Centre for Applied Economic Research (CAER)

Annual Report 018





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Entity	Nature of interaction
Outside UNSW - Cont.	
Statistics Netherlands	On-going engagement with the Economic Measurement 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

Professor Richard Holden, School of Economics, UNSW (from June 2018)

Steering Committee

Professor Elizabeth Carson (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 Maree Magafas (School Manager, School of Taxation and Business Law)

1.4 CAER's research initiatives and their members in 2018

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 2018. The research agenda of each initiative is described in section 2 of this report.

Economic Measurement Initiative 2018

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

Herbert Smith Freehills Initiative on Law and Economics 201 8

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

Professor Rosalind Dixon, Initiative Deputy Director - UNSW Law

Real Estate Initiative 2018

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

Dr Nigel Stapledon - Real Estate Research Fellow, CAER

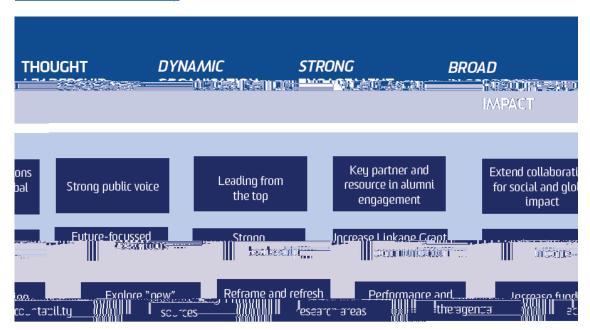
1.5 CAER's administrative staff in 2018

Kala Miranda continued to be employed as a full-time administrator of CAER in 2018. She was hired to assist CAER's Director in the administration of the Centre and in coordinating the research activities of CAER's initiatives. Her position was funded by CAER.

Carmit Schwartz re-joined CAER as a part-time Senior Research Officer, commencing in mid-July 2018. Carmit was hired to provide research assistance to CAER's Director as well as help manage relationships between ABS, Department of Industry, Innovation and Science and the ATO, in one of the emerging research projects around Business Longitudinal Analytical Data Environment (BLADE).

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

1.6 CAER's mission and history





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.

Productivity". This project is part of an Australian Research Council Linkage Grant which involves collaboration between the Real Estate Initiative Group and property investor RF Capital together with its associate property fund manager and investor CorVal Partners Limited.

- In 2018 CAER supported domestic and international collaborations and stimulated its research activities by hosting seven 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 2018 Professor Kevin Fox delivered a course on Economic Measurement as part of the Economic Measurement Initiative. Dr Nigel Stapledon member of the Real Estate Initiative, delivered a course offered as part of the UNSW Business School's Real Estate major. Professor Rosalind Dixon member of the Law and Economics Initiative delivered a course on Economic analysis of the Law.

<u>Support and facilitate research training and career opportunities for outstanding Australian and international students and researchers.</u>

During 2018 CAER members have supervised 13 PhD students.

Many junior academic and government researchers participated in the Economic Measurement Group Workshop.

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

CAER's commitment to building and enhancing UNSW research capacity and outcomes is shown by the following activities undertaken in 2018:

Visitors

In 2018 CAER supported domestic and international collaboration by hosting eight 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.

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Academic engagements

- In October 2018, Kevin Fox, invited speaker, Seminar Series, Department of Economics, Queensland University of Technology, 4 October 2018, Queensland.
- In May 2018, Kevin Fox, invited speaker, Grand Challenge Meetup, UNSW Sydney, 15 March
- In March 2018, Kevin Fox, invited speaker, Seminar Series, Deakin University, Melbourne, Victoria.
- In January 2018, Kevin Fox, Invited Speaker: Productivity and Innovation Workshop, Productivity Research Network, Asian Development Bank Institute, 11-12 January 2018, Tokyo.
- In November 2018 Professors Rosalind Dixon and Richard Holden were panelist at the Festival of Dangerous Ideas.
- Professor Ricard Holden participated as a panel member of UNSW Business School's experts who analysed the 2018 Federal Budget and its implications, "BusinessThink Federal Budget Roundtable 2018" in May 2018 at Sydney's CBD.

Industry engagements

- As part of its teaching program, the Real Estate Initiative hosted Bryan Reid (Vice President, Research, MSCI), as a quest lecturer in Professor Kevin Fox's ECON4309/6309 Economic Measurement course in the second semester 2018. 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.
- In 2018 Dr Nigel Stapledon continued his appointment as Chief Advisor at MacroPlan-Dimasi, a firm located at Sydney's CBD and provides a range of property related services, such as research, economics, planning, spatial analysis and advisory, critical to the formulation of successful development projects.

Government engagements

- In 2018 Professor Kevin Fox was an Advisor to the Australian Treasury.
- In 2018 Professor Kevin Fox advised the Australian Bureau of Statistics on land price measurement.
- In 2018 Professor Kevin Fox was a member of the Australian Bureau of Statistics Methodology Advisory Committee, the Australian Bureau of Statistics Productivity Measurement Reference Group, and the Australian Bureau of Statistics Input-Output User s-13. Group. Int,13.2 (es)-8 (s)-8 (or)-63 (I461s)-yoducu1 8T4 1 T (20he916

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- In 2018 Professor Kevin Fox met with the Innovation and Metrics Review Taskforce,
 Department of Industry, Innovation and Science to provide advice in relation to innovation
 metrics and the data underpinning them as part of the "Innovation and Science Australia 2030
 Plan".
- On 1 March 2018, Professor Kevin Fox was invited to discuss on Diewert and Fox method of smoothing the user cost at the Australian Bureau of Statistics.
- On 17 April 2018, Professor Kevin Fox was invited to discuss on monthly CPI at the Australian Bureau of Statistics.
- In 2018, Professor Kevin Fox met on multiple occasions with the Department of Agriculture and Water Resources to provide advice on research relating to land valuation.

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

In 2018 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 2018 members of CAER edited four books, published two book chapters and twelve articles in highly regarded international refereed journals.

Conferences, workshops and special events

In 2018 CAER organized the EMG Workshop. The EMG workshop is 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 2018 further contributed to its community impact. In particular,

- In 2018 Professor Kevin Fox was invited to be a member of the editorial board of The Review of Income and Wealth (2019-2021 term).
- In 2018 Professor Kevin Fox was elected as President-Elect and Treasurer of the International Association for Research in Income and Wealth (IARIW), (2018-2020 term).
- In 2018, Professor Kevin Fox was elected as Chair, Panel B of 8 -1.157 Td0.002 Tc Tc 0 en F elected as

- Professor Kevin Fox, Invited Speaker, The Sixth IMF Statistical Forum, Washington DC, 19-20 November 2018.
- Professor Kevin Fox, Invited Speaker, OECD Global Forum on Productivity, Ottawa, 28-29
 June 2018.
- Professor Kevin Fox, Invited Speaker, ESCoE Conference on Economic Measurement, London, Bank of England, 16-17 May 2018.
- Professors Rosalind Dixon and Richard Holden were panelist at the Festival of Dangerous Ideas.
- Professor Ricard Holdterspartialipated en 6at paletynotes y be 3 g6 T8 y b) // (2008 4 g6 G5 T8



5. Details of research grants and projects associated with CAER during 2018

The following is a list of research grants and projects held by CAER's research initiatives in 2018 as part of their activities¹. CAER members are marked in bold.

- 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.
- Australian Research Council Discovery Grant, 2017-2019, "Natural Resources and Ecosystem Services in Productivity Measurement", \$320,000, investigators: K.J. Fox, R.Q. Grafton, C. Obst and W.E. Diewert. This project aims to significantly advance the understanding of sources of productivity growth through addressing theoretical and practical problems in the economics of natural resources and ecosystem services. A key issue is the valuation of non-renewable resources and ecosystem services, acknowledging their contributions to economic activity and the impact on national income from their depletion and degradation. This then leads to new approaches to incorporating natural resource depletion and degradation into productivity analysis. Theory and practice for aggregate, regional and industry level analysis will be developed with the goal of better informing environmental, innovation and industry policy. 4

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6. Statement of in -kind contributions, cash contributions, infrastructure and other resources provided to CAER during 2018

6.1 <u>In-kind contributions</u>

Estimated value of CAER members contribution to CAER's activities -by research initiatives²

CAER member	Type of Activity	Value of Contribution
Professor Kevin Fox	Economic Measurement	64,022
Professor Erwin Diewert	Initiative activities	
Associate Professor Glenn Otto		
Professor Richard Holden	Law and Economics	56,008
	Initiative activities	

7.	Details of publications, professional associated with CAER during 2018.	engagements	and	scholarly	achievements
	associated with CAER during 2018.				

Richard Holden, "The Role of Bounded Rationality and Imperfect Information in Subgame Perfect Implementation--An Empirical Investigation" (with Philippe Aghion, Ernst Fehr and Tom Wilkening), Journal of the European Economic Association, 16(1), 2018, 232–274.

Richard Holden, "When to Drop a Bombshell" (with Gabriele Gratton and Anton Kolotilin). Review of Economic Studies, 85(4), 2018., 2139-2172. [Online Appendix A], [Online Appendix B]

Richard Holden, "Gaming and Strategic Opacity in Incentive Provision" (with Florian Ederer and Margaret Meyer), RAND Journal of Economics, 49(4), 2018, 819-854.

Rosalind Dixon, "Proportionality & Comparative Constitutional Practice", *Law & Ethics of Human Rights* (2018).

Rosalind Dixon, "The Forms and Limits of Constitutions as Political Insurance", 1`5(4) *International Journal of Constitutional Law* (2018) (with Tom Ginsburg) [reprinted in Comparative Judicial Review].

Rosalind Dixon, "Tiered Constitutional Design", GW Law Review (2018) (with David Landau).

Rosalind Dixon, "Detaining Non-Citizens: Political Competition & Weak v Strong Judicial Review", *Virginia Journal of International Law* (2018) (symposium on the 'External Dimensions to Constitutions) (with Brigid McManus).

Other Research Output

W.E. Diewert; Fox KJ, 2018, "Substitution Bias in Multilateral Methods for CPI Construction Using Scanner Data," UNSW Business School Research Paper No. 2018-13.

Diewert, WE; Fox KJ, Schreyer P, 2018, "The Digital Economy, New Products and Consumer Welfare", ESCoE Discussion Paper 18-16.

Richard Holden , Alex Rosenberg and Rosalind Dixon , "Social Return Accounting: Using social science to calculate rates of return for government expenditures".

Richard Holden and Jesse Zhang, "The Economic Impact of Improving Regional, Rural & Remote Education in Australia".

Richard Holden and Rosalind Dixon, "A Climate Dividend for Australians".

Richard Holden and Rosalind Dixon , "Levelling the Playing Field: The Economic Case for Reforming Negative Gearing".

7.2 <u>Professional engagements and scholarly achievements of CAER members</u>

The following is a list of professional engagements and scholarly achievements attained by CAER members in 2018 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 of the Journal of Law and Economics.
- Rosalind Dixon, editor of a Hart Publishing series on Comparative Constitutional Law.

Professional memberships: None in 2018.

Invited speaker/discussant/chair/participant

- Kevin Fox, Invited Discussant: Reserve Bank of Australia Quantitative Macroeconomics Workshop, Sydney, 13-14 December 2018.
- Kevin Fox , Invited Speaker,

• Rosalind Dixon, Invited Speaker, ICON-S (Hong Kong), 25-27 June 2018.

Members/fellows of committees/organizations

Scholarly achievements

- In 2018 Professor Kevin Fox was an Advisor to the Australian Treasury.
- In 2018 Professor Richard Holden was appointed to the executive committee of the Academy of Social Sciences in Australia and Chair of the Public Forums & Communications Committee.

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 2018 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 2018

The Economic Measurement Initiative of CAER hosted its eighteenth annual international workshop on the 29th & 30th November 2018 at UNSW main campus. The aim of the ih.001 Tw T-8 (hops)-8.1 (a)-

8.3 Academic, industry and government engagements

Academic engagements

- In October 2018, Kevin Fox, invited speaker, seminar Series, Department of Economics, Queensland University of Technology, 4 October 2018, Queensland.
- In March 2018, Kevin Fox, invited speaker, Seminar Series, Deakin University, Melbourne, Victoria.
- In May 2018, Kevin Fox, invited speaker, Grand Challenge Meetup, UNSW Sydney, 15 March 2018
- In January 2018, Kevin Fox, Invited Speaker: Productivity and Innovation Workshop, Productivity Research Network, Asian Development Bank Institute, 11-12 January 2018, Tokyo.
- Professors Rosalind Dixon and

Professor Richard Holden wrote an article	on "Welcome to castiree Australia, the

May 2018

Professor Richard Holden wrote an article on "Vital Signs: fallout from banking crackdown could be worse than interest rate risesThe Conversation.

Professor Richard Holden wrote an article on "Obsession with shortterm buries the bad and even the good the Australian Financial Review.

Professor Richard Holden wrote a n article "Morrison's budget tax plan is another missed opportunity," The Conversation.

Professor Richard Holden wrote an article on "Government timing tricks hide the real budget story," The Conversation.

Professor Richard Holden wrote an article on "Vital Signs: how inflation in China and the US could affect Australia,"The Conversation.

Professor Richard Holden wrote an article on "Qultaly is now a real possibility with new Italian Coalition government,the Australian Financial Review.

June 2018

Professor Richard Holden wrote an article on "Vital Signs: Italy is broke, and the markets have lost all faith in its elected politicians, The Conversation.

Professor Richard Holden wrote an article on "Vital Signs: poor wage growth means interest rates could be low for a long time, The Congresation."

Professor Richard Holden wrote an article on "Partially right: rejecting neoliberalism shouldn't mean giving up on social liberalism, "e Conversation."

Professor Richard Holden wrote an article on "Technology is the key to unlocking wages growth," the Australian Financial Review.

July 2018

Professor Richard Holden wrote an article on "Vital Si and it's not all rosy, The Conversation."

"Vital Signs: booming jobs numbers, but dig deeper

Professor Richard Holden wrote an article on the RBA go next? The Conversation.

"Vital Signs: inflation misses again, so where does

August 2018

Professor Richard Holden wrote an article on to stay," The Conversation.

"Vital Signs: the stellar US GDP figures aren't here

Professor Richard Holden wrote an article on RBA says, 'time will tell'," The Conversation.

"Vital Signs: is the economy getting stronger? The

Professor Richard Holden wrote an article on Australian Financial Review.

"Political Correctness, Profit and Loss," the

Professor Richard Holden wrote an article on "Fresh thinking: the carbon tax that would leave householdsbetter off," The Conversation.

Professor Richard Holden wrote an article on "There is a third way out of the climate and energy policy knot,"the Australian Financial Review.

Professor Richard Holden wrote an article on "Vital Signs: why now is threight time to clamp down on negative gearing," he Conversation.

December 2018

Professor Richard Holden wrote an article on "Vital Signs: 35 extraordinary years. What the float of Australian dollar bought us," The Conversation.

Professor Richard Holden wrote an article on "Vital Signs: No, Joe, America should not be copying Australia's 'asset recycling' misdirection," The Conversation.

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 2018 as part of their initiative activities. CAER members are marked in bold.

Honours Supervision
 Name(s) of supervisor(s)
 Student's name
 Thesis title
 Student's school/faculty/university

(2) PhD Supervision

Name(s) of supervisor(s) Student's name Thesis title Date submitted – if applicable Date conferred – if applicable

PhD Supervision
Supervisor: Kevin Fox

Adam Gorajek: Crossing Econometrics and Measurement

In progress

Supervisor: Kevin Fox

Shipei Zeng: Topics in Measurement Economics

In progress

Supervisor: Kevin Fox

Miguel Lorca: Retirement savings a (I)3.1 o12.3 (i7 <</MCID 48 >>BDC /TT2 1 Tf -0.002 Tc 0.001 Tw -10.157 -1.1

Supervisor: Rosalind Dixon

Shreeya Smith UNSW Law School.

Supervisor: Rosalind Dixon

Jemima Roberts UNSW Law School

Supervisor: Rosalind Dixon

Khanh Hoang UNSW Law School

Supervisor: Rosalind Dixon

Elizabeth Perham UNSW Law School

Supervisor: Rosalind Dixon

Doron Doldbarsht UNSW Law School

9.2 Teaching activities

Real Estate Initiative

Forty one 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 has increased to 92 in 2019, and twelve current
students chose the real estate major as their specialized major.

Dr Nigel Stapledon, member of the Real Estate Initiative taught the "Real Estate Economics and Public Policy" course which was delivered to both undergraduate and postgraduate

- As part of CAER's strategic planning, the succession plan for the leadership of CAER was completed with the appointment Mariano Kulish in 2018. However, due to the departure of Professor Kullish from UNSW, CAER's Director in consultation with Chair of the Steering Committee, Professor Elizabeth Carson, appointed Professor Richard Holden as the Deputy Director of CAER, commencing in June 2018.
- 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).
- Ms. Maree Magafas (School Manager, School of Taxation and Business Law) accepted the invitation to be a member of the CAER's steering committee.

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

Date	Attendance	Apologies
14/06/18	Professor Liz Carson (chair), Professor Kevin Fox, Ms Maree Magafas Professor Richard Holden and Kala Miranda (minutes).	Professor Jerry Parwada, Professor Tim Harcourt
30/08/18	Professor Liz Carson (chair), Professor Kevin Fox, Ms Maree Magafas Professor Richard Holden and Kala Miranda (minutes).	Professor JeProfessor