activities –by research initiatives⁶

CAER member	Type of Activity	Value of Contribution
Professor Kevin Fox	Economic Measurement Initiative activities	64,022
Professor Erwin Diewert		
Associate Professor Glenn Otto		
Professor Richard Holden	Law and Economics Initiative activities	56,008
Professor Rosalind Dixon		
Professor Kevin Fox	Real Estate Initiative activities	155,126
Professor Erwin Diewert		
Associate Professor Glenn Otto		
Associate Professor Mariano Kulish		
Dr Maggie Hu ⁷		
Dr Nigel Stapledon ⁸		
Mr Andrew Roberts		
Mr Luan Ferreira		
Dr Minxian Yang		
Dr Christopher Gibbs		
Dr Nalini Prasad		
Dr Xiangling Liu		
Dr Shanaka Herath		
Professor Jan de Haan		
Associate Professor Alicia Rambaldi		
Mr Tom Cusbert		
Dr Peter Tulip		
Mr Mohamad Mourad		
Mr Vince De Zoysa		
Mr Keith Lee		
Mr Ryan Farrow		
Total in-kind		275,156

⁶ CAER members whose salary was paid by funds held within CAER's department ID are excluded from the table.

⁷ The fact that Dr Hu ceased her association with the Real Estate Initiative in late 2016 was taken into account in the calculation of Dr Hu's in-kind contribution to the Real Estate Initiative activities.

⁸ Dr Stapledon's in-kind contribution to the Real Estate Initiative activities includes only the proportional contribution Dr. Stapledon made from late July 2016 when he became a voluntary Real Estate Research Fellow within CAER.

Estimated value of in-kind contribution to CAER's administration⁹

	Type of Activity	Value of Contribution
Professor Kevin Fox	Director	46,671
Associate Professor Peter Kriesler/ Associate Professor Mariano Kulish	Deputy Director	16,033
Professor James Morley (Associate Dean Research)/ Professor Elizabeth Carson (Acting Associate Dean Research)	Steering Committee	7468
Professor Jerry Parwada (Head, School of Banking and Finance)		
Mr Tim Harcourt (J.W. Nevile Fellow in Economics)		
Ms Fei Wong (General Manager, UNSW Law)		
UNSW Business School administrative support	HR, IT, finance and marketing support	13,113
Total in-kind		83,285

6.2 Cash contributions¹⁰

Entity	Purpose	Cash Contribution
School of Economics	Support for the EMG Workshop 2016	\$5,000
Total cash		\$5,000

6.3 Infrastructure and other resources provided to CAER

In mid-2016 the UNSW Business School's Research Office allocated to CAER a new office space in the Quadrangle Building (Quad 1039). The new office space includes three offices and four workstations. It also includes a meeting room, printer/photocopier and a kitchen which are shared with the Industrial Relations Research Centre (IRRC). Dr Stapledon and Dr Syed were each allocated an office within the new space while the third office is reserved to CAER's visitors and four the workstations are reserved to CAER's postgraduate students. The rest of CAER members provided their own office space (including computers) on or off campus. The School of Economics provided office space and printer/photocopier facilities for CAER administrative staff. The UNSW Business School provided additional meeting space.

⁹ Administrative support which was funded by CAER's funds is excluded from the table.

¹⁰ The following table reports only cash contributions which were made available to CAER and which were administrated by the contributing entity. Cash contributions which were transferred into CAER's financial projects are reported as part of CAER's annual financial statement in section 4 above.

7. Details of publications, professional engagements and scholarly achievements associated with CAER during 2016

7.1 Research output of CAER members

The following is a list of research output attained by CAER members in 2016 as part of their initiative activities¹¹. CAER members are marked in bold.

Book Chapters

Dixon, R. and A. Stone, 2016, "Constitutional Amendment and Political Constitutionalism: A Philosophical and Comparative Reflection", in *Philosophical Foundations of Constitutional Law*, D. Dyzenhaus and M. Thorburn (eds.), Oxford University Press.

Holden, R.T., 2016, "Subgame Perfect Implementation and Foundations of Incomplete Contracts", in *Essays in Honor of Oliver Hart*, P. Aghion, M. Dewatripont, P. Legros and L. Zingales (eds.), Oxford University Press.

Holden, R.T., 2016, "Law and Economics", in *The Critical Judgments Project*, G. Appleby and R. Dixon (eds.), Federation Press, Annandale.

Holden, R.T., 2016, "A Process for Non-Partisan Redistricting", in *An Illinois Constitution for the 21st Century*, J. Schwab (ed.), forthcoming.

Refereed Journal Articles

Diewert, W.E., K.J. Fox and J. de Haan, 2016, "A Newly Identified Source of Potential CPI Bias: Weekly versus monthly unit value price indexes", *Economics Letters*, Vol. 141, pp. 169-172.

Barnett, W.A., **W.E. Diewert** and E. Maasoumi, 2016, "Innovations in measurement in economics and econometrics: An overview", *Journal of Econometrics*, Vol. 191(2), pp. 273-275.

Fox, K.J. and I.A. Syed, 2016, "Price Discounts and the Measurement of Inflation", *Journal of Econometrics*, Vol. 191(2), pp. 398-406.

Diewert, W.E. and **K.J. Fox**, 2016, "Decomposing Productivity Indexes into Explanatory Factors", *European Journal of Operational Research*, forthcoming.

Hill, R. and **I.A. Syed**, 2016, "Hedonic Price-Rent Ratios, User Cost, and Departures from Equilibrium in the Housing Market", *Regional Science and Urban Economics*, Vol. 56, pp. 60-72.

Qin, Y., **H. Zhu** and R. Zhu, 2016, "Changes in the distribution of land prices in urban China during 2007–2012", *Regional Science and Urban Economics*, Vol. 57, pp. 77–90.

Syed, I.A. and **J. de Haan**, 2016, "Age, Time, Vintage, and Price Indexes: Measuring the Depreciation Pattern of Houses", *Economic Inquiry*, forthcoming.

¹¹ During 2016 there was no clear policy relating to acknowledging CAER on publications. The Director of CAER is working on the development of guidelines to ensure CAER's acknowledgment on publications and accountable reporting of Centre publications in future annual reports. In compiling the following list all efforts have been made to ensure that research output of CAER members which was achieved outside the activities of CAER's research initiatives is excluded from the list.

Zhu, H., Y. Deng, R. Zhu and X. He, 2016, "Fear of Nuclear Power? Evidence from Fukushima Nuclear Accident and Land Markets in China", *Regional Science and Urban Economics*, Vol. 60, pp. 139-154.

An, X., Y. Deng, J.D. Fisher and **M.R. Hu**, 2016, "Commercial Real Estate Rental Index: A Dynamic Panel Data Model Estimation", *Journal of Real Estate Economics*, Vol. 44(2), pp. 378-410.

Deng, Y., **M.R. Hu** and A. Srinivasan, 2016, "Information Asymmetry and Organizational Structure: Evidence from Real Estate Investment Trusts", *Journal of Real Estate Finance and Economics*, forthcoming.

Diewert, W.E., K.J. Fox and C. Shimizu, 2016, "Commercial Property Price Indexes and the System of National Accounts", *Journal of Economic Surveys*, Vol. 30(5), pp. 913–943.

Diewert, W.E. and **K.J. Fox**, 2016, "Sunk Costs and the Measurement of Commercial Property Depreciation", *Canadian Journal of Economics* Vol. 49(4), pp. 1340–1366.

Kulish, M. and A. Pagan, 2016, "Estimation and Solution of Models with Expectations and Structural Changes", *Journal of Applied Econometrics*, forthcoming.

Stapledon, N.D., 2016, "The Inexorable Rise in House Prices in Australia Since 1970: Unique or Not?", *The Australian Economic Review*, Vol. 49(3), pp. 317-327.

Dixon, R., S. Butt and M. Crouch, 2016, "The First Decade of Indonesia's Constitutional Court", *Australian Journal of Asian Law*, Vol. 16(2), pp. 1-7.

Dixon, R., 2016, "An Australian (Partial) Bill of Rights", *International Journal of Constitutional Law*, Vol. 14(1), pp. 80-98.

Holden, R.T. and R. Akerlof, 2016, "Movers and Shakers", *Quarterly Journal of Economics*, Vol. 131(4), pp. 1849-1874.

Holden, R.T., 2016, "Voting and Elections: New Social Science Perspectives", *Annual Review of Law and Social Science*, Vol. 12, pp. 255-272.

Other Research Output

Fox, K.J., 2016, "Editor's Introduction to the Special Issue of The Review of Income and Wealth on 'Productivity Measurement, Drivers and Trends' IARIW-UNSW Special Conference, Sydney, 26–27 November 2013", *Review of Income and Wealth*, forthcoming.

Diewert, W.E. and **K.J. Fox**, 2016, "The User Cost of Non-renewable Resources and Green Accounting", a paper presented at the international workshop on "Environmentally Adjusted Productivity and Efficiency Measurement", University of Sydney, February 2016, and at the NBER Summer Institute, NBER/CRIW Workshop, Boston, July 2016.

Diewert, W.E. and **K.J. Fox**, 2016, "Decomposing Value Added Growth over Sectors into Explanatory Factors", a paper presented at the Society for Economic Measurement Conference, July 2016, Thessaloniki and at UNSW Business School, School of Economics' seminar series, October 2016.

Diewert, W.E. and **K.J. Fox**, 2016, "Alternative User Costs, Rates of Return and TFP Growth Rates for the US Nonfinancial Corporate and Noncorporate Business Sectors: 1960-2014", UBC Discussion Paper 16-03. Presented at the Society for Economic Measurement Conference, July 2016, Thessaloniki.

Diewert, W.E. and **K.J. Fox**, 2016, "A Decomposition of U.S. Business Sector TFP Growth into Technical Progress and Cost Efficiency Components", UBC Discussion Paper 16-04. Presented at the Society for Economic Measurement Conference, July 2016, Thessaloniki.

Diewert, W.E. and **K.J. Fox**, 2016, "The Digital Economy, GDP and Consumer Welfare", a paper presented at the EMG Workshop, December 2016, UNSW, Sydney.

Diewert, W.E. and **K.J. Fox**, 2016, "Money and the Measurement of Total Factor Productivity", a paper presented at the School of Economics' seminar series, University of Queensland, June 2016.

Kulish, M. and D. Rees, 2016, "Unprecedented Changes in the Terms of Trade," *Journal of International Economics*, revise-and-resubmit.

Hu, M.R. and A. Lee, 2016, "Street Name Fluency and Housing Prices", a paper presented at the 2016 Global Chinese Real Estate Congress (GCREC) conference, July 2016, China.

Hu, M.R. and A. Lee, 2016, "Cultural Distance and Housing Prices", a paper presented at the 2016 FMA Asia Pacific Conference, July 2016, Sydney.

Syed, I.A., 2016, "Tracking Investment Value Changes of Commercial Real Estate: An Empirical Framework", a paper presented at the American Real Estate and Urban Economics Association (AREUEA) International Conference, Alicante, Spain, July 2016; at the 2016 Asia Meeting of the Econometric Society, Kyoto, Japan, August 2016; and at the 69th Econometric Society European meetings, Geneva, Switzerland, August 2016.

Ji, P.I. and **G. Otto**, 2016, "Explosive Behaviour in Australian Housing Markets: Rational Bubbles or Not?", a paper presented at the Western Economic Association International 91st Annual Conference, Portland, Oregon, 29th June- 3rd July 2016.

Stapledon, N.D. and **K. Fox**, 2016, "Value Capture is Not a Magic Pudding: Options for Funding Infrastructure", a report commissioned by the Urban Task Force Research Foundation, supported by Meriton, September 2016.

Stapledon, N.D., 2016, "Sir Bede Bertrand CALLAGHAN (1912-1993) – banker and chancellor", Australian Dictionary of Biography, National Centre of Biography, Australian National University (pending).

Otto, G., 2016, "How Connected are Australia's Major Housing Markets?", working paper.

Otto, G., 2016, "Spillovers in Commercial Property Classes", working paper.

Zhu, H., 2016, "The Short-Term Effects of Air Pollution on Land Prices in China", working paper.

7.2 Professional engagements and scholarly achievements of CAER members

The following is a list of professional engagements and scholarly achievements attained by CAER members in 2016 as part of their research initiative activities. CAER members are marked in bold.

Editorial activities

- **Kevin Fox**, Associate Editor, *Journal of Productivity Analysis*.
- **Richard Holden**, Editor, *Journal of Law and Economics*.

Professional memberships

- **Kevin Fox**, member of the Policy and Advocacy Committee of the Academy of the Social Sciences in Australia.
- **Kevin Fox**, member of the Panel B Committee of the Academy of the Social Sciences in Australia.
- **Kevin Fox**, elected as a member of the Council of the International Association for Research in Income and Wealth, August 2016.
- **Richard Holden**, elected as a President of the Australian Law and Economics Association, the Australian National University, November 2016.
- **Richard Holden**, member of the Program Committee and session organizer of the Econometric Society Australasian Meetings, 2016.

Invited speaker/chair/participant

- **Kevin Fox**, Invited Speaker, *Workshop on CPI Scanner Data Strategy*, hosted by the Australian Bureau of Statistics, June 2016, Melbourne.
- **Nigel Stapledon**, Invited Speaker, an Industry Lunch event on *the Negative Gearing Debate*, organized by the Urban Taskforce Australia, June 2016, Sydney, Australia.
- **Kevin Fox**, Invited Speaker, *Workshop on Shaping the Next Decade: Economic trends in the Global Economy*, organized by the Australian Treasury and the Centre for Applied Macroeconomic Analysis at the Australian National University (CAMA), August 2016, Canberra.
- **Kevin Fox**, Invited Participant and Chair, *Delivering the Future - Policy Roundtable*, organized by the Academy of the Social Sciences in Australia, September 2016, Canberra.
- **Kevin Fox**, Invited Speaker, *Australian Law and Economics Association National Conference*, organized by the Centre for Law and Economics, Australian National University, November 2016, Canberra.
- **Kevin Fox**, Invited Speaker, *Workshop on Productivity insights and firm-level data analysis*, organized by the Australian Treasury, December 2016, Canberra.
- **Erwin Diewert**, Invited Speaker, *Workshop on Productivity insights and firm-level data analysis*, organized by the Australian Treasury, December 2016, Canberra.

- **Richard Holden**, Invited Speaker, *Econometric Society Australasian Meetings*, July 2016, Sydney.
- **Richard Holden**, Invited Speaker, *Australian Law and Economics Association National Conference*, organized by the Centre for Law and Economics, Australian National University, November 2016, Canberra.
- **Richard Holden**, Invited Speaker, *Australasian Organizational Economics Conference*, December 2016, Sydney.
- **Richard Holden and Rosalind Dixon**, Invited Speakers, “*UNSOMNIA - What keeps you up at night?*”, invited as experts to explore the most challenging issues facing humanity as part of the UNSW Grand Challenges program , December 2016, Sydney.
- **Richard Holden**, Invited Speaker, *10th Japan-Taiwan-Hong Kong Contract Theory Conference*, December 2016, Tainan, Taiwan.

Scholarly achievements

- In 2016 **Professor Kevin Fox** was appointed as an Advisor to the Australian Treasury.
- In September 2016 **Professor Richard Holden** was elected as a Fellow of the Academy of the Social Sciences in Australia.
- In December 2016 **Professor Richard Holden** was elected as a member of the Australasian Standing Committee of the Econometric Society.
- In late 2016 **Professor Rosalind Dixon** and **Professor Richard Holden** have been appointed to lead *Inequality*, the third of UNSW Grand Challenges. The UNSW Grand Challenges program is an initiative to establish UNSW at the forefront of debate and policy response to the biggest issues of our time. The program aims to champion the critical place of universities in public engagement and leading open and informed debate.
- In 2016 **Professor Richard Holden** was elected as a PLoS (Phoenix-London-Sydney) Alliance Fellow. The PLoS Alliance creates, enables and deploys innovative research and education linkages across three globally-focused universities (Arizona State University, King’s College London and UNSW) to contribute to a sustainable future by collaborating in the areas of sustainability, global health, social justice, technology and innovation.

8. Details of CAER's engagement with the academia, government, industry and broader community

The following sections provide details of CAER's activities undertaken in 2016 to accomplish its aims of providing a stimulus to the research undertaken at UNSW, supporting research students and early career academics, encouraging collaborative research and raising the profile of applied economic research at UNSW in the broader community.

8.1 Conferences, workshops and special events

EMG Workshop 2016

The Economic Measurement Initiative of CAER hosted its sixteenth annual international workshop on the 2nd of December 2016 at UNSW main campus. The aim of the workshop is to create a genuine engagement between academics, statistical agencies researchers, government policy makers and industry representatives from all around the world, leading to an improved understanding of economic measurement and the potential impact on policy. The workshop was supported by the Australian Research Council, UNSW Business School and the School of Economics. The workshop featured an outstanding program consisting of the following speakers: Paul Schreyer (OECD), Kevin Fox (UNSW), Marcel van Kints (Australian Bureau of Statistics), Prasada Rao (University of Queensland), Ken Clements (University of Western Australia), Yu (Eric) Sheng (ABARES), Derek Burnell (Australian Bureau of Statistics) and Erwin Diewert (UBC and UNSW). The workshop attracted forty nine participants and included representatives from the Treasury, the Reserve Bank of Australia, the Australian Bureau of Statistics and the Department of Agriculture and Water Resources.

UNSW Business School Real Estate Symposium 2016

The Real Estate Initiative hosted its second annual Real Estate Symposium on the 6th of September 2016 at UNSW main campus. The event was supported by the UNSW Business School, RF Capital and the Australian Research Council. The Symposium aims to gather academics, industry researchers, and government policy makers to discuss real estate related issues and their implications on policy. The Symposium opened with a keynote address by Professor Fred Hilmer, former Vice Chancellor of UNSW and influential expert on national competition policy, and featured the following mixture of both academic and industry speakers and chairs: Elizabeth Carson (Associate Dean Research - Acting, UNSW Business School), Kevin Fox (UNSW), Tim Lawless (Research Director, Asia Pacific, CoreLogic), Nalini Prasad (UNSW), Peter Jolly (Global Head of Research - Fixed Income, Currencies & Commodities Product & Markets, National Australia Bank), Glenn Otto (UNSW), John Swieringa (Manager, Macro-Financial Unit, Commonwealth Treasury), Alicia Rambaldi (University of Queensland) and Nigel Stapledon (UNSW). The Symposium was a showcase of some of the latest research into Australian real-estate and it was covered in a TV report on Channel 9 News. There were sixty participants attending the Symposium, many of whom provided extremely positive feedback on the event.

Law and Economics Initiative special lunch talks

- In February 2016 the Law and Economics Initiative hosted a special lunch talk by Associate Professor Betsey Stevenson of the University of Michigan. Associate Professor Stevenson is one of the world's leading labour economists, having been Chief Economist at the US Department of Labour, and recently serving on the Council of Economic Advisers to the President of the United States. Her talk was on the "Five Challenges the Labour Market Faces and Implications for Economic Growth".
- In November 2016 the Law and Economics Initiative in conjunction with the Corporate and Commercial Law cluster of UNSW Law hosted a special lunch talk by Professor Eric Talley of Columbia Law School. Professor Talley presented his analysis of the shareholder activism debate within a theoretical securities-market framework, offering a new theoretical account of

managerial long termism and hedge-fund short termism, and new insights relevant to behavioural corporate governance.

8.2 Visitors

The following is a list of visitors hosted by CAER as part of its commitment to stimulate research activities and foster research students and early career academics:

Visitors hosted by the Economic Measurement Initiative of CAER

Dr Paul Schreyer, OECD, visited UNSW in December 2016.

Professor Prasada Rao, University of Queensland, visited UNSW in December 2016.

Visitors hosted by the Real Estate Initiative of CAER

Associate Professor David Albouy, Department of Economics, University of Illinois, visited UNSW in May 2016

Professor Jan de Haan, Statistics Netherlands and Delft University of Technology, visited UNSW in June 2016

Associate Professor Alicia Rambaldi, School of Economics, the University of Queensland, visited UNSW in September 2016

Professor Chihiro Shimizu, Nihon University, Setagaya Campus, Tokyo, visited UNSW in December 2016

Visitors hosted by the Law and Economics Initiative of CAER

Associate Professor Betsy Stevenson, University of Michigan, visited UNSW in February 2016

Professor Juliano Zaiden Benvindo, University of Brasilia, visited UNSW in August 2016

Sumit Bisarya, Senior Project Manager, Constitution Building - Head of Mission (the Netherlands), International IDEA, visited UNSW in August 2016

Professor Vicki Jackson, Harvard Law School, visited UNSW in August 2016

Purush Purushothaman, Victoria University of Wellington, visited UNSW in August 2016

Professor Ridwanul Hoque, Dhaka University, visited UNSW in August 2016

Dr Robert Akerlof, Department of Economics, University of Warwick, visited UNSW in August 2016

Dr Son Ngoc Bui, Centre for Asian Legal Studies, National University of Singapore, visited UNSW in August 2016

Professor Eric Talley, Columbia Law School, visited UNSW in November 2016

Professor Gillian Lester, Columbia Law School, visited UNSW in November 2016

Associate Professor David Fontana, School of Law, George Washington University, visited UNSW in December 2016

Associate Professor Naomi Schoenbaum, School of Law, George Washington University, visited UNSW in December 2016

Professor David Law, the University of Hong Kong, visited UNSW in December 2016

8.3 Academic, industry and government engagements

Academic engagements

- In 2016 the Economic Measurement Initiative submitted an application for funding within the Australian Research Council Discovery Grant Scheme 2017 for its research project: "Natural Resources and Ecosystem Services in Productivity Measurement". The research project involves collaboration with the Australian National University and the University of Melbourne. The application for funding was approved in November 2016 and the project is planned to commence in 2017. The Australian Bureau of Statistics, the Australian Bureau of Agricultural and Resource Economics and Sciences, and the Australian Productivity Commission also expressed their interest to collaborate and support this research project.

- During 2016 Dr Iqbal Syed visited the University of Amsterdam and Delft University of Technology and held discussions with its academics staff on possible future research collaboration and engagements on various real estate related topics.
- In July 2016 Professor Erwin Diewert organised a well-attended session on “How Best to Measure Hedonic Property Price Indexes” at the Society of Economic Measurement Conference held in Thessaloniki, Greece.
- Reflecting the rising profile of Real Estate as an area of study and research at the UNSW Business School, the following students from Dr Nigel Stapledon’s ECON3130 Real Estate Economics and Public Policy course made a poster presentation at the UNSW Business School’s Student Research Fair (Undergraduate Research Posters session) in September 2016:
 - Amanda Kovacs on “Bursting the bubble: Australia’s Housing Market”
 - Bradley Moody, Andreas Trikoulis and Rupen Akpinar on “The Australian Housing Market: Implications of Government Policy on Housing Prices”
 - Eric Ching Lay, Marker Wang and Jeffrey Shen on “The Australian Housing Market: The Movement Behind Higher House Prices”
 - Tiffany Hiu Yan Cheung, Erica Lu and Kevin Nicholas Jasin on “Factors Influencing Rising Prices of Housing in Australia”
 - Anni Gao and Timothy Nguyen on “Exploring the Housing Price Boom in Australia”
 - Warren Joseph Saldanha, Emily Yeh Wei Tham, Shan Amy Hong and Mervin Geng Hao Yap on “An Investigation into the History of Housing in Australia - Factors Leading to Price Growth”
 - William Martin Ellwood on “Housing in Australia – What is Causing the Sudden Price Hike in Property Markets?”

Amanda Kovacs won the Undergraduate Research Posters - Best Poster award for her poster presentation.

- Dr Nigel Stapledon organised a competition for UNSW student teams in order to select a representative team to compete in the University of Sydney Real Estate Case Competition. In the later competition two Australian teams were to be selected in order to compete in the Cornell University Real Estate Case Competition in New York. Six teams competed for a place in the two heats and the winning team performed creditably in the US competition, which included teams from Melbourne University and University of Queensland.
- Professor Richard Holden participated as a panel member of UNSW Business School’s experts who analysed the 2016 Federal Budget and its implications at an event hosted by Dean Chris Styles: “Budget 2016 - BusinessThink Federal Budget Roundtable” in May 2016 at Sydney’s CBD.

Industry engagements

- In September 2016 Professor Kevin Fox provided expert opinion on the measurement of the digital economy for McKinsey & Company (Sydney branch).
- In November 2016 Professor Kevin Fox provided expert opinion on the analysis of Free Trade Agreements for Ernst & Young.
- As part of the Real Estate Initiative’s Australian Research Council Linkage project (2014-2017) on “The Economic Measurement of Property Markets: Prices, Bubbles, Economic

Growth and Productivity”, the Real Estate Initiative held monthly research meetings during 2016 with the active participation of the Real Estate Initiative research team, the industry partner (RF Capital) researchers and the Real Estate Initiative research affiliates, among whom are representatives from the Reserve Bank of Australia, the Property Council of Australia and JLL. In addition, the Real Estate Initiative made four research presentations at the offices of RF Capital.

- After extensive discussions held in 2014 and 2015, a Memorandum of Understanding (MOU) was signed in January 2016 between the Property Council of Australia and the UNSW Real Estate initiative. The MOU formalised both sides’ commitment to collaborate around research, education, and industry and policy engagement in the field of real estate.
- Professor Kevin Fox and Dr Nigel Stapledon provided contracted expert opinion and produced a report for the Urban Taskforce Research Foundation. The report “Value Capture is Not a Magic Pudding: Options for Funding Infrastructure” was launched at a Breakfast Forum event on the 20th of September 2016 at Clayton Utz. In the report Professor Fox and Dr Stapledon outlined their findings on the current trends of using value capture as a way to fund infrastructure by various levels of local governments. The report found that value capture is not the magic pudding that local governments were hoping for. The report outlined detailed economic analysis of funding options for infrastructure and the relationship between transport infrastructure and land value. The report also looked at case studies in other countries.
- In May 2016 Dr Nigel Stapledon made a presentation to a group of US hedge funds on the Australian property market at Macquarie Securities offices in Sydney CBD. Dr Luci Ellis, head of financial stability at the Reserve Bank of Australia, also presented at this gathering.
- In February 2016 UNSW honours student Mohamad Mourad was appointed as a Market Research Analyst at JLL. The appointment was facilitated thanks to the support of the Real Estate Initiative and its industry engagement activities.
- The Urban Taskforce Australia and CAER’s Real Estate Initiative organized a Morning Tea Seminar/Forum with Associate Professor David Albouy of the University of Illinois on Housing Demand, Cost-of-Living Inequality, and the Affordability Crisis. The event was held on the 26th of May and was hosted by Norton Rose Fulbright at their offices in Sydney’s CBD.
- Dr Nigel Stapledon was an invited guest speaker at an Industry Lunch on the Negative Gearing Debate organized by the Urban Taskforce Australia in June 2016.
- As part of its teaching program the Real Estate Initiative hosted Bryan Reid (MSCI) as a guest lecture in Professor Kevin Fox’s ECON4309/6309 Economic Measurement course in the second semester 2016. In his lecture Bryan discussed the methodologies employed by MSCI in producing real estate related regional and global indexes, benchmarks, performance modelling, data metrics and risk analytics.
- As part of its teaching program the Real Estate Initiative hosted Theo Onisforou of Angus Property as a guest lecture in Dr Nigel Stapledon’s ECON3130 Real Estate Economics and Public Policy course in the second semester 2016. Theo Onisforou is a highly successful property developer and also former chief investment manager for Consolidated Press Holdings. In his lecture Theo explained how the real estate market works in Sydney from a developer’s perspective and illustrated this with a number of case studies.

- During 2016 Professor Kevin Fox held discussions with Alastair Nash, real estate associate of Blackstone, on possible future collaborations between Blackstone and the Real Estate Initiative.
- In 2016 Associate Professor Glenn Otto was a member of the judging panel for the Australian Real Estate Business Awards. The Australian Real Estate Business Awards are provided by Sterling Publishing and cover three categories: innovator of the year, boutique network of the year and major network of the year. In the selection process real estate agencies submit applications addressing the criteria for a particular award and these are reviewed by the judging panel. Then the CEOs or managing directors of the real estate agencies are interviewed by the judging panel before the winners are selected.

Government engagements

- In 2016 Professor Kevin Fox provided contracted expert opinion on R&D spill-overs for the Department of Education and Training.
- In 2016 Professor Kevin Fox provided expert opinion (contribution) to the White Paper on Environment-adjusted TFP Measure prepared by the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) for the Fifth Meeting of the G20 Agricultural Chief Scientists (MACS) held in China in May 2016.
- During 2016 Professor Kevin Fox was a voluntary member of the Department of Communications and the Arts' Digital Productivity Reference Group. The Reference Group provided informal views and advice on measuring and understanding the contribution of the economy's digital platform to national, sectoral and enterprise-level productivity growth. Professor Fox has also provided peer review on the department's report that followed.
- During 2016 Professor Kevin Fox provided feedback and advice to the the Australian Bureau of Statistics on "Making Greater Use of Transactions Data to compile the CPI".
- During 2016 Professor Kevin Fox was a member of the Australian Bureau of Statistics Methodology Advisory Committee and of the Australian Bureau of Statistics Productivity Measurement Reference Group.
- During 2016 Professor Kevin Fox was a member of the Committee for Economic Development of Australia (CEDA) Advisory Group and provided expert advice on their research report on improving the productivity of services.
- In February 2016 Professor Kevin Fox met with Ian Ewing (Program Manager, National Accounts Branch, Group Strategies and Governance Unit, Statistical Services Group) and Kathrine Keenan (Director, Productivity Analysis) of the Australian Bureau of Statistics to provide expert advice on their productivity research agenda.
- In March 2016 Professor Kevin Fox was invited to visit the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES, Canberra) and present his work on "Natural Resources and Ecosystem Services in Productivity Measurement".

- In June 2016 Professor Kevin Fox met with Luiz de Mello, Deputy Director for Public Governance and Territorial Development of the OECD, to discuss Professor Fox's work on productivity in the public sector.
- In July 2016 Professor Kevin Fox visited the U.S. Bureau of Economic Analysis and presented his work on "Decomposing Value Added Growth over Sectors into Explanatory Factors".
- In September 2016 Professor Kevin Fox met with Lisa Wardlaw-Kelly (Program Manager for environment and agriculture statistics programs) and Mark Lound (Director Environmental Statistics Section) of the Australian Bureau of Statistics to provide expert advice on the development of the environmental accounts program, especially around ecosystem accounts and SEEA agriculture.
- As part of its teaching program the Economic Measurement Initiative hosted Josef Manalo (Department of the Prime Minister and Cabinet) as a guest lecture in Professor Kevin Fox's ECON4309/6309 Economic Measurement course in the second semester 2016. During the lecture Josef made a presentation on "Economic Measurement for Policymakers". The presentation covered the following topics: (i) inflation measurement and analysis, (ii) wage price growth and the determination of public sector wages, and (iii) why the "Digital Economy" should matter for policy makers. The presentation and the discussion that followed emphasised the importance of good economic measurement in informing real world policy decisions, highlighting the practical importance of the material taught in the course.
- In November 2016 Professor Kevin Fox visited the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES, Canberra) and provided expert opinion on environmental and ecosystem services accounting. He also explored and discussed possibilities for future research collaborations.
- During 2016 Dr Chris Gibbs provided expert advice and assistance to the Reserve Bank of Australia on the inclusion of housing in their Dynamic Stochastic General Equilibrium modeling of the Australian economy.
- During 2016 Professor Kevin Fox provided expert advice to the Australian Bureau of Statistics on the measurement of land estimates thus leading to their further work on improving these estimates.

8.4 Media engagement

The following is a list of media engagement undertaken by CAER members in order to raise the profile of CAER and UNSW in the broader community:

On-going

- **Professor Richard Holden**, weekly commentator on Peter van Onselen's PVO NewsDay on SkyNews Australia.
- **Professor Richard Holden**, monthly op-ed writer for the Australian Financial Review.

- **Professor Richard Holden**, weekly columnist for the Conversation. The weekly column called “Vital Signs” aims to contextualise weekly economic events and cut through the noise of the data impacting global economies.

January 2016

- **Dr Nigel Stapledon** was interviewed by ABC Radio National on whether Australia was in a property bubble.
- **Dr Nigel Stapledon** was quoted in many international newspapers with his analysis of the Australian property market, including USA Today and the Straits Times. The Sydney Morning Herald followed this up with an interview on Nigel’s forecasts for house prices in 2016.
- **Professor Rosalind Dixon** wrote an opinion piece on “How to fix Latin America’s ‘strongman’ problem”, The New York Times.
- **Professor Richard Holden** wrote an opinion piece on “Whether Malcolm Turnbull can take the middle ground”, The Australian Financial Review. He followed this up with an opinion piece on “Plans to boost growth and development across northern Australia”, The Australian.
- **Professor Richard Holden** wrote an article on “A Community of Believers”, The Australian.

February 2016

- **Dr Nigel Stapleton** was quoted in the Sydney Morning Herald on why Sydney apartments are tipped to outperform houses in 2016.
- **Dr Nigel Stapleton** was quoted in New Matilda on the myth of housing as a safe haven for investors.
- **Professor Rosalind Dixon** wrote an opinion piece on “Replacing Justice Scalia: Lessons for Australia?”, The Australian Financial Review.
- **Professor Richard Holden** wrote an article on “Negative gearing blunts the magic of the market in housing”, the Australian Financial Review. Professor Holden’s analysis of Labour’s new negative gearing policy was also quoted in the Sydney Morning Herald and many other papers, and was featured on Sky News.

March 2016

- **Dr Nigel Stapledon** discussed the consequences of capital gains and negative gearing changes in a media release issued by the Real Estate Initiative.
- **Professor Richard Holden** wrote an article on “Tax breaks, and myths for rent”, the Australian Financial Review.

April 2016

- **Professor Richard Holden** wrote an article on “Goldilocks and the economics of election campaigns”, The Conversation.
- **Professor Richard Holden** wrote an article on “State governments are lazy monopolies looking for a quiet life”, the Australian Financial Review.

- **Professor Richard Holden** wrote an article on “Here are five revealing things to look for in the May 3 budget”, the Australian Financial Review.

May 2016

- **Professor Kevin Fox** was quoted in a media release issued by the UNSW Business School following his appointment as an advisor to the Australian Treasury. The media release acknowledged the relevance and impact of Professor Fox’s research and the importance of this appointment.
- The Economic Measurement Initiative issued a media news following **Professor Kevin Fox’s** video interview with the School of Economics Lecturer Judith Watson. The video interview was held as part of a Teaching and Learning Enhancement Project being carried out by Dr Alice Shiu of Hong Kong Polytechnic University in collaboration with Judith Watson with the aim to enhance students’ learning and understanding of quantitative methods in real world situations. The media release covered the topics that were discussed in the interview and included a link to the full video interview.
- **Dr Nigel Stapledon** wrote an article on “Labour’s tax plan will hit tenants where it hurts”, the Australian Financial Review.
- **Dr Nigel Stapledon** discussed some of the consequences of the proposed changes to negative gearing in a media release issued by the Real Estate Initiative.
- **Professor Richard Holden** wrote an article on “Scott Morrison’s growth fantasy needs a dose of venture capital discipline”, The Conversation.
- **Professor Richard Holden** wrote an article on “Budget timing tricks do nothing to help small business, or the economy”, The Conversation.

June 2016

- **Dr Nigel Stapledon** wrote an article on “Why Rents Will Rise under Labor’s Negative Gearing Proposal”, The Conversation.
- **Professor Richard Holden** was interviewed by the Conversation on the economic impact of Brexit. The interview covered a range of topics from volatility to trade agreements to the forthcoming election.
- **Professor Richard Holden** wrote an article on “Election FactCheck: has \$100 billion been added to Australia’s national debt under the current government?”, The Conversation.
- **Professor Richard Holden** wrote an article on “Is small business really the engine room of Australia’s economy?”, The Conversation.
- **Professor Richard Holden** wrote an article on “Targeted cash can lift schools”, The Australian.
- **Professor Richard Holden** wrote an article on “Britain will be OK--for the time being”, the Australian Financial Review.

August 2016

- **Professor Rosalind Dixon** wrote an opinion piece on “Legal 'outsiders' rather than 'insiders' to head Royal Commission”, The Financial Review.
- **Professor Richard Holden** wrote an article on “The RBA's outdated exchange rate manipulation play”, the Australian Financial Review.
- **Professor Richard Holden** wrote an article on “Market should set uni numbers”, The Australian.
- **Professor Richard Holden** wrote an article on “RBA inflation goal fine for now”, the Australian Financial Review.

September 2016

- **Professor Kevin Fox** was quoted in a media release issued by the Real Estate Initiative ahead of the UNSW Business School second annual Real Estate Symposium. The media release also covered the topics that were going to be discussed at the event and its key speakers.
- The UNSW Business School second annual Real Estate Symposium organized by CAER in September 2016 was covered in a TV report on Channel 9 News.
- **Professor Kevin Fox** was quoted in a UNSW Business School's media news issued by the Real Estate Initiative following the UNSW Business School second annual Real Estate Symposium. The media news covered the main findings presented at the Symposium.
- **Professor Kevin Fox** and **Dr Nigel Stapledon** produced a report for the Urban Taskforce Research Foundation which was launched at a Breakfast Forum event on the 20th of September 2016 at Clayton Utz. The report “Value Capture is Not a Magic Pudding: Options for Funding Infrastructure” and the event were covered by leading media outlets such as the Australian Financial Review and the Sydney Morning Herald. **Professor Kevin Fox** was also quoted in a media release issued by the Real Estate Initiative the day after the event detailing the main findings of the report.
- **Professor Rosalind Dixon** wrote an opinion piece on “Compromising on Imperial Succession Reform”, The Japan Times.

October 2016

- **Professor Richard Holden** wrote an article on “The men who designed your bonus win a Nobel”, the Australian Financial Review.
- **Professor Richard Holden** wrote an article on “The Centrist Clintonomics 2.0”, the Australian Financial Review.

November 2016

- **Professor Richard Holden** wrote an article on “Free trade, free movement of labour help Australia more than most”, the Australian Financial Review.

December 2016

- **Professor Kevin Fox** was quoted in a media release issued by the Economic Measurement Initiative following the sixteenth annual EMG workshop. The media release covered the topics that were discussed at the event and the contribution of the EMG workshop over the years to government engagement and improvement of implemented policies.

9. Details of research supervision and teaching activities carried out by CAER members on behalf of academic units

9.1 Research supervision

Postgraduate research supervision activities within CAER are coordinated with the relevant Schools/Faculties (mainly the School of Economics and UNSW Business School), in accordance with the relevant UNSW policies, procedures and delegations. The following is a list of research supervision carried out by CAER members in 2016 as part of their initiative activities. CAER members are marked in bold.

PhD Supervision

Supervisor: **Rosalind Dixon**

Bhatara Ibnu Reza: *The Development of the Militia as the Implementation of the Total People's Defense and Security in Indonesia*
In progress

Supervisor: **Rosalind Dixon**

Doron Goldbarsht: *Counter-Terrorist Financing: A Study in Effectiveness and the Rule of Law in Global Administrative Law*
In progress

Supervisors: **Richard Holden** and Sarah Walker (School of Economics, UNSW)

Muse Gadisa Demie: *Essays on the Political Economy of Long-Run Economic Growth in Africa: the Nature of Colonial Institutions and Colonial Legacies*
In progress

Supervisors: Ben Greiner (The Vienna University of Economics and Business) and **Richard Holden**

Johannes Hoelzemann: *Market Design and Experimental Economics*
In progress

Supervisor: **Kevin Fox**

Zoran Peroski: *Assessing Welfare from the Regulation of Two-Way Interconnection via a Differentiated Bertrand Model of Competition: An Australian Perspective*
Conferred: 2016

Honours Supervision

Supervisors: **Kevin Fox** and **Glenn Otto**

Aaryn Lally: *Prices and the User Cost of Residential Housing in the Netherlands*
School of Economics, UNSW

Supervisors: **Richard Holden**, James Morley (School of Economics, UNSW) and Mariano Mulish (School of Economics, UNSW)

Calvin He: *Sovereign Default Risk and the Fiscal Spending Multiplier*
School of Economics, UNSW

9.2 Teaching activities

Economic Measurement Initiative

- In 2016 Professor Kevin Fox delivered a short training course on: “An Introduction to the Theory of Economic Measurement” to staff at the Australian Bureau of Statistics and the Australian Treasury, Canberra.
- In April 2016 School of Economics Lecturer Judith Watson has spoken to Professor Kevin Fox about quantitative methods, CAER’s three main areas of research (Real Estate, Law and Economics and Economic Measurement), and the Centre’s role in informing public policy. The video interview was held as part of a Teaching and Learning Enhancement Project being carried out by Dr Alice Shiu of Hong Kong Polytechnic University in collaboration with Judith Watson with the aim to enhance students’ learning and understanding of quantitative methods in real world situations. In the interview Professor Kevin Fox also discussed the importance of high quality data in producing better information for policy and business decisions. Dr Alice Shiu is a former PhD student of Professor Fox and this collaboration was part of the School of Economics’ and CAER’s commitment to the UNSW Business School’s 2020 strategies for an outstanding career-focused student learning experience and encouraging sustainable two-way engagement within Asia.

Real Estate Initiative

- In 2016 seven students have completed the real estate studies major, which is a great achievement for the Real Estate Initiative since the establishment of the major in 2014. The real estate major continued to see an increase in students’ enrolments. In particular, enrolments for the “Real Estate Economics and Public Policy” course increased from 75 to 90 (relative to 2015) and seventeen current students chose the real estate major as their specialized major. Dr Nigel Stapledon and Dr Maggie Hu, both members of the Real Estate Initiative, delivered two of the courses offered as part of the major. Dr Maggie Hu taught the “Real Estate Finance” course which was delivered to both undergraduate and postgraduate students in the first semester of 2016; and Dr Nigel Stapledon taught the “Real Estate Economics and Public Policy” course which was delivered to both undergraduate and postgraduate students in the second semester of 2016. The delivery of the two courses was coordinated with the UNSW Business School in accordance with the relevant UNSW policies and procedures.

10. Details of significant managerial or personnel changes during 2016

Several managerial and personnel changes took place in 2016:

- Dr Nigel Stapledon's appointment as Andrew Roberts Fellow in Real Estate within CAER ceased in late July 2016. Since then Dr Stapledon continued his association with CAER on a voluntary basis and the Director is in the process of officially appointing him as a visiting Real Estate Research Fellow within CAER (a non-remunerated position).
- In October 2016 Associate Professor Peter Kriesler ceased his role as CAER's Deputy Director and Associate Professor Mariano Kulish was appointed in his place.
- In late 2016 Dr Maggie Hu ceased her association with the Real Estate Initiative as she has taken a position at the Chinese University of Hong Kong.

CAER would like to thank Peter Kriesler, Nigel Stapledon and Maggie Hu for their great contribution to the Centre's activities and to wish them well in their future endeavors.

11. A record of dates and attendance at meetings of CAER's Steering Committee

Date	Attendance	Apologies
23/11/2016	Prof Elizabeth Carson (chair), Prof Kevin Fox, Prof Jerry Parwada, A/Prof Mariano Kulish, Carmit Schwartz (minutes)	Fei Wong and Tim Harcourt