ANU College of Business and Economics

2021 Research Overview

Australian National University
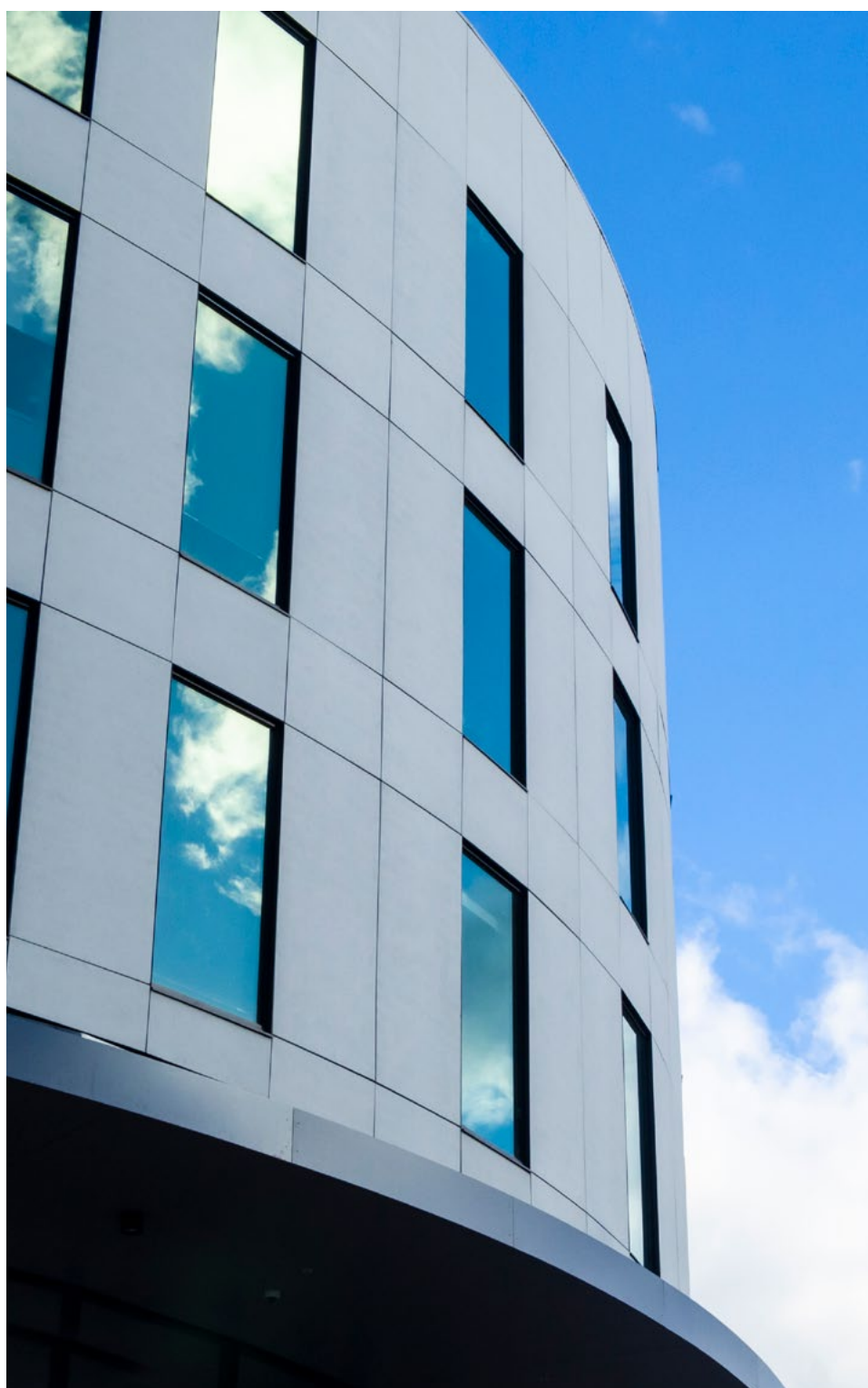
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Image (L-R): Associate Professor Emma Schultz, Associate Dean (Research) and Professor Steven Roberts, Dean

Welcome

Welcome to the annual ANU College of Business and Economics (CBE) Research Overview.

The pandemic meant that, as in 2020, CBE academics spent much of 2021 working remotely. Despite the significant interruptions this posed, our academics enjoyed a range of impressive research outcomes during the year. A fraction of these achievements are showcased in the 2021 Research Overview, along with profiles of some of CBE's impressive new hires and research student alumni.

With public health measures now relaxed, and borders reopened, we are not only enjoying being back on campus, but are ready to welcome you to the College. So, please reach out the next time you will be in the area: we would love to discuss how we can work together and find research-based solutions to the challenges you face.

Professor Steven Roberts, Dean
Associate Professor Emma Schultz, Associate Dean (Research)

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New Australian Research Council projects

CBE academics are Chief Investigators on two newly funded Australian Research Council projects.

Professor Antje Berndt

Discovery Project – The impact of COVID-19 economic stimulus measures on corporate stakeholders

Australia's economic response to COVID-19 saw cash injections to companies and bailouts of some insolvent firms. Antje and her project collaborator, Professor Darrell Duffie from Stanford University, will quantify the market value of these government subsidies and how it was shared across corporate stakeholders. Their work will also contribute to the design of financial stability regimes by developing a world-first dynamic structural model of firm assets that allows for government interventions both prior to and at default. Expected outcomes should provide significant benefits to taxpayers and include a novel public dataset that tracks expected future subsidies and how they are shared by stakeholders, together with crucial cost-benefit analysis tools aimed at assessing, and enhancing public trust in, the effectiveness of emergency economic-relief measures.
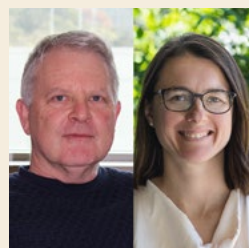
Professor Andrew Wood and Associate Professor Janice Scealy

Discovery Project – Novel statistical methods for data with non-Euclidean geometric structure

Andrew and Janice will develop new statistical methods for data with non-Euclidean geometric structure – that is, data with complex, nonlinear structure. Using advanced mathematical and statistical techniques, they will develop methods and software that will be practically useful for a wide range of non-Euclidean data types arising in many fields of science, health, business and technology. The expected outcomes will benefit a broad range of applications, including finance (predicting Australian stock returns), geochemistry (analysing Australian sediment data) and health (modelling of electroencephalography data, with improvement in the diagnosis of epilepsy; and algorithms for the classification of X-ray tumour image data). Practical benefits in these fields are expected to be enormous.

Ongoing Australian Research Council projects

14 CBE academics were Chief Investigators on 17 active research projects funded through four different Australian Research Council schemes.

Associate Professor Chung Tran

Discovery Project – Lifetime approach to measuring inequality in living standards in Australia

Chung is working to develop a new methodology to study trends in inequality in Australia. He expects to advance the body of knowledge by measuring inequality in living standards over the whole lifetime and by identifying the role of the Australian fiscal system in redistributing lifetime resources across households and generations. This new approach will help clarify the potential bias embedded in commonly used inequality indicators based on current-year income. Chung's findings will not only provide new insights into how the gains from economic growth have been shared among Australians, but should offer policy options for designing a better tax and transfer system so as to sustain economic prosperity and fairness in Australia.

Associate Professor Timothy Kam

Discovery Project – Banking system competition and the macro-economy

Australia has one of the most concentrated banking sectors in the world – this raises policy concerns. Tim and an international team of investigators are studying the causes and consequences of market power in banking. They expect to provide new empirical evidence and policy-relevant causal modelling that highlight informational and microfounded frictions in banking access and service. Their novel methods are expected to help in identifying new factors that determine what might be socially-tolerable aspects of banking-sector market power and how that intertwines with macroeconomic outcomes. They also expect to provide understanding on why seemingly identical individuals and businesses may face different loan or deposit rates. Their project will enhance policy design that impacts on the health of the Australian banking system and on economic well-being and inequality.

Other externally funded research projects

CBE academics partner with industry and government to address pressing societal issues.

Image (L-R): Dr David Cheng, Professor Sarbari Bordia and Associate Professor Alex Eapen

Associate Professor Alex Eapen, Dr David Cheng and Professor Sarbari Bordia

#### Deliberately differentiated package research program

Through this program with the Commonwealth Department of Defence, Alex, David and Sarbari are working to identify factors responsible for recruitment and retention challenges in critical workgroups within the Australian Defence Force (ADF). The findings of this research will then be used to propose evidence-based strategic initiatives that remediate recruitment and retention challenges within those workgroups. The research program also aims to identify and address systemic factors that could be present and treated at the enterprise level across the entire Defence workforce.

Associate Professor Robert Clark

Prawn sampling review

About 800 consignments or batches of uncooked prawns are imported to Australia annually. A sample of prawns are group-tested and batches are blocked if pathogens are detected. In collaboration with the Commonwealth Department of Agriculture, Water and the Environment, Robert calculated the characteristics of the sampling method under a range of scenarios and developed sophisticated multi-level models using historical data. The work provided important new insights into the testing regime and alternative approaches, and drew on Robert's extensive experience in sample surveys, statistical ecology and statistical modelling.
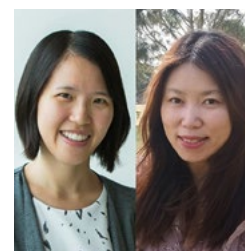
Dr Eunice Khoo and Professor Louise Lu

The effect of CEOs' past professional experience on risk factor disclosures in 10-K filings

Eunice and Louise have received funding from the Accounting and Finance Association of Australia and New Zealand to examine whether Chief Executive Officers' (CEO) past employment at financially troubled firms affects the extent and nature of risk factor disclosures made by their current employer. Research suggests that CEOs' past professional experiences can alter their risk preferences, thereby influencing their incentives to disclose risks. This study will provide insights on how exposure to financially undesirable outcomes at previous employers influences CEOs' decision-making regarding corporate risk disclosures.

Associate Professor Anton Kriz

Regional leader development program – Canberra action research component

Through this action-learning program facilitated by the Federal Government Entrepreneurs' Program (EP), Anton is assisting small to medium enterprise leaders in regional Australia with advancing their organisations. Based on his previous success in the Central Coast and Hunter Valley regions, and the work he is doing with EP around a scalable Regional Leadership Development Program, EP has asked Anton to chair the Canberra and Surrounds Roundtable for this initiative. This program is in partnership with the Commonwealth Department of Industry, Science, Energy and Resources.

Research with impact

ANU scholars developed a Community Engagement Plan for SEARMS Community Housing Aboriginal Corporation.

Throughout 2021 Vinh Lu, Professor of Marketing and CBE's Associate Dean (Advancement and Engagement), led an interdisciplinary team of ANU researchers developing a Community Engagement Plan for SEARMS Aboriginal Corporation – a provider of secure, affordable and culturally appropriate Aboriginal and Torres Strait Islander housing, and community services across the greater capital region and South Eastern NSW.

Professor Vinh Lu

Considerations for the team included SEARMS' core business in the service delivery of tenancy and property-management services for regional Aboriginal and Torres Strait Islander communities, while taking into account the Aboriginal and Torres Strait Islander community-housing sector undergoing a significant period of policy and regulatory changes, and the impact of bushfires and COVID-19.

The project involved consultations with the Chief Executive Officer and SEARMS board members to identify key stakeholders, along with an extensive review of the literature for knowledge related to community engagement, particularly in Indigenous housing.

"SEARMS has a complex ecosystem of stakeholders including local Aboriginal land councils, government agencies at federal, state and territory levels, community associations, professional bodies, and service providers across the housing and construction sectors," Vinh says.

Following the identification of these key stakeholders, the project team carried out interviews to learn about their experiences of engagement with SEARMS. These interviews were analysed, and findings were mapped against literature to identify best practices for SEARMS to engage with their stakeholders.

The interdisciplinary team, also including Associate Professor Ying-Yi Chih from CBE's Research School of Management, Dr Brett Scholz from the ANU Medical School and three research associates, ensured that the Community Engagement Plan was responsive to the needs of and feedback from diverse stakeholder groups.

"Ying-Yi's project-management background helped us deliver an outcomes-focused plan,

Associate Professor Ying-Yi Chih

while Brett's work in co-production meant that we considered the importance of power and collaboration between stakeholders. Their expertise complemented my experience in relationship and service management," he says.

"The Community Engagement Plan that we have developed as a result of feedback from stakeholders of SEARMS has not only provided the organisation with insights and guidelines based on evidence and theory, but also practical steps that can be taken to build new relationships and strengthen existing connections."

This will allow SEARMS to affirm their commitment to high-quality service offerings and outcomes for communities.

"In the words of one of the stakeholders interviewed for the project, the plan will support SEARMS to ensure that their work is aligned with what the community wants – not just what institutions have imposed on communities," Vinh shares.

Furthermore, the project with SEARMS aligns with the ANU by 2025 Strategic Plan, particularly through the promotion of better engagement with First Nations Peoples, support for the study of First Nations traditional knowledge, and demonstration of the social value of such knowledge to all.

"It has been an absolute privilege to support SEARMS on this specific project. We very much look forward to seeing how the organisation will utilise the work we produced for their community engagement and future market expansion," he says.

Researchers in the spotlight

CBE researchers continue to receive awards and recognition for their expertise.

Professor Lin Cui

The Australian Research Council (ARC) appointed Lin, a Professor of Strategy and International Business at the Research School of Management, to their College of Experts.

Comprised of members who are internationally recognised in their field of expertise, the ARC's College of Experts are drawn from the Australian research community. Lin's prestigious appointment means that he will play a key role in identifying research excellence in his field – international business, strategic management and entrepreneurship – for the next three years.

"I am honoured and excited for the opportunity and responsibility of serving the Australian research community through the works of the ARC," says Lin.

The College of Experts is involved in many important research processes, including: assigning and moderating external assessor assessments in competitive funding rounds; providing advice for peer review reforms; and giving strategic advice to the ARC on emerging disciplines and cross-disciplinary developments.

Lin firmly believes the College of Experts is essential for providing knowledge that will serve the community.

"It plays an important role in allocating limited public funding (ultimately taxpayer money) based on proven academic methods of evaluating the scientific merits of grant applications, so that researchers that can best serve the interests of the society will be appropriately supported," he says.

Dr Francis Hui

Dr Francis Hui, Senior Lecturer in the Research School of Finance, Actuarial Studies and Statistics was awarded the 2022 Christopher Heyde Medal for his contributions to statistical methodology.

The medal, presented by the Australian Academy of Science, is one of the country's most prominent research recognitions. It is a major early-career honorific award that recognises the contributions to mathematics by the late Professor Charles Heyde AM, DSc (Syd), FAA, FASSA – the Foundation Dean of the School of Mathematical Sciences at ANU.

"I am deeply humbled to be receiving the 2022 Christopher Heyde Medal. Professor Heyde was a pioneer in many areas of statistics, probability, and stochastic processes, and he did so much to put Australia on the map when it comes to these fields," he says.

Working at the interface between methodological and applied statistics, Francis' research has immediate and substantial benefits to the wider scientific community, particularly in ecology. His statistical methods and software are applied by practitioners to construct spatio-temporal projections of species and community-levels predictions under climate-change scenarios, and to enhance insight into the abiotic/biotic ecological processes driving species assemblages both within Australia and internationally.

New hires

CBE continues to attract and appoint world-class academics.

Professor Bruce D. Grundy

Bruce joined the Research School of Finance, Actuarial Studies and Statistics as a Professor of Finance. His research interests range from charitable fundraising and the informativeness of corporate disclosures, to the relation between cybersecurity breaches and the competitiveness of breached firms' product markets. Bruce is widely published in top research outlets including *Journal of Financial Economics*, *Review of Financial Studies*, *Review of Finance* and *Journal of Financial and Quantitative Analysis*. He was formerly Managing Editor of *International Review of Finance* and an Associate Editor of *Journal of Finance*, *Review of Financial Studies*, *Journal of Financial Research*, *Journal of Financial and Quantitative Analysis*, and *Accounting and Finance*.

Jia (Jacie) Liu

Jacie joined the Research School of Finance, Actuarial Studies and Statistics as a Lecturer of Actuarial Studies. She is an Associate and Chartered Enterprise Risk Analyst of the Society of Actuaries. Jacie's research interests focus on mortality modelling, demographic modelling, and other actuarial and finance topics. Her work has appeared in top peer reviewed journals including *Scandinavian Actuarial Journal*, *Annals of Actuarial Science*, *European Actuarial Journal*, *Journal of Population Research*, and *Risks*. Prior to joining academia, Jacie worked in the financial services industry for several years in the fields of general and life insurance, and data analytics.

Dr Priyadharshini (Priya) Muthukannan

Priya joined the Research School of Management as a Lecturer of Information Systems after completing her PhD at the University of Sydney. Currently, Priya's research is focused at the intersection of business ecosystems, emergent technology and innovation, with some of her work published in the world renowned *International Journal of Information Management* and *Information & Management*. Before her shift to academia, Priya worked as a senior consultant for a global technology firm and a bank, and has experience in managing projects, interfacing with clients and external vendors, and deploying technology to build successful solutions.

Dr Madhukar Singh

Madhukar joined the Research School of Accounting as a Lecturer following the completion of his PhD at Monash University's Business School. His research interests include auditing, audit committees, and financial reporting quality. Madhukar is particularly interested in how the incentives of stakeholders including management, the board of directors, the audit committee and auditors affect financial reporting quality and audit quality. Some of Madhukar's work is published in *Contemporary Accounting Research*.

Research alumni

Many of CBE's research graduates are business leaders in their field.

Dr Jane Gunn

Jane graduated with a PhD in Organisational Behaviour and Strategy in 2009. Her professional focus is working with organisations to help them to change and transform in response to technological disruption, changing customer and citizen expectations and regulatory changes. In particular, she focuses on workforce transformation and leadership, and cultural change. Since graduating, Jane has led large-scale change, leadership-development, and organisational-design and program-management engagements across a number of industries, with a particular focus in government and defence sectors. Jane is currently the Partner in Charge of KPMG Australia's People and Change practice, supporting KPMG's clients nationally in most industries in Australia.

Dr Laura Ryan

Laura graduated with a PhD in Statistics in 2011. Her research included bootstrap methods, subset vector autoregression and model uncertainty. While completing her PhD, Laura was a lecturer specialising in statistics at ANU. Laura's expertise has been recognised in many senior management positions for organisations including PIMCO, Commonwealth Bank and AMP Capital. She is currently Head of Research at ARDEA where she is responsible for both the Client Solutions and Portfolio Research teams. Laura is also an internationally published academic, with papers appearing in *Journal of Forecasting, Journal of Investing, Journal of Retirement* and *Journal of Portfolio Management*.

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