

ANNUAL REPORT 2018













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Australian Government

Department of Foreign Affairs and Trade

Department of Health

Department of Social Services

The Treasury















INTRODUCING THE CENTRE

THE ARC CENTRE OF EXCELLENCE IN POPULATION AGEING RESEARCH (CEPAR) IS A UNIQUE COLLABORATION BETWEEN ACADEMIA, GOVERNMENT AND INDUSTRY, COMMITTED TO DELIVERING SOLUTIONS TO ONE OF THE MAJOR ECONOMIC AND SOCIAL CHALLENGES OF THE 21ST CENTURY.

The Centre is based at the University of New South Wales (UNSW Sydney) with nodes at the Australian National University (ANU), Curtin University, the University of Melbourne and the University of Sydney, and has high quality partnerships with influential organisations drawn from academe, government and business.

It aims to establish Australia as a world leader in the field of population ageing research through a unique combination of high-level crossdisciplinary expertise drawn from Actuarial Science, Demography, Economics, Epidemiology, Psychology and Sociology.

Funded primarily by an initial seven-year grant from the Australian Research Council, with generous support from the collaborating universities and partner organisations, the Centre was established in March 2011 to undertake high impact independent, multidisciplinary research and build research capacity in the field of population ageing.

Renewed funding awarded for an additional seven-year term from 2017-2023 is supporting an exciting new research program which will deliver comprehensive outcomes with the potential to secure Australia's future as a well-informed nation with world-best policy and practice for an ageing demographic.

VISION

OUR VISION IS TO BE A GLOBALLY LEADING RESEARCH AUTHORITY ON POPULATION AGEING.

MISSION

OUR MISSION IS TO PRODUCE AND PROMULGATE RESEARCH OF THE HIGHEST QUALITY TO OPTIMISE SOCIAL AND ECONOMIC OUTCOMES FOR AN AGEING WORLD.

OBJECTIVES

THE OBJECTIVES OF THE CENTRE ARE TO:

EXECUTE A TRANSFORMATIONAL AND MULTIDISCIPLINARY RESEARCH PROGRAM THAT

- produces original research that advances knowledge globally, published in leading international journals
- harnesses expanded research capability to generate evidence and policy analysis to address the most critical issues identified by individuals, industry, government and community groups
- anticipates and responds constructively to rapid demographic transition in Australia and internationally

EFFECTIVELY ENGAGE WITH EXTERNAL STAKEHOLDERS AS AN INTEGRAL PART OF THE CENTRE'S RESEARCH ACTIVITY TO

- develop research goals and to share in project execution
- translate research to influence economic and social policy, business practice, and community understanding

BUILD NATIONAL RESEARCH CAPABILITY AND COLLABORATION BY

- creating new researcher cohorts devoted to ageing research and trained in crossdisciplinary skills
- developing the research leadership and end-user engagement skills of early and mid-career researchers
- taking a leadership role by connecting researchers in ageing throughout Australia, ensuring that benefits from CEPAR's inclusive culture are fully realised

ELEVATE CEPAR'S, AND BY EXTENSION AUSTRALIA'S, REPUTATION AS A GLOBAL LEADER IN POPULATION AGEING RESEARCH BY

- strategically partnering with world-class institutions leading innovative research in the field
- connecting with researchers and centres focused on population ageing throughout the world.



DIRECTOR'S REPORT



PROFESSOR JOHN PIGGOTT

2018 MARKS THE FIRST FULL
YEAR OF THE NEWLY FUNDED
AND EXPANDED CEPAR. CEPAR II
WAS FORMALLY ESTABLISHED IN
SEPTEMBER 2017. THE PLAN WAS
TO HIT THE GROUND RUNNING,
BUOYED BY THE IMPETUS OF CEPAR'S
ACTIVITIES THROUGH THE END OF
2017. I THINK THIS REPORT ATTESTS
THAT WE HAVE DONE THAT.

An early observation was how much bigger this CEPAR is — more than twice the Australian Research Council (ARC) funding, 12 Chief Investigators, a more ambitious research agenda, and many more people. Altogether, including PhD students, there are nearly 180 people associated with CEPAR.

This has meant that our event schedule has scaled up too. 2018 has seen not only the Colloquium, the CEPAR-sponsored International Network for Pensions, Aging and Retirement Research (INPARR) conference hosted by the OECD in Paris in June, and the National Emerging Researchers in Ageing conference, but an International Conference of Long-Term Care Directors and Administrators, the fourth in a triennial international series: a China-based workshop on population ageing and the Chinese economy, co-hosted by ShanghaiTech and Fudan University; and a Policy Dialogue, organised jointly with the Crawford School of Public Policy at ANU, focused on retirement incomes - a hot topic if ever there was one. The Dialogue was underpinned by a comprehensive set of Research Briefs containing not only syntheses of CEPAR research on the topic, but a wealth of new statistical information about the Australian retirement income system, whose preparation was masterminded by our Senior Research Fellow (Research Translation), Rafal Chomik. These received considerable media coverage, and will, I am sure, be a valued reference source for many years to come.

The Centre was formally launched in October at Parliament House in Canberra. The Hon. Dan Tehan, Minister for Education, participated, along with the CEO of the ARC, Sue Thomas, UNSW Sydney's Deputy Vice-Chancellor Research, Nicholas Fisk, and the UNSW Business School Dean, Chris Styles. Marc de Cure, the CEPAR Advisory Board Chair, was an excellent MC.

One of CEPAR's major strengths is its strong multidisciplinary base. It presents enormous opportunities in terms of collaboration; engaging with stakeholders and the community; and presenting a comprehensive and multifaceted response to the issues. At the international conference of Long-term Care Directors and Administrators, for example, CEPAR speakers included epidemiologists, a psychologist, an economist, and an actuary. To ensure we make the most of this strength, we held strategic planning sessions as part of our annual all staff workshop in October to explore synergies and identify new opportunities. It was gratifying to see the cooperative spirit that exists across this Chief Investigator (CI) group, whose backgrounds range across such a wide range of disciplines, and to benefit from their insights into where future opportunities might lie and how best we might harness our capability to make the most of them.

CEPAR is steadily expanding its reach into the Asian region, encouraged and guided by its partner organisation, the World Bank. The Australia-China Population Ageing Research Hub is one manifestation of this. But this year, we benefited from major funding from the UNSW Business School to finance the appointment of two research fellows for a three-year term. As well, we were awarded two UNSW Sydney Scientia PhD scholarships, valued at \$200,000 each over four years, to work on a project focused on Indonesia.

One of our aspirations is that CEPAR should be recognised as a globally leading research centre. This is difficult to measure, because there are no other centres focused on ageing with our breadth of disciplinary coverage. But one metric might be the extent of our engagement with international organisations.

Evidence of our growing reputation with such organisations in 2018 includes an Asian Development Bank (ADB) contract for research on the impacts of technology on an ageing workforce in the Asian region which resulted in a background paper being presented at an ADB-sponsored conference in Korea in May, and a range of personal invitations and activities:

for example, CI Peter McDonald oversaw the 2018 State of World Population Report released by the United Nations in late 2018; CI Marian Baird has been invited to deliver the keynote address at the 100th Anniversary of the ILO's Maternity Convention in Geneva in 2019; and I was recently appointed co-chair of the Population Ageing Task Force for the 2019 G20 meetings.

Each one of these achievements is a small step. But in combination, they amount to substantial recognition by international organisations globally that CEPAR is an authority on population ageing.

2019 will see CEPAR hosting an international Economics of Ageing Conference in June, with international keynote speakers and a range of contributed papers sourced globally. Selected papers from the conference will be published in a special issue of the *Journal of the Economics of Aging*. Other major events include another CEPAR Crawford Policy Dialogue, this time focused on housing with an ageing demographic; and a major workshop on health and ageing organised jointly with the University of Oxford's Centre for Health Economics Research. Another busy and exciting year is in the wings.

Finally, as many of you will be aware, Hal Kendig, a Chief Investigator with CEPAR from 2011-17, died in 2018. Hal was an indispensable ally and advisor in establishing CEPAR and contributed greatly to its success. A short obituary appears on page 24.

John Piggott

Jal Mart



LAUNCH OF CEPAR AND RESEARCH BRIEFS ON RETIREMENT INCOMES AT PARLIAMENT HOUSE CANBERRA

LAUNCH OF RESEARCH BRIEF ON COGNITIVE AGEING AND DECLINE AT NSW PARLIAMENT HOUSE

POLICY DIALOGUE ON RETIREMENT INCOMES HELD IN CANBERRA IN COLLABORATION WITH THE CRAWFORD SCHOOL OF PUBLIC POLICY AT THE AUSTRALIAN NATIONAL UNIVERSITY

4TH INTERNATIONAL CONFERENCE OF LONG-TERM CARE DIRECTORS AND ADMINISTRATORS HOSTED BY CEPAR IN SYDNEY

26TH ANNUAL COLLOQUIUM ON PENSIONS AND RETIREMENT RESEARCH HOSTED BY CEPAR AND UNSW SCHOOL OF RISK AND ACTUARIAL STUDIES 4TH ANNUAL WORKSHOP ON POPULATION AGEING AND THE CHINESE ECONOMY HELD IN SHANGHAI IN COLLABORATION WITH SHANGHAITECH AND FUDAN UNIVERSITY

3RD INTERNATIONAL NETWORK FOR PENSIONS, AGING, AND RETIREMENT RESEARCH (INPARR) CONFERENCE HELD AT THE OECD AND ORGANISED BY CEPAR AND OTHER MEMBERS OF THE INTERNATIONAL NETWORK

PUBLIC LECTURE BY CEPAR PARTNER
INVESTIGATOR JAMES NAZROO ON
INEQUALITY IN LATER LIFE: THE
IMPACT ON HEALTH AND WELLBEING
DELIVERED AT UNSW SYDNEY

17TH NATIONAL EMERGING
RESEARCHERS IN AGEING
CONFERENCE HELD IN MELBOURNE

CHIEF INVESTIGATOR KAARIN ANSTEY
SUCCESSFUL IN HER BID TO
ESTABLISH AND LEAD A NEW UNSW
FUTURES INSTITUTE FOCUSED ON
ENABLING OPTIMAL AGEING FOR
INDIVIDUALS AND SOCIETY

CHIEF INVESTIGATOR KAARIN ANSTEY RECOGNISED BY THE AUSTRALIAN PSYCHOLOGICAL SOCIETY WITH THE 2018 DISTINGUISHED CONTRIBUTION TO PSYCHOLOGICAL SCIENCE AWARD

CHIEF INVESTIGATOR MARIAN BAIRD NAMED BY *APOLITICAL* AS ONE OF THE TOP 100 MOST INFLUENTIAL PEOPLE IN GENDER EQUALITY IN THE WORLD

CHIEF INVESTIGATOR PHILIP CLARKE APPOINTED AS DIRECTOR OF THE UNIVERSITY OF OXFORD'S HEALTH ECONOMICS RESEARCH CENTRE

CHIEF INVESTIGATOR ROBERT
CUMMING ONE OF A TEAM OF
INVESTIGATORS TO RECEIVE OVER
\$3M IN NHMRC FUNDING TO TACKLE
THE RISING CHALLENGE OF
INDIGENOUS DEMENTIA

CHIEF INVESTIGATOR MICHAEL KEANE ELECTED TO THE ECONOMETRIC SOCIETY COUNCIL

CENTRE DIRECTOR JOHN PIGGOTT
INVITED TO CO-CHAIR THE 2019 G20
TASK FORCE ON THE AGEING
POPULATION AND ITS ECONOMIC
IMPACT

SENIOR RESEARCH FELLOW KATJA
HANEWALD AND ASSOCIATE
INVESTIGATOR HAN LI AWARDED
A SOCIETY OF ACTUARIES GRANT TO
CONDUCT RESEARCH ON OCCUPATIONSPECIFIC LIFE TABLES IN CHINA

SENIOR RESEARCH ASSOCIATE
MENGYI XU, CHIEF INVESTIGATOR
MICHAEL SHERRIS AND ASSOCIATE
INVESTIGATORS JENNIFER ALONSO
GARCÍA AND ADAM SHAO RECOGNISED
WITH THE INTERNATIONAL CONGRESS
OF ACTUARIES 2018 INTERNATIONAL
ACTUARIAL ASSOCIATION HEALTH
SECTION BEST PAPER AWARD

ASSOCIATE INVESTIGATOR
JENNIFER ALONSO GARCÍA,
CHIEF INVESTIGATOR HAZEL
BATEMAN, ASSOCIATE INVESTIGATOR
RALPH STEVENS, RESEARCH
ASSISTANT JOHAN BONEKAMP
AND ARTHUR VAN SOEST RECOGNISED
WITH THE INTERNATIONAL CONGRESS
OF ACTUARIES 2018 BEST PAPER
AWARD IN ASPECTS OF LONG-TERM
SAVINGS: UNCERTAINTY IN LOW REAL
RETURNS, LONGEVITY AND INFLATION

ASSOCIATE INVESTIGATOR FEDOR ISKHAKOV AWARDED A FUTURE FELLOWSHIP FOR RESEARCH FOCUSED ON SOLVING AND ESTIMATING DYNAMIC MODELS OF STRATEGIC INTERACTION

ASSOCIATE INVESTIGATOR SHANG WU AWARDED 2018 UNSW BUSINESS SCHOOL HDR STUDENT THESIS AWARD



CHAIRMAN'S MESSAGE



MARC DE CURE

THE SECOND TERM OF CEPAR AS
AN ARC FUNDED CENTRE OF
EXCELLENCE IS IN FULL SWING.
THE NEW RESEARCH STREAMS ARE
NOW ALL ESTABLISHED AND, AS IS
EVIDENT IN THIS ANNUAL REPORT,
THE CHIEF INVESTIGATORS AND
THEIR TEAMS ARE ALL PROGRESSING
WELL WITH THEIR RESEARCH
PROGRAMS. THE BOARD HAS MET
SEVERAL TIMES AND HAS ACTIVELY
CONTRIBUTED TO THE DEVELOPMENT
OF THE CENTRE'S STRATEGY AND
ENGAGEMENT ACTIVITIES.

CEPAR's strategic model continues to embrace the three pillars of Research, Translation and Engagement. CEPAR aims to achieve impact by assisting Australia and the world minimise the adverse consequences of demographic change and maximise the opportunities through relevant multidisciplinary research performed by world-class researchers coupled with strong two-way engagement between researchers and end-users.

This engagement is the focus of the Advisory Board, which helps to keep the research centred on the right issues and facilitate the sharing of new knowledge and insights. This sharing enables the research to inform social awareness, and policy and product development. This is a powerful model, critical for CEPAR's ongoing success.

2018 ENGAGEMENT ACTIVITIES

Engagement activities throughout the year were numerous. Whilst many are reported in this annual report, I discuss below a few to highlight the type and nature of the activities, particularly those that relate directly to the Advisory Board.

A key initiative in 2018 was the establishment of Stakeholder Reference Groups (SRGs) for each stream. These aim to enhance the opportunity for researchers and end-users to discuss current and future research directions, at a more granular level, and to broaden the engagement points between CEPAR and partners and other interested parties. Importantly the SRGs enable partners to focus on the areas where their strongest interests and potential contributions lie. All four streams held their inaugural stream meetings and reported a strong sense of shared purpose, which is exciting for the future. The success of this initiative has been enabled by strong support from Chief Investigators and Advisory Board members.

The Advisory Board will continue its role as the overarching engagement advisory body with a focus on intra-stream activities and overall review and prioritisation of research translation initiatives. It is working very well across all of our partner organisations, providing advice to the CEPAR Management Committee on knowledge gaps and opportunities for research, and research translation priorities and engagement opportunities.

In 2018, members of the Advisory Board participated in a range of CEPAR events and activities. These included:

- The official launch of CEPAR with The Hon.
 Dan Tehan, Minister for Education, at
 Parliament House Canberra
- The CEPAR roundtable on health and population ageing, enabling sharing of information and perspectives between CEPAR researchers, Board members and partner organisations, including Medibank, Department of Health, PwC and Willis Towers Watson. Knowledge gaps, partnering opportunities and future research directions were identified.
- The Public Lecture by CEPAR Partner Investigator James Nazroo on Inequality in Later Life: The Impact on Health and Wellbeing (part of the UNSW Sydney Grand Challenges Program) attended by representatives of COTA and the Department of Health
- The CEPAR-sponsored 26th Annual Colloquium on Pensions and Retirement Research at which Board member Matt Lawrance (NAB) presented
- The International Conference of Long-term Care Directors hosted by CEPAR at which Board members Sarah Butler (PwC) and Pip O'Keefe (World Bank), and Department of Health representative Helen Grinbergs were presenters

- The organisation of the International
 Network for Pensions, Aging and Retirement
 Research (INPARR) Conference with
 participation from CEPAR Advisory Board
 member Mike Orszag (Willis Towers Watson)
- The Asia in the Ageing Century session of the Future of Asia UNSW Alumni Summit in Hong Kong presented by Professors Piggott and Bateman, and facilitated by me
- The launch of CEPAR Research Brief on Cognitive Ageing and Decline: Insights from Recent Research attended by representatives of partner organisations Medibank and the NSW Treasury as well as the Office of the NSW Chief Scientist & Engineer
- The jointly hosted CEPAR/Crawford Policy
 Dialogue on Retirement Incomes, attended by
 Board members and other representatives
 from partner organisations including PwC,
 The Commonwealth Treasury and COTA.

LOOKING FORWARD

Now that the research is in full swing, the expectation is that the engagement activities will progressively increase and broaden across all research streams. The Board will continue to work with and support the Centre in achieving its enduring legacy.

The Board has committed to increase its focus on dissemination of research outputs in 2019 and beyond including, where appropriate, through partner organisation internal and external communication channels. This will support and reinforce other channels such as the CEPAR website, media activity, Research Briefs and other publications, and seminars.

The Centre is also looking at renaming the Advisory Board to more truly reflect its advisory nature and focus, and to distinguish it from the Leaders' Forum and the newly established Stakeholder Reference Groups.

THANK YOU

On behalf of CEPAR, I'd like to welcome new members and express our great appreciation to all partner and other affiliated organisations for their support and engagement, and to their Board and Stakeholder Reference Group representatives who generously gave their time, insight and energy to addressing the challenges and the opportunities of demographic change and population ageing.

Finally, I'd like to make a special mention of Serena Wilson, former Deputy Secretary of DSS, who retired from the Board mid-year and who has been an outstanding Board member and supporter since the inception of CEPAR in 2011. Her contribution and support for the Centre will be sadly missed.

Marc de Cure Chair CEPAR Advisory Board

Marc de Cure



ACTIVITY PLAN FOR 2019

In 2019 CEPAR will undertake a range of activities which aim to provide Australia, the greater Pacific region, and the world, with crucial new knowledge to inform social and economic responses to one of the most important challenges of the 21st century: population ageing. We will produce high quality research on issues that matter and disseminate output to those that can use it to drive impact; contribute to key agendas, policy initiatives, and product development; expand global collaborative networks; engage with the community; and build research capacity and capability to ensure CEPAR's sustainability.

ENGAGEMENT AND OUTREACH

A number of events are planned in 2019 to stimulate discussion on the issue and raise community awareness; engage with industry, government and the global research community; and raise the profile of the Centre. These include:

- A policy dialogue focused on housing with an ageing demographic, to be hosted in collaboration with the Australian National University's Crawford School of Public Policy in Canberra in the latter part of the year;
- The annual Colloquium on Pensions and Retirement Research on 2-3 December in Sydney;
- A workshop focused on the potential for data linkage, to be held in Canberra in collaboration with the Centre for Applied Macroeconomic Analysis and the Tax and Transfer Policy Institute on April 10;
- A workshop on the use of big data and simulation modelling to help close the gap in Indigenous health outcomes to be held in the second half of the year;
- A special session on global demographic dilemmas and the future of retirement at the annual ANU/Brookings Workshop on 'Disruption and Development: Alternative Futures of the Global Economy' to be held in Washington DC on 5 February;

- A workshop on demography in collaboration with the Centre for Applied Macroeconomic Analysis and the Treasury in August;
- · Workshops in Sydney on the following topics:
 - continuous time financial and insurance modelling with applications to longevity risk
 - continuous time modelling of mortality risk
 - health status and mortality modelling
 - understanding and overcoming confusion in consumer financial decision making
- A workshop on overlapping generations modelling to be held in Canberra in collaboration with the Treasury in the first half of the year;
- Two workshops and an industry forum focused on the Mature Workers in Organisations (M-WOS) survey;
- Two roundtables, one on the topic of retirement incomes in May and the other on the topic of housing in August;
- A seminar at the New Zealand Department of Health on simulation modelling and administrative data linkage;
- · CEPAR's fortnightly seminar series; and
- Public talks featuring CEPAR personnel and distinguished visitors.

In addition, research briefs and fact sheets will be published on the following topics: older workers and workplace design; older workers and organisational culture; employment rights for older workers; work and care; the Indian pension system; ageing and climate change; and morbidity trends.

NATIONAL AND INTERNATIONAL NETWORKS

CEPAR will continue to expand its international footprint in 2019, especially in the Asia-Pacific region. The Australia-China Population Ageing Research Hub will be instrumental in the development of further linkages between CEPAR and key institutions in China as well as connecting with national researchers focused on this area of research.

The award of a large grant from the UNSW Business School to support research on developing policy and business responses to Asia's ageing demographic and to build linkages in Asia will also bolster our profile and networks in the region.

CEPAR will also remain a very active member of the Association of Pacific Rim Universities (APRU) Population Ageing Hub, having played a leading role in its establishment.

Joint workshops and conferences with international collaborators will also support the development of strong linkages. In 2019 these will include:

- The fourth annual conference of the International Network for Pensions, Aging and Retirement Research to be co-organised by CEPAR in collaboration with Wharton, Netspar and Willis Towers Watson and hosted by the OECD in Paris in June;
- A workshop on population ageing and the Chinese economy to be held in July in Sydney in collaboration with ShanghaiTech University;
- An international workshop on health and ageing to be hosted in collaboration with Oxford University's Health Economics Research Centre in September;

- A workshop on behavioural retirement finance to be held in the Netherlands in collaboration with Maastricht University towards the end of the year; and
- CEPAR's hosting of the Annual Workshop on the Economics of Aging at UNSW on 24-25 June in collaboration with the Next World Program.

Distinguished visitors expected in 2019 include, Professors Peter Berg (Michigan State), Gwenith Fisher (Colorado State), Robert Holzmann (Austrian Academy of Sciences), Carol Jagger (Newcastle University, UK), Jong-Wha Lee (Korea), Fiona Matthews (Newcastle University, UK), Olivia S. Mitchell (Wharton), Annamaria Olivieri (Parma), Ermanno Pitacco (Trieste) and Tomas Sobotka (Wittgenstein Centre); Associate Professor Runhuan Feng (Illinois); and Senior Research Fellow Erik Hernaes (Ragnar Frisch Centre for Economic Research, Oslo).

Our researchers will also promote the Centre and its research during international visits. For example, Warwick McKibbin will visit the Brookings Institution during January – March 2019 and discuss CEPAR research at the World Bank and the International Monetary Fund.

MENTORING

The suite of mentoring programs developed by CEPAR to engage early career researchers (ECRs), Higher Degree Research and undergraduate students will continue to be offered in 2019. A workshop will be organised in the latter part of the year offering CEPAR and non-CEPAR affiliated personnel the opportunity to learn state-of-theart techniques from an international leader in quantitative methods. The Stakeholder Engagement Program will equip researchers with the skills necessary to effectively engage with stakeholders and communicate social science research. The CEPAR Industry and Government Fellowship Scheme will provide career development opportunities for members of CEPAR and its partner organisations as well as strengthen collaborative links. An academic exchange program will offer ECRs the opportunity to spend extended periods of time at other nodes or CEPAR partner institutions to advance the research program, expand their collaborations with Partner Investigators (PIs) or Associate Investigators (Als) and build their research networks. Summer scholarships will be offered to undergraduate students to offer a taste of life in a research centre.

In addition, CEPAR will offer the Future Leaders in Ageing Program for the first time in 2019. It will also host the 2019 Emerging Researchers in Ageing national conference.

RESEARCH

Research in 2019 will be advanced on a number of topics consistent with the four research streams identified in the CEPAR Strategic Plan.

Specifically, we will:

1 Macro-demographic dynamics and population ageing policy

Continue monitoring Australian demographic trends

Continue to model impacts of changes to immigration policy on the Australian population

Initiate and begin research on optimal tax/ retirement policy with an ageing population

Progress research on population, ageing, education and skill premium in international trade

Complete research on home ownership in Australia and Germany and the role of retirement income policy

Finalise implementation of the G-cubed model with the new country coverage for Asian economies and fully test model properties

Develop the theoretical implementation of a Blanchard/Yaari demographic approximation to a prototype 2 country OLG model

Complete a special issue of the *Journal of Population Research* on 'Demographic Change and Intergenerational Equity'

2 Decision making, expectations and cognitive ageing

Finalise the online platform to support data collection for the next waves of the PATH through Life (PATH) study

Finalise, launch and complete Wave 5 data collection from the PATH midlife cohort to create 20 years of follow-up of this cohort

Prepare to collect data for the PATH Wave 5 60s cohort



Develop a new online survey to evaluate newly developed decision-making measures

Continue analysis of social cognition and cognitive ageing, and develop the cognitive resilience project

Continue work on new models of consumer choice behaviour that incorporate departures from rational behaviour

Develop new methods for consumer welfare analysis given these departures from rational choice theory

Continue developing the datasets on housing, assets, cognition and financial literacy for use in a new life-cycle model incorporating:
(i) investments in health and housing and
(ii) cognitive limitations in decision making

3 Organisations and the mature workforce

Finalise the online platform to support data collection and individualised feedback for the Mature Workers in Organisations (M-WOS) survey

Pilot M-WOS survey and officially launch it within two practitioner-oriented workshops

Collect baseline data in organisations using M-WOS

Finalise and launch a cross-sectional survey to map current challenges for mature workers in Australia

Launch report and communications pack based on the findings of the cross-sectional survey

Pilot and refine the policy capture methodology for the Promoting Effective Care Outside of Work Project and conduct policy audits in participating organisations

4 Sustainable wellbeing in later life

Continue to analyse different approaches for incorporating systematic trends in mortality into multiple state models and linking models of heterogeneity with models of functional disability using Australian and/or US data

Continue to work on the design of long-term care (LTC) insurance, cost government expenditures and assess the impact of the design of private LTC insurance on public expenditures using Australian data to model functional disability, incorporating systematic trends and uncertainty

Use simulation modelling to extend future projections of non-communicable diseases and assess implications for health care expenditure

Collect CHAMP Wave 5 data (including health of spouse)

Combine (some) data from CHAMP, PATH and ALSWH

Begin development of overlapping generations model for Indonesia, including informal sector

Complete paper on flexible pensions, using Norwegian data

Begin planning research initiatives around ageing and inequality

Develop comparative analysis of long-term care initiatives in Asia

Continue to compare retirement income products with simulated cash flows based on financial (ESG) and actuarial models (cohort) for Australia

Design/field discrete choice experiments to investigate sources of confusion in decisions on financial products

Finalise industry partner, design and implement field experiments to investigate alternative means of facilitating better retirement financial decisions.



GOVERNANCE 8 STRUCTURE

GOVERNANCE

Our governance structure is designed to ensure the efficient operation of the Centre, maximise performance and support strategic planning.

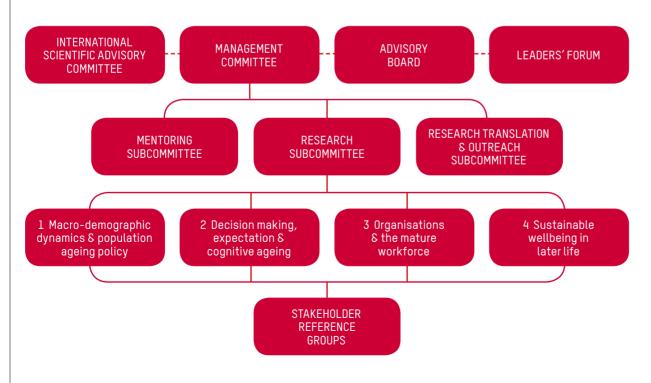
At its core are the Management Committee and the Centre Management Team, which are responsible for the execution of Centre activities.

Three external committees support strategic development as well as engagement between researchers, industry and government. The International Scientific Advisory Committee, Centre Advisory Board and the soon to be established Leaders' Forum provide the Management Committee with external

perspectives on the formulation of research programs, their implementation, and the dissemination of research outcomes.

In addition, Stakeholder Reference Groups (SRGs) facilitate stakeholder interaction and provide opportunities for end-users to shape the direction of the Centre's research program and activities.

CEPAR ORGANISATIONAL CHART



INTERNATIONAL SCIENTIFIC ADVISORY COMMITTEE

The International Scientific Advisory Committee, comprising international leaders in the area of population ageing, provides advice on the strategic direction of the Centre from a global perspective, with emphasis on research programs. Drawn from a range of fields, reflecting the Centre's multidisciplinary nature, and with influential positions in academe and policy, members of the Committee will also identify and facilitate linkage opportunities as well as act as ambassadors for the Centre, actively building its global profile.

The Scientific Advisory Committee comprises:

Richard Blundell, Professor of Political Economy, University College London, and Director, ESRC Centre for the Microeconomic Analysis of Public Policy, Institute for Fiscal Studies

Eileen Crimmins, Professor of Gerontology, University of Southern California, and Director, USC-UCLA Centre for Biodemography and Population Health

Cai Fang, Professor of Economics and Deputy Director, Chinese Academy of Social Sciences

Sarah Harper, Professor of Gerontology, University of Oxford, and Co-Director Oxford Institute of Ageing

Ayse Imrohoroglu, Professor of Finance and Business Economics, UCLA

David Laibson, Professor of Economics, Harvard University

Ron Lee, Professor Emeritus of Economics and Demography, University of California, Berkeley

Jay Olshansky, Professor of Gerontology, University of Illinois at Chicago Carol Ryff, Professor of Psychology and Director of Institute on Aging, University of Wisconsin-Madison

Yasuhiko Saito, Professor, Nihon University

Merril Silverstein, Marjorie Cantor Chair in Aging Studies, Syracuse University

James P. Smith, Distinguished Chair in Labor Markets and Demographic Studies, RAND Corporation

Ursula Staudinger, Director, Robert N Butler Columbia Aging Centre

Mo Wang, Professor and Director of the Human Resource Research Centre, University of Florida

ADVISORY BOARD

The Advisory Board plays a critical role in supporting the realisation of the Centre's goals by providing an external perspective on the formulation of research programs, their implementation, and strategies for the translation of research findings to effectively influence economic and social policy, business practice, and community understanding. It facilitates two-way engagement between stakeholders and researchers and provides independent advice to the Management Committee, with regard to strategy and external relations as well as new opportunities for engagement.

The Board comprises delegates of organisations providing financial support to CEPAR, along with a broader membership representing research, policy and community groups. Members are appointed by the Director in consultation with the Chair and Management Committee, for a term of three years.

In 2018, the Board met as a group on 21 March and 14 August. A key focus for both meetings was the development of CEPAR's Research Translation, Communication, Education and Outreach Plan, with members providing extremely valuable advice on topics of particular interest within the CEPAR research program and channels for engagement.

As well as the formal meetings, the Director and Chair met bilaterally with individual members on a number of occasions to discuss particular issues.



GOVERNANCE

2018 ADVISORY BOARD MEMBERS

MARC DE CURE Chair

MICHELLE BAXTER Chief Executive Officer, Safe Work Australia

SARAH BUTLER Partner, Australia, SE Asia and New Zealand Health Leader, PricewaterhouseCoopers

DAVID GRUEN Deputy Secretary, Economic, Department of the Prime Minister and Cabinet

ROBERT JEREMENKO Head, Retirement Income Policy Division, Commonwealth Treasury

MATTHEW LAWRANCE Chief Executive Officer of MLC Super and Executive General Manager, NAB Wealth (until 19 November 2018)

MARGOT MCCARTHY Deputy Secretary, Ageing and Aged Care Group, Department of Health

PIP O'KEEFE Practice Manager, Social Protection and Jobs, East Asia and Pacific, The World Bank

MICHAEL ORSZAG Head of Global Research, Willis Towers Watson

THE HON DR KAY PATTERSON AO Age Discrimination Commissioner, Australian Human Rights Commission

JOHN SIMON Head, Economic Research, Reserve Bank of Australia

LINDA SWAN Chief Medical Officer, Medibank

STEPHEN WALTERS Chief Economist, NSW Treasury

IAN YATES AM Chief Executive, Council on the Ageing

In addition, representatives of the Department of Foreign Affairs and Trade and the Department of Social Services participated in Advisory Board meetings



MARC DE CURE
BCom (Hons) UNSW, MWine
Quality UWS, FCA
CHAIR, ADVISORY BOARD

Marc de Cure has long recognised the social and economic significance of demographic change and the need to undertake and promulgate research to inform government policy, and social and commercial responses. He played a key role in establishing CEPAR and since then has provided critical input to the development of the Centre's ongoing strategy and industry and government engagement activities. He has chaired both the Advisory Board and the Leaders' Forum since inception.

Marc is a non-executive company director and business advisor and previously held senior executive roles in leading financial and professional services groups across Australia and Asia. He was AIA Group CFO and AMP Group CFO, Executive General Manager Strategy & Development and Executive Director of its key operating subsidiaries.

In professional services Marc was a senior Partner with PwC, including Chairman of the Australian Financial Services practice and Managing Partner of the Asia Pacific Risk Management practice, and was a Principal Advisor with Bain & Company.

Marc has been a member of the Business Advisory Council and the Executive Committee of the UNSW Business School since 2001 and was appointed as an Adjunct Professor at the UNSW Business School in 2015. He holds a Bachelor of Commerce (Honours) from UNSW, a Master of Wine Quality from UWS and is a Fellow of the Institute of Chartered Accountants in Australia.

CEPAR REPRESENTATIVES ON THE ADVISORY BOARD

ANNE GORDON Director of Operations

WARWICK MCKIBBIN Director of Policy Engagement

JOHN PIGGOTT Director

MICHAEL SHERRIS Director of Industry
Engagement

STAKEHOLDER REFERENCE GROUPS

The role of the Stakeholder Reference Groups (SRGs) is to facilitate stakeholder interaction with CEPAR researchers and promote research translation and knowledge transfer. SRGs also provide opportunities for end-users to shape the direction of the Centre's research program and activities

In 2018 each of the four Research Streams established an SRG with membership comprising the Stream Leader (as Chair), the Stream Coordinator, the leaders of each of the Stream's projects (or their nominees), representatives of CEPAR's partner organisations plus additional members drawn from business, government and community circles as appropriate.

The following meetings took place in 2018:

Stream 1 SRG: 19 September 2018 Stream 2 SRG: 27 August 2018 Stream 3 SRG: 4 December 2018 Stream 4 SRG: 23 August 2018

MANAGEMENT COMMITTEE

The Management Committee, together with the Centre Director, has overall responsibility for Centre performance and for ensuring that the Centre's activities are conducted in accordance with the Funding Agreement between UNSW Sydney and the ARC. Its role is to oversee all operational matters, including budget management, approval of specific major programs, staffing, approval of visitors and organisation of workshops. In strategic planning, the Committee seeks high level advice from the Centre Advisory Board, International Scientific Advisory Committee and Leaders' Forum.

In 2018, the Committee was chaired by Chief Investigator Alan Woodland and comprised:

| JOHN PIGGOTT | Centre Director |
|------------------|--|
| KAARIN ANSTEY | Deputy Director and Chief Investigator |
| HAZEL BATEMAN | Deputy Director, Chief Investigator and University of New South Wales Node Leader |
| PHILIP CLARKE | Chief Investigator and University of Melbourne Node Leader (until August 2018) |
| ROBERT CUMMING | Chief Investigator and University of Sydney Node Leader |
| ANNE GORDON | Director of Operations |
| PETER MCDONALD | Chief Investigator and University of Melbourne Node Leader (from August 2018) |
| WARWICK MCKIBBIN | Chief Investigator and Australian National University Node Leader |
| SHARON PARKER | Chief Investigator and Node Leader of the University of Western Australia (until July 2018)/Curtin University (from July 2018) |

In 2018, the Committee met on 26 February, 4 June, 3 September and 26 November. Consultation also took place via email and teleconferencing and a number of informal meetings were held to handle research management decision making tasks.



GOVERNANCE

The Management Committee is supported by three subcommittees:

RESEARCH SUBCOMMITTEE

Chaired by the Centre Director, the committee comprises all the Chief Investigators and the Director of Operations. In 2018, the subcommittee met on 1 May and 5 November. In addition, members of the research committee participated in CEPAR's two-day Annual Workshop on the 10th – 11th October which included Chief Investigator led strategic planning sessions focused on cross-stream collaboration, national and international linkages and research translation and stakeholder engagement.

MENTORING SUBCOMMITTEE

The subcommittee comprises the two Directors of Mentoring, Sharon Parker and Marian Baird, the Centre Director, the Director of Operations and Emerging Researchers in Ageing (ERA) representative Matthew Carroll. In addition, the Centre's mid-career researchers were represented by Daniela Andrei, George Kudrna and Ruth Peters, Early Career Researchers were represented by Héloïse Labit Hardy and Sophie Yan, and PhD students were represented by Dorothy Dudley and Cheng Wan. The subcommittee, chaired by Marian Baird met on 17 April, 31 July and 23 October 2018.

RESEARCH TRANSLATION AND OUTREACH SUBCOMMITTEE

The subcommittee is chaired by the Director of Industry Engagement, Michael Sherris, and comprises the Director of Policy Engagement, Warwick McKibbin, the Centre Director, Deputy Director and Chief Investigator, Hazel Bateman, the Director of Operations, the Senior Research Fellow – Research Translation, the Governance and Stakeholder Relationships Officer, and the Communications, Marketing and Events Coordinator. The subcommittee met on 12 March, 25 June and 2 October 2018.

CENTRE ADMINISTRATION AND OPERATION

Since its formal establishment on the 28th of September 2017, the new CEPAR has made significant inroads in the development of the organisational framework necessary to effectively administer and optimise the achievements of the Centre. Progress has been made in the six key domains prescribed by the Australian Research Council in the Funding Agreement:

STRATEGIC PLANNING

Since the first strategic planning event for the new Centre in July 2017, a series of consultations with a wide range of CEPAR personnel and its stakeholders have been undertaken. This has involved reviewing the objectives and vision for the Centre and discussing strategies for success to ensure the Centre is positioned to make the most of its capabilities and the opportunity provided by the collaborating universities, partners and the Australian Research Council.

In 2018, discussions have taken place at meetings of the Advisory Board, Management Committee and its subcommittees. A draft Strategic Plan, reflecting recommendations arising from strategic planning discussions at CEPAR's annual workshop in October, was presented to the CEPAR Management Committee in November. The aim is to present the Strategic Plan to the Advisory Board in the first part of 2019 for discussion and feedback before final approval. Importantly, the Strategic Plan will be a living document, augmented and revised as new opportunities emerge, thus providing a roadmap and a structure that will assist CEPAR to continue to strive for excellence in population ageing research and enable it to achieve its full potential.

EQUITY AND DIVERSITY PLANNING

CEPAR is committed to equity and diversity in the workplace and has developed an Equity Plan outlining how CEPAR supports these concepts in practice.

The document Equity and Diversity at CEPAR: Principles, Policy and Practice positions CEPAR as an equal opportunity employer committed to the principles of cultural diversity, disability inclusion, gender equality, and LGBTIQ inclusion. It is supported by workplace and diversity policies, as well as codes of conduct, in place at each of its collaborating universities.

In addition, it sets out CEPAR-specific policies and practices designed to engender a culture of equity and diversity, to further support equity and diversity within the centre. These position the Centre as a flexible and family-friendly work environment. The document has been circulated to all CEPAR personnel and will be included in induction packs and made available online on the CEPAR website.

To further enhance an understanding of these principles among its personnel, CEPAR hosted a centre-wide workshop convened by the UNSW Workplace Diversity Unit on 23 October 2018.

DISCRETIONARY FUNDING

CEPAR has set aside discretionary funds to support a number of schemes, including a Distinguished Visitors Program, an International Conference Travel Scheme for HDR students, and an HDR and ECR Travel Grant Scheme to support extended visits to other nodes and affiliated institutions for the purpose of research collaboration.

CENTRE COHESION

Strategies to support the cohesion of the Centre, across nodes and disciplines, are embedded in everything the Centre does. The governance framework and Centre structure are designed to ensure that personnel from all five nodes participate in the decision making of the Centre; that partners have an opportunity to shape the direction of the research program and activities through membership of the Advisory Board and Stakeholder Reference Groups; and that researchers regularly come together to discuss and plan research across nodes and disciplines, both informally through regular visits and formally at Research Stream meetings and annual workshops.

Importantly, each of the nodes has a designated Node Leader who serves on the Centre Management Committee, and the Leadership team includes key positions based at the Australian National University (Director of Policy Engagement), Curtin University (Director of Mentoring – Mid-Career Researchers), the University of Sydney (Director of Mentoring – Emerging Researchers) and UNSW Sydney (Director and Deputy Directors, Director of Industry Engagement). Stream Leaders are based at the University of Melbourne, Curtin University and UNSW Sydney.

MENTORING AND PROFESSIONAL DEVELOPMENT

The Centre has developed a suite of programs designed to achieve its objective of creating new researcher cohorts devoted to ageing research, trained in cross-disciplinary skills, with the ability to engage with and respond to the needs of end-users. The programs, which are tailored to students, postdoctoral researchers and mid-career researchers, are outlined in the Research Training and Mentoring Section on pages 65 to 69.

RESEARCH TRANSLATION, COMMUNICATION, EDUCATION AND OUTREACH

The CEPAR Research Translation, Communication, Education and Outreach Plan, outlines a range of initiatives designed to translate Centre research, enhance the Centre's profile and address stakeholder needs. Key to its development were discussions at the CEPAR annual workshop, as well as at meetings of the Advisory Board, Research Translation and Outreach subcommittee, and the Management Committee.

The Plan will be included in the CEPAR Strategic Plan and updated annually. In addition, a list of initiatives in this portfolio will be developed each year and included as an appendix to the Strategic Plan.



STRUCTURE

CEPAR is based at the University of New South Wales (UNSW Sydney) with nodes at the Australian National University (ANU), Curtin University, the University of Melbourne and the University of Sydney. It is strongly supported by a number of key government, industry and international university partners.

NODES

The UNSW Sydney node, led by Professor Hazel Bateman, is hosted by the UNSW Business School and includes teams of researchers based in the Business School and Neuroscience Research Australia.

The ANU node is based in the Crawford School of Public Policy under the leadership of Professor Warwick McKibbin.

Professor Sharon Parker leads the Curtin University node based in the Centre for Transformative Work Design.

Professor Peter McDonald has led the node at The University of Melbourne, based in the School of Population and Global Health, since August 2018, taking over from Professor Philip Clarke.

The University of Sydney node consists of teams in the School of Public Health and the Business School. Professor Robert Cumming leads the University of Sydney node.

All 12 Chief Investigators (CIs) and many of the Centre's Associate Investigators (AIs) are based at one of the five nodes. Within Australia, Associate Investigators are also based at the Australian Institute of Health and Welfare, Macquarie University, the University of Newcastle, and the University of Technology Sydney. Industry-based AIs are based at First State Super, Milliman and Suncorp.

PROGRAMS

The research program is organised into four interconnected streams:

Macro-Demographic Dynamics and Population Ageing Policy

Decision Making, Expectations and Cognitive Ageing

Organisations and the Mature Workforce

Sustainable Wellbeing in Later Life

INTERNATIONAL UNIVERSITY PARTNERS

Our Partner Investigators are drawn from three world-class research organisations:

The University of Manchester

The Wharton School

The University of Pennsylvania

Through our internationally based Associate Investigators and joint research initiatives we are connected to the following key research institutions:

College of William and Mary

Colorado State University

CPB Netherlands Bureau of Economic Policy Analysis

Durham University

Dutch Central Bank

Korea University

National Institute of Public Finance and Policy, New Delhi

Netspar

Newcastle University (UK)

| Northern Illinois University | |
|------------------------------|--|
| Portland State University | |

Ragnar Frisch Centre for Economic Research

Saint Louis University

South China Agricultural University

Tilburg University

University of Bern

University of Duisburg-Essen

University of Exeter

University of Groningen

University of Kent

University of Leipzig

University of Oxford

University of Parma

University of St. Gallen

University of South Florida

University of Trieste

University of Wuerzburg

Vrije University

Zhejiang University

INDUSTRY AND GOVERNMENT PARTNERS

CEPAR is actively engaged with a range of influential government and industry partners to cooperatively deliver outcomes to meet the challenges and opportunities of population ageing. These include:

Australian Human Rights Commission

Department of Foreign Affairs and Trade

Department of Health

Department of Social Services

Medibank

MLC

NSW Treasury

PricewaterhouseCoopers

Reserve Bank of Australia

Safe Work Australia

The Treasury

The World Bank

Willis Towers Watson

In addition, the Centre is supported by Research Attraction and Acceleration Program (RAAP) funding from the NSW Department of Industry.



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CENTRE PERSONNEL

CHIEF INVESTIGATORS



SCIENTIA PROFESSOR JOHN PIGGOTT BA Syd., MSc PhD Lond., FASSA CENTRE DIRECTOR

John Piggott is Scientia Professor of Economics in the UNSW Business School.

He has published widely on issues in retirement and pension economics and finance, and in public finance, and his research has appeared in the leading international economics and actuarial academic journals as well as in highly cited conference volumes.

His national policy experience includes membership of both the Henry Tax Review Panel (2008-2009) and the Australian Ministerial Superannuation Advisory Committee (2007-2011). Internationally, he worked with the Japanese government for nearly a decade from 1999 on pension and population ageing issues. In 2004, he was tasked with evaluating World Bank assistance on pension reform in the Asian region for the Bank's Operations Evaluation Department. In 2007 he was appointed Visiting Professor at Zhejiang University in China, an ongoing appointment, and was previously a Visiting Scholar at the Wharton School of Business. In 2018, he was awarded a Rockefeller Residency to work on issues in population ageing and inequality, and has just been appointed co-chair of the G20 Population Ageing Task Force.



PROFESSOR KAARIN J. ANSTEY
BA (Hons) Syd., PhD Qld., FASSA, FAPS
CHIEF INVESTIGATOR AND DEPUTY DIRECTOR

Kaarin Anstey is Director of the UNSW Sydney Ageing Futures Institute focused on enabling optimal ageing for individuals and society and Senior Principal Research Scientist at Neuroscience Research Australia (NeuRA). She also leads an NHMRC Centre of Research Excellence in Cognitive Health and is a director of the NHMRC Dementia Centre for Research Collaboration.

Kaarin's research programs focus on the causes, consequences and prevention of cognitive ageing, dementia, and common mental disorders in adulthood. A second focus is on older drivers' risk assessment and safety. Kaarin has worked extensively with longitudinal studies, and since 2006 has led the PATH Through Life Project, a large cohort study focusing on common mental disorders and cognitive function, based in the ACT and surrounding regions.

Kaarin is the Chair of the International Research Network on Dementia Prevention, a Director of the Board of the Dementia Australia Research Foundation, a member of the World Health Organisation Group developing guidelines for risk reduction of cognitive decline and dementia, and a member of the Governance Committee of the Global Council on Brain Health.



PROFESSOR HAZEL BATEMAN
BEC (Hons) Qld., PhD UNSW, GAICD
CHEIF INVESTIGATOR, DEPUTY DIRECTOR
AND UNSW SYDNEY NODE LEADER

Hazel Bateman is a Professor of Economics in the LINSW School of Risk and Actuarial Studies

Hazel researches consumer financial decision making especially as it relates to retirement accumulation and decumulation. In particular, her work focuses on interventions to facilitate better financial decisions including choice architecture, information architecture, financial literacy and financial advice; and the taxation and regulation of superannuation funds.

She is the author of over 70 peer-reviewed publications and book chapters and Chief Investigator on over a dozen ARC funded projects. Hazel has been a consultant on retirement income issues to a range of Australian and international organisations including the OECD, the World Bank, the Social Insurance Administration (China) and the Korean Institute of Health and Social Affairs. She is a member of the Netspar Scientific Council, the Steering Committee of the Melbourne Mercer Global Pension Index and the UniSuper Consultative Committee. She is an editor of the *Journal of Pension Economics and Finance*.



PROFESSOR MARIAN BAIRD AO
BEC (Hons) DipEd PhD Syd., FASSA
CHIEF INVESTIGATOR AND DIRECTOR OF MENTORING
IEMERGING RESEARCHERSI

Marian Baird is Professor of Gender and Employment Relations, Head of the Discipline of Work and Organisational Studies, and Co-Director of the Women, Work and Leadership Research Group in the University of Sydney Business School

In 2018, Marian was appointed as a Pro-Chancellor of the University of Sydney and was also named in Apolitical's Top 100 Most Influential People in Gender Equality list. She was awarded an AO in 2016 for outstanding services to improving the quality of women's working lives and for contributions to tertiary education. She is one of Australia's leading researchers in the fields of women, work and family. Marian has received numerous grants from business and government to study gender equitable organisational change and work and family. She has contributed to a number of government advisory boards and reference groups relating to parental leave, gender equity and sexual harassment in the workplace. In 2017 Marian and colleagues edited a ground-breaking book, Women, Work and Care in the Asia Pacific, and she is currently a CI on the 'Investing in Women' project being undertaken in the Philippines, Indonesia, Myanmar and Vietnam for Australia's Department of Defence.



PROFESSOR PHILIP CLARKE
BEC N'cle (Aust), MEC Syd., PhD ANU, FASSA
CHIEF INVESTIGATOR

Philip Clarke is Director of the Health Economics Research Centre at the University of Oxford, UK. Until recently, he was the Director of the Centre for Health Policy at the University of Melbourne and continues to maintain a fractional appointment with the Centre and strong links with the CEPAR research team based there

He has contributed to health economic policy debates in Australia, particularly around the pricing of generic pharmaceuticals and more recently the need for better statistics on outcomes and cost in the Australian system. His research interests include developing methods to value the benefits of improving access to health care, health inequalities and the use of simulation models in health economic evaluation. Philip has been involved in the development of the UKPDS Outcomes Model, a health economic simulation model for type 2 diabetes. He has also undertaken policy relevant research for the World Bank, OECD, AusAID and the Department of Health. He has over 80 peer-reviewed publications and has recently contributed to books on costeffectiveness analysis and cost-benefit analysis published by Oxford University Press.



PROFESSOR ROBERT CUMMING
MBBS UNSW, MPH PhD Syd.
CHIEF INVESTIGATOR AND
UNIVERSITY OF SYDNEY NODE LEADER

Robert Cumming is Professor of Epidemiology and Geriatric Medicine at the University of Sydney. He shares his time between the School of Public Health at the University of Sydney and the Centre for Education and Research on Ageing (CERA) at Concord Hospital.

He has an international reputation for his research on osteoporosis, falls and fractures. His research on falls prevention in older people has had major impact on policy and practice in this important field. Much of his research brings together biological, psychosocial and medical aspects of ageing. In recent years he has extended his work to the study of ageing and health in developing countries in Asia and sub-Saharan Africa.

He is a member of the Australian Institute of Health and Welfare's National Arthritis and Musculoskeletal Conditions Monitoring Advisory Group and serves on the editorial board of the *International Journal of Epidemiology*. He is a Life Member of the Australasian Epidemiological Association. He was named a 2016 Highly Cited Researcher by Clarivate Analytics, one of just 115 Australian researchers across all academic disciplines to receive this award.



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CENTRE PERSONNEL

CHIEF INVESTIGATORS



PROFESSOR MICHAEL KEANE
BS MIT, MA PhD Brown, FES, FASSA
CHIFF INVESTIGATOR

Michael Keane is an Australian Laureate Fellow and Professor of Economics in the UNSW Business School.

Several independent sources have placed Michael Keane among the top economists internationally in terms of citations and the impact of his work. Recently he was ranked as top economist in the 1990 PhD cohort by Research Papers in Economics (RePEc). He is considered to be a world leader in choice modelling and his expertise is sought both nationally and internationally. In 2009 he prepared a report on tax transfers and labour supply for the Australian Treasury's Commission on Australia's Future Tax System. He has been a visiting scholar at the International Monetary Fund at various times throughout his career.

He was elected a Fellow of the Econometric Society in 2005 and in 2018 was elected to the Econometric Society Council. He won the Kenneth Arrow Award in 2008, was named an Australian Federation Fellow in 2005 and was awarded an Australian Laureate Fellowship in 2011. He is an Associate Editor of the Journal of Econometrics and Quantitative Marketing and Economics.



PROFESSOR PETER MCDONALD AM
BCom UNSW, PhD ANU, FASSA
CHIEF INVESTIGATOR AND
UNIVERSITY OF MELBOURNE NODE LEADER

Peter McDonald is Professor of Demography within the Centre for Health Policy at the University of Melbourne.

He was President of the International Union for the Scientific Study of Population for the years, 2010-2013. In 2015, he received the Irene B. Taueber Award from the Population Association of America which recognises an unusually original or important contribution to the scientific study of population. He is frequently consulted on the issue of population futures (causes, consequences and policies) by governments around the world, especially in Australia, Europe and East Asia.

In 2008, he was appointed as a Member of the Order of Australia. He is an inaugural ANU Public Policy Fellow and in 2014 was a member of the Independent Review into Integrity in the Subclass 457 Programme. He has worked previously at the Australian National University, the Australian Institute of Family Studies, the World Fertility Survey and the University of Indonesia.



PROFESSOR WARWICK MCKIBBIN AO BCom (Hons) UNSW, AM PhD Harvard University, FASSA CHIEF INVESTIGATOR AND DIRECTOR OF POLICY ENGAGEMENT

Warwick McKibbin is a Vice Chancellor's Chair in Public Policy and is Director of the Centre for Applied Macroeconomic Analysis in the Crawford School of Public Policy at the Australian National University. He is also a non-resident Senior Fellow at the Brookings Institution in Washington D.C.

He is internationally renowned for his contributions to global economic modelling and the theory of monetary policy. He has published more than 200 peer-reviewed academic papers and five books and is a regular commentator in the popular press. He has a wide range of policy experience. He has been a member of the Board of the Reserve Bank of Australia (2001 – 2011); the Prime Minister's Science, Engineering and Innovation Council (2005–2008); and the Advisory Board of the Prime Minister's Taskforce into Housing Affordability (2002–2003).

He regularly advises international institutions, central banks, governments and corporations across a range of developed and emerging economies.

Warwick serves on the Editorial/Advisory Boards of China & World Economy, Japan and the World Economy, and Asian Economic Papers.



PROFESSOR SHARON K. PARKER
BSc (Hons) UWA, PhD Sheffield, FASSA
CHIEF INVESTIGATOR, CURTIN UNIVERSITY NODE
LEADER AND DIRECTOR OF MENTORING
[MID-CARFER RESEARCHERS]

Sharon K. Parker is an ARC Laureate Fellow and a Professor at the Centre for Transformative Work Design within the Future of Work Institute at the Curtin Business School, Curtin University.

Sharon's research focuses particularly on job and work design, and she is also interested in employee performance and development. She has attracted competitive research funding worth over \$40,000,000, has published 100 academic articles, and is the author of a SAGE book on work design and a recent Routledge book on proactive behaviour.

Sharon is a recipient of the ARC's Kathleen Fitzpatrick Award and the Academy of Management OB Division Mentoring Award and is a Fellow of the Society for Industrial and Organisational Psychology. She also helped to develop the Good Work Design principles now used by Safe Work Australia and Comcare to foster the improved quality of work within Australian organisations.

Sharon is an Associate Editor for the Academy of Management Annals, a past Associate Editor of the leading organisational psychology journal, Journal of Applied Psychology, and has served on numerous editorial boards.



PROFESSOR MICHAEL SHERRIS
BA Macq., MBA Syd., FIA, FIAA, FSA
CHIEF INVESTIGATOR AND DIRECTOR
OF INDUSTRY ENGAGEMENT

Michael Sherris is Professor of Actuarial Studies in the UNSW Business School. His research sits at the intersection of actuarial science and financial economics, and has attracted a number of international and Australian best paper awards. He has published in leading international risk and actuarial studies journals, including Journal of Risk and Insurance, Insurance: Mathematics and Economics, Journal of Economic Dynamics and Control, North American Actuarial Journal and Geneva Papers on Risk and Insurance. He is on the editorial board of the Annals of Actuarial Science and is a co-editor of the North American Actuarial Journal.

Prior to becoming an academic he worked in the banking and finance industry. He has been an active member of the Australian actuarial profession having served on the Council of the Institute of Actuaries of Australia. He was President (2008-2009) of the Asia Pacific Risk and Insurance Association and a Board and Executive Member of the Enterprise Risk Management Institute International. He is Chair of the AFIR-ERM Section of the International Actuarial Association. He was named Australian Actuary of the Year 2007 in recognition of his contributions to actuarial research and education both internationally and within Australia.



SCIENTIA PROFESSOR ALAN WOODLAND BA PhD UNE, FASSA, FES CHIEF INVESTIGATOR

Alan Woodland is Scientia Professor of Economics in the School of Economics within the UNSW Business School.

Woodland's primary research interests and publications are in the areas of international trade theory, applied econometrics and population ageing. He has published in leading journals including Econometrica, Review of Economic Studies, Journal of Econometrics, Journal of International Economics and the Journal of Economic Dynamics and Control.

He is the recipient of the Distinguished Economist Award of the Economics Society of Australia. He is an Associate Editor of the *Review of International Economics*, a past editor of the *Economic Record*, and is currently on the editorial boards of the *International Journal of Economic Theory* and the *Economic Record*. Woodland has been a Reserve Bank of Australia Fellow in Economic Policy and a Senior Fulbright Fellow. He is also on the scientific boards of the European Trade Study Group (ETSG), Asia Pacific Trade Seminars (APTS), Australasian Trade Workshop (ATW) and the Dynamics, Economic Growth, and International Trade (DEGIT) Research Centre.



CENTRE PERSONNEL

PARTNER INVESTIGATORS

Professor Hanming Fang

Department of Economics
UNIVERSITY OF PENNSYLVANIA

Professor Olivia S. Mitchell

The Wharton School

UNIVERSITY OF PENNSYLVANIA

Professor James Nazroo

School of Social Sciences
UNIVERSITY OF MANCHESTER

HONORARY PROFESSORS

Professor Robert Holzmann AUSTRIAN ACADEMY OF SCIENCES

Professor Hal Kendig

Centre for Ageing, Health and Wellbeing
AUSTRALIAN NATIONAL UNIVERSITY
(UNTIL 3 JUNE 2018)

1 Not all Associate Investigators were actively involved in the research program in 2018

ASSOCIATE INVESTIGATORS¹

Professor Julie Agnew

Mason School of Business

COLLEGE OF WILLIAM AND MARY (FROM 13 FEBRUARY 2018)

Dr Daniel Alai

School of Mathematics, Statistics and Actuarial Sciences

Dr Jennifer Alonso García

Department of Economics, Econometrics and Finance UNIVERSITY OF GRONINGEN (FROM 9 JULY 2018)

Professor Ross Andel

College of Behavioural and Community Sciences, School of Aging Studies UNIVERSITY OF SOUTH FLORIDA

Professor Heather Booth

School of Demography

AUSTRALIAN NATIONAL UNIVERSITY

Professor Monika Bütler

Department of Economics UNIVERSITÄT ST. GALLEN

Dr Richard Burns

Centre for Research on Ageing, Health and Wellbeing
AUSTRALIAN NATIONAL UNIVERSITY

Professor Julie Byles

Research Centre for Generational Health and Ageing
THE UNIVERSITY OF NEWCASTLE, AUSTRALIA

Dr Elena Capatina

College of Business and Economics AUSTRALIAN NATIONAL UNIVERSITY (FROM 2 JULY 2018)

A/Professor Nicolas Cherbuin

Centre for Research on Ageing, Health and Wellbeing
AUSTRALIAN NATIONAL UNIVERSITY

Professor Linda Clare

Centre for Research in Ageing and Cognitive Health UNIVERSITY OF EXETER

Professor Lindy Clemson

Ageing, Work and Health Research Unit Faculty of Health Sciences UNIVERSITY OF SYDNEY (FROM 27 APRIL 2018)

A/Professor Loretti I. Dobrescu

School of Economics

VALE PROFESSOR HAL KENDIG



Emeritus Professor Hal Kendig died on Sunday June 3 2018, following a long illness.

Hal was involved in CEPAR since it was first conceived at the turn of the century, and played a major role in the 2010 successful bid for the Centre. He was known internationally for his outstanding contribution to social gerontology and his leadership of major research programs and collaborations in ageing and population ageing. The first time the term "population ageing" was recorded in Hansard, in 1986, it was in reference to a paper of Hal's.

He was prominent in policy debate, both in Australia and internationally, for many years and was an active contributor to public policy in health and aged care. Hal deepened the Centre's collaborations with governments and national peak bodies in ageing and related research translation and

dissemination. Through his extensive international networks, he played a key role in facilitating connections with international organisations in ageing and strengthening research collaborations with outstanding researchers in Asia, Europe and the United States.

Hal published widely in the leading international journals in the ageing field, and was one of the most highly cited Australian social gerontologists. His knowledge and expertise were frequently sought by the Australian Government. Hal provided mentorship to many throughout his career, and was especially active in mentoring PhD students.

Hal approached his illness with grace, humour, and courage. He was a great colleague and friend to many – he will be badly missed.

Professor Denise Doiron

School of Economics
UNSW SYDNEY

Dr Patrick Dunlop

School of Psychological Science
THE UNIVERSITY OF WESTERN AUSTRALIA

A/Professor Joanne Earl

Department of Psychology
MACQUARIE UNIVERSITY
(FROM 23.1ULY 2018)

A/Professor Christine Eckert

Marketing Department

UNIVERSITY OF TECHNOLOGY SYDNEY (FROM 7 FEBRUARY 2018)

Professor Hans Fehr

Department of Economics
UNIVERSITY OF WUERZBERG
(FROM 15 JANUARY 2018)

Professor Denzil Fiebig

School of Economics
UNSW SYDNEY

Professor Lisa M. Finkelstein

Department of Psychology NORTHERN ILLINOIS UNIVERSITY (FROM 12 OCTOBER 2018)

A/Professor Gwenith G. Fisher

Department of Psychology COLORADO STATE UNIVERSITY (FROM 18 OCTOBER 2018)

Dr Fabiola H. Gerpott

Faculty of Behavioural and Movement Sciences
VRIJE UNIVERSITEIT AMSTERDAM

(FROM 23 JULY 2018)

Dr Natasha Ginnivan

The Kirby Institute and UNSW Art & Design UNSW SYDNEY (FROM 23 MARCH 2018)

Professor Alastair Grav

Health Economics Research Centre

UNIVERSITY OF OXFORD

Professor Robert Gregory

College of Business and Economics
AUSTRALIAN NATIONAL UNIVERSITY

Professor Barbara Griffin

Department of Psychology MACQUARIE UNIVERSITY (FROM 23 JULY 2018)

Dr Cathy Gong

Centre for Research on Ageing, Health and Wellbeing
AUSTRALIAN NATIONAL UNIVERSITY

(FROM 3 MAY 2018)

Dr Myra Hamilton

Social Policy Research Centre

LINSW SYDNEY

Erik Hernæs

RAGNAR FRISCH CENTRE FOR ECONOMIC RESEARCH

Alexandra Heron

The University of Sydney Business School UNIVERSITY OF SYDNEY

Dr Vasant Hirani

School of Life and Environmental Sciences

UNIVERSITY OF SYDNEY (FROM 21 FEBRUARY 2018)

Professor Andreas Hirschi

Institute of Psychology UNIVERSITY OF BERN (FROM 23 JULY 2018)

Dr Diane Hosking

AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE (FROM 23 JULY 2018)

A/Professor Rafat Hussain

Centre for Research on Ageing, Health and Wellbeing AUSTRALIAN NATIONAL UNIVERSITY

(FROM 9 APRIL 2018)

A/Professor Fedor Iskhakov

Research School of Economics

AUSTRALIAN NATIONAL UNIVERSITY

Professor Carol Jagger

Institute of Health and Society
NEWCASTLE UNIVERSITY, UK

Dr Kim Kiely

School of Psychology and Neuroscience Research Australia
UNSW SYDNEY

A/Professor Dorien Kooij

School of Social and Behavioural Sciences

TILBURG UNIVERSITY (FROM 23 JULY 2018)

Dr Cagri Kumru

Research School of Economics

AUSTRALIAN NATIONAL UNIVERSITY

Professor Jong-Wha Lee

Economics Department KOREA UNIVERSITY (FROM 9 FEBRUARY 2018)

Dr Han Li

Department of Applied Finance and Actuarial Studies
MACQUARIE UNIVERSITY

Dr Vanessa Loh

The University of Sydney Business School UNIVERSITY OF SYDNEY

(FROM 12 APRIL 2018)

Dr Simen Markussen

RAGNAR FRISCH CENTRE FOR ECONOMIC RESEARCH

A/Professor Shiko Maruyama

Economics Discipline Group UTS Business School

THE UNIVERSITY OF TECHNOLOGY SYDNEY

Dr Ramona Meyricke

SUNCORP

Dr Moyra Mortby

School of Psychology

UNSW SYDNEY

AND NEUROSCIENCE RESEARCH AUSTRALIA (FROM 16 MARCH 2018)



CENTRE PERSONNEL

Professor Andreas Müller

Institute of Psychology, Work and Organisational Psychology UNIVERSITY OF DUISBURG-ESSEN (FROM 23 JULY 2018)

Professor Ben R. Newell

School of Psychology UNSW SYDNEY

A/Professor Kate O'Loughlin

Ageing, Work and Health Research Unit, Faculty of Health Sciences UNIVERSITY OF SYDNEY

Professor Annamaria Olivieri

Department of Economics and Management

Dr Ruth Peters

NEUROSCIENCE RESEARCH AUSTRALIA

Professor Ermanno Pitacco

Faculty of Economics
UNIVERSITY OF TRIESTE

Dr Cort W. Rudolph

Department of Psychology SAINT LOUIS UNIVERSITY (FROM 23 JULY 2018)

Dr Renuka Sane

NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY, NEW DELHI

Professor Anthony Scott

Melbourne Institute of Applied Economic and Social Research

UNIVERSITY OF MELBOURNE

Dr Wenqiang (Adam) Shao

MILLIMAN

A/Professor Olena Stavrunova

Economics Discipline Group UTS Business School

THE UNIVERSITY OF TECHNOLOGY SYDNEY

Dr Ralph Stevens

CPB NETHERLANDS BUREAU FOR ECONOMIC POLICY ANALYSIS

Dr Federica Teppa

Economic and Research Division

DE NEDERLANDSCHE BANK (DUTCH CENTRAL BANK)

Professor Susan Thorp

The University of Sydney Business School UNIVERSITY OF SYDNEY

A/Professor Chung Tran

Research School of Economics

AUSTRALIAN NATIONAL UNIVERSITY

Professor Donald Truxillo

Department of Psychology
PORTLAND STATE UNIVERSITY

Dr Iwu Utomo

School of Demography
AUSTRALIAN NATIONAL UNIVERSITY

Dr Andrés Villegas

School of Risk and Actuarial Studies
UNSW SYDNEY

Professor Peter Whiteford

Crawford School of Public Policy
AUSTRALIAN NATIONAL UNIVERSITY

Dr Chia-Huei Wu

Business School

DURHAM UNIVERSITY

Dr Shang Wu

FIRST STATE SUPER

Dr Mingxu Yang

Department of Labor and Social Security
SOUTH CHINA AGRICULTURE UNIVERSITY

Dr Vasoontara Yiengprugsawan

Centre for Research on Ageing, Health and Wellbeing AUSTRALIAN NATIONAL UNIVERSITY (FROM 23 MARCH 2018)

Professor Hannes Zacher

Department of Psychology UNIVERSITY OF LEIPZIG

Dr Jonathan Zivevi

School of Risk and Actuarial Studies
UNSW SYDNEY

Professor Zhongwei Zhao

School of Demography
AUSTRALIAN NATIONAL UNIVERSITY

ASSOCIATE PROFESSOR OF ECONOMIC DEMOGRAPHY

A/Professor Jeromey Temple

Centre for Health Policy
UNIVERSITY OF MELBOURNE

SENIOR RESEARCH FELLOWS

Rafal Chomik

UNSW Business School
UNSW SYDNEY

Dr George Kudrna

UNSW Business School
UNSW SYDNEY

Dr Katja Hanewald

UNSW Business School
UNSW SYDNEY
(ON PARENTAL LEAVE FROM 24 FEBRUARY
UNTIL 30 AUGUST 2018)

Dr An Tran

Centre for Health Policy
UNIVERSITY OF MELBOURNE

SENIOR RESEARCH ASSOCIATES

Dr Jennifer Alonso García

UNSW Business School
UNSW SYDNEY
(UNTIL 8 JULY 2018)

Dr Yuanyuan Deng

UNSW Business School UNSW SYDNEY (FROM 16 JULY 2018)

Dr Héloïse Labit Hardy

UNSW Business School

UNSW SYDNEY

Dr Pengyu Wei

UNSW Business School

UNSW SYDNEY

(FROM 28 MARCH 2018)

Dr Mengyi Xu

UNSW Business School

UNSW SYDNEY

Dr Sisi Yang

UNSW Business School

UNSW SYDNEY

(FROM 2 JULY 2018)

RESEARCH FELLOWS

Dr Daniela Andrei

Centre for Transformative Work Design

THE UNIVERSITY OF WESTERN AUSTRALIA (FROM 1 MARCH TO 19 AUGUST 2018)

Future of Work Institute CURTIN UNIVERSITY (FROM 20 AUGUST 2018)

Brooke Brady

NEUROSCIENCE RESEARCH AUSTRALIA (FROM 4 JUNE 2018 UNTIL 31 DECEMBER)

Dr Elena Capatina

UNSW Business School

UNSW SYDNEY (UNTIL 28 JUNE 2018)

Dr Andreea Constantin

The University of Sydney Business School

UNIVERSITY OF SYDNEY (FROM 28 SEPTEMBER 2018)

Dr Inka Eberhardt

UNSW Business School

UNSW SYDNEY

(FROM 15 OCTOBER 2018)

Dr Meimanat Hosseini Chavoshi

Centre for Health Policy
UNIVERSITY OF MELBOURNE

Dr Megan Gu

UNSW Business School

UNSW SYDNEY

(FROM 10 OCTOBER TO 19 DECEMBER 2018)

Dr Saman Khalatbari-Soltani

School of Public Health

UNIVERSITY OF SYDNEY (FROM 3 SEPTEMBER 2018)

Josh Knight

Centre for Health Policy

UNIVERSITY OF MELBOURNE

(FROM 23 NOVEMBER 2018)

Dr Larry Liu

Crawford School of Public Policy

AUSTRALIAN NATIONAL UNIVERSITY

Dr Xiangling Liu

UNSW Business School

UNSW SYDNEY

Dr Bei Lu

UNSW Business School

UNSW SYDNEY

Dr Timothy Neal

UNSW Business School

UNSW SYDNEY

Dr Miguel Olivo-Villabrille

UNSW Business School

UNSW SYDNEY

Dr Gretchen (Gigi) Petery

Centre for Transformative Work Design

THE UNIVERSITY OF WESTERN AUSTRALIA

(FROM 4 JUNE TO 22 JULY 2018)

Future of Work Institute CURTIN UNIVERSITY (FROM 23 JULY 2018)

Xiao Chun Xu

UNSW Business School

UNSW SYDNEY (UNTIL 30 JUNE 2018)

RESEARCH ASSOCIATE

Alison Williams

The University of Sydney Business School

UNIVERSITY OF SYDNEY (FROM 8 OCTOBER 2018)

RESEARCH ASSISTANTS

Aleksandra Balyanova

UNSW Business School

UNSW SYDNEY

(FROM 2 JULY 2018)

Johan Bonekamp

NETSPAR

Nanda Gopal

UNSW Business School

UNSW SYDNEY
(FROM 2 JULY 2018)

Simon Graham

UNSW Business School

UNSW SYDNEY

(UNTIL 2 NOVEMBER 2018)

Ang Li

UNSW Business School

UNSW SYDNEY (FROM 14 MAY 2018)

Yulong Li

UNSW Business School

UNSW SYDNEY

Tala Moradi

School of Public Health

UNIVERSITY OF SYDNEY

(FROM 10 DECEMBER 2018)

Patrick Moran

OXFORD UNIVERSITY

Augustus Panton

Crawford School of Public Policy
AUSTRALIAN NATIONAL UNIVERSITY



CENTRE PERSONNEL

Seyedeh Safiyeh Navab Safavi

Centre for Health Policy
UNIVERSITY OF MELBOURNE

David Rodgers

UNSW Business School UNSW SYDNEY (UNTIL 27 JUNE 2018)

Jay Stiles

Centre for Health Policy
UNIVERSITY OF MELBOURNE

Kelwin Tang

UNSW Business School UNSW SYDNEY (FROM 2 JULY 2018)

David Tilley

UNSW Business School UNSW SYDNEY (FROM 18 JUNE 2018)

Cris Townley

UNSW Business School

UNSW SYDNEY

(FROM 2 JULY 2018 UNTIL 7 DECEMBER 2018)

Xiao Xu

UNSW Business School
UNSW SYDNEY

Dr Sophie Yan

UNSW Business School
UNSW SYDNEY

Dennis Yang

UNSW Business School
UNSW SYDNEY
[FROM 22 JUNE 2018]

RESEARCH MANAGER

Dr Ranmalee Eramudugolla
NEUROSCIENCE RESEARCH AUSTRALIA

PROJECT MANAGERS

Sarah Kampii

NEUROSCIENCE RESEARCH AUSTRALIA (FROM 5 FEBRUARY UNTIL 30 JUNE)

Kate Milledge

SCHOOL OF PUBLIC HEALTH UNIVERSITY OF SYDNEY

PROJECT OFFICER

Tanya Price

NEUROSCIENCE RESEARCH AUSTRALIA (FROM 1 NOVEMBER)

PROFESSIONAL STAFF

Anne Gordon

Director of Operations
UNSW SYDNEY NODE

Nicola Atkin

Administrator

UNIVERSITY OF SYDNEY NODE (FROM 30 APRIL 2018)

Joanna Bayliss

Senior Administrative Officer -Stakeholder Relationships & Governance

UNSW SYDNEY NODE (FROM 21 MARCH 2018)

Amy Brushwood

Senior Administrative Officer – Research and Mentoring Support

UNSW SYDNEY NODE

(ON PARENTAL LEAVE UNTIL 2 MARCH 2018)

Helen Flint

Administrative Assistant

UNSW SYDNEY NODE (UNTIL 23 MARCH 2018)

Colleen Faes-Scott

Management Accountant UNSW SYDNEY NODE

Tracey Mayhew

Centre Manager

UNIVERSITY OF MELBOURNE NODE

Annabella McHugh

Administrative Officer

UNSW SYDNEY NODE

(UNTIL 15 MARCH 2018)

Nesha Nanu

Business Manager

UNIVERSITY OF MELBOURNE NODE

Rossana Batos Pinto

Administrator

AUSTRALIAN NATIONAL UNIVERSITY NODE

Silke Weiss

Communications, Marketing and Events Coordinator UNSW SYDNEY NODE (FROM 5 MARCH 2018)

Jane Westbrook

Senior Advisor

UNSW SYDNEY NODE (FROM 3 MAY 2018)

Kirsty Zmisa

Executive Assistant to Professor Kaarin J. Anstey
UNSW SYDNEY NODE



RESEARCH 1 STREAM

MACRO-DEMOGRAPHIC DYNAMICS AND POPULATION AGEING POLICY

STREAM LEADER / PETER MCDONALD

This stream brings together a multidisciplinary team comprising expertise in demography, economics and actuarial studies to develop a suite of models that will combine to place Australia at the forefront of macrodemographic modelling globally. Together they will generate greatly improved understanding of (i) the evolution of Australia's demography, (ii) the optimal policy settings required to support an ageing demographic, (iii) demographic changes in the region and its impact on Australia, and iv) how transfers between generations will change as populations age.

The stream comprises four projects:

- 1.1 DEMOGRAPHIC PROJECTION MODELS
- 1.2 DEMOGRAPHIC CHANGE AND OPTIMAL POLICY
- 1.3 REGIONAL MACRO MODELLING
- 1.4 THE NATIONAL TRANSFER ACCOUNTS (NTA)

RESEARCHERS

PETER MCDONALD
JEROMEY TEMPLE
MEIMANAT HOSSEINI-CHAVOSHI
SEYEDEH SAFIYEH NAVAB SAFAVI
HEATHER BOOTH
IWU UTOMO
7HONGWFI ZHAO

Given the surge of interest in 2018 in population policy in Australia, this was a major focus of project activity during the year. At the Federal level, at their request, separate consultations were held with the Minister for Cities, Urban Infrastructure and Population and with the Prime Minister. At the request of the Prime Minister, a presentation on international migration was made to the Council of Australian Governments (COAG) at its December meeting in Adelaide. Public lectures on Australian population policy were delivered at the University of Melbourne and the Australian National University and invited lectures given to the Department of the Treasury in Canberra and to policy and opinion leaders in Melbourne at an event organised by the Australian National University and the Centre for Policy Development. CI McDonald gave a plenary presentation on population ageing in regional Australia at the

Australian Population Conference in Darwin. Two opinion pieces were published in *Pursuit* and one in *The Conversation* and a paper was published in a special issue on population policy in the journal, *Australian Population Studies*. Finally, several contributions were made to the media. Our preparedness to contribute to the population debate in Australia was undoubtedly facilitated by the existence of this on-going project as part of CEPAR.

At the international level, CI McDonald led the compilation of the United Nations Population Fund (UNFPA) State of World Population Report 2018. This major report analyses fertility trends for all countries with populations of one million or more. For Asia, AI Zhongwei Zhao was co-editor of the newly published Routledge Handbook of Asian Demography with contributions by CI McDonald and Research Fellow Hosseini-Chavoshi. This volume also included contributions by AI Booth on population ageing in Asia and AI Zhao on mortality in Asia. For China, a special session

on fertility in China was organised by Al Zhao with a presentation by Cl McDonald at the Asian Population Conference in Shanghai. For Iran, regional population projections were prepared by Research Fellow Hosseini-Chavoshi together with the Asian Demographic Research Institute, Shanghai University.

At the request of the Prime Minister, a presentation on international migration was made to the Council of Australian Governments (COAG) at its December meeting in Adelaide.



DR MEIMANAT HOSSEINI-CHAVOSHI BS (Public Health) Isfahan University of Medical Sciences, MA (Population Studies) PhD (Demography) ANU RESEARCH FELLOW

Meimanat Hosseini-Chavoshi is a CEPAR Research Fellow in the School of Population and Global Health at the University of Melbourne, mentored by Professor Peter McDonald. Prior to this, she worked at the ANU's Crawford School of Public Policy and School of Demography (formerly the Australian Demographic and Social Research Institute) where she carried out her postdoctoral research on fertility regulation and abortion in Iran.

Before moving to Australia, she had a longstanding career with the Iran Ministry of Health and Medical Education as Head of the Population and Health Data Unit responsible for design, implementation and data analysis of several national surveys in the areas of reproductive health, fertility,

adolescence and ageing. Over the last 10 years, she has collaborated in different research projects funded by such agencies as the Wellcome Trust, WHO, UNFPA, GDN and GERPA and the Australian Research Council.

Meimanat is currently working on demographic perspectives of ageing in Australia exploring spatial patterns of older Australians, and factors associated with their living arrangements and health conditions.



RESEARCHERS

ALAN WOODLAND GEORGE KUDRNA CHUNG TRAN HANS FEHR DAVID RODGERS DANIEL WHEADON

This research project commenced in 2018 under the leadership of Chief Investigator Alan Woodland. The primary motivations for the project are that there is significant demographic change in the form of population ageing in Australia and other countries and that appropriate policy responses on the part of governments include income taxation, age pension and retirement policy settings. These settings are likely to require adaptation over the course of the demographic change and so it is an important research task to identify dynamically optimal policy settings. That is the broad objective of the research project.

More specifically, the aim is to construct optimal policy profiles for the first time for Australia by using an overlapping generations (OLG) model, which best captures the demographic change and policy impacts on both current and future

generations' wellbeing. It aims to break new ground by (i) integrating optimal policy solutions with population dynamics, productivity and technology, and (ii) analysing interactions between stochastic demographic projections and the representation of ageing in economic models. This project is theoretically challenging and computationally demanding, yet critical for policy. It will provide new ways to evaluate policy recommendations. The analyses will proceed both theoretically and by using dynamic OLG models embedded in a dynamic optimisation framework.

During 2018, there has been significant progress on several specific sub-projects.

Means testing and the Australian Age Pension

One sub-project investigates the extent to which the means-tested aspect of the Australian Age Pension system provides a strong automatic mechanism to keep public pensions in ageing economies both fiscally sustainable and equitable. The means testing of the Age Pension tailors the level of pension benefits according to individual economic status. The objective is to demonstrate that this provides an automatic adjustment mechanism that mitigates the pressing fiscal cost of an old-age public pension

program. Moreover, in the context of population ageing with widening gaps in life expectancies based on income/skill, this feature generates an automatic adjustment mechanism that not only mitigates the pressing fiscal cost of an old-age public pension program (fiscal stabilisation device) but also redistributes pension benefits to those in need with shorter life expectancies (redistributive device). To evaluate this automatic adjustment mechanism, we employed an overlapping generations model with population ageing. Our results indicate that this novel mechanism plays an important role in containing the adverse effects of population ageing on the fiscal costs and progressivity of a pension system.

... a well designed means test can create a sufficiently strong automatic mechanism to keep public pensions in ageing economies sustainable and equitable.



DR GEORGE KUDRNA
MA Econ TUL Czech
Republic,
PhD Econ Syd.
SENIOR RESEARCH FELLOW

George Kudrna is a CEPAR Senior Research Fellow, located in the UNSW Business School. He completed his undergraduate studies in economics and insurance management in the Czech Republic, and received a PhD in Economics from the University of Sydney in 2009.

His research encompasses the areas of public economics, macroeconomics and population ageing. He develops and applies rigorous macroeconomic models to investigate the economic impacts of demographic change and retirement income policy reforms – with the ultimate aim of informing and influencing major policy decisions in this area. His research on pension and ageing related topics

has been published in both national and international economics journals, including the *Economic Record*, the *Journal of Macroeconomics*, *Macroeconomic Dynamics* and *Economic Modelling*. He has also co-authored several government reports on pension and tax related issues, including commissioned reports for the Australian Treasury, for the U.S. Social Security Administration and for the NSW Treasury. George is also a Fellow at the Global Labour Organization (GLO) and a Research Associate at the Centre for Applied Macroeconomic Analysis (CAMA).

More pronounced ageing scenarios with widening mortality gaps between high- and low-income groups of individuals further strengthen the role of this mechanism. Accordingly, a well-designed means test can create a sufficiently strong automatic mechanism to keep public pensions in ageing economies sustainable and equitable. A discussion paper has been written.

Another sub-project is underway to consider whether optimal linear means tests for the Age Pension can be improved upon by introducing non-linearities to make the test apply either progressive or regressive. Non-linear means tests are expected to provide greater flexibility to policymakers to reduce distortions caused by the interaction of the pension and tax systems, and may allow policymakers to adjust the incentives of lower- and middle- income households for work and savings in a differentiated way. It is expected that the optimal nonlinearity of the means test is related to both the income tax schedule and the distribution of income at senior ages. The model for this task has been developed and is currently being calibrated to the Australian economic and policy settings, following which optimal policy scenarios will be constructed.

Taxation and population ageing

The objective of this sub-project is to measure the potential welfare gains from switching from the current income taxation system, to a system with age-dependent taxation when a country is undergoing population ageing. While agedependent taxation has been discussed in the literature, this literature does not link agedependent taxation to the great fiscal challenge of our time: population ageing. Much of the forecast fiscal pressure from population ageing arises from the fact that older people generally work less than middle aged and younger people. Age dependent taxation provides a policy tool that acts directly upon this difference. This sub-project proposes to quantify the potential gains from age dependent taxation under a scenario of population ageing using an overlapping generations model. The model for this task has been developed and is currently being calibrated to the Australian economic and policy settings, following which optimal policy scenarios will be constructed.

Pension policy and homeownership

A final sub-project concerns homeownership in Australia and Germany, with a focus on the role of retirement income policy in the two countries. The main purpose is to quantify the role of pension policy in explaining large homeownership differences between Germany and Australia. To address this issue, the research involves the construction of an OLG model with tenure choice and differences in tax and retirement income policy. The model structure, description and calibration of the models to Germany and Australia have been completed.

This subproject proposes to quantify the potential gains from age dependent taxation under a scenario of population ageing using an overlapping generations model.



PROFESSOR HANS FEHR
MA Econ PhD Econ
Regensburg
ASSOCIATE INVESTIGATOR

Hans Fehr is a CEPAR Associate Investigator located at the University of Wuerzburg in Germany where he works as Professor of Economics.

He joined the Centre in January 2018 after visiting the UNSW Sydney during his sabbatical. Hans received his diploma in Economics in 1989, his PhD in 1992 from the University of Regensburg, and his post-doctoral degree (Habilitation) from the University of Tuebingen in 1998. In 1993-94 he worked as a post-doc at Boston University and from 1994 to 1998 he was an assistant professor at the University of Tuebingen.

His main research interests are in the field of quantitative public economics. In the past he has analysed the economic consequences of population ageing and various tax policy and social security reforms by means of computable general equilibrium models with overlapping generations. His research is published in various journals including the European Economic Review, Journal of Economic Dynamics & Control, Review of Economic Dynamics, and the Scandinavian Journal of Economics. Hans is also a Research Fellow at the Network for Studies on Pensions, Aging and Retirement (Netspar) in Tilburg and the Center of Economic Studies (CESifo) in Munich.



WARWICK MCKIBBIN LARRY LIU PETER MCDONALD JOHN PIGGOTT RAFAL CHOMIK IWU UTOMO JONG-WHA LEE TSENDSUREN BATSUURI PHITAWAT POONPOLKUL MUHAMMAD ABSOR ALIZA HUNT

Extending the G-cubed multi-country model

The goal of the main project, involving a team comprising Warwick McKibbin and Larry Liu, is to extend the G-Cubed multi-country model to explore different demographic scenarios for Asian economies with a focus on the macroeconomic adjustment globally, in the region, and in Australia.

During 2018 the ANU team has been building the global database and constructing the model for the countries which will be included in the global model. The model we have constructed is more ambitious than proposed in the original research plan. We were able to overcome technical limitations on model scale and so were able to

include the major countries by population in the Asian region. The country coverage in the new model is: United States; Japan; Europe; Australia; Korea; Rest of Advanced Economies; Taiwan; Singapore; China; India; Indonesia; Philippines; Vietnam; Thailand; Myanmar; Malaysia; Other Asia; Oil-exporting and the Middle East; and the Rest of the World.

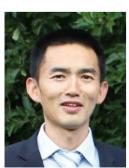
To date, we have successfully assembled the database, created the full set of model equations and begun testing capability of our software to solve the model. The next stage will be testing model properties. The project is on schedule despite the more ambitious model development.

During 2019 we plan to have the new model in place and then begin to develop the demographics structure within this model to enable us to include the Blanchard/Yaari approximation to an overlapping generations (OLG) model.

The Impact of demographic change in Asia on macroeconomic and environmental outcomes

PhD student Tsendsuren (Tsegi) Batsuuri is focused on several research questions: (1) How does demographic change and population ageing affect carbon emissions when capital intensity and emissions intensity across sectors are different? (2) How does asymmetric demographic change across countries affect global and country emissions when countries are linked through trade and finance? (3) How does the interaction of different pension schemes with different demographic transition affect global emissions? (4) Can price based metrics be useful in comparing country efforts when there are spill-over impacts due to demographic change? This year Tsegi has undertaken a literature review, given a seminar on her research proposal and begun formulating a small model to explore the research questions. During 2019 the OLG model will be developed to begin exploring the research auestions.

The goal ... is to extend the G-Cubed multi-country model to explore different demographic scenarios for Asian economies with a focus on the macroeconomic adjustment globally, in the region and in Australia.



DR LARRY LIU
BS MA Shanghai Jiao Tong,
PhD ANU
RESEARCH FELLOW

Larry Liu is a CEPAR Research Fellow at the Crawford School of Public Policy at ANU. He is also a Research Fellow at the Centre for Applied Macroeconomic Analysis (CAMA) at ANU. He joined CEPAR in December 2017 after working as a Research Fellow at CAMA since 2015. He completed his PhD in Economics at ANU in 2015, and received his MA in Economics and BS in Computer Science both from Shanghai Jiao Tong University in China.

He is currently working on modelling global demographic change. Particularly, he is introducing global demographic features into the G-Cubed model of the global economy, and analysing

macroeconomic adjustments at the global, regional, and national levels, particularly in Australia and China. He is also working on small general equilibrium models linking demographic change to endogenous economic growth, monetary policy, and climate policy.

More broadly, his research interests are macroeconomics, public economics and international economics, and dynamic general equilibrium modelling. He teaches International Macroeconomics for graduate students at ANU.

The link between demographic change and the impact of monetary policy

PhD student Phitawat Poonpolkul is focused on the link between demographic change and the impact of monetary policy. His first paper (with Dr Larry Weifeng Liu) is on "Demographic Changes and Asset Allocations". This paper develops a closed economy 0LG model in order to explore the link between demographic change and asset allocation decisions. The theoretical model has been formulated but is still being implemented in numerical simulation software. During 2019 it is expected that this model will be operational.

Meeting the needs of older persons in rural Indonesia

Peter McDonald and Iwu Utomo have been focusing on the issue of sources of support for older people in Indonesian villages when their children move to the cities. They have conducted a study of 2,750 people aged 60 and over living in ten villages spread across Indonesia and representing several ethno-cultural settings. Two CEPAR PhD students at the Australian National University, Aliza Hunt and Muhammad Absor, are using these data for their theses and two Indonesian students, Nur Cahyadi and Anggra

Cahyo, have used the data for their Masters theses at ANU. The study has included interviews with policymakers in Indonesia from the village to the national level, including the Director of Health and Nutrition Policy in the Indonesian National Planning Board. One paper has been published in Social Science and Medicine on social support of older persons and another submitted to the same journal on the determinants of psychological distress. Other papers are in progress along with village reports in Indonesian for each village. The researchers are planning to follow-up the sample of older people in 2020.

Demographic and technological changes

Demographic and technological changes are two megatrends set to transform labour markets around the world. These shifts are already under way and are expected to accelerate, particularly in East and South East Asia, which is home to the world's oldest and fastest ageing societies and a region with an enviable pace of economic development. While the literature on each of these trends is vast, interactions between them are little studied, and rarely in the Asian setting. Yet demography, technology, structural change and economic development are all related.

Chomik and Piggott map out existing evidence that attempts to address these interactions and identify the types of strategies that may be needed to make the most of the dual challenge of rapid population ageing and technological advancement. The paper was prepared for the Asian Development Bank and formed the background for a conference on the topic held at the University of Korea in March.

A second research project uses public accounting methodologies to provide a systematic and quantitative analysis of the economic implications of the demographic transition in East Asia and the Pacific. These allow the decomposition of impacts into those associated with demographic change, those that flow from transitions in labour force participation, and those that will be driven by changes in productivity. The approach is bolstered by analysing the impact on government expenditure and the implied affordability of such expenditure given an expansion of the welfare system, demographic change and alternative growth scenarios. This paper is to be published by UNESCAP.



DR IWU DWISETYANI UTOMO
BA Psych University of
Indonesia, MSc
Demography Florida State
University, PhD ANU
ASSOCIATE INVESTIGATOR

Iwu Utomo is a Fellow at the School of Demography at the Australian National University (ANU). She joined CEPAR in September 2014 as an Associate Investigator and currently contributes to research led by Peter McDonald on meeting the needs of older persons in rural Indonesia as part of project 1.3.

She graduated from the ANU School of Demography in 1998 and returned to the School as a Postdoctoral Fellow in 2000. Her first appointment at ANU was with the National Centre for Epidemiology and Population Health (2002-2008) where she worked on issues relating to gender, sexuality and health.

Iwu has been successful in gaining ARC funding for Harmful Sexual Practices in Southeast Asia

(2005-2008); Indonesian Young Adults Transition into Adulthood (2008-2015); and Meeting the Needs of Older People in Indonesian Villages (with Peter McDonald and Robert Sparrow, 2016-2019). She is the chief investigator in the Greater Jakarta Transition to Adulthood Longitudinal Survey which has received funding from WHO (2008-2011); the Ford Foundation (2008-2020); and the National University of Singapore (2010).

In 2008, Iwu received an AusAID Australian Development Research Award for a project on Integrating Gender and Reproductive Health Issues in the Indonesian National Curriculum. This study also received additional funding from the Ford Foundation.



PETER MCDONALD
JEROMEY TEMPLE
JAMES MAHMUD RICE

As Australia's population ages, considerable policy attention has been paid to the economic implications of this demographic change. However, many economic studies of ageing are oftentimes criticised on two grounds. Firstly, many studies gloss over, or omit completely, the full transfer system that governments, families and individuals engage in to maintain levels of consumption and wellbeing across the full life-cycle, including during retirement. Secondly, few studies provide a unified view of population ageing and the economy – one that is comparable across countries, across time and across cohorts.

The National Transfer Accounts (NTA) project has sought to fill this important research gap. The NTA is colloquially referred to as 'adding age to the national accounts', as key to the approach is the disaggregation of national level aggregate statistics on economic phenomena by age. By doing so, the NTA seeks to improve our understanding of what we term the generational

economy: 'the social institutions and economic mechanisms used by generations or age groups to produce, consume, share and save resources'. The Australian National Transfer Account project (ANTA) is part of the international NTA Programme now underway with accounts created for about 90 countries – in the Asia-Pacific, Americas, Europe and Africa.

This type of analysis contributes to an understanding of how changes in population age structure are affecting economic growth, the wellbeing of all age groups, and the sustainability of public and private systems that transfer resources between generations. With multiple cross-sections, the NTA offers the ability to study the evolution of intergenerational transfer systems and the consequences of alternative approaches to age reallocations embodied in public policy with respect to pensions, health care, education and social institutions.

During 2018, James Mahmud Rice commenced a PhD at the University of Melbourne examining various aspects of the NTA accounts over the period 1980 to 2010. The Australian NTA team have also been working on a special issue of the *Journal of Population Research*, on Demographic

Change and Intergenerational Equity. This special issue aims to bring together work from around the world that uses new National Transfer Accounts data to develop rigorous conceptualisations and measurements of intergenerational equity and provide new insights into how intergenerational equity is likely to be impacted by processes of population ageing and demographic change more broadly. Several Australian papers have been prepared for the volume. The Australian NTA team have also been preparing an ARC Linkage Grant (with the Department of Social Services) to extend the National Transfer Accounts to 2016 and analyse the implications of demographic change on the range of social transfer payments provided by the Australian Government.

This type of analysis contributes
to an understanding of how
changes in population age
structure are affecting economic
growth, the wellbeing of all age
groups, and the sustainability
of public and private systems
that transfer resources
between generations.



A/PROFESSOR
JEROMEY TEMPLE
BA Population Studies
(Hons) BCom PhD
(Demography) ANU
ASSOCIATE PROFESSOR OF
ECONOMIC DEMOGRAPHY

A/Prof Jeromey Temple is Head of the Demography and Ageing Unit at the University of Melbourne and Associate Professor of Economic Demography with the ARC Centre of Excellence in Population Ageing Research.

Temple is the head of the Australian National Transfer Accounts (NTA) project and in 2018 was elected as the Asia Regional representative on the global NTA Executive Council led from the University of California at Berkeley and the East West Centre. Temple's current work on the National Transfer Accounts seeks to improve our understanding of how changes in population age structure are

affecting economic growth, the wellbeing of all age groups, and the sustainability of public and private systems that transfer resources between generations. Temple's further research focus includes quantitative studies of inequality and discrimination in the later life course.

OTHER ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 1 RESEARCH IN 2018 INCLUDED:



PROFESSOR JONG-WHA LEE
BA MA Korea, MA PhD Harvard

Jong-Wha Lee is a Professor of Economics and Director of the Asiatic Research Institute at Korea University. He served as a senior adviser for international economic affairs to the former President of the Republic of Korea. He was also previously Chief Economist and Head of the Office of Regional Economic Integration at the Asian Development Bank and an economist at the International Monetary Fund. He has taught at Harvard University and Peking University. As a CEPAR Associate Investigator he collaborates with CI McKibbin on Project 1.3.

He has published extensively on topics relating to human capital, growth, financial crises, and economic integration in leading academic journals. His most recent books include *Crisis and Recovery: Learning from the Asian Experience* (World Scientific, 2016) and *Education Matters: Global Schooling Gains from the 19th to the 21st Century*, coauthored with R. J. Barro (Oxford University Press, 2015). He is a regular columnist for *Project Syndicate*. He obtained his PhD and Master's degree in Economics from Harvard University.



A/PROFESSOR CHUNG TRAN

BA Hanoi National Economics University, PhD Indiana University

Chung Tran is Associate Professor of Economics at the Australian National University. He is also a CEPAR Associate Investigator working with the research team on CEPAR project 1.2 focused on demographic change and optimal policy.

His primary research interests lie in the areas of macroeconomics and public finance. Specific research topics include: evaluating trade-offs in designing social security and health insurance systems; analysing the dynamic effects of fiscal policy; and understanding the consequences of debt financing and fiscal austerity measures. His work appears in leading academic journals including *Review of Economic Dynamics*, the *Journal of Economic Dynamics and Control*, the *European Economic Review* and the *Journal of Development Economics*.



PROFESSOR ZHONGWEI ZHAO

BA PKU, MA Exeter, PhD Camb.

Zhongwei Zhao is a Professor in the School of Demography at the Australian National University. Prior to taking up his present appointment, he was a senior fellow at the Demography Program in the Research School of Social Sciences at the Australian National University; a senior research associate at the Cambridge Group for the History of Population and Social Structure; and a Bye Fellow at Pembroke College, University of Cambridge. Zhongwei contributes to CEPAR Project 1.1 as an Associate Investigator.

Zhongwei has published many papers in world leading demographic journals. Research interests include: environmental impacts on population health and mortality; mortality and fertility transition in Asia, especially East Asia; computer microsimulation in demographic research; historical demography; changes in families, households and kinship networks; demographic estimation and mortality models; and demographic impacts of famines.



RESEARCH 2 STREAM

DECISION MAKING, EXPECTATIONS AND COGNITIVE AGEING

CO STREAM LEADER / KAARIN ANSTEY

This stream brings together for the first time the disparate areas of behavioural economics, neuroscience, and developmental and health psychology, to unify our understanding of life course choices and to transform policy perspectives.

By undertaking research which aims to fully capture the psychological and social factors that influence choice over the life course, it seeks to enhance the wellbeing of people in old age. These include decisions about: (i) savings, retirement, home ownership, insurance, (ii) planning for the future in terms of active ageing and aged care, and (iii) choices about health behaviour and management of chronic conditions.

CO STREAM LEADER / MICHAEL KEANE

It will.

- develop a comprehensive model of ageing and decision making including identification of typologies of decision makers;
- develop multidisciplinary paradigms and predictive models of decision making and ageing;
- develop and evaluate interventions to increase positive expectations about ageing; and
- develop life-cycle models that incorporate investments in health and housing as well as cognitive limitations in ageing.

The stream comprises four projects:

- 2.1 INDIVIDUAL DIFFERENCES IN FINANCIAL
 AND HEALTH DECISION MAKING: IMPACTS
 ON PRODUCTIVE AGEING
- 2.2 IDENTIFYING INDIVIDUAL AND SOCIAL INFLUENCES ON DECISION MAKING AT OLDER AGES
- 2.3 EXPECTATIONS AND THE AGEING EXPERIENCE (COMMENCING 2019)
- 2.4 RATIONAL CHOICE THEORY AND CONSUMERS

2.1 INDIVIDUAL DIFFERENCES IN FINANCIAL AND HEALTH DECISION MAKING: IMPACTS ON PRODUCTIVE AGEING

RESEARCHERS

KAARIN ANSTEY
HAZEL BATEMAN
MICHAEL KEANE
BROOKE BRADY
RANMALEE ERAMUDUGOLLA
RICHARD BURNS
LINDA CLARE
ERIK HERNÆS
KIM KIELY
BEN NEWELL
RUTH PETERS
SUSAN THORP

Decision making is shaped by age-related changes in cognition, affect, values and goals as well as expectations about ageing. Project 2.1 is interested in how individual differences in decision making impact productive ageing.

Progress has been slower than intended in 2018 due to delays in arranging interinstitutional agreements. Preliminary work on this project by Dr Ranmalee Eramudugolla and Brooke Brady (appointed as a research fellow in July 2018) has involved analysis of data collected in the Personality and Total Health Through Life Study. Using the Game of Dice Task, a behavioural measure of decision making under objective risk conditions, we have begun to explore the factors that influence the likelihood of engaging in risky versus safe decision making among a populationbased sample (aged 72-76 years, n = 1305). We are also interested in the factors that impact changes in decision strategies over time. Analyses to date have investigated the impact of gender, education, income, reliance on the pension, cognitive function, mild cognitive impairment, and dementia on older adults' decision-making outcomes. Preliminary results were presented at the CEPAR annual workshop.

Dr Kim Kiely has been investigating financial hardship among older Australians. International comparisons indicate that the poverty risk for older Australians is one of the highest of the OECD. There is growing recognition of the increasing number of older adults living with financial hardship, particularly women and those who do not own their own home. Using data from the HILDA survey, financial hardship was assessed by being unable to meet the essentials of life due to a shortage of money (e.g. being unable to heat the home, missing meals, or seeking assistance from community welfare organisations). Preliminary findings indicate that for women at age 60: being partnered and owning their own home was associated with two years of financial hardship, reflecting 5% of their total life expectancy. Whereas, being single and renting was associated with 7.6 years of financial hardship, reflecting 29% of their total life expectancy. Hardship life expectancies did not differ by level of educational attainment among women. For men at age 60 with high levels of education: being partnered and owning their own home was associated with two years of financial hardship, reflecting 7% of their life expectancy. Whereas, being single and renting was associated with 4.8 years of financial hardship, reflecting 25% of their total life expectancy. This is the first study to use health expectancy methodology to estimate financial hardship-free life expectancies. This work was presented at the Australian Association of Gerontology (AAG) annual conference, November, 2018.

Dr Craig Sinclair will be joining the CEPAR Stream 2 team in January 2019, and will lead research on this project. Craig has a background in decision making and ageing research, including work aimed at understanding the factors which influence decisions to engage in advance care planning, medical decision making, and supported decision making in the context of dementia care in Australia.

The Anstey group is also in conversation with Professor Hazel Bateman's team about maximising cross-stream collaboration on research aimed at better understanding financial decision making at older ages.

This is the first study to use health expectancy methodology to estimate financial hardship-free life expectancies.



2.2 IDENTIFYING INDIVIDUAL AND SOCIAL INFLUENCES ON DECISION MAKING AT OLDER AGES

RESEARCHERS

KAARIN ANSTEY MICHAEL KEANE HAZEL BATEMAN BROOKE BRADY HEATHER BOOTH LINDA CLARE ERIK HERNÆS KIM KIELY BEN NEWELL RUTH PETERS SUSAN THORP Project 2.2 builds upon work in project 2.1 by considering the role of social factors in decision making in later life, including factors that impact the likelihood and success of shared decision making in older age. Social determinants of health are increasingly well-understood. Social determinants of decision making processes have received less research attention.

In late 2018, the Anstey group have been working on the development of materials for research investigating the impact of individual differences and social factors on both individual and shared decision making in a wide range of age-relevant domains, including health and retirement.



BROOKE BRADY
BPsych (Hons)
Western Syd.
POSTDOCTORAL
RESEARCH FELLOW

Brooke Brady was a CEPAR Postdoctoral Research Fellow, located at Neuroscience Research Australia. She joined the Centre in July 2018 and completed her contract in December 2018. She will join the CEPAR Stream 2 team as an Associate Investigator in early 2019.

She completed her undergraduate studies in psychology at Western Sydney University, and is due to complete her PhD in the Psychology of Ageing in mid-2019.

Brooke's research encompasses the areas of emotion regulation, mindfulness and ageing.

Brooke is also interested in the interplay between other forms of cognition - including decision making and expectations about the ageing experience, socioemotional changes in ageing, and health-related outcomes.

Brooke's research on ageing-related topics has been published in Mindfulness, The British Journal of Clinical Psychology, The International Journal of Psychogeriatrics, Journals of Gerontology: Psychological Science, and PeerJ. Brooke has also co-authored government reports on social connectedness and individual and community resilience commissioned by the ACT Chief Minister, Treasury and Economic Development Directorate.

MICHAEL KEANE TIMOTHY NEAL XIANGLING LIU ELENA CAPATINA FEDOR ISKHAKOV

The aim of this project is to develop and extend the methodologies that economists use to model the choices of older individuals. Rational Choice Theory is a prevailing framework used for formally modelling economic decisions, and relies on a number of assumptions relating to the rationality of individual decision making. There is good reason to believe that these assumptions are not appropriate for modelling the choice environments of older Australians, as they regularly need to make highly complex financial decisions using limited cognitive resources.

Accordingly, this project will develop new choice models that incorporate a number of factors that are critical to understanding observed behaviour, including investments in health and housing, cognitive limitations in decision making, and other deviations from rational choice. They will allow for heterogeneity in consumer preferences and choices, and lead to new methods that can

isolate heterogeneity that arises from differences in preferences to those arising from confusion or irrationality.

The benefit of applying models that can explicitly capture deviations from rational choice is that it will enable more realistic policy experiments that yield better insight into the role of government policy and how it influences individual wellbeing. Indeed, when we better understand the processes by which older individuals make complex choices, it facilitates more accurate predictions of how government intervention in complex markets will affect welfare on average as well as the distribution of this impact.

We can apply this approach to a number of markets that are highly relevant to older individuals, including private health insurance, superannuation, housing, and elderly care. The first research paper completed under this project applies the above methodology to the choice of Medicare Part D Prescription Drug Plans by retirees in the United States. The paper, 'Evaluating Consumers' Choices of Medicare Part D Plans: A Study in Behavioral Welfare Economics', was completed in 2018 and is currently forthcoming in the *Journal of Econometrics*.

approach we develop in this paper to study choice and welfare can be effectively implemented in future projects that will become an integral part of this stream. Other research papers that are attached to this project are ongoing, with progress delayed slightly due to a delay in the recruitment of another research fellow to support the project.

When we better understand the processes by which older individuals make complex choices, it facilitates more accurate predictions of how government intervention in complex markets will affect welfare on average as well as the distribution of this impact.



DR TIMOTHY NEAL

BA BEC (Hons) Macq.,
PhD UNSW

RESEARCH FELLOW

Timothy Neal is a Postdoctoral Research Fellow in the UNSW Business School and CEPAR. He joined CEPAR in July 2016 after completing a PhD in Economics at the UNSW Business School. His primary research interests include choice modelling, panel data econometrics, and climate change economics. Thus far he has published in the Journal of Econometrics, the Economic Record and The Stata Journal in these areas.

Alongside academic research, Tim has worked as an economic consultant at Ernst & Young where he supported the development of economic reports and business cases commissioned by government for a variety of transport infrastructure projects. Notable projects included the business case for the North West Rail Link and a study into Sydney's future aviation capacity.



ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 2 RESEARCH IN 2018 INCLUDED:



DR RUTH PETERS

BSc Reading, MSc Lond., PhD Imperial College London

Dr Peters is a Senior Research Scientist at Neuroscience Research Australia (NeuRA). Prior to moving to Australia she worked for several years at Imperial College London. As a CEPAR Associate Investigator she contributes to projects 2.1 and 2.2 of the CEPAR Research Program.

Dr Peters works to develop our understanding of the risk factors which increase our risk of cognitive decline and dementia and the ways in which we might act to reduce this risk. Alongside leading teams delivering high profile evidence synthesis work in the area of dementia risk reduction, she has a particular interest in hypertension and in the treatment of hypertension in older adults. She was the cognitive function lead for the award-winning multinational Hypertension in the Very Elderly Trial (HYVET, HYVET -COG) and both her work in hypertension and evidence synthesis are cited widely in the academic literature and by guidelines.



DR KIM KIELY

BLib (Hons) Syd. PhD ANU

Kim Kiely is a Senior Research Fellow within the UNSW School of Psychology with a conjoint appointment at NeuRA. He currently holds an NHMRC Early Career Fellowship entitled 'Estimating and Alleviating the Impacts of Age-Related Sensory Decline'. He is the Lead Investigator on an ARC funded 'Healthy and Working Life Expectancies in an Ageing Australia' study, and the Dementia Australia funded 'Auditory Ageing and Cognitive Impairment Study (AUDACIOUS)'.

Kim's research is orientated by a contextualised perspective to human development and spans the fields of life course epidemiology, social psychiatry, and geropsychology. His interests encompass aspects of healthy and productive ageing, focusing on the social, functional and cognitive impacts of sensory ageing. Current work includes analyses of the determinants and outcomes of successful sensory aid use, and identifying mechanisms underlying sensory-related cognitive decline. He is also developing a research program investigating social determinants and inequalities in health and working life expectancies.

Kim is involved in projects 2.1 and 2.2 of the CEPAR research program.



PROFESSOR LINDA CLARE

PhD Open University, ScD Camb., CPsychol, FBPsS, FAcSS

Linda Clare is Professor of Clinical Psychology of Ageing and Dementia at the University of Exeter. Trained as a clinical psychologist, she leads the University's Centre for Research in Ageing and Cognitive Health (REACH), which aims to improve the lives of older people and people with dementia through a focus on maintaining cognitive health in later life, living well with dementia, and supporting family care.

Linda has published over 200 peer-reviewed journal articles and book chapters, and is an Editor for the *Cochrane Collaboration* and for the journal *Neuropsychological Rehabilitation*. She is a National Institute of Health Research Senior Investigator, and a Fellow of the British Psychological Society, the Academy of Social Sciences and the Gerontological Society of America, and serves on the Governing Boards of the Global Council on Brain Health and the Global Brain Health Institute.

In her capacity as a CEPAR AI she collaborates with Professor Anstey on Stream 2 projects.

RESEARCH 3 STREAM

ORGANISATIONS AND THE MATURE WORKFORCE

STREAM LEADER / SHARON PARKER

This stream is undertaking research to identify work designs and other organisational practices to attract and retain mature workers in organisations, thus enhancing their performance and improving growth and productivity. It is at the vanguard of new research focused on the impact of various work designs on worker wellbeing at older ages, especially cognitive capital. It investigates barriers to mature workforce participation, especially age discrimination and the accommodation of caring responsibilities, to inform workplace policy and practice.

The stream comprises four projects:

- 3.1 MATURE WORKERS IN ORGANISATIONS SURVEY
- 3.2 PROMOTING SUCCESSFUL AGEING IN THE WORKPLACE
- 3.3 PROMOTING SUCCESSFUL TEAMS AND ORGANISATIONS
- 3.4 PROMOTING EFFECTIVE CARE OUTSIDE OF WORK

SHARON PARKER
MARIAN BAIRD
DANIELA ANDREI
ANDREEA CONSTANTIN
GRETCHEN (GIGI) PETERY
FABIOLA GERPOTT
GWEN FISHER

Existing longitudinal research on ageing tends to be largely cohort-based, focusing mainly on individuals within households and with less attention to the role of organisational processes and their interplay with individual factors in supporting successful ageing at work.

To actively contribute to closing this gap, the research team have initiated the development of an organisation-based approach and associated tools to investigate organisational, team and individual processes that contribute to positive outcomes for mature workers and their employing organisations. This approach underpins all the research projects associated with Stream 3.

The aim of this project is to develop long-term partnerships with organisations (15) from a range of different industries that will allow for a thorough investigation of organisational and

work-related challenges, the development of workplace interventions to address these challenges and data driven insights into the effects of these interventions. The methodological approach that underpins this project has two main elements:

- 1 A longitudinal survey of individuals (at least 2000) across the organisations, led by Prof. Parker. It will comprise a core survey which will be used across all the participating organisations, and focused items which will be specific to the particular challenges identified in each organisation. For comparison reasons, the survey will be targeted at workers aged 45 and up as well as younger workers. Wherever possible, supervisors will be asked to assess the performance of survey respondents and also organisational indicators will be collected (e.g. performance, absenteeism, turnover). Surveys will be repeated at regular time intervals to enable the assessment of any planned interventions or naturally occurring changes within the workplace.
- 2 A detailed policy review and case study within each participating organisation led by Prof.
 Baird, which will be carried out to understand existing organisational practices in each

organisation and how they contribute to the retention and thriving of a mature workforce, a key input for Projects 3.3 and 3.4. This involves document analysis, policy audits and focused interviews with key informants to determine baseline policy data. The policy review will be repeated to investigate any changes in policy throughout the course of the project.

The core survey as well as the policy review methodology are currently in the final design stages and one pilot is planned for the first part of 2019 within a large organisation operating in the professional services industry, and negotiations are under way with several other organisations.

The research team have initiated the development of an organisation-based approach and associated tools to investigate organisational, team and individual processes that contribute to positive outcomes for mature workers and their employing organisations.



DR DANIELA ANDREI

MSc Human Resources, Psychology and Marketing PhD Psychology UBB Romania

RESEARCH FELLOW

Daniela Andrei is a CEPAR Research Fellow, located in the Centre for Transformative Work Design at Curtin University. She joined CEPAR in March 2018 after working for five years as a Postdoctoral Fellow for the UWA School of Psychology and UWA Business School. She completed her undergraduate and postgraduate studies in Psychology at the Babes-Bolyai University (UBB) in Romania, where she also worked as an Assistant Professor before receiving a G08 European Scholarship and moving to the University of Western Australia, Perth.

Daniela's research interests revolve around work design, with a focus on the multilevel antecedents of work design as well as on work design

consequences on performance, wellbeing and safety. Within CEPAR, Daniela focuses on understanding how work design can support successful ageing of the mature workforce and the effects of work design related interventions.

Daniela's research has been published in journals such as Journal of Applied Psychology, Safety Science, and Journal of Organizational Change Management. She has co-authored several research reports for industry and government, including the Australian Maritime Safety Authority (AMSA) and the International Mining for Development Centre (IM4DC).

Daniela serves as CEPAR stream coordinator for Stream 3 – Organisations and the Mature Workforce.

SHARON PARKER KAARIN ANSTEY DANIELA ANDREI GRETCHEN (GIGI) PETERY ROSS ANDEL CHIA-HUEI WU

This project investigates how work factors, in combination with individual differences, promote or inhibit successful ageing. Some individuals age more successfully than others. That is, compared to average intra-individual trajectories of change, those who age successfully maintain or improve their wellbeing over time relative to the average downward trend, experience a lower probability of disease, and maintain physical and cognitive functioning until older ages. The aim of the project is to identify what types of work designs (including flexible hours arrangements) and organisational supports promote healthy work for mature workers.

Parker and Anstey will further investigate how cognitive, social, and psychological functioning is preserved or maintained through good work. The idea that work can be designed to facilitate such outcomes is part of an emerging, innovative

perspective that mental and psychological capital can be enhanced across the lifespan, which links this research to that in Stream 2.

There are two main components to this research project:

- 1 The first component draws on the individual-level analysis of data collected in Project 3.1 and will focus on developing rigorous evaluations and understanding of work-based interventions designed to enhance successful ageing at work, by taking into account individual attributes and gender alongside organisational priorities and goals.
- The second component aims to capitalise on existing longitudinal cohort-studies that model individual-level change in Australia or Internationally (for example, the PATH Through Life project see Stream 2, or the MIDUS dataset). Such longitudinal studies which have assessed, over an extended number of years, key aspects of individuals' work, as well as indicators of their successful ageing, such as cognitive functioning and general psychological functioning can provide exceptional opportunities to investigate whether and how work causally affects successful ageing over the lifespan.

In 2018, the focus within this project was to obtain a good understanding of the available longitudinal, cohort-based datasets. An overview of available datasets - characteristics and constructs/items measured - was put together to inform analysis decisions in 2019. In parallel, two systematic reviews have been initiated to obtain a better understanding of the existing literature one focusing on work related factors associated with retirement adjustment and the other one focusing on the role of work design for successful ageing. In 2019 we plan to advance the cohort-based longitudinal dataset to analysis, to implement and follow up a first organisational intervention and to complete the literature reviews.

The aim of the project is to identify what types of work designs (including flexible hours arrangements) and organisational supports promote healthy work for mature workers.



DR GRETCHEN (GIGI) PETERY

BSc Psychology Washington State, MA PhD Industrial-Organizational Psychology UConn RESEARCH FELLOW Gigi joined CEPAR as a Research Fellow in June 2018 and works within the Future of Work Institute at Curtin University, Perth.

She completed her education in the United States, including her undergraduate studies in psychology at Washington State University, and a master's (2015) and PhD (2018) in Industrial-Organizational Psychology at the University of Connecticut. Gigi also holds university certificates in Human Resource Management and Occupational Health Psychology.

Gigi specialises in issues central to an ageing workforce. Her research focuses on workplace age bias and discrimination, successful ageing at work,

alternative measures of age, and worker health and wellbeing and has been published in international journals. She has presented her research internationally, including at conferences for the Society of Industrial and Organizational Psychology; European Association of Work and Organisational Psychology; European Association of Occupational Health Psychology; Gerontological Society of America; and Society for Occupational Health Psychology. In addition to her formal education and research skills, Gigi has over 20 years of work experience, including management roles and as a business owner.



SHARON PARKER
MARIAN BAIRD
DANIELA ANDREI
ANDREEA CONSTANTIN
GRETCHEN (GIGI) PETERY
GWEN FISHER

This project aims to provide a rigorous evidence base to enable organisations to facilitate mature workforce participation through work design innovation and the removal of organisational barriers. Whereas Project 3.2 focuses on how work design shapes individual outcomes of mature workers, such as their health and functioning, this project concentrates on how optimal work designs and organisational practices attract mature workers into employment, and then motivate and support their full engagement in work, leading to enhanced organisational productivity. Our focus is on how organisations can maintain or even enhance the performance and productivity of mature workers as well as reap the benefits of an increasingly age diverse workforce through the design of high-quality work, thereby increasing overall productivity and innovation.

Our research takes into account novel intersections between organisational psychology and lifespan developmental theory. We are particularly interested in how productive work design can accommodate the changes associated with ageing to ensure that high levels of engagement and productivity are maintained. Supervisory behaviours that support mature workers, such as effective task allocation and the fostering of a positive age diversity climate, are further crucial workplace innovations for increasing performance and reducing turnover in contemporary organisations.

Work is also undertaken by our research team to understand the channels of age discrimination within the workplace and to inform antidiscrimination policy.

Within this project, we aim to use data from Project 3.1, especially on team-level and organisational-level outcomes (e.g., team performance, organisational turnover). In addition, we have been designing a cross-sectional panel-based survey that will provide a snapshot of the current challenges experienced by mature age workers in Australia, while also providing benchmark opportunities for the organisations participating in Project 3.1.

In 2018, our efforts were focused on survey development and the cross-sectional survey is currently in the final stages of development. Using Australian online panels, we aim to collect data from approximately 2000 employees aged 45 and up across a wide range of industries, as well as 1000 younger employees. Data collection is planned for February-March 2019 and the release of main results also planned for the first half of 2019. Additionally, the research team has initiated a smaller sub-project aimed at developing and validating a measure of workplace age bias which will assist our aims to further understand the channels of age discrimination within the workplace.

This project concentrates on how optimal work designs and organisational practices attract mature workers into employment, and then motivate and support their full engagement in work, leading to enhanced organisational productivity.

MARIAN BAIRD SHARON PARKER ANDREEA CONSTANTIN DANIELA ANDREI GRETCHEN (GIGI) PETERY ALISON WILLIAMS ALEXANDRA HERON MYRA HAMILTON KATE O'LOUGHLIN

External Collaborator

HUGH BAINBRIDGE (UNSW SYDNEY)

The increase in mature age workers' labour force participation, especially that of mature age women, combined with government policy of ageing in place, requiring more non-institutional elder care, has produced a policy conundrum and dilemma for workers: there is a double demand on mature age citizens to participate in the labour market while providing care for older family citizens, and increasingly, also grandchildren.

This project seeks to explain and analyse this situation in workplaces in Australia and overseas, with the aim of providing policy and practice solutions to enable organisations and workers to

meet the double agenda of worker participation and workplace performance. In 2018 the research team focused on developing and planning for the implementation of field work which will commence in 2019.

The project has a focus on the gender aspects of work and care, as one of the most significant changes in the Australian labour market over the past four decades has been the growth in the employment rates of mature age women. Women aged 50-54 increased their paid employment rates from 40% to 76.4% and women aged 60-64 increased their employment rates from 12% to 49%. The change in older women's engagement in paid work outstrips the change seen for men of the same age. This increase in older women's participation is strongly related to the growth in women's education, changing social attitudes to motherhood and work, and a greater economic need to work. Women's superannuation balances are markedly lower than men's and the deferral of the age at which women can receive the Age Pension also influences working patterns.

In 2018 the core team conducted a review of all policy provisions at federal and state levels relating to work and care. This will be published as a CEPAR Research Brief in 2019. An interview

template was constructed based on this policy review which will be used to benchmark individual organisations who are recruited to our research in 2019. The lead CI on this project, Marian Baird, spoke at a number of conferences in 2018 on the topics of care and work for women and men, superannuation and women, and the labour market expectations of women and men. A research workshop on organisational responses to work and care is organised for February 2019, with leading international speakers from the USA and UK attending, along with CEPAR colleagues.

In 2018 the core team conducted a review of all policy provisions at federal and state levels relating to work and care.



DR ANDREEA CONSTANTIN
MSc Bucharest, MSc KU
Leuven, Dr. rer. pol. Koln
RESEARCH FELLOW

Dr Andreea Constantin is a postdoctoral research fellow based at the University of Sydney node of CEPAR.

She received her PhD degree in Economics and Social Sciences from the University of Cologne, Germany. She has two master degrees in Social Policy Analysis and Statistics and Advanced Sociological Research from the Catholic University Leuven and the University of Bucharest respectively.

Her main research interests are work-life balance policies, mature workers, outside-work care, and gender roles within and outside organisations. She has contributed to analysing links between social policies and individual behaviour and attitudes, and to testing and developing cross-cultural comparative survey measures. Andreea's research interests also include big data, survey methodology and cross-cultural studies.



ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 3 RESEARCH IN 2018 INCLUDED:



A/PROFESSOR GWENITH FISHER

BA Penn State, MA PhD Bowling Green

Gwenith Fisher is an Associate Professor of Psychology at Colorado State University (CSU) in Fort Collins, Colorado, USA and an Adjunct Associate Professor in the Colorado School of Public Health. Gwen's research investigates workplace and personal factors related to health, cognition, wellbeing and retirement among older adults.

Gwen is the Program Coordinator for the CSU Industrial/Organizational Psychology doctoral program and Director of the Occupational Health Psychology graduate training program, funded by the US National Institute for Occupational Safety and Health Mountain and Plains Education and Research Center. Prior to joining CSU, she was an Associate Research Scientist at the University of Michigan Institute for Social Research.

Gwen has published more than 50 peer-reviewed journal articles and numerous books chapters and technical reports. Her work has been published in the Journal of Applied Psychology, Journal of Organizational Behavior, Journal of Business and Psychology, Work, Aging, and Retirement, and Journal of Occupational Health Psychology.

She collaborates with Professor Parker and her team on CEPAR Projects 3.1 and 3.3.



DR MYRA HAMILTON

BA (Hons) PhD Syd.

Dr Myra Hamilton is a Senior Research Fellow at the Social Policy Research Centre at the University of New South Wales, Australia. She also leads the Gender Justice research programme at the Australian Human Rights Institute at UNSW Sydney.

She is a sociologist and social policy researcher whose expertise is in the fields of ageing and care across the life course. In particular, she has focused on the ways families organise the provision of unpaid care and the effects that unpaid care provision has on their lives, particularly wellbeing, participation in paid work, education and training, and retirement incomes. She also conducts research on the organisation of care services. The focus in all of her work is on the ways in which policies and services support individuals and families to meet their care needs.

Dr Hamilton collaborates with Professor Baird and her team on CEPAR Project 3.4



DR CHIA-HUEI WU

BSc MSc National Taiwan, MPhil Sheffield, PhD UWA

Dr Chia-Huei Wu is an Associate Professor at Durham University. His research focuses on employee proactivity, work and personality development, and employees' subjective wellbeing.

His work has appeared in the Academy of Management Journal, Journal of Applied Psychology, Journal of Management, Journal of Vocational Behavior, and the Journal of Happiness Studies, among others. He has also contributed to books, including The Oxford Handbook of Leadership and Organizations, The Oxford Handbook of Positive Organizational Scholarship, Advances in Positive Organizational Psychology, Advances in Global Leadership and Proactivity at Work. He is an editorial board member for Human Relations, Journal of Business and Psychology and Journal of Business Research.

Chia-Huei has published longitudinal studies using secondary datasets such as BHPS (British Household Panel Survey) and the HILDA (Household, Income and Labour Dynamics in Australia) survey, to empirically demonstrate that work environment/experiences can shape and be shaped by employees' personality over time.

He collaborates with Professor Parker and her team on CEPAR Project 3.2.

RESEARCH 4

SUSTAINABLE WELLBEING IN LATER LIFE

STREAM LEADER / MICHAEL SHERRIS

This stream undertakes research to provide businesses, households, and governments with new knowledge and expanded options on a range of policy and practice issues confronting ageing societies. It will take the macrodemographic projections of Stream 1, the insights about cognitive ageing and decision making from Stream 2, and the evidence concerning organisation behaviour from Stream 3, to build a comprehensive evidence base for strategies and actions to enhance wellbeing in later life.

The stream comprises six projects:

- 4.1 MORTALITY AND MORBIDITY RISK
- 4.2 MACRO-HEALTH OUTCOME SIMULATIONS
- 4.3 SOCIAL DETERMINANTS OF SUCCESSFUL AGEING
- 4.4 RETIREMENT POLICY ISSUES
- 4.5 FINANCIAL AND INSURANCE PRODUCT DESIGN
- 4.6 GUIDING FINANCIAL DECISION MAKING

MICHAEL SHERRIS
HELOISE LABIT HARDY
MENGYI XU
PENGYU WEI
YULONG LI
ADAM WENQIANG SHAO
ANDRÉS VILLEGAS
JONATHAN ZIVEYI
DILAN SRIDARAN
YU CRYSTAL FU

This project undertakes modelling on mortality and morbidity risk to support research on retirement policy issues (Project 4.4) and on financial and insurance product design (Project 4.5). The research group has been developing models for health status and functional disability as well as for systematic longevity risk. The models are developed to assess the design and pricing of financial and insurance products to finance or insure post-retirement risks, from both an insurer/pension fund perspective and an individual perspective. A survey of scientific contributions on mortality heterogeneity, for both observable and unobservable heterogeneity (i.e. frailty) was also prepared.

In 2018, this project produced two journal articles, three working papers, two conference presentations and four works are in progress.

Mortality modelling

Research this year covered the application of data analytic techniques to mortality model selection, estimation and prediction. Using data analytic techniques such as regularisation and cross-validation, a comprehensive framework to construct, select, and evaluate discrete-time age-period-cohort mortality models for use in different actuarial applications (e.g., regarding the population size, age and forecasting horizon) has been developed.

Research has also assessed Gaussian affine continuous time mortality models for application to longevity risk which includes age trends and volatility of mortality intensity as well as incorporating cohort effects. The market risk premium of longevity risk using investable retirement indices has also been assessed. The benefits of the continuous time affine processes are in their analytical tractability and ease of application to valuation and risk management of longevity-linked products and financial instruments.

Individual mortality risk modelling and forecasting allowing for heterogeneity in mortality, arising from different risk factors among the individuals has been considered. Using a Lee-Carter model and an individual mortality model that allows for heterogeneity with time trends, research has assessed the extent to which systematic mortality improvement varies with individual risk characteristics. Mortality trends are shown to differ across individuals, reflecting these different risk factors and particularly the prevalence of different diseases such as high blood pressure, cancer and heart problems. This research resulted in a paper accepted for publication this year.

Using a Lee-Carter model and an individual mortality model that allows for heterogeneity with time trends, research has assessed the extent to which systematic mortality improvement varies with individual risk characteristics.



DR PENGYU WEI
BSc BEc PKU, DPhil Oxon.
SENIOR RESEARCH
ASSOCIATE

Pengyu Wei is a CEPAR Senior Research Associate, located in the UNSW Business School. He joined the Centre in March 2018 after obtaining his DPhil in Mathematics from the University of Oxford.

His current research interests include actuarial science, quantitative finance, risk management and insurance. He develops actuarial models to investigate health and longevity risk. He also builds life-cycle models to study retiring individuals' demand for retirement income products. He has published in leading journals such as Mathematical Finance and Insurance: Mathematics and Economics.

Research has also considered heterogeneity in cause-of-death mortality and demographic changes (e.g. cause-of-death reduction and population evolution). Using a population dynamics framework, the reduction of a cause of death is shown to not necessarily result in an improvement in aggregate mortality rates or life expectancy if the composition of the population changes at the same time. Thus, the effect of public health policies could be misinterpreted if only aggregated data are studied.

Models of heterogeneity in health status mortality based on a multiple-state Markov ageing model, calibrated to Australian population mortality data and cross-sectional health data has been developed. The model allows for capturing both systematic mortality improvements as well as health status developments.

Morbidity modelling

This project also focuses on morbidity modelling to inform Long-Term Care (LTC) insurance design and policy development. Current actuarial modelling of functional disability and health status estimated from individual data assume time-homogeneous transition rates and allow these to vary by gender and age.

The research has extended current functional disability models to include trends and uncertainty in morbidity. The impact of these systematic improvement factors on disability rates as well as recovery rates has been estimated using advanced statistical techniques applied to Chinese data. The empirical results provide evidence of the importance of both trends and uncertainty. The results also highlight a compression of the disability incidence rates and disabled mortality, reflecting improvements in the medical and care systems in China.

Research on the modelling of both functional disability and health status with systematic trends and uncertainty using US data has assessed the impact of health status, trends, and uncertainty on life expectancy and time spent in the disabled state. The results forecast an increase in life expectancy, with more time spent in disability, although the proportion of time spent in disability remains relatively constant. The analysis is to be extended to Australian data.

Research on the modelling of both functional disability and health status with systematic trends and uncertainty ... forecast an increase in life expectancy, with more time spent in disability although the proportion of time spent in disability remains relatively constant.



DR MENGYI XU
BCom (Hons) PhD UNSW,
FIAA
SENIOR RESEARCH
ASSOCIATE

Mengyi Xu joined the UNSW Business School node of CEPAR as a Senior Research Associate in September 2017 after completing a PhD in Actuarial Studies at UNSW Sydney.

Her PhD thesis studies pre-retirement investment strategies and retirement planning in the presence of housing. Before starting her PhD, she obtained a Bachelor of Commerce (Honours) degree in actuarial studies from UNSW Sydney. She is a Fellow of the Institute of Actuaries Australia.

Her research interests include retirement financial products, pension fund management and longevity modelling. Her current research projects involve designing economic scenario generators and modelling old age mortality.



PHILIP CLARKE
KAARIN ANSTEY
ROBERT CUMMING
JAMES NAZROO
MICHAEL SHERRIS
AN TRAN
JAY STILES
JOSH KNIGHT
DENZIL FIEBIG
ALASTAIR GRAY
ANTHONY SCOTT

The project involves the use of administrative health datasets and a large cohort study to estimate future projections of non-communicable diseases (NCDs) and assess implications for health care expenditure. A key element of World Health Organization 2030 targets is to reduce NCDs such as cardiovascular disease, cancer, chronic respiratory disease, and diabetes which account for more than two-thirds of deaths worldwide².

The focus of the research during 2018 has been on two projects:

Firstly, we employed statistical techniques including regression analysis to quantify the contribution of different complications of NCDs in New Zealand. The project was able to take advantage of nationally linked health data for all adult New Zealanders, including all publicly funded hospitalisation, outpatient, medicines, laboratory and primary care between 2007–2014.

The analysis which has recently been reported in the international journal *PLOS Medicine*³ shows that the majority (59%) of health expenditure was attributable to NCDs. Expenditure due to diseases was generally highest in the year of diagnosis and year of death and a person having two diseases simultaneously generally had greater health expenditure than the expected sum of having the diseases separately. The analysis has enabled, for the first time, a division of the health care budget by disease for men and women over the life course.

We plan to extend the current work by using simulation modelling to make future projections for NCDs and to look at the implications for health expenditure. While this project has taken advantage of New Zealand linked data, we will, in due course, look to undertake similar analyses in other countries, including Australia, when comparable data become available.

Another key focus has been on developing tools to predict the risk of cardiovascular disease (CVD) for Aboriginal and Torres Strait Islander Australians. This study has involved the use of a cohort of Indigenous people aged between 30 and 74 years who participated in the Well Person's Health Check (WPHC). Baseline assessments were conducted between 1998 and 2000, and data were linked to administrative hospitalisation and death records for identification of CVD events. We have developed a CVD risk model as the first stage of developing a health policy simulation model. This will provide an evidence-based tool to help understand the most effective strategies to reduce CVD and thereby assist in closing the gap in health and life-expectancy experienced by many Indigenous Australians.



DR AN DUY TRAN
BSc Hue, MSc PhD
Wageningen
SENIOR RESEARCH FELLOW

Dr An Duy Tran joined CEPAR in February 2018. He a Senior Research Fellow in Health Economics at the Centre for Health Policy, Melbourne School of Population and Global Health, University of Melbourne. His research focuses on development of simulation and prediction models to capture the impact of heath policy and interventions on resource utilisation and quality of life of patients with chronic diseases including diabetes, cardiovascular disease and rheumatic diseases. Dr Tran is also a Senior Advisor to the Melbourne Clinical and Translational Sciences research platform at the University of Melbourne where he has been providing support in health economics for clinical studies. Before joining

the University of Melbourne, he was a Post-doctoral Researcher at Maastricht University and Assistant Professor at University Medical Centre, Utrecht, where he conducted research in Health Technology Assessment and Clinical Epidemiology for a total duration of nearly eight years. His work has been published in high impact journals such as PharmacoEconomics, Value in Health, Annals of the Rheumatic Diseases, Alzheimer's & Dementia, Clinical Gastroenterology and Hepatology, and Journal of Internal Medicine.

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 The Lancet. 392(10152). 1072-1088.

² Blakely, T., Kvizhinadze, G., Atkinson, J., Dieleman, J., Clarke, P. (2019). Health System Costs for Individual and Comorbid Noncommunicable Diseases: An Analysis of Publicly Funded Health Events from New Zealand. PLoS Med, 16(1):e1002716. https://doi.org/10.1371/journal.pmed.100271.

ROBERT CUMMING
KAARIN ANSTEY
JAMES NAZROO
SAMAN KHALATBARI-SOLTANI
KATE MILLEDGE
JULIE BYLES
VASANT HIRANI

External collaborators

FIONA BLYTH
DAVID HANDELSMAN
DAVID LE COUTEUR
VASI NAGANATHAN
MARKUS SEIBEL
LOUISE WAITE
CLIVE WRIGHT
(ALL UNIVERSITY OF SYDNEY)

This CEPAR project uses data from three large Australian panel studies to investigate the social determinants of successful ageing: the Concord Health and Ageing in Men Project (CHAMP), the Path Through Life Study (PATH) and the Australian Longitudinal Study of Women's Health (ALSWH). The term 'social determinants of health' was introduced by Michael Marmot in the 1990s. It describes the social and economic circumstances that influence health,

including gender, ethnicity, income, education, housing, employment, social support, transport and food security.

Several papers related to social determinants of successful ageing were published in 2018 (see Research Outputs) and several more are in preparation. Newly appointed CEPAR Research Fellow Saman Khalatbari-Soltani, using CHAMP data, has found that low socio-economic status is strongly associated with mortality in older men and this is not explained by higher levels of smoking and physical inactivity. CEPAR CI Kaarin Anstey and AI Ross Andel have found that later retirement is associated with better cognitive ageing in preliminary analyses of data from the PATH Through life Study. CEPAR AI Julie Byles is using ALSWH data to test the new World Health Organisation Healthy Ageing Framework.

Much of the work in 2018 involved preparation for CHAMP Wave 5 fieldwork, to be undertaken in 2019: finalising the study protocol, employing new staff and getting ethics committee approval. CHAMP Wave 5 will involve about 500 men, all aged 80 years or older, and their partners.

Already included in previous waves of CHAMP were measures of education, ethnicity, social support and transport (driving). Wave 5 will add income,

loneliness and volunteering. Income is arguably the most important of all the social determinants of health. Loneliness (and the related concept of social isolation) is receiving increasing attention among researchers and policymakers — earlier this year Australia's Aged Care Minister Ken Wyatt announced a new program to combat loneliness in older Australians. Older people are often seen as a burden, especially a financial burden, on society. However, they contribute enormously in an informal (unpaid) way, providing childcare for grandchildren, caring for their disabled spouses, and volunteering in a wide variety of ways in the community.

CHAMP Wave 5 will also collect data on out-of-pocket health expenditure, care giving and care receiving and the relationship between the quality of the interspousal relationship and health. Despite the existence of a national health insurance system (Medicare) and private health insurance, health care in Australia can involve significant out-of-pocket expenses. Detailed information on caregiving and receiving by husband and by wife will provide a unique dataset to explore the nature of the caregiver-care receiver dyad.



DR SAMAN KHALATBARI-SOLTANI

MSc Nutritional Science UPM, PhD Life Sciences Lausanne, PhD Epidemiology and Public Health SSPH+

RESEARCH FELLOW

Saman Khalatbari Soltani is a CEPAR Research Fellow, located in the School of Public Health at the University of Sydney. She joined the Centre in September 2018 after working for one year as a Postdoctoral Fellow at the Department of Internal Medicine, University of Lausanne, Switzerland. She holds a PhD in Life Sciences (University of Lausanne, Switzerland), a PhD in Epidemiology and Public Health (Swiss School of Public Health) and a Master of Science in Nutritional Science (University Putra Malaysia). During a one-year Fellowship at the University of Cambridge, she trained in Nutritional Epidemiology.

Her current research encompasses the areas of social determinants of successful ageing, social inequalities and health, and the role of behavioural, psychological, and biological factors in the genesis of social disparities in health at older ages — with the ultimate aim of improving perceptions of and indicating possibilities for future health policy.

Prior to joining CEPAR, her projects mainly focused on the link between diet and chronic diseases, undernutrition, and drivers of and barriers to healthy eating. Her research has been published in international journals, including BMC Medicine, the American Journal of Clinical Nutrition, and Clinical Nutrition.



JOHN PIGGOTT MARIAN BAIRD HANMING FANG MICHAEL KEANE OLIVIA S. MITCHELL MICHAEL SHERRIS ALAN WOODLAND ROBERT HOLZMANN RAFAL CHOMIK **BFIIU** GEORGE KUDRNA XIAOYUN 7HAO **BIANCA BONOLLO** SOPHIE YAN ERIK HERNÆS FEDOR ISKHAKOV CAGRI KUMRU ANDRÉS VILLEGAS PETER WHITEFORD

External Collaborators

BINGWEN ZHENG (CHINESE ACADEMY OF SOCIAL SCIENCES)

ZHIYANG JIA TROND CHRISTIAN VIGTEL (BOTH STATISTICS NORWAY) Retirement policy comprises two broad domains: retirement incomes and long-term (aged) care. Because the financing of policies to address these issues are placed under strain by an ageing demographic, both are active areas of policy debate, and research evidence to guide policy reforms is in high demand.

CEPAR researchers have been undertaking projects in both these fields. Research on long-term care has been predominantly focused on China, and write-ups are included within the report on the Australia-China Population Ageing Research Hub on pages 62 to 64. Here we focus on retirement incomes.

Past research, by CEPAR and others, and supplemented by new research analysis, is provided in a set of three CEPAR Research Briefs released at the official launch of the Centre in October, and coinciding with the CEPAR Crawford Retirement Incomes Policy Dialogue in early November. These briefs, masterminded by CEPAR Senior Research Fellow Rafal Chomik, provide an up-to-date synthesis of CEPAR and other research, especially focused on the Australian context.

New research undertaken in 2018 includes studies on China and Norway, as well as a new

study on the Australian system. China is actively debating policy reform, and has already gone some way towards enacting reform legislation. Norway enacted a major and innovative pension policy reform in 2010, and enough time has now elapsed for analysis of its impacts.

Retirement policy in China: A notional defined contribution approach

This project involving Piggott, Lu and Zheng investigates how notional defined contribution (NDC) structures might facilitate pension reform in China. It provides some numerical simulations of liability under alternative parametric settings around, for example, retirement age, and finds, not surprisingly, that increases in retirement age make the system more sustainable. The major non-civil service pension system, with membership primarily drawn from the formal labour force in urban areas, is a clear candidate for formal NDC reform, although the value of vesting within a more traditional Defined Benefit setting remains undetermined: this is a target for future research.

One of the more interesting aspects of the paper is that it reports estimates of life expectancy across provinces for pension fund members.

While there are major inter-provincial differences



DR BEILU
BA Tsinghua, MBA S. Aust.,
PhD UNSW
RESEARCH FELLOW

Bei Lu is a CEPAR Research Fellow located at the UNSW Business School and a Research Fellow with Tsinghua University and Zhejiang University, China.

Bei returned to academia in 2002 to undertake a PhD in Economics at UNSW after working as an international trader for 12 years. Her research focuses on demographics, health, pensions and population ageing related social welfare and economic issues.

Bei has been very successful in developing international linkages over the past ten years with organisations such as the provincial government of Zhejiang, China, the World Bank China and academic institutions. She is currently participating in a

Chinese Key National Science Project.

She has presented her research at a number of international conferences including the Stanford-Harvard Population Ageing Conference and the London School of Economics Long-Term Care Conference. Her research has appeared in the International Social Security Review, the Journal of the Economics of Aging, Population Review, CESifo Economic Studies and the Journal of Aging and Social Policy. She also has published in Chinese newspapers, journals and books.

in life expectancy, there is very small difference for pension fund members. Population heterogeneity around longevity, seen as a major challenge in pension design, may be overstated. One hypothesis is that as coverage expands, better educated, wealthier, and healthier people will tend to fall within the pension scheme's reach, and their life expectancy will be closer to existing membership than that of informal sector or rural workers.

The paper has been accepted for inclusion in a conference volume to be published by the World Bank in 2019.

Flexible pensions and labour force withdrawal

This project, undertaken by a team comprising Piggott, Hernaes, Jia and Vigtel, studies the labour force behaviour of one particular group of private sector workers impacted by the 2010 Norwegian pension reform. This group, which had for many years confronted a pension access age of 67, were able to access their pension from age 62, with the expected present value of the benefit held constant. The accompanying actuarial adjustment of pension benefits neutralised the income effect of decreasing the access age, providing us with a unique opportunity to investigate if expanding the choice set of

older workers led to adjustments in their labour supply, other things equal. Using a difference-indifference approach, we estimate the change in labour supply by considering shifts in the whole distribution of wage earnings. Overall, labour supply increased. There appears to be a trade-off between intensive margin and extensive margins: individuals reduce work intensity but stay longer in the labour force. Thus, flexibility may lead to gradual withdrawal and have overall positive effects on labour supply (the gain in LFP outweighs the loss due to reduced intensity), even though the short run (immediate) effect can be negative.

A working paper is under preparation with a journal submission anticipated in 2019.

Effects of taxes and safety net pensions on life-cycle labour supply, savings and human capital: The case of Australia

This project, undertaken by Keane and Iskhakov, reports a structurally estimated life-cycle model of consumption/savings, labour supply and retirement, using data from the Australian HILDA panel, and an assessment of the impact of the Australian Age Pension system and tax policy on labour supply, consumption and retirement decisions.

The model accounts for human capital accumulation via learning by doing, as well as wealth accumulation and decumulation over the life cycle, uninsurable wage risk, credit constraints, a non-absorbing retirement decision, and labour market frictions. Anticipated and unanticipated tax and pension policy changes at different points of the life-cycle are accounted for. Results imply that the Australian Age Pension system as currently designed is very poorly targeted, so that means testing and other program rules could be improved.

The research has been reported in CEPAR Working Paper 2018/5.

The taxation of pensions

A surprising gap in the literature on the economics of pensions, and/or the economics of taxation, is the taxation of pensions. This is perhaps because social security and pensions are typically overseen by different government portfolios than taxation. A major CEPAR initiative, in association with CESifo, designed to fill this gap has been underway over the last two years, and culminated in 2018 with the publication of a compilation of papers gleaned from two specially designed conferences, published by MIT Press, and edited by John Piggott and Robert Holzmann.



RAFAL CHOMIK
BECFIN UWA, MEC
London Metropolitan
SENIOR RESEARCH FELLOW

Rafal Chomik is a Senior Research Fellow at CEPAR, located in the UNSW Business School. He joined CEPAR in April 2012.

Rafal has worked in public administration and policy analysis for over a decade, initially as a project manager in economic regeneration and subsequently as an economist focusing on social policy.

He has experience in economic and business consulting in the private sector, working as an economic advisor for the British Government and as a pensions economist at the Organisation for Economic Cooperation and Development in Paris.

He specialises in social policy design, public and private pension analysis, static microsimulation modelling of the tax-benefit system, and poverty and income measurement.

His current work at CEPAR is centred on producing policy related briefing papers, summarising existing CEPAR and external research and assisting the secretariat in producing technical content for conferences and the media. He is also undertaking a research project on the interactions between demography and inequality.



MICHAEL SHERRIS HELOISE LABIT HARDY **MENGYLXU** PENGYU WEI DANIEL ALAI ANNAMARIA OLIVIERI ERMANNO PITACCO ADAM WENQIANG SHAO ANDRÉS VILLEGAS SHANG WU JONATHAN ZIVEYI **XIAO XII** DOREEN KABUCHE YULONG LI KEVIN KRAHE ZHIPING HUANG

SHIANNALI

This research aims to analyse and develop sustainable, cost-effective products, allowing both individuals and institutions to manage longevity, health, and aged care risks. A general framework for longevity-linked annuities, describing benefit design and risk sharing profiles, was also prepared. In 2018, this project produced two journal articles, two working papers, eighteen conference presentations and nine works are in progress.

Retirement income products

Research has assessed the impact of retirement income product choices on the welfare of individuals, comparing the drawdown structures in Australia and the Netherlands. Products offering longevity insurance are the most preferred in the absence of bequests, whereas more flexible portfolios with phased withdrawals score higher when individuals have a bequest motive.

Innovations in longevity risk sharing retirement income products, by separating idiosyncratic and systematic risk, allow more efficient risk allocation. These products provide an attractive and sustainable solution to the problem of longevity risk. The research has highlighted the impact of mortality heterogeneity on longevity risk sharing retirement income products. Results show significant redistribution in favour of the richest, with differences in wealth increasing the redistribution effect. Solutions to minimise the wealth distribution between individuals are to be investigated in further research.

In typical designs for pooled annuity products, a popular risk sharing product, the participants not only share the mortality or longevity risks, but also the investment risks. Investment strategies

for pooled annuity products have been assessed as to how they can improve potential retirement income flows. The results, using Australian data, show that the managed volatility framework is a successful strategy that improves the investment performance of pooled annuity products.

Portfolio management with targeted constant market volatility has a significantly reduced exposure to stock market crashes and low transaction costs, allowing insurers and pension funds to better meet individual retirement income needs including equity exposure.

Long-term care insurance

Home equity can be used to insure against uncertain out-of-pocket healthcare costs and how this integrates with long-term care insurance (LTCI) is being researched. A life-cycle model has been used to study optimal consumption and product choice between long-term care insurance (LTCI) and life annuities for a retired homeowner whose preference is represented by a recursive utility function. The results show that the presence of home equity generally increases the optimal annuitisation rate when retirees have no access to LTCI. When both products are available, the presence of home equity can make annuities more attractive,



DR HÉLOÏSE LABIT HARDY BACtScFin, MACtScFin ISFA Lyon, PhD Lausanne SENIOR RESEARCH ASSOCIATE

Héloïse Labit Hardy commenced work as a Senior Research Associate in the ARC Centre of Excellence in Population Ageing Research at the UNSW Business School in September 2016. She completed her PhD at the University of Lausanne in the department of Actuarial Science. She graduated from the French actuarial school *Institut de Science Financière et d'Assurances*.

She works with CI Michael Sherris on mortality modelling, more specifically on longevity risk management, heterogeneity in mortality and cause-of-death mortality modelling.

provided that retirees have sufficient liquid assets. If the amount of liquid assets is low, LTCI can reduce demand for life annuities. Given retirees tend to liquidate housing assets in the event of moving to a long-term care facility, home equity can reduce demand for LTCI.

In future research a foundation for designing affordable long-term care insurance products is being developed for the first time using Australian data including aggregate mortality and cross-sectional health status surveys. Systematic trends and uncertainty will be incorporated in the design and pricing of products for the Australian LTCI market.

Longevity indexes

Developing and assessing longevity indexes for longevity risk transfer markets has been a part of the research program. A cohort-based value index to manage longevity risk of life insurers and pension funds has been developed. This value index captures longevity risk, interest rate risk and historical dependencies between ages and cohorts. The mortality modelling obtains realistic cohort correlation structures and improves the fitting performance, particularly for very old ages.

A cohort and value-based multi-country longevity index has also been developed. This is a graphical basis risk metric that provides valuable visual demonstrations of the relationship between an insurer's portfolio and hedging strategies. A cohort in a more developed longevity risk product country can be used to hedge a longevity risk in a smaller country where there is no longevity hedge available. The research has used the UK index to hedge Australian risks, with both differing interest rates and mortality, and the Netherlands risks with an index for France, where only mortality differs. Hedging is shown to be effective.

A value-based longevity index has also been developed to manage both interest rate and longevity risk. This index incorporates both interest rate and inflation risk, closely tracking the value of longevity-linked liabilities. The residual basis risk exposure in standardised hedges based on the value-based longevity index has also shown to be reduced. This provides a minimisation and robust quantification of longevity basis risk. Moreover, the hedge effectiveness under continuous-time and discrete-time multi-population mortality modelling regimes has been compared to support the assessment of model risk on

hedge outcomes. This research aims to accelerate the transition towards market index-based longevity hedging.

Variable annuities

Advanced equity models and new computation techniques for pricing and hedging of variable annuities are being developed and assessed. Economic Scenario Generators (ESGs) incorporating regime switching, are also being developed and fitted to long run Australian and US financial returns and economic data series including GDP and inflation. These models have applications to assessing the risk of different product cash flows with exposure to equity and inflation.

A cohort and valuebased multi-country longevity index has been developed... that provides valuable visual demonstrations of the relationship between an insurer's portfolio and hedging strategies.



DR ANDRÉS VILLEGAS

BSc Mathematical Engineering Eafit University, MSc Industrial Engineering University of Los Andes,

PhD ActuarSc Cass Business School, City, University of London

ASSOCIATE INVESTIGATOR

Andres is a lecturer at the UNSW School of Risk and Actuarial Studies. Prior to his appointment as a lecturer, Andres was a Senior Research Associate at the UNSW Syndey CEPAR node until January 2017.

He completed his doctoral studies at Cass
Business School in London focusing on the
modelling and projection of mortality. Before his
doctoral studies he obtained an MSc degree in
Industrial Engineering from *Universidad de Los Andes*(Colombia) and worked as a risk analyst at one of the
biggest Colombian life insurance companies.
Andrés's research interests include mortality

modelling and longevity risk management. His recent research has focused on assessing the trends and financial implications of socioeconomic differences in mortality.



HAZEL BATEMAN
INKA EBERHARDT
MEGAN GU
GEORGE SMYRNIS
JENNIFER ALONSO GARCÍA
LORETTI I. DOBRESCU
BENJAMIN R NEWELL
RALPH STEVENS
SUSAN THORP

External Collaborator

EDUARD PONDS (APG, TILBURG UNIVERSITY)

Structural reforms of pensions as well as the fiscal pressures of ageing populations have increased individual responsibility for retirement saving and spending. This has resulted in the transferring of retirement risks to individuals and increased the complexity of retirement financial decisions. However, in Australia and internationally, the response from private markets has been sluggish and policy design is immature. The aim of this project is to contribute to the understanding of how people make retirement saving and spending decisions and to identify the means to facilitate the best possible decisions.

In 2018 research associated with this project focused on five key areas – annuity valuation, bequest motives, benefit projections, information disclosure for longevity products, and the influence of financial literacy and cognitive ability on financial decision making.

A team comprising Chief Investigator Hazel Bateman, Associate Investigators Jennifer Alonso García and Ralph Stevens, and external researcher Eduard Ponds completed two cross country studies of retirement decisions using an online experimental survey fielded to around 2.000 Australian and Dutch pre-retirees aged 50-65. Setting the studies in Australia and the Netherlands allowed testing of the influence of institutional factors: the two countries have similar multi-pillar retirement income arrangements, yet quite different payout structures with Dutch pensions always annuitized and Australian retirees offered benefit choice, with most taking flexible withdrawal products.

Annuity valuation

The first cross-country study (Bateman et al. 2018) investigates perception and valuation of lifetime annuities relative to flexible drawdown products. In the online experimental survey which

elicited annuity preferences using iterative multiple price lists, participants were provided with multiple opportunities to learn about the two products and the opportunity to use an online interactive calculator to illustrate the impact of potential choices. Results show that for "engaged" participants, the information provision strategy and opportunity to illustrate potential outcomes, reduced the endowment effect (compared to similar studies), and offset the effects of low financial capability, information framing and real-world institutional settings.

Beauest motives

The second cross-country study (Alonso García et al. 2018) investigates the role of rational, behavioural and institutional settings on the strength of the bequest motive from retirement savings. In an online experiment, participants were randomly assigned to a control treatment, where they were asked to state bequest intentions out of retirement savings (narrow bracketing) or a treatment group, where they were prompted to consider the availability of the house they own as a bequest before being asked to state their bequest intentions from their retirement savings (broad bracketing). Setting the study in Australia and the Netherlands enabled



DR JENNIFER ALONSO GARCÍA

Lic. Mathematics University of Oviedo, MSc PhD Actuarial Science Université Catholique de Louvain, IA/BE Actuary ASSOCIATE INVESTIGATOR Jennifer Alonso García joined the Department of Economics, Econometrics and Finance as an Assistant Professor at the University of Groningen in July 2018. Previously she was a Senior Research Associate at CEPAR, where she is now Associate Investigator.

She completed her studies in mathematics in Spain and Germany, and received her PhD from the Université Catholique de Louvain in Belgium in 2015. She is also an IA/BE Qualified Actuary of the Belgian Institute of Actuaries.

Her research combines the areas of actuarial science and household, pension and quantitative finance to study the design, risk-sharing and financing of funded and pay-as-you-go retirement income schemes. Her research program is developed

around the following overarching question: 'How can we develop sound retirement income schemes that are fiscally sustainable and attractive for participants in an ageing environment?' During her PhD she studied both the fiscal sustainability and adequacy of pay-as-you-go financed defined contribution public pension schemes. Her research has been published in leading international journals, including the European Journal of Finance, Quantitative Finance, Insurance: Mathematics and Economics, Scandinavian Actuarial Journal and the ASTIN Bulletin.

Jennifer is currently involved in research on the financial decision making of households during retirement; life expectancy inequality; and design and risk management of equity-linked retirement income products.

testing of a key institutional difference:
Australians have bequeathable wealth from flexible drawdowns and high homeownership at retirement, while the Dutch have non-bequeathable pensions and moderate levels of homeownership. Results suggest that mental accounts matter. Prompting participants to consider housing assets before they are asked to consider bequest intentions, lowered both the intention and size of bequests from retirement savings relative to narrow bracketing. This approach therefore has the potential to release savings, otherwise kept aside for bequests, for the purchase of lifetime annuities.

In 2018 both studies were presented at several international conferences and seminars, including the 16th International Conference on Pensions, Insurance and Saving in Portugal, the 26th Annual Colloquium on Pensions and Retirement Research, the 22nd International Congress on Insurance: Mathematics and Economics, and the American Risk and Insurance Association Annual Meeting in Chicago.

Benefit projections

Another team comprising Associate Investigators Loretti I Dobrescu, Ben R Newell and Susan Thorp, CEPAR supported PhD student George Smyrnis and Chief Investigator Hazel Bateman studied how account balance and/or income projections motivate the voluntary savings intentions of pension plan participants.

Savings intentions over a sequence of ten choices were collected from 1,615 respondents aged 25-57 years using an online experimental survey that compared four different formats for retirement account information: current balance, current balance and projected retirement balance, current balance and projected retirement income, and current balance, projected retirement balance and retirement income.

Results show that the income projection triggers marginally more voluntary saving intentions than the lump sum projection alone at the first choice. However, at both the first choice and over sequential choices, the combination of balance and income projections is what matters most. A conference paper (Smyrnis et al. 2018) was presented at the Boulder Summer Conference on Consumer Financial Decision Making and the Research in Behavioral Finance Conference in Amsterdam.

In 2019 this work will be extended through the analysis of data from a field experiment conducted by a large Australian industry superannuation fund.

Information disclosure for longevity products

In 2018 Chief Investigator Hazel Bateman and Research Fellow Inka Eberhardt initiated the design of a study to investigate effective formats for information disclosure for longevity products in the context of the Australian government's proposal to introduce a comprehensive income product for retirement (CIPR). An experimental survey will be fielded in the first quarter of 2019.

The impact of financial literacy and cognitive ability on financial decision making

Chief Investigator Hazel Bateman and Research Fellow Megan Gu commenced a study to investigate the combined impact of financial literacy and cognitive ability on financial decision making over the life-cycle. The study will involve analysis of relevant waves of HILDA and other longitudinal surveys, as well as the design and implementation of purpose designed survey.



INKA EBERHARDT

MSc Econ Utrecht

RESEARCH FELLOW

Inka Eberhardt is a CEPAR Research Fellow, located in the UNSW Business School. She joined the Centre in October 2018.

She completed her undergraduate studies in political studies and economics in the Netherlands, and is to receive a PhD in Finance from Maastricht University in 2019.

In 2017, she also visited Professors Michael Norton and John Beshears at Harvard Business School.

Inka is interested in the interface between behavioural economics and pension systems. For her dissertation, Inka worked together with the *Bedrijfstakpensioenfonds Detailhandel*, the pension fund of the Dutch retail sector. She uses field experiments and online surveys to research the effectiveness of pension communication on savings behaviour and retirement decisions. The aim of her research is to improve communication and to enable consumers to make better choices.



OTHER ASSOCIATE INVESTIGATORS INVOLVED IN STREAM 4 RESEARCH IN 2018 INCLUDED:



PROFESSOR JULIE BYLES

B Med PhD N'cle (NSW) FAAHMS

Professor Julie Byles is Global Innovation Chair in Responsive Transitions in Health and Ageing at the University of Newcastle, Director of the Priority Research Centre for Generational Health and Ageing, and a Director of the Australian Longitudinal Study on Women's Health. She collaborates with Professor Cumming as an Associate Investigator on Project 4.3.

As a clinical epidemiologist, Julie's interests are in risk determination, health assessment, other health care evaluation, and measurement of health outcomes. As a gerontologist and Fellow of the Australian Association of Gerontology, her research interests in ageing include the role of health services, preventive activities, and treatments in maintaining quality of life for older people, and in determining physical, psychological and social factors associated with optimal physical and mental health of men and women as they age.

She is also Head of the International Longevity Centre - Australia (ILC-Aus), Chair of the International Association of Gerontology (Asia Oceania) Social Research and Planning subcommittee, and a frequent advisor to the World Health Western Pacific Region, and Department of Ageing and Life Course (Geneva), assisting with translation of evidence on health and ageing.



ERIK HERNÆS

Cand Oecon Oslo

Erik Hernæs is a Senior Research Fellow at the Ragnar Frisch Centre for Economic Research at the University of Oslo, one of Norway's leading economics research centres. Erik's primary research interests are related to pension economics and he is currently leading a project on evaluating the labour market effects of Norwegian pension reform.

After working at Statistics Norway, he became the inaugural Director of the Frisch Centre in 1999. He was one of the first researchers to organise administrative register data and use these for econometric analysis. This is now a major research focus of the Frisch Centre.

Erik has published on productivity, education, unemployment and retirement, in the Scandinavian Journal of Economics, Oxford Bulletin of Economic Research, Journal of Pension Economics and Finance, Journal of Health Economics, Journal of Labor Economics and in volumes published by the NBER, Kluwer, Edward Elgar and Routledge.

Erik collaborates with Professor Piggott on Project 4.4.



A/PROFESSOR FEDOR ISKHAKOV

BMath CandSc St Petersburg State University, MSc PhD University of Oslo

Fedor Iskhakov is an Assistant Professor at the Research School of Economics, Australian National University and an Australian Research Council Future Fellow. As an Associate Investigator with CEPAR, he contributes to Projects 4.4 and 2.4.

Previously he was a Senior Research Fellow at CEPAR (2013-2016) and a Research Fellow at the Centre for the Study of Choice, University of Technology, Sydney (2010-2012). Between 2002 and 2011 he was a Research Fellow and a postdoc fellow at the Frisch Centre for Economic Research at the University of Oslo.

His doctoral thesis, 'A dynamic structural analysis of health and retirement,' was awarded His Majesty the King of Norway's gold medal, for the best research in social sciences among young researchers in Norway in 2008.

His research interests lie in the area of applied econometrics, microeconomics and computational economics. More specifically he develops structural dynamic models of individual and strategic choice, with applications to labour economics, public economics, durable goods markets, household finance and applied industrial organisation.



PROFESSOR ERMANNO PITACCO

Ermanno Pitacco is Professor of Actuarial Mathematics and Life Insurance Techniques at the University of Trieste, and Academic Director of the Master in Insurance and Risk Management at the MIB School of Trieste. As an Associate Investigator he contributes to CEPAR Project 4.5: Financial and Insurance Product Design.

His current research interests lie in the area of life and health insurance mathematics and techniques, focusing in particular on longevity risk, life annuity and life insurance portfolio valuations and solvency assessment. He is an author and co-author of textbooks and has published in leading international risk and actuarial studies journals. He was awarded the 2011 Bob Alting von Geusau Memorial Prize, together with Annamaria Olivieri. He serves as vice co-chairman of the Mortality Working Group of the International Actuarial Association (IAA) and Treasurer of the AFIR/ERM Committee of the IAA.

Ermanno is editor of the *Springer Actuarial* series, co-editor of the *European Actuarial Journal* and associate editor of a number of international journals



PROFESSOR SUSAN THORP

BEc (Hons) Syd., PhD UNSW

Susan Thorp is Professor of Finance and Associate Dean (Research) at the University of Sydney Business School.

She researches household and consumer finance focusing on retirement savings and decumulation. She uses theoretical, empirical and experimental techniques to understand financial decision making. Much of this research has tested the way decision makers respond to advisors, disclosures and choice architecture. She collaborates with Hazel Bateman on the CEPAR research program.

Susan has published over 40 papers in international academic journals. She has led and participated in grant projects attracting over \$3 million dollars in public and industry funding. Susan is also a regular contributor to consumer finance and superannuation policy discussions, and her research is cited by major public reviews and inquiries.

Susan is a member of the Steering Committee of the Melbourne Mercer Global Pensions Index, a Director of the Superannuation Consumers' Centre and a member of the Research Committee of the OECD/International Network on Financial Education.



DR JONATHAN ZIVEYI

BSc (Hons) Applied Mathematics NUST Zimbabwe, PhD Quantitative Finance UTS, GradCert University Learning and Teaching UNSW

Jonathan Ziveyi is an Associate Investigator at CEPAR based at the UNSW Business School where he is a Senior Lecturer in the School of Risk and Actuarial Studies. As an Associate Investigator he contributes to CEPAR Research Projects 4.1. and 4.5.

He received his PhD in Quantitative Finance from the University of Technology Sydney where his thesis was on the evaluation of early exercise exotic options.

His current research interests include longevity risk management, retirement income product design, valuation of guarantees embedded in variable annuities and option pricing under stochastic volatility. His research output has been published in quantitative finance and actuarial journals such as *Insurance: Mathematics and Economics* and *Quantitative Finance*, among others, and has been presented at various international conferences.



KATJA HANEWALD
HAZEL BATEMAN
JOHN PIGGOTT
HANMING FANG
YUANYUAN DENG
HAN LI
BEI LU
SHANG WU
SISI YANG
MINGKU YANG

External Collaborators

RUO JIA ZINING LIU (BOTH PEKING UNIVERSITY)

PU LIAO (CENTRAL UNIVERSITY OF FINANCE AND ECONOMICS, BEIJING)

HONG MI (ZHEJIANG UNIVERSITY)

GUANGGANG FENG (ZHEJIANG UNIVERSITY)

The Australia-China Population Ageing Research Hub, established in 2015 with significant funding from UNSW, undertakes extensive research into the economic and health implications of population ageing in China, such as pension and social security reform, labour supply, and disability prevalence. In 2018 research was advanced on six projects as detailed below.

REVERSE MORTGAGE DEMAND IN CHINA

Hanewald, Bateman, Fang and Wu conducted an analysis of two online surveys on the demand for reverse mortgages in China and piloted in China a test of a flexible product design that overcomes shortcomings of an unsuccessful reverse mortgage product. The results show that 89% of older homeowners aged 45-69 years are interested in this new reverse mortgage product and 84% of adult children aged 20-49 years would recommend the reverse mortgage to their parents. Participants in both surveys mainly want to use the reverse mortgage payments to fund a more comfortable retirement and to pay for better medical treatments and aged care services. The project was presented at several conferences in 2018 and the paper will be finalised in early 2019.

INCOME INEQUALITY OF THE ELDERLY IN CHINA

This project analyses income inequality of the elderly in China over the period 1989–2015 using household panel data from the China Health and Nutrition Survey (CHNS). Hanewald in collaboration with Jia and Liu, used a regression-based method to decompose elderly income inequality by socioeconomic groups and by income sources to identify the causes of inequality. It was found that urban-rural inequality is the most conspicuous dimension of income inequality and pension inequality is the primary cause. Results suggest that elderly income inequality in China can be reduced by reforming the public pension system to a fairer one and by developing the private market for innovative retirement

[Survey] results show that 89% of older homeowners aged 45-69 years are interested in this new reverse mortgage product and 84% of adult children aged 20-49 years would recommend the reverse mortgage to their parents.



DR KATJA HANEWALD

MSc Econ PhD HumboldtUniversität zu Berlin
SENIOR RESEARCH FELLOW

Katja Hanewald is a Senior Research Fellow in CEPAR's Australia-China Population Ageing Research Hub. Her research addresses risk management and insurance aspects of population ageing.

Her current research investigates ageing trends, the design of retirement financial products and optimal retirement financial decisions of older households in China.

Previously, Katja held academic positions at Humboldt-Universität zu Berlin, Germany (2008-2010), and at the University of New South Wales (2011-2013), and worked at the German Federal Ministry of Finance (2013-2015).

She was a CEPAR Associate Investigator from 2011-2015. She obtained her doctoral degree in Economics from Humboldt-Universität zu Berlin in November 2010.

income products. The project was presented at conferences and seminars in 2018. Ms Zining Liu visited CEPAR during the period September to December 2018 to finalise the project.

CONSTRUCTING OCCUPATION-SPECIFIC LIFE TABLES FOR CHINA

This project, conducted by Li, Hanewald and Liao. is funded by the Society of Actuaries. The purpose of the project is to construct the most up-to-date occupational life tables for male and female urban employees in China based on administrative data from the Beijing Public Pension System for the period 2005-2009. Life tables for major occupational groups including private-sector high-skilled professionals, low-skilled workers, service sector workers, and government or state-owned enterprise employees were developed. The project will deliver a report in English and Chinese by the end of 2019 and a working paper in early 2019. Dr Pu Liao from the Central University of Finance and Economics in Beijing visited CEPAR in November 2018.

LONG-TERM CARE POLICY IN CHINA

This project continues research on long-term care (LTC) financing, which drew on a unique pilot of LTC delivery in China and was originally funded under the ARC Linkage Program from 2015-2017. With a projected six-fold increase in the Chinese population of those aged 80 and above by 2050, LTC is set to be a major challenge for policymakers.

The project, undertaken by a team comprising Piggott, Lu, Mi, Feng and Yang, analyses LTC demand based on trends of life expectancy and dependent life expectancy; and compares health care cost before and after the pilot of the Qingdao LTC policy for the frail elderly.

The trend analysis finds that the elderly Chinese population has a compression of disability for age 60 and above in general from 2000-2015, but very little improvement or increased prevalence of disability at age 80 and above.

The cost comparison of the Qingdao Pilot LTC Program reveals that there is little change in overall health care insurance expenditure by separating the LTC from the existing concentrated hospital health care system, but individual out-of-pocket payment is reduced quite dramatically. This indicates that the current pilot LTC program manages to deliver health care services to residential places with similar costs to the fund and welfare to the elders.

The project has resulted in three publications, including a just-accepted manuscript with the *Journal of Economics of Ageing*. Two further papers are currently being drafted. Project results were presented in Shanghai at the 4th Annual Workshop on Population Ageing and the Chinese Economy in June 2018.

Life tables for major occupational groups including private-sector high-skilled professionals, low-skilled workers, service sector workers, and government or state-owned enterprise employees were developed.



DR YUANYUAN DENG MA PhD SUNY-SB SENIOR RESEARCH ASSOCIATE

Yuanyuan Deng is a CEPAR Senior Research Associate, located in the UNSW Business School. She joined the Centre in July 2018 after working for two years as a Visiting Assistant Professor for the Singapore Management University School of Business. She received an MA and PhD in Economics from the State University of New York-Stony Brook, United States. During her PhD study, she received a grant from the Michigan Retirement Research Center and a Dissertation Fellowship from the Center for Retirement Research at Boston College.

Her research encompasses the areas of public economics, health economics and social insurance. Her current research investigates the impact of delaying the public pension age on individual financial decisions using a life-cycle model for two types of Chinese urban workers: high-skilled and low-skilled. She is also working on projects that analyses the effects of health insurance, working decisions and Medicare buy-in on individuals' Medicare enrolment decisions, as well as the effects on Medicare costs of work, delayed enrolment and buy-in.



DELAYING THE PUBLIC PENSION AGE IN CHINA: IMPLICATIONS FOR LABOUR FORCE PARTICIPATION AND INDIVIDUAL WELFARE

The Chinese government is considering delaying the public pension age and this change is likely to happen in the near future.

A team comprising Deng, Fang, Hanewald and Wu. developed a life-cycle model of consumption and labour supply decisions for two types of workers: white-collar and blue-collar. The model incorporates uncertainties in income, health and lifetime, and is calibrated using data from the China Health and Retirement Longitudinal Study (CHARLS). Using the calibrated model, a policy simulation was performed to investigate the impact on labour supply decisions and individual welfare of delaying the public pension age for the two heterogeneous groups. The results will inform the design of public pension policies. This project was presented at conferences and seminars in 2018. The research paper is expected to be finalised in mid-2019.

LIFE SATISFACTION, HEALTH STATUS AND MEDICAL INSURANCE COVERAGE OF OLDER CHINESE: WHO IS HAPPIER?

China faces rapid population ageing as well as dramatic economic and social changes. The purpose of this project is to examine the life satisfaction of older people using data from the China Health and Retirement Longitudinal Study (CHARLS). Yang and Hanewald developed an ordered probit model to categorise older people into groups based on their health status and types of medical insurance coverage to examine the heterogeneity in life satisfaction among the elderly. This project provides evidence on the impacts of health and medical insurance coverage on older people's happiness. The results will inform the development of medical services and medical insurance for older people in China. The research paper is expected to be finalised in mid-2019.

... a policy simulation was performed to investigate the impact on labour supply decisions and individual welfare of delaying the public pension age for the two heterogeneous groups (white-collar and blue-collar workers).



DR SISI YANG
MA CASS, PhD Macq. & CASS.
SENIOR RESEARCH
ASSOCIATE

Sisi Yang is a CEPAR Senior Research Associate, located in the UNSW Business School. She joined the Centre in July 2018. She completed her master's degree in Demography in the Chinese Academy of Social Sciences (CASS), and received PhDs in Demography from Macquarie University and CASS in 2017.

Sisi's research interests focus on issues relating to migration, ageing and inequality, including wellbeing of older adults, formal and informal settlement of migrants, migrant workers and employment, and health and inequality, mainly based on data from large scale surveys, censuses and interview data. Her current research involves the examination of life satisfaction of older adults in

China, permanent settlement intentions of China's rural-urban migrants, health status of Chinese-born migrants in Australia and the related theoretical and policy implications of ageing and migration both in China and the international context.

Her research has been published in both national and international academic journals, including *Urban Studies, Urban and Environment Studies* and the *Chinese Journal of Population Science*. She has also co-authored reports and books on health and migration related issues, including *The Annual Report on Chinese International Migration*, which has been published recently. She has been a reviewer for several academic journals, such as journal of *Population, Space and Place*.

RESEARCH TRAINING AND MENTORING

THE CEPAR RESEARCH ENVIRONMENT IS UNIQUE GLOBALLY IN ENCOURAGING RESEARCHERS AT ALL CAREER STAGES TO DRAW ON DEEP KNOWLEDGE OF THEIR OWN DISCIPLINES WHILE ENGAGING WITH COLLEAGUES FROM DIFFERENT COGNATE BACKGROUNDS.

Our initiatives are aimed at developing researchers not only affiliated with CEPAR but also those affiliated with other national, and in some cases international, groups focused on the issue. In this way, we plan to continue playing a major role in national capacity building and networking, and to ensure impact in the longer term. Some of our initiatives were developed during the first term of our funding; others are new, reflecting our aim to continue to enhance the experience of researchers in our four targeted groups: mid-career, early career, PhD students, and undergraduates.

CEPAR ANNUAL WORKSHOP

CEPAR's all staff workshop provided an opportunity for our researchers and students to gain an in-depth understanding of the entire CEPAR research program, including progress-to-date and future research directions. Participants also had the opportunity to present their research, network with their peers and participate in discussions with CEPAR's two Directors of Mentoring.

As part of the two-day program, the Centre's early- and mid-career research fellows (ECRs and MCRs) convened a special HDR student presentation session where they acted as discussants, providing feedback on the research. In keeping with the Centre's focus on research translation, discussants also identified stakeholders who may be interested in the research outcomes.

EARLY AND MID-CAREER RESEARCHER MENTORING AND TRAINING

ECRs and MCRs are mentored by CEPAR senior researchers and have opportunities to interact with experts within the five collaborating universities, as well as international leaders in the field who visit the Centre during the year. A range of events held throughout 2018 also provided frequent occasions to engage with our industry and government partners. Our ECRs and MCRs participate in Centre activities such as workshops and seminars, serve on CEPAR subcommittees and Stakeholder Reference Groups, contribute to the Centre's working paper series, and have opportunities to develop a range of skills.

CEPAR MENTORING SCHEME

The formal CEPAR Mentoring Scheme was officially launched at the 2018 CEPAR annual workshop. The program matches senior researchers with ECRs and MCRs to support the professional and personal growth of the mentees.

The ultimate goal is to support the development of leadership and relationship skills which mentees will require to go on to independently establish and manage large, complex, multidisciplinary projects that are firmly engaged with national and international partners in academe, government and industry.

Mentees may use the scheme to seek advice on career and goal planning; work/life balance; the development of skills and leadership capabilities; publication or grant application strategies; or strategies for engaging with or translating research for stakeholders and/or the media. Networking or other opportunities may also be facilitated through the mentor's connections.

The Scheme also enhances connection and collaboration within and across nodes as well as with other institutions where our Mentors are based.

FUTURE LEADERS IN AGEING PROGRAM

In 2018, work progressed on planning the 2019 delivery of the first Future Leaders in Ageing Program. The program aims to accelerate high potential mid-career researchers' capability to lead research



CEPAR PERSONNEL AT Q STATION SYDNEY FOR THE ALL STAFF WORKSHOP



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RESEARCH TRAINING AND MENTORING

EARLY CAREER RESEARCHER METHODOLOGY WORKSHOP

A training workshop, 'Introduction to the Applied Analysis of Longitudinal Data' was hosted by the CEPAR UNSW node in December 2018. Convened by CEPAR CI Kaarin Anstey and presented by CEPAR Associate Investigator Dr Kim Kiely, the workshop provided a conceptual overview, explaining why longitudinal data is needed to properly study ageing processes, outlined longitudinal research designs, and presented basic methods commonly used to analyse longitudinal data. The workshop was offered free of charge to both CEPAR and non-CEPAR affiliates, with six CEPAR travel bursaries awarded to interstate participants to assist with costs. As well as providing an opportunity for participants to advance their skills, it also offered a forum to network with other emerging researchers working across the social sciences with psychologists, economists and demographers all participating.

This workshop on the analysis of longitudinal data offered useful tools for studying ageing processes. The workshop was well organised and the material very well structured. I'm glad I participated in the workshop, especially as the topic is relevant for my research. Moreover, Kim was very helpful and friendly, which made the two-day workshop even more enjoyable.'



HELOISE LABIT-HARDY Senior Research Associate UNSW SYDNEY

NATIONAL AND INTERNATIONAL NETWORKING OPPORTUNITIES

Creating opportunities for young researchers to develop their international networks and communicate the results of their research to international peers continued to be an area that the Centre invested significant resources.

As an example, Elena Capatina visited the National Taiwan University (NTU), from 7-13 June, along with her co-authors Minchung Hsu and Gary Hansen, to work together on their project on Long-term Care Insurance Reform in the US.

'It was a great opportunity to meet and make some key decisions regarding the focus and future course of the project. We placed our paper's contribution in the context of emerging new literature, changed our model to highlight the novel aspects of our research and we developed our model estimation strategy. This jump started our progress for the remainder of the year and we now have an updated working paper.

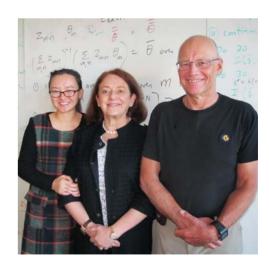
The trip was also beneficial in establishing ties with NTU. Given our visit, NTU organised the Mini Macroeconomic Workshop on Economic Policy on June 7th, which my co-authors and I attended. I enjoyed learning about the research done in Macro at NTU. I also met many NTU faculty members including Associate Professor Pei-Ju Liao, Professor Hung-Ju Chen, Assistant Professor Yi-Chan Tsai, and Assistant Professor Hsuan-Li Su.'



ELENA CAPATINA Research Fellow UNSW SYDNEY

Our visitors program also provided our students, ECRs and MCRs with opportunities to expand their international networks. This included international experts who were distinguished speakers at 2018 CEPAR or CEPAR-sponsored events such as the 26th Colloquium of Superannuation Researchers and the Workshop on Longevity and Long-Term Care Risks and Products. Many of our visitors spent extended periods of time at the Centre meeting with CEPAR personnel to discuss CEPAR research and the development of joint projects. For our junior researchers, this provided an excellent opportunity to exchange ideas and perspectives with a range of multidisciplinary experts in an informal setting.

Hosting visiting ECRs and PhD students from institutions with which we are building a collaborative research program, also expanded the networks of our young researchers and fostered the development of collaborative research relationships.



CEPAR RESEARCH FELLOW XIANGLING LIU WITH CEPAR VISITORS PI OLIVIA S MITCHELL AND AI ERIK HERNÆS

Four international PhD students from China were hosted by the UNSW CEPAR node in 2018. The students visited for extended periods of time to work with CEPAR Research Fellows and Chief Investigators on their PhD and the visits provided them with the opportunity to attend many of CEPAR's events and workshops during their stay.

International visiting PhD students in 2018 included:

Xuemeng Ding

University of International Business and Economics, China 1 September – 31 December 2018

Chen Fan

School of Economics and Management, Tsinghua University, China 3 September 2018 – 3 September 2019

Yu Crystal Fu

China Institute for Actuarial Science, Central University of Finance and Economics, Beijing, China 26 September 2017 – 26 September 2018

Zining Liu

Department of Risk Management and Insurance, Peking University, China 1 September – 31 December 2018



ZINING LIU
PhD Exchange Student
DEPARTMENT OF RISK
MANAGEMENT AND
INSURANCE, PEKING
UNIVERSITY, CHINA

'I visited CEPAR at the UNSW Sydney node as a PhD student under the UNSW Study Abroad Research Practicum Program under the supervision of Dr Katja Hanewald who is a Senior Research Fellow based within the Australian-China Population Ageing Research Hub. Visiting for a period of four months provided a wonderful opportunity to work with the experts at CEPAR and allowed us to successfully complete our joint project 'Income Inequality of the Elderly in China'. I really enjoyed my time at CEPAR with all of the research team and found it to be a wonderful environment to complete the project in. There were also many opportunities to attend workshops and seminars which were of great interest in my work.'

CEPAR students were also encouraged to present their research at international conferences and CEPAR provided funding to assist with travel expenses.



YULONG LI
PhD student and
HDR Student
Conference Travel
Recipient
UNSW SYDNEY

'In 2018 I was fortunate enough to receive funding from the CEPAR HDR Student Conference Travel Scheme to support my attendance at the 14th International Longevity Risk and Capital Markets Solutions Conference in Amsterdam, the Netherlands. At the conference, I presented a paper entitled "Health Status Mortality Modeling" Based on a Multiple-state Markov Ageing Model" based on the results of my PhD project which focuses on health status, mortality heterogeneity and implications for post-retirement. Attending the conference provided me with the opportunity to receive valuable feedback and connect with a number of international researchers. I appreciate the support that CEPAR provided, allowing me the opportunity to participate in such a renowned international conference.'



RESEARCH TRAINING AND MENTORING

HIGHER DEGREE RESEARCH TRAINING

37 HDR students were enrolled under the supervision of CEPAR Investigators and working on topics aligned with the Centre's research agenda in 2018. Details of their research theses are provided on pages 70–72. These students have the opportunity to participate in a range of Centre activities, including conferences and workshops and meetings with international visitors.

We contribute to the development of national research capacity more generally through our support for Emerging Researchers in Ageing (ERA), an initiative which aims to bring together students interested in ageing research and provide them with opportunities to form networks and undertake collaborative endeavours. In 2018, ERA membership continued to grow, with over 800 registered members, primarily graduate students drawn from a wide range of disciplines but also key professionals, industry stakeholders and representatives from peak bodies in the ageing field keen to play a role in supporting early career researchers.

ERA members have the opportunity to participate in the annual conference and virtual seminar series, as well as take advantage of other opportunities, for example, the ERA travel exchange scheme. With funding support from CEPAR, in 2018 ERA awarded one international exchange and two domestic exchanges.

CEPAR's funding support also allows the ERA administrative team to coordinate educational and mentoring activities for research students in the ageing field. The key annual ERA activity is the ERA National Conference. In 2018 the conference, now in its 17th year, was hosted by the Dementia, Ageing and Neurodegeneration Network at Monash University, chaired by Dr Sharna Jamadar. The theme was 'Bringing Researchers and the Community Together'. There were a range of topics

that addressed this theme, including consumer perspectives, carers, social and economic participation, health promotion, biological aspects, cognitive and clinical neurosciences, dementia and chronic diseases, measurement and methodology, and service design. The conference featured 38 oral presentations and six poster presentations. ERA provided eight bursaries to student presenters to support their attendance at the conference.

Gretchen (Gigi) Petery, a CEPAR research fellow for Stream 3 based at Curtin University, was one of three CEPAR researchers and affiliates who presented their research at ERA in 2018.

'ERA is unique in that it provides support and helpful feedback to early career researchers that aims to improve their research efforts. The range of research presented is truly multi-disciplinary, representing the fields of organisational science, economics, medicine, social work, and more. Learning about these different perspectives sheds light on factors that may not have previously been considered, resulting in better research in the future. The intimate nature of ERA fosters networking, leading to increased opportunities for cross-disciplinary collaborations.'



DR GRETCHEN (GIGI) PETERY
Research Fellow and ERA
Conference Participant
CURTIN UNIVERSITY

In addition, Dr Mengyi Xu, winner of the Hal Kendig CEPAR PhD Prize for best thesis in 2017, presented on her work as part of the closing address and was presented with her award by Professor Helen Bartlett, ERA Founder and Vice Chancellor, Federation University Australia.

ERA participants had the opportunity to attend two post-conference workshops, focused on bringing researchers and the community together, and disseminating research to the community:

- 'Community Voices' an NHMRC National Institute for Dementia Research workshop featuring a panel of clinicians, representatives from the older community, and people living with Alzheimer's disease, Friedreich's Ataxia, and Huntington's disease (facilitated by Dr Yifat Glikmann-Johnston [Monash University])
- 'Publishing Your Research' a workshop featuring representatives from an academic journal, The Conversation, and university librarians discussing issues in publishing, including how to pitch and write about research across multiple media (facilitated by Dr Lucy Vivash [Monash University]).

This year's ERA-Australian Association of Gerontology (AAG) joint conference workshop was presented by A/Prof Priscilla Johanesen, Director of the Biomedicine Graduate Program at Monash University. She spoke about 'Networking 101', and how to connect with people to increase opportunities as an emerging researcher.

EMERGING RESEARCHERS IN AGEING VIRTUAL SEMINAR SERIES

The ERA Virtual Seminar series continued to provide an opportunity for ERA members from across Australia and internationally to come together virtually to hear from leading researchers and stakeholders in the field of ageing and engage in extended discussion. Participation in the series included young researchers based in Australian metropolitan and regional areas as well as internationally. ERA hosted one virtual seminar in 2018 on 'Research ethics', presented by Dr Evie Kendal from Deakin University.

ERA also collaborated with the AAG to host a joint webinar on 'Successfully engaging consumers in ageing research', featuring Ms Janice Besch [NHMRC National Institute for Dementia Research (NNIDR]], Dr Jane Thompson [Advocate and former carer], and Dr Craig Sinclair [University of Western Australia]. The session was very well attended with approximately 70 participants and considerably more registrations from people keen to receive the materials from the webinar.

UNDERGRADUATE STUDENT ENGAGEMENT

SUMMER SCHOLARSHIP PROGRAM

The CEPAR Summer Scholarship Program at the UNSW node is now in its fourth year and for the first time was expanded to include the other nodes. The program is designed to provide students with a taste of working in a research centre and inspire them to pursue research studies. Successful applicants were given the opportunity to work under the supervision of CEPAR Research Fellows for up to eight weeks over the summer break. The program generated a great deal of interest from undergraduate students in Economics, Organisational Behaviour, Psychology and Actuarial Studies who competed for five awards. The successful students and their research projects were:

Darren Haywood

Development and validation of a measure of age base work bias

Georg Tamm

Work design practices for attracting and retaining mature workers

Jordan Van

Life-cycle modelling for optimal retirement spending in countries with less developed social security systems

Kevin Dang

Economic scenario generators for modelling retirement income product cash flows

William Ha

Mortality modelling and forecasting based on Internet data

'As part of the Summer Research Scholarship I had my own project to work on, which was a very challenging yet fun and rewarding experience. The CEPAR Research Fellows were never too busy to answer my questions and guide me in the right directions. In the end, I obtained a greater understanding of the different aspects of being a researcher - something that I would never be able to get from my coursework.'



WILLIAM HA
B. Actuarial Studies / B.
Science (Statistics)
Student
UNSW SYDNEY



RESEARCH TRAINING AND MENTORING

CEPAR RESEARCH STUDENTS

CEPAR affiliated students work under the supervision of CEPAR Investigators on topics aligned with the Centre's research agenda. In 2018 a total of 36 PhD students, one Masters Student and five Honours students were affiliated with the Centre

HDR COMPLETIONS

This year seven PhD CEPAR affiliates submitted their theses for examination and/or graduated:

JEOFREY ABALOS

Thesis: Determinants of health status and health expectancy

among older persons in the Philippines

Supervisor: Professor Heather Booth Co-supervisor: Professor Zhongwei Zhao

BIANCA BONOLLO

Thesis: Social networks and formal care usage

Supervisor: A/Professor Loretti I. Dobrescu

Co-supervisor: Professor John Piggott

CASSIE CURRYER

Thesis: Baby boomer women ageing in place: Childlessness,

social policy, and housing in Australia.

Supervisor: Professor Julie Byles Co-supervisor: Professor Mel Gray

PARIVASH EFTEKHARI

Thesis: Quality care in older Australian women with asthma

Supervisor: Professor Julie Byles

Co-supervisors: Ms Peta Forder and Dr Melissa Harris

ARM NAKORNTHAB

Thesis: Annuities and estate taxation in an entrepreneurship model

Supervisor: Dr Cagri Kumru

QUANG TRINH

Thesis: Ageing and intergenerational relationships in Vietnam

Supervisor: Professor Hal Kendig Co-supervisors: Professor Peter McDonald,

A/Professor Minh Huu Nguyen and Dr Vasoontara

Yiengprugsawan

ADAM YATES

Thesis: International obesity and socioeconomic status relative

to absolute wealth

Supervisor: Professor Julie Byles

Co-supervisors: Professor Catherin D'Este and Dr Paul Kowal

In addition, the following student completed a Master of Philosophy:

SHUANGLAN (SHIANNA) LI

Thesis: Investment strategy for pooled annuity products

Supervisor: Professor Michael Sherris

Co-supervisors: Dr Andrés Villegas and Dr Héloïse Labit Hardy

PHD STUDENTS

In addition to those who submitted their PhD theses in 2018 the students listed below were also affiliated with CEPAR:

Md MUHAMMAD ABSOR

Thesis: Inequality in later life in rural Indonesia:

Why ethnicity, gender and social class matter?

Supervisor: Dr Iwu Utomo

Co-supervisors: Professor Peter McDonald, Dr Arianne Utomo and

Dr Brian Houle

RICHARD ARTHUR

Thesis: Is anxiety a risk factor in cognitive ageing?

Supervisor: Professor Kaarin J. Anstey

Advisors: Dr Richard A. Burns, Dr Moyra E. Mortby and

Professor Richard O'Kearney

TSENDSUREN BATSUURI

Thesis: Impact of demographic change in Asia on macroeconomic

and environmental outcomes

Supervisor: Professor Warwick McKibbin

Co-supervisor: Dr Larry Liu

JACINTA BORILOVIC

Thesis: Evaluating the use of technologies to support older

Australians to age in place

Supervisor: A/Professor Kate O'Loughlin

Co-supervisors: Professor Lindy Clemson and Dr Meryl Lovarini

JENNIFER CULPH

Thesis: Health organisations and innovation: The implementation

of a community dementia care program

Supervisor: Professor Lindy Clemson

Co-supervisors: Dr Kate Laver and Dr Justin Scanlan

ARPITA DAS

Thesis: Nutrient intake and its effects on health outcomes and

mortality among older men living in Australia: The Concord

Health and Ageing in Men Project

Supervisor: Dr Vasant Hirani

Co-supervisor: Professor Robert Cumming

Varieties of fertility (VOF): Gendering the issue Thesis: of ageing populations in post-industrial nations Supervisor: Professor Marian Baird Dr Chris F Wright Co-supervisor: DOROTHY DUDLEY Thesis: Understanding personal goals in retirement and their relationship with life satisfaction -An Australian perspective Supervisor: A/Professor Kate O'Loughlin Co-supervisors: Dr Vanessa Loh and Dr Sophie Lewis TIN LONG HO Thesis: Retirement financial planning in China: The role of housing and new retirement financial products Professor Hazel Bateman, Dr Katja Hanewald and Supervisors: Professor Hanming Fang ALIZA HUNT Thesis: Ageing well in Indonesia: Meeting the mental health needs of elderly Indonesians Supervisors: Professors Peter McDonald, Phil Batterham and Zachary Steel **NEIL JEYASINGAM** Thesis: Attitudes to ageing: Factors contributing to optimal mental health in older persons Supervisor: A/Professor Kate O'Loughlin A/Professor Lynda Matthews Co-supervisor: Advisor: A/Professor Adrian Hayes XIAOGUANG JIA Thesis: An agent-based model of life course: Adaptive mating process embedded in dynamic social networks Supervisor: Professor Zhongwei Zhao Professor Heather Booth Co-supervisor: **DOREEN KABUCHE** Thesis: Longevity risk: Retirement income products, innovations and risk management strategies Supervisor: Professor Michael Sherris Co-supervisor: Dr Andrés Villegas YULONG LI Thesis: Health status, mortality heterogeneity and implications for post-retirement product innovation Supervisors: Professor Michael Sherris and Dr Jonathan Ziveyi

Dr Andrés Villegas

JANET MACCORA Gender differences in modifiable risk factors Thesis: for cognitive decline in ageing Supervisor: Professor Kaarin J. Anstey MITCHELL MCMASTER A randomised controlled trial of multidomain dementia Thesis: risk reduction for mild cognitive impairment (BBL-MCI) Supervisor: Professor Kaarin J. Anstey Co-supervisors: Professor Linda Clare, Dr Sarang Kim and A/Professor Nicolas Cherbuin KATE MILLEDGE Thesis: Study of the inter-relationships between dietary intake, oral health, and frailty among older Australian men Supervisor: Dr Vasant Hirani Co-supervisors: Professor Robert Cumming and Dr Fiona O'Leary CATHY MONRO Thesis: The changing nature of aged care in Australia: Living Longer Living Better reforms and the impact on service providers and consumers Supervisor: A/Professor Kate O'Loughlin A/Professor Lee-Fay Low Co-supervisor: PHITAWAT POONPOLKUL Thesis: Essays on demographic changes and macroeconomic implications Supervisor: Professor Warwick McKibbin Co-supervisors: Dr Larry Liu and Professor Renee McKibbin MIJANUR RAHMAN Thesis: Modelling trajectories to aged care service use among older Australian women Supervisor: Professor Julie Byles Co-supervisor: Professor Jimmy Efird JAMES MAHMUD RICE Extensions to the Australian National Transfer Accounts Thesis: Supervisor: Professor Peter McDonald Co-supervisor: Associate Professor Jeromey Temple ABUI RIZVI Evolution of Australian immigration policy Thesis: Professor Peter McDonald Supervisor: Co-supervisor: Associate Professor Jeromey Temple DAVID RODGERS Thesis: Demographic change and optimal policy responses

Professor Alan Woodland

Dr George Kudrna

Supervisor: Co-supervisor:



Co-supervisor:

DANIEL DINALE

CEODCE CMADAIIC

RESEARCH TRAINING AND MENTORING

| GEORGE SMYRNIS Thesis: Supervisor: | Essays on improving retirement engagement Professor Susan Thorp |
|---|---|
| CHENG WAN Thesis: Supervisors: | The demand for hybrid longevity and health insurance products in China Professor Hazel Bateman, Dr Katja Hanewald and Professor Hanming Fang |
| DANIEL WHEADON Thesis: Supervisor: Co-supervisor: | Demographic change and optimal policy response Professor Alan Woodland Dr George Kudrna |
| LYNDA WOODWARD Thesis: Supervisor: Co-supervisors: | The experience of older men and women on falling, recovery and participation in a long-term management program Professor Lindy Clemson A/Professors Cathie Sherrington and Karen Willis |
| XIAO XU Thesis: Supervisor: Co-supervisors: | Variable annuity guarantee benefits - An integrated study of financial and actuarial valuations Professor Michael Sherris Drs Jennifer Alonso García and Jonathan Ziveyi |
| DANDAN YU Thesis: Supervisor: Co-supervisor: | Three Essays on Household Decision-making Professor Denzil Fiebig Professor Denise Doiron |

HONOURS STUDENTS

In 2018 the following Honours students were affiliated with CEPAR:

LIQING CHEN

The impact of age discrimination law on the employment of

older workers: A study of European countries

Supervisor: A/Professor Shiko Maruyama

ZHIPING PINKY HUANG

Thesis: Multi-factor affine mortality model with application to

longevity risi

Supervisors: Professor Michael Sherris, Dr Jonathan Ziveyi and

Dr Andrés Villegas

KEVIN KRAHE

Thesis: Longevity risk management: A value based index

to hedge longevity risk

Supervisors: Professor Michael Sherris, Dr Jonathan Ziveyi, Dr Andrés

Villegas

TASNIM RAHMAN

Thesis: Personality and the ageing experience:

A case study on senior citizens

Supervisor: A/Professor Olena Stavrunova

DILAN SRIDARAN

Thesis: A data analytics paradigm for the construction,

selection, and evaluation of mortality models

Supervisors: Professor Michael Sherris, Dr Jonathan Ziveyi and

Dr Andrés Villegas



INDUSTRY & GOVERNMENT LINKS

IN 2018, CEPAR ORGANISED A WIDE RANGE OF EVENTS DESIGNED TO PROVIDE PLATFORMS FOR DISCUSSION BETWEEN RESEARCHERS, INDUSTRY PRACTIONERS AND POLICYMAKERS.

EVENTS

4TH INTERNATIONAL CONFERENCE OF LONG-TERM CARE DIRECTORS AND ADMINISTRATORS

Long-term care is one of the most rapidly growing industries in the world and the new frontier of policy development, especially in Australasia where the number of people aged 80 and above will quadruple to more than 250 million by 2050.

In recognition of the importance of the topic, CEPAR hosted the 4th International Conference of Long-term Care Directors and Administrators in August at UNSW Sydney. The event brought together over 80 international and domestic academics, policymakers and industry leaders to discuss these challenges and explore new

directions in aged care. The conference commenced with an Industry Day at which over 40 global industry players and academics explored best practice and innovation in long-term care as well as future challenges and opportunities. The day was opened by Liu Bing, Austrade's Senior Trade and Investment Lead. In the afternoon participants were provided with an opportunity to visit a model long-term care facility in Sydney.

The subsequent two-day conference program was designed to inform professionals about the latest developments in assistive technologies, falls prevention, the management of cognitive ageing and decline, and other topics germane to aged care facilities, which, while reported in journals or embodied in guidelines, are too often not translated for industry practitioners.

Keynote speakers included CEPAR Associate Investigator Carol Jagger, AXA Professor of Epidemiology of Ageing at Newcastle University; CEPAR Advisory Board member Philip O'Keefe, Practice Manager, Social Protection & Jobs Global Practice, East Asia and Pacific at World Bank; Du Peng, Vice-President of Renmin University; and Hiroko Akiyama, Professor of Psychology at the University of Tokyo.

Highlighting the benefits of a cross-disciplinary approach to many of the issues associated with long-term care, the conference included presentations from economists and actuaries on financing; psychologists and epidemiologists on managing cognitive decline and falls in long-term care settings; and care administrators about the challenges they face. Several CEPAR personnel presented their research at this conference, including CIs Kaarin Anstey, Hazel Bateman, Robert Cumming and Michael Sherris: Als Carol Jagger and Lindy Clemson; as well as representatives of CEPAR's partner organisations PwC, World Bank and the Department of Health. The interactions informed both practitioners and academics and attracted global media coverage.

'The conference was a great demonstration of a strength of CEPAR - bringing together all the different players in the ageing field. I spoke with a Commonwealth policymaker, a PwC consultant, academic accountants, actuaries and organisational psychologists. Only CEPAR provides the opportunity for a health researcher like me to interact with such a broad range of stakeholders.'

Robert Cumming, CEPAR Chief Investigator



CONFERENCE CO-CHAIR BEI LU (CEPAR) WELCOMING AGED CARE INDUSTRY PLAYERS AND RESEARCHERS TO THE LONG-TERM CARE INDUSTRY DAY



CONFERENCE CO-CHAIR JOHN PIGGOTT OPENING DAY 2 OF THE 4TH INTERNATIONAL CONFERENCE OF LONG-TERM CARE DIRECTORS AND ADMINISTRATORS



INDUSTRY DAY PARTICIPANTS AT THE LONG-TERM CARE FACILITY SITE VISIT



KEYNOTE SPEAKER DU PENG (RENMIN UNIVERSITY), WARWICK DAWSON (UNSW SYDNEY DIRECTOR OF KNOWLEDGE EXCHANGE) AND JOHN PIGGOTT (CEPAR)

Professor Kaarin Anstey, UNSW, CEPAR Professor Lindy Clemson, University of Sydney, CEPAR

1-3 AUGUST 2018 UNSW SYDNEY



UNSW BUSINESS SCHOOL JOURNALIST JULIAN LORKIN IN CONVERSATION ON THE MANAGEMENT OF COGNITIVE AGEING AND DECLINE WITH CEPAR INVESTIGATORS KAARIN ANSTEY AND LINDY CLEMSON



FILMING WITH CHANNEL 9 NEWS FOR THE CONFERENCE FEATURE COVERING CI ROBERT CUMMING'S RESEARCH ON FALLS PREVENTION



INDUSTRY & GOVERNMENT LINKS

26TH COLLOQUIUM ON PENSIONS AND RETIREMENT RESEARCH

The Colloquium, co-hosted by CEPAR and the School of Risk & Actuarial Studies in the UNSW Business School, is a unique annual event, bringing together academics, government and industry to discuss the latest research on pensions, superannuation and retirement.

In 2018, the Colloquium took place on 2-3 July at UNSW Sydney and included high-level talks and presentations on pensions, retirement and inequality, including a keynote lecture on Wealth Inequality and Financial Literacy by world renowned pension expert and CEPAR Partner Investigator Olivia S. Mitchell, Professor at the Wharton School of the University of Pennsylvania. In her keynote, Mitchell argued that older households must take responsibility for their financial wellbeing – both during their work lives and in retirement. Yet financial markets are becoming more complex, as the set of instruments available for saving and investment expands. She explained how financial knowledge can be a powerful driver of wealth inequality in a world of uncertainty and imperfect insurance, since financial knowledge allows people to better allocate their lifetime resources.



SUZANNE DOYLE (STATEPLUS),
MATTHEW LAWRANCE (NAB MLC
SUPER), RIC SIMES (DELOITTE),
HAZEL BATEMAN (CEPAR)
PARTICIPATING IN A PANEL,
CHAIRED BY JOHN PIGGOTT (CEPAR),
ON THE NEW FUTURE FOR FINANCIAL
ADVICE AT THE COLLOQUIUM

Thirteen additional CEPAR personnel presented their research findings on flexible pensions and labour force withdrawal, longevity, sustainability, housing and retirement, pensions and wellbeing, as well as motivated savings and consumer financial decisions. The Colloquium also featured

a panel discussion on the new future for financial advice, comprising then CEPAR Advisory Board Member Matthew Lawrance (NAB MLC Super), Ric Simes (Deloitte), Suzanne Doyle (StatePlus) and CI Hazel Bateman.



PROFESSOR OLIVIA S. MITCHELL BA Harvard, MA PhD Wisconsin-Madison PARTNER INVESTIGATOR

Dr Olivia S. Mitchell is International Foundation of Employee Benefit Plans Professor, and Professor of Business Economics/Policy and Insurance/Risk Management, at the Wharton School of the University of Pennsylvania. At Wharton, she is also the Executive Director of the Pension Research Council and the Boettner Center on Pensions and Retirement Research and a Fellow of the Wharton Financial Institutions Center and the Leonard Davis Institute; she also sits on the Board of the Penn Aging Research Center. Concurrently Dr Mitchell is a Research Associate at the National Bureau of Economic Research and a Co-Investigator for the Health and Retirement Study at the University of Michigan.

Dr Mitchell's main areas of research and teaching are international private and public insurance, risk management, public finance, and compensation and pensions. Her extensive publications (32 books and over 200 articles) analyse pensions and healthcare systems, wealth, health, work, wellbeing, and retirement. She served on President Bush's Commission to Strengthen Social Security and the US Department of Labor's ERISA Advisory Council. She has spoken for groups including the World Economic Forum; the International Monetary Fund; the Investment Company Institute; the White House Conference on Social Security; and the President's Economic Forum.



HAZEL BATEMAN (CEPAR) DELIVERING THE CLOSING REMARKS AT THE COLLOQUIUM ON PENSIONS AND RETIREMENT RESEARCH

POLICY DIALOGUE ON RETIREMENT INCOMES

On November 1, CEPAR, in conjunction with ANU's Crawford School of Public Policy, brought together over 120 leading Australian and international experts including policymakers, researchers and commentators to consider current and future challenges for this policy area.

Professor Axel Borsch-Supan, Director of the Max Planck Institute for the Economics of Aging, discussed international developments in retirement incomes policy, with a focus on demographic and structural challenges, and explored some of the more innovative reform ideas coming out of Europe. He was joined on stage by a panel comprising CEPAR CIs and leading experts in pension economics, Hazel Bateman and John Piggott, and ANU Honorary Professor of Public Policy, Andrew Podger.

David Knox, Senior Partner at Mercer, led a session focused on challenges with the Australian design, assessing the adequacy, sustainability and integrity of the Australian model as well as recommendations for reform. Participating in the discussion were Darren Kennedy, Principal Advisor in the Retirement Income Policy Division of the Commonwealth Treasury, and Professor Peter Whiteford, an expert in social policy at ANU's Crawford School.

Leading the discussion about the implementation of policy in the context of a choice and guidance framework was Jeremy Cooper, Chairman at Challenger and CEPAR CI Marian Baird, Professor of Gender and Employment Relations at The University of Sydney. Panellists Susan Thorp, an expert in household and consumer finance and a CEPAR Associate Investigator, and Mike Orszag, Head of Research at CEPAR's partner organisation Willis Towers Watson, provided additional perspectives.



THE POLICY DIALOGUE ON RETIREMENT INCOMES BROUGHT TOGETHER OVER 120 LEADING AUSTRALIAN AND INTERNATIONAL EXPERTS INCLUDING POLICYMAKERS, RESEARCHERS AND COMMENTATORS



HAZEL BATEMAN (CEPAR), JOHN PIGGOTT (CEPAR), ANDREW PODGER (ANU) AND AXEL BORSCH-SUPAN (MAX PLANCK INSTITUTE FOR THE ECONOMICS OF AGING) PARTICIPATING IN A PANEL AT THE POLICY DIALOGUE, CHAIRED BY GEORGE KUDRNA (CEPAR)



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INDUSTRY & GOVERNMENT LINKS

HEALTH AND AGEING ROUNDTABLE

In April, CEPAR hosted the first of its roundtables with stakeholders focused on the new research program. The theme was Health and Ageing and featured presentations from CIs Robert Cumming, Kaarin Anstey, Philip Clarke and then Senior Research Associate Jennifer Alonso García. Representatives from the Department of Health, Medibank, PwC and Willis Towers Watson participated in an informative discussion focused on sharing information and identifying knowledge gaps.

INFLUENCING POLICY AND PRACTICE

In addition to participating in CEPAR outreach events, CEPAR personnel contributed to the development of government policy and business and community practice in a number of ways in 2018.

Highlights included presentations by Kaarin Anstey to the MS Foundation on modifiable lifestyle factors in MS and to the Medical Benefit Scheme Review General Practice Primary Care Clinical Committee (GPPCCC) on dementia risk assessment.

Marian Baird met with the Implementation and Performance, Inclusion and Early Intervention Commissioning Division of the NSW Department of Family and Community Services to discuss their carers strategy and mature age workforces. She was also a keynote speaker at the Carers NSW 2018 Biennial Conference.



CEPAR HOSTED ITS FIRST ROUNDTABLE WITH SELECTED PARTNER ORGANISATION REPRESENTATIVES IN APRIL 2018

Hazel Bateman and Susan Thorp presented to the Productivity Commission on the efficiency and competitiveness of superannuation and subsequently submitted a report to their Inquiry. Bateman and Thorp also presented at an Australian Securities and Investment Commission Workshop and to UniSuper.

Peter McDonald presented to the Council of Australian Governments (COAG) on international migration and briefed both the Prime Minister and the Minister for Cities, Urban Infrastructure and Population.

Warwick McKibbin presented on demographic change and challenges for Asia, the globe and Australia at the 10th Annual Commonwealth Bank Conference.

Sharon Parker delivered the keynote address to the Council of Economic Development of Australia's (CEDA) 2018 Future of Work Series in WA and to the Insurance Commission of WA's Future of Work, Government and Risk Management Forum.

Julie Byles participated in a Commonwealth Department of Health Executive roundtable on the social determinants of health and its significance for aged care policies and services for older people in Australia. And together with her co-authors submitted reports to the Commonwealth Department of Health titled 'Health Service Use at the End of Life by Older Australian Women with Chronic Conditions' and 'From Child Care to Elder Care: Findings from the Australian Longitudinal Study on Women's Health'.

Internationally, John Piggott delivered the keynote address to the Asian Development Bank Institute and the Asian Development Bank Workshop on Technology and an Aging Workforce, held at the University of Korea in Seoul, and spoke on population ageing and fiscal sustainability in East Asia and Pacific at the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) Asia-Pacific Forum on Sustainable Development, held in Bangkok.

In 2018, Kaarin Anstey continued to serve as a member of the World Health Organisation Guidelines Development Group on Risk Reduction of Cognitive Decline and Dementia, and as a member of the Global Council on Brain Health which met in Chicago this year.

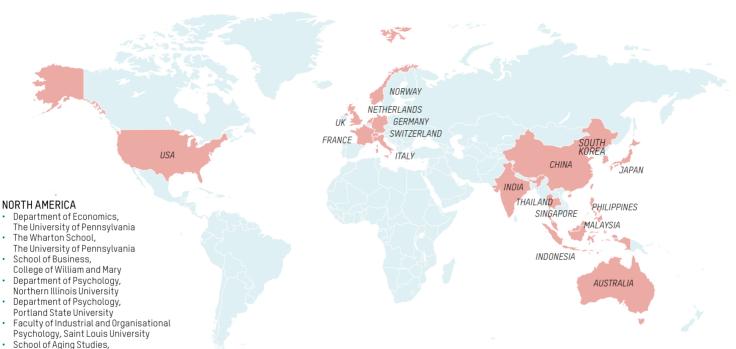
Demonstrating his stature in the international sphere, Peter McDonald was invited to serve as the Senior Research Advisor to 'The Power of Choice Reproductive Rights and the Demographic Transition', the United Nations' State of World Population Report which was published in October.

Complete details of contributions in 2018 are listed on pages 113 to 115.



NATIONAL & INTERNATIONAL LINKS

CEPAR'S CONNECTIONS WITH SPECIALIST GROUPS AND NETWORKS, BOTH NATIONALLY AND INTERNATIONALLY, ARE EXTENSIVE.



- EUROPE
- School of Social Sciences, University of Manchester
- · CPB Netherlands Bureau for Economic Policy Analysis
- School of Business, Durham University
- Dutch Central Bank

The World Bank

University of South Florida

- Netspar
- Institute for Ageing, Newcastle University
- Organisation for Economic Co-operation and Development
- Ragnar Frisch Centre for Economic Research
- Institute of Psychology, University of Bern
- Institute of Psychology, University of Duisburg-Essen
- Centre for Research in Ageing and Cognitive Health, University of Exeter
- Faculty of Business and Economics, University of Groningen
- School of Mathematics, Statistics and Actuarial Sciences, University of Kent
- Department of Psychology, University of Leipzig
- Health Economics Research Centre, University of Oxford
- Department of Economics, University of Parma
- · Department of Economics, University of St. Gallen

- Department of Human Resources Studies, Tilbura University
- · Faculty of Economics, University of Trieste
- Department of Experimental and Applied Psychology, Vrije University
- · Department of Economics, Wuerzburg University

ASIA

- · Asian Development Bank
- Asia-Pacific Economic Cooperation
- Brookings-Tsinghua Centre for Public Policy
- Chinese Academy of Social Sciences
- Centre for Employment and Social Security, Fudan University
- Indonesian National Population and Family Planning Board
- Keio University
- Asiatic Research Institute, Korea University
- Faculty of Economics and Administration, University of Malaya
- · National Institute of Public Finance and Policy, New Delhi
- Institute of Population and Research and Centre for Ageing and Health Services, Peking University
- School of Entrepreneurship and Management, ShanghaiTech University

- Department of Labor and Social Security, South China Agriculture University
- Statistics Indonesia
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
- College of Public Administration, Zhejiang University

AUSTRALIA

- · The University of New South Wales
- Australian National University
- Curtin University
- · The University of Melbourne
- The University of Sydney
- Australian Institute of Health and Welfare
- Department of Psychology, Macquarie University
- Emerging Researchers in Ageing Initiative,
 Monash University
- Research Centre for Generational Health and Ageing, The University of Newcastle, Australia
- · Economics Discipline Group,
- The University of Technology Sydney
- School of Psychological Science, The University of Western Australia

THROUGHOUT 2018, CEPAR EMPLOYED A NUMBER OF STRATEGIES TO FORGE AND STRENGTHEN BOTH NATIONAL AND INTERNATIONAL LINKS. THESE INCLUDED JOINT PROJECTS AND INITIATIVES AS WELL AS INTERNATIONAL VISITS.

THE THIRD INTERNATIONAL NETWORK FOR PENSIONS, AGING, AND RETIREMENT RESEARCH TOOK PLACE IN 2018, REINFORCING OUR ABILITY TO LEAD INTERNATIONAL DISCUSSION IN THE FIELD. REGIONALLY, OUR JOINT HOSTING OF THE 4TH ANNUAL WORKSHOP ON POPULATION AGEING AND THE CHINESE ECONOMY IN SHANGHAI, IN COLLABORATION WITH SHANGHAITECH AND FUDAN UNIVERSITY, SERVED TO ENHANCE OUR LINKS AND INCREASE OUR PROFILE INTERNATIONALLY.

NATIONAL LINKAGES

Our Chief Investigators and Australian-based Associate Investigators (AIs) connect us with premier research groups around the country and our national outreach and engagement programs are designed to provide opportunities for all researchers focused on the issue of population ageing to come together to share research findings.

Our new CEPAR Affiliates Scheme aims to widen CEPAR's reach by providing a mechanism for researchers not eligible to become Als to engage with CEPAR. In particular, it provides a mechanism for researchers based in industry and government to connect with the Centre.

A number of initiatives and events in 2018 served to strengthen our links with key researchers and research groups nationally as well as provide opportunities for emerging researchers to come together. The Annual Colloquium on Pensions and Retirement Research, the 4th International Conference of Long-Term Care Directors and Administrators and the Policy Dialogue on Retirement Incomes attracted participants from a range of Australian and international universities. The Pension and Superannuation Seminar Series, jointly hosted by CEPAR and the School or Risk and Actuarial Studies at UNSW Sydney, attracts participants from a variety of national and international universities, including the CEPAR nodes as well as Macquarie University, the University of Technology Sydney, Leicester University, Peking University and University College London. Industry representatives also participate in the fortnightly seminars.

INTERNATIONAL LINKAGES

Our Partner and Associate Investigators provide exceptional opportunities for CEPAR to engage with leading international groups. Our strong links with specialist groups working on a range of issues pertinent to the challenges of population ageing provide the foundation for joint workshops, grant applications to fund collaborative research programs, and other initiatives

For example, Hazel Bateman is part of a consortium of international researchers which secured a large Netspar grant for a project on choice architecture in pensions and retirement; and Robert Cumming and John Piggott are collaborating with National University of Singapore (NUS) investigators on an NUS-Global Asia Institute NIHA Research Grant on ageing and long-term care in Asia.

Regionally, we remain strongly committed to expanding our linkages. A large grant from the UNSW Business School to extend our research program focused on population ageing in Asia and to build connection between the UNSW Sydney node of CEPAR and leading research institutions in Asia will support this endeavour, as will the node's Australia-China Population Ageing Research Hub. UNSW Sydney Seed Grant Funding for a project on Indonesia has enabled us to build a collaborative research program with the University of Indonesia and two UNSW Sydney Scientia Scholarships awarded to CEPAR PhD Students for projects focused on Indonesia will support the further development of our research capacity in this area. In addition, our membership of the Steering Group of the Association of Pacific Rim Universities (APRU) Population Ageing Research Hub strongly positions us to lead regional collaborative initiatives in ageing research.



NATIONAL & INTERNATIONAL LINKS

THE INTERNATIONAL NETWORK FOR PENSIONS, AGING, AND RETIREMENT RESEARCH (INPARR)

The International Network for Pensions, Aging, and Retirement Research (INPARR) has as its mission the promotion and advancement of high-quality social science research on pensions, ageing, and retirement. With the OECD serving as the Secretariat, INPARR aims to organise a global annual research meeting; disseminate research through working papers, journals, and other media; elect INPARR Fellows in recognition of their contributions to the area; support and facilitate the development of junior researchers; develop a website highlighting resources in the area as well as social networks; and seek to develop affiliations with organisations, including policy groups, interested in pension research.

For the third year, the network spearheaded by CEPAR, The Pension Research Council at the Wharton School of the University of Pennsylvania, Netspar at Tilburg University, and Willis Towers Watson, has organised a major international seminar at the OECD Headquarters in Paris. Taking place on June 6, the conference saw over 150 participants from across the globe come together to hear from pension experts and explore this year's theme of 'Consistency Amid Complexity: Navigating the Future of Pensions'.

This year's speakers included: Paul Smeets (Maastricht University), Kristy Jansen (Tilburg University), and Amir Amel-Zadeh (University of Oxford) on ESG Investment and Pensions; Simen Markussen (Ragnar Frisch Centre for Economic Research), Susan Thorp (University of Sydney), and William Gale (The Brookings Institution) on

Choice and Pension Design; and Jörg Neugschwender (LIS Cross-National Data Center), Peter Haan (Freie Universität Berlin), and Emma Aguila (University of Southern California) on New Ideas for Social Protection. The keynote address, 'Retirement, Health and Pensions', was delivered by Eric French from University College London.

Considerable progress was also made this year in the establishment of an association for pensions, ageing and retirement researchers. Articles of association have now been drafted and await final approval by the founding members.

THE APRU POPULATION AGEING RESEARCH HUB

Launched in 2015 at UNSW Sydney, The Association of Pacific Rim Universities' (APRU) Population Ageing Research Hub brings together world class researchers from different disciplines and provides opportunities for increased research collaboration on the topic of population ageing in the region.

Hosted by CEPAR/UNSW Sydney for the period 2015 -2017, with John Piggott acting as Chair and CIs McDonald and Cumming serving as two of ten members on the Steering Group, the Hub has been a key component of CEPAR's international linkages strategy.

From 2018 the Hub is hosted by Keio University in Japan with Professor Atsushi Seike taking over the duties of Steering Group Chair. CEPAR remains actively involved in the Hub with CIs Piggott, Cumming and McDonald all remaining on the Steering Group. APRU remains an important conduit to connection in the region. The 2018 annual conference included three presentations by CEPAR personnel.

This year, the Asian Development Bank (ADB) sought assistance from the APRU Population Ageing Hub to write a policy paper on the implications of technological change for jobs specifically in relation to demographic trajectories in the region. The paper, 'Population Ageing and Technology: Two Megatrends Shaping the Labour Market in Asia', written by CEPAR's Rafal Chomik and John Piggott, was presented at the ADB's 'Workshop on Technology and an Aging Workforce', held in Seoul on 17-18 May 2018. This work complemented the completion of a study on the macro impacts of an ageing labour force prepared for UNESCAP, authored by Rafal Chomik, John Piggott, and Bei Lu.



CEPAR RESEARCHERS GEORGE KUDRNA, KAARIN ANSTEY AND JOHN PIGGOTT AT THE 2018 APRU CONFERENCE

AUSTRALIA-CHINA POPULATION AGEING RESEARCH HUB

Driving our engagement with China is CEPAR's Australia-China Population Ageing Research Hub, which was established in 2015 with significant support from the UNSW Sydney Vice-Chancellor's Strategic Priority Fund.

The Hub pursues a multidisciplinary research program in four key areas which will deliver new insights into priority reform areas, and the policy strategies to best suit the changing economic and demographic structure. The research topics addressed by the Hub include: ageing trends, long-term care, mature labour force participation, and retirement income, financial products and housing.

Led by John Piggott as the Hub's Director and by Partner Investigator Hanming Fang as the Hub's Scientific Director, members include Senior Research Fellow Katja Hanewald, Research Fellow Bei Lu, and two Senior Research Associates, Sisi Yang and Yuanyuan Deng. Two PhD students, Tin Long Ho and Cheng Wan, also work on the Hub's research program with both holding prestigious UNSW Sydney Scientia Scholarships.

4TH ANNUAL WORKSHOP ON POPULATION AGEING AND THE CHINESE ECONOMY

The Australia-China Population Ageing Hub at CEPAR, in collaboration with the School of Entrepreneurship and Management at ShanghaiTech University and the Employment and Social Security Research Center at Fudan University, hosted its 4th Annual Workshop on Population Ageing and the Chinese Economy on 27-28 June 2018 in Shanghai. It was the first time that the conference was held in China.

Attracting over 80 participants, the workshop explored institutional and policy innovations to address population ageing, including social

security policies, labour market policies and wealth management, among others, with the aim of strengthening academic and policy links.

The conference program featured over 20 talks from international experts, economists, and government officials, focusing on the topics of pension system reform and its impact; flexible retirement systems and policies to improve the labour force participation of older workers; technological revolution, income inequality and income distribution; elderly healthcare reform; long-term care and long-term care insurance; and the impact of wealth management systems on pension burden.



YUAN ZHIGANG (FUDAN), LU YI (SHANGHAITECH), MIKE ORSZAG (WILLIS TOWERS WATSON), JOHN PIGGOTT (CEPAR) AND HANMING FANG (CEPAR, UPENN) AT THE 4TH ANNUAL WORKSHOP



PROFESSOR HANMING FANG BA Fudan, MA Virginia, PhD Pennsylvania PARTNER INVESTIGATOR AND SCIENTIFIC DIRECTOR OF CEPAR'S AUSTRALIA-CHINA POPULATION AGEING RESEARCH HUB

Hanming Fang is Class of 1965 Term Professor of Economics at the University of Pennsylvania and a Research Associate at the National Bureau of Economic Research, where he served as the Acting Director of the Chinese Economy Working Group from 2014-2016. He is also a Research Associate of the Population Aging Research Center, a Senior Fellow at the Leonard Davis Institute of Health Economics, and an Executive Committee Member of the Center for the Study of Contemporary China, all at the University of Pennsylvania. He is also a Senior Fellow of the Asian Bureau of Economic and Finance Research in Singapore, and a Research Fellow of the IZA in Germany.

He is an applied microeconomist with broad theoretical and empirical interests focusing on public economics. His current work focuses on issues relates to insurance markets, particularly the interaction between health insurance reform and the labour market. He also studies the Chinese economy, particularly in relation to population ageing and social security.

He has been a co-editor for leading economics journals, including the *Journal of Public Economics* and the *International Economic Review*. He was elected as a Fellow of the Econometric Society in 2018. Before joining the Penn faculty, he held positions at Yale University and Duke University.

NATIONAL & INTERNATIONAL LINKS

INTERNATIONAL VISITORS

The Centre hosted 31 international visitors in 2018. These visitors ranged from experts with distinguished reputations in their fields to early career researchers interested in developing research programs in the area of population ageing. They participated in a range of CEPAR events and activities, contributed to the development and execution of research projects, and brought an international perspective to bear on the research program.

Some of the visitors who contributed to our events in 2018 include:

HIROKO AKIYAMA

Hiroko Akiyama is a social psychologist and professor at the Institute of Gerontology, University of Tokyo and the former Vice President of the Science Council of Japan. She has conducted a number of cross-national surveys and is widely recognised as an expert on issues of global ageing. In August 2018 she visited CEPAR to deliver a keynote address at the CEPAR-hosted 4th International Conference of Long-term Care Directors and Administrators where she spoke about the need to redesign communities for an aged society, presenting findings from her pioneering social experiment projects focused on this topic.

'I presented the LTC Kashiwa Model which we constructed in collaboration with multiple stakeholders drawn from academia, local government, business, professional associations, NPOs and residents in the urban community of Kashiwa.'

'The conference provided great opportunities to share experiences of both success and failure which ultimately brought about various solutions. I continue to exchange ideas and information with the participants and hope to initiate collaboration.'

Professor Akiyama.

ROSS ANDEL

Ross Andel is a Professor in the School of Aging Studies at the University of South Florida and his primary research interest is the investigation of modifiable risk factors for cognitive decline and impairment. Ross spent the first six months of 2018 working in the Centre for Research on Ageing, Health, and Wellbeing at the Australian National University in Canberra as a CEPAR Associate Investigator and a Fulbright Scholar. During the stay, Ross mainly worked with data from the PATH Through Life Project but he also collaborated with other researchers at the Centre. Ross spent a substantial portion of his time analysing occupations of PATH participants. The main outcome of his stay was a study on the role of retirement in cognitive functioning, where retirement appeared to be a harbinger of accelerated cognitive decline for many, particularly those retiring from jobs with high complexity and those not engaged in volunteering activities.

ERIK HERNÆS

Erik Hernæs is a Senior Research Fellow at the Ragnar Frisch Centre for Economic Research, at the University of Oslo, Norway and a CEPAR Associate Investigator. He visited the CEPAR UNSW Sydney Sydney node to present at the 26th Colloquium on Pensions and Retirement Research and to collaborate with CEPAR researchers. Erik's presentation, 'Flexible pensions and labour force withdrawal' examined ways that flexibility in pension claiming could benefit individuals and businesses. Erik also spent a few weeks at CEPAR collaborating with Centre Director John Piggott.

CEPAR hosted visits from the following researchers in 2018:

PROFESSOR HIROKO AKIYAMA

University of Tokyo 30 July - 2 August

PROFESSOR ROSS ANDEL

University of South Florida January – June

DR BRIAN BEACH

International Longevity Centre UK 5-16 November

PROFESSOR GIANPIERO DALLA ZUANA

University of Padua

DR KAY DECKERS

Maastricht University 7-9 February

XUEMENG DING

University of International Business and Economics, China 1 September – 31 December

DR GANTUYA DORJ

Mongolian National University of Medical Science 20 June – 15 July

PROFESSOR MARTIN ELING

University of St. Gallen 10-18 December

CHEN FAN

School of Economics and Management, Tsinghua University 3 September 2018 – 3 September 2019

GUANGGANG FENG

Zhejiang University 3 February – 2 May

YU CRYSTAL FU

Central University of Finance and Economics, Beijing 26 September 2017 – 26 September 2018

DR BENJAMIN GARDNER

Kings College, London 7-9 August

HAMZA HANBALI

KU Leven 23 July – 3 August

SENIOR RESEARCH FELLOW ERIK HERNÆS

Ragnar Frisch Centre for Economic Research 20 June – 5 July

PROFESSOR CAROL JAGGER

Newcastle University (UK) 30 July – 30 August

PROFESSOR MOHAMMAD JALAL ABBASI-SHAVAZI

University of Tehran March

PROFESSOR RUO (ALEX) JIA

Peking University 23-25 January

DR PU LIAO

Central University of Finance and Economics, Beijing November

PROFESSOR JONG-WHA LEE

Korea University 13-24 August

MARCEL KLEIBER

Leibniz Universität Hannover 26 March - 13 April

DR SEBASTIAN KOHLER

Maastricht University 7-9 February

ZINING LIU

Peking University 1 September - 31 December

PROFESSOR OLIVIA S. MITCHELL

Wharton School 2-6 July

PROFESSOR JAMES NAZROO

University of Manchester 10-23 May

PROFESSOR ANNAMARIA OLIVIERI

University of Parma 14-20 July

DR MIKE ORSZAG

Willis Towers Watson 5-9 April and 27 October - 7 November

PROFESSOR DU PENG

Renmin University 31 July - 3 August

PROFESSOR ERMANNO PITACCO

University of Trieste 14-21 July

A/PROFESSOR LESLEY A. ROSS

Pennsylvania State University July

DR RALPH STEVENS

CPB Netherlands Bureau for Economic Policy Analysis 1-20 July

DR MINGXU YANG

Zhejiang University 20 July - 20 September

INTERNATIONAL VISITS

CEPAR investigators were invited to visit a number of leading research institutions in 2018:

HAZEL BATEMAN

CPB Netherlands Bureau for Economic Policy Analysis 22-26 January; 3-5 October

OECD, Paris 6 June

HEATHER BOOTH

University of Southern Denmark 24-30 June

JULIE BYLES

Taipei Medical University 13-14 March

Newcastle University, UK 23-27 March

International Longevity Centre UK 30 March - 8 May

Lee Kuan Yew Centre for Innovative Cities, Singapore University of Technology and Design 14-18 May

United Nations Open-Ended Working Group on Ageing, New York 23-27 July

ELENA CAPATINA

National Taiwan University 7-13 June

ROBERT CUMMING

University of the Philippines 20-24 August

HELOISE LABIT HARDY

Lausanne University 26 May - 23 June

HANLI

Central University of Finance and Economics, China 13 April - 13 May

BEILU

Zheiiana University 15-17 January

JOHN PIGGOTT

Korea University 16-18 March

ShanghaiTech University

27 June

Fudan University

28 June

National University of Singapore 8 August

Duke-NUS Medical School

10 August

Singapore Management University

10 August and 13 August

World Health Organisation, Switzerland 20 September

Ragnar Frisch Centre for Economic Research 26-29 September

Hong Kong University of Science and Technology 1 October

Asian Development Bank Institute, Japan

4-5 December

MICHAEL SHERRIS

University of Parma 3-13 March

Friedrich-Alexander University of Erlangen-Nuremburg 28 Mary - 16 June





KEY PERFORMANCE INDICATORS

| MEASURE | 2018 TARGET | 2018 RESULT |
|--|-------------|-------------|
| Refereed journal articles | 80 | 179 |
| Book chapters | 8 | 24 |
| Working papers | 20 | 25 |
| Percentage appearing in top tier journals ⁴ | 30% | 48% |
| Training courses held/offered by the Centre | | |
| Research ethics and compliance workshop | 1 | 1 |
| Gender equity and diversity workshop | 1 | 1 |
| • ECR methodology workshop | 1 | 1 |
| Emerging Researchers in Ageing workshop Continuous time and financial modelling and applications workshop | <u>1</u> | 1 |
| (Not held. Replaced by the Longevity and Long-term Care Risks and Products workshop) | 1 | 1 |
| Workshops/conferences held/offered by the Centre | 5 | 7 |
| Additional researchers working on Centre research | | |
| Postdoctoral researchers | 11 | 12 |
| Honours students | 5 | 5 |
| • PhD students | 14 | 8 |
| Masters by research students | 0 | 0 |
| Masters by coursework students | 0 | 0 |
| Associate Investigators | 2 | 17 |
| Postgraduate completions | 0 | 7 |
| Mentoring programs | 1 | 5 |
| Presentations/briefings | | |
| • Public | 15 | 16 |
| Government (parliamentarians and departments/agencies at both state and federal level) | 30 | 36 |
| Industry/business/end-users | 10 | 41 |
| New organisations collaborating with, or involved in, the Centre | 2 | 11 |
| Students mentored through the ERA program | 800 | 800 |
| Translational documents published | 4 | 4 |

Percentage of publications, indexed in Scopus and/or the Australian Business Deans Council (ABDC) Journal Quality List, included in the top 10% of journals by Scopus SciVal CiteScore Percentile or ranked by the ABDC as A or A*.



A3 BOOKS - EDITED

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- 2 Parker, J. and Baird, M (Eds.), (2018). The Big Issues in Employment, HR Management and Employment Relations in Australasia e2. Wolters Kluwer.
- 3 Rudolph, C. W., Zacher, H., and Scheibe, S (Eds.), (2018). Advances in Research on Age in the Workplace and Retirement. Frontiers Media.
- 4 Zhao, Z. and Hayes, A.C (Eds.), (2018). Routledge Handbook of Asian Demography. Routledge.

B BOOK CHAPTERS

- 1 Andrei, D.M. and Parker, S.K. (2018). Work Design for Performance: Expanding the Criterion Domain. In Onez, D., Anderson, N., Kepir Sinangil, H. and Viswesvaran, C. (Eds.), The SAGE Handbook of Industrial, Work and Organizational Psychology, 2nd Edition. SAGE Publications Ltd.
- Baird, M. (2018). Organisations, Clients and Feminists: Getting in, Coming Back and Having Fun. In Townsend, K. and Saunders, M.N.K (Eds.), How to Keep Your Research Project on Track: Insights from When Things Go Wrong. Edward Elgar Publishing, Cheltenham UK.
- 3 Baird, M., Westcott, M., and Constantin, V. (2018). Changing Terrain: Defining the Contemporary Workplace and Workforce. In Parker, J. and Baird, M (Eds.), The Big Issues in Employment, HR Management and Employment Relations in Australasia e2. Wolters Kluwer
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- 7 Byles, J. (2018). Our Ageing World. In Nair, B.K.R (Eds.), Geriatric Medicine: A Problem-Based Approach. Springer, Singapore.

- 8 Fasbender, U., Wang, M., and Zhan, Y. (2018). Prosocial Behavior in Retirement. In Podsakoff, P.M., Mackenzie, S.B. and Podsakoff, NP (Eds.), The Oxford Handbook of Organizational Citizenship Behavior. Oxford University Press.
- 9 Finkelstein, L., Hanrahan, E., and Thomas, C. (2018). An Expanded View of Age Bias in the Workplace. In Shultz, K.S. and Adams, G.A (Eds.), Aging and Work in the 21st Century. 2nd Edition. Lawrence Erlbaum Associates.
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- 13 Kudrna, G. and Woodland, A. (2018). Progressive Tax Changes in a Life Cycle Framework: Australia. In Holzmann, R. and Piggott, J. (Eds.), The Taxation of Pensions. MIT Press.
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- 15 Parker, S., Knight, C., and Ohly, S. (2018). The Changing Face of Work Design Research: Past, Present, and Future Directions. In Wilkinson, A., Bacon, N., Redman, T. and Snell, S (Eds.), The SAGE Handbook of Human Resource Management. SAGE Publications Ltd.
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- 18 Schlamp, S., Gerpott, F. H., and Voelpel, S. C. (2018). The Steep Way to the Top: Barriers to Female Leadership in Tall Hierarchical Organizations. In Antoniou, A.S.G., Cooper, G. and Gatrell, C. (Eds.), Women, Business And Leadership: Gender and Organisations. Edward Elgar Publishing.

- 19 Truxillo, D., Finkelstein, L., Pytvolany, A., and Jenkins, J. (2018). Age Stereotyping and Discrimination. In Colella, A.J. and King, E.B (Eds.), Oxford Handbook of Workplace Discrimination. Oxford University Press.
- 20 Yu, Y. and Zhao, Z. (2018). Age Patterns and Sex Differentials in Mortality. In Zhao, Z. and Hayes, A.C (Eds.), Routledge Handbook of Asian Demography. (pp. 209-227). Routledge.
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- 24 Zacher, H. (2018). Organizations. In Bornstein, M.H (Ed.), The SAGE Encyclopedia of Lifespan Human Development. SAGE Publications Ltd.

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- 5 Ashby-Mitchell, K., Burns, R. and Anstey, K.J. (2018). The Proportion of Dementia Attributable to Common Modifiable Lifestyle Factors in Barbados. Revista Panamericana Salud Publica, 42(e17), 1-7. doi: https://doi.org/10.26633/.

- 6 Bagheri, N., Wangdi, K., Cherbuin, N. and Anstey, K.J. [2018] Combining Geospatial Analysis with Dementia Risk Utilising General Practice Data: A Systematic Review. Journal of the Prevention of Alzheimers Disease, 5(1), 71-77. doi: 10.14/283/jpad.2017.33.
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- Bennett, S., Laver, K. and Clemson, L. (2018). Progressing Knowledge Translation in Ocupational Therapy. Australian Occupational Therapy Journal, 65(2), 156-160. doi: http://dx.doi.org/10.1111/1440-1630.12473.
- 12 Bohlmann, C., Rudolph, C. W., and Zacher, H. [2018] Methodological Recommendations to Move Research on Work and Aging Forward. Work, Aging and Retirement, 4(3), 225-237. doi:10.1093/workar/wax023.
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- L8 Chang, Y. and Sherris, M. (2018). Longevity Risk Management and the Development of a Value-Based Longevity Index. Risks, 6(1), 10. doi: http://dx. doi:10.3390/risks6010010.
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- 20 Chojenta, C., William, J., Martin, M.A., Byles, J. and Loxton, D. (2018). The Impact of a History of Poor Mental Health on Health Care Costs in the Perinatal Period. Archives of Women's Mental Health, 1-7. doi: 10.1007/s00737-018-0912-4.
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- 22 Clare, L., Wu, Y-T., Jones, I.R., Victor, C.R., Nelis, S.M., Martyr, A., Quinn, C., Litherland, R., Pickett, J.A., Hindle, J.V., Jones, R.W., Knapp, M., Kopelman, M.D., Morris, R.G., Rusted, J.M., Thom, J.M., Lamont, R.A., Henderson, C., Rippon, I., Hill (2018). A Comprehensive Model of Factors Associated with Subjective Perceptions of Living Well with Dementia: Findings from the IDEAL Study. Alzheimer's Disease and Associated Disorders. 14(7), 1422-1423. doi: https://doi.org/10.1016/j.jalz.2018.06.2954.
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- 25 Crain, T., Brossoit, R., and Fisher, G. G. (2018). Work, Nonwork, and Sleep (WNS): A Model and Future Research Agenda. *Journal of Business and Psychology*, 33(6), 675–697.
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C5 UNPUBLISHED REPORTS (WORKING PAPERS)

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OTHER OUTPUTS

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E1 CONFERENCE – FULL WRITTEN PAPER-REFEREED PROCEEDINGS

1 Smyrnis, G., Bateman, H., Dobrescu, I., Newell, B. and Thorp, S. (May 2018). Motivated Saving: The Impact of Projections on Retirement Saving Intentions. Proceedings of the Boulder Summer Conference on Consumer Financial Decision Making. Boulder, Colorado, USA.

E4 UNPUBLISHED CONFERENCE PRESENTATIONS

- Alonso-García, J., Bateman, H. and Stevens, R. (August, 2018). Mental Accounts and the Bequest Motive in the Presence of Illiquid Savings. American Risk and Insurance Association Annual Meeting. Chicago, USA.
- Alonso-García, J., Sherris, M., Thirurajah, S., Villegas, A. and Ziveyi, J. (2018). Incorporating Taxation in the Valuation of Variable Annuity Contracts: The Case of the Guaranteed Minimum Accumulation Benefit. Longevity 14 Conference, September, Amsterdam, the Netherlands, 10th Conference in Actuarial Science and Finance (CASF 2018), May-June, Samos, Greece and Quantitative Methods in Finance 2018 Conference, December, Sydney, Australia.
- 3 Alonso-García, J. and Bateman, H. (2018). Learning to Value Annuities: the Role of Information and Engagement. 22nd International Congress on Insurance: Mathematics and Economics (IME 2018), July, Sydney, Australia, 26th Colloquium on Pensions and Retirement Research, June, Sydney, Australia and 11th Maastricht Behavioral and Experimental Economics Symposium (M-BEES) and 4th Maastricht Behavioral Economic Policy Symposium, June, Maastricht, the Netherlands.
- 4 Alonso-García, J., Bateman, H, Bonekamp, J. and Stevens, R. (April 2018). Retirement Drawdown Defaults: The Role of Implied Endorsement. 16th Edition of the International Conference on Pension, Insurance and Saving. Lisbon, Potugal.
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- 6 Alonso-García, J., Bateman, H., Bonekamp, J., van Soest, A. and Stevens, R. [June 2018]. Saving Preferences in Retirement: The Impact of Mandatory Annuitisation, Flexibility and Health Status. 31st International Congress of Actuaries. Berlin, Germany.
- 7 Andrei, D. (June 2018). A Diversity Framework to Support Flourishing of Mature Workers in Organisations. Leading Innovation Through Diversity Forum. Crawley, Australia.
- 8 Andrei, D.M. (June 2018). Giving or Taking Away Autonomy: Designing Work for Uncertain Contexts. 78th Annual Meeting of the Academy of Management. Chicago, USA.
- 9 Anstey, K. August 2018). Plenary. 4th International Conference of Long-Term Care Directors and Administrators. Sydney, Australia.

- 10 Anstey, K. (December 2018). Plenary. Association of Pacific Rim Universities (APRU) Research Conference on Population Ageing, Hong Kong, China.
- 11 Anstey, K. (June 2018) Cooperation, Collaboration and International Connections. NNIDR Australian Dementia Forum. Sydney, Australia.
- 12 Baird, M. (May 2018). Keynote. SUPRA Step Forward Conference. Sydney, Australia.
- 13 Bateman, H. (February 2018). Keynote. Australia's Ageing Population: What we need to know. AIST/IFS Financial Advice in Super Symposium. Melbourne, Australia.
- 14 Bateman, H. (October 2018). Keynote. The Australian Approach to Choice in Pensions. Joint Netspar/CPB/ APG Conference on Pensions: Financial Planning and Choice. Amsterdam, the Netherlands.
- 15 Bateman, H. (October 2018). Keynote. Australia's Approach to Pension Projections and their Impact on Retirement Saving Intentions. 0ECD/IOPS Global Forum on Private Pensions: Designing Pension Systems to Cope with the Ageing Challenge. Beijing, China.
- 16 Bateman, H. and Teppa, F. (January 2018). Regulation of Information for Pension Choices: Australia and the Netherlands Compared. Netspar International Pensions Workshop. Leiden, the Netherlands.
- 17 Bateman, H., Stevens, R., Alonso-García, J. and Ponds, P. (2018). Beyond Framing: The Role of Information, the Endowment Effect and Institutional Set Up in Annuity Valuation. 16th Edition of the International Conference on Pension, Insurance and Saving, April, Lisbon, Portugal and American Risk and Insurance Association (ARIA), August, Chicago, USA.
- 18 Bateman, H., Stevens, R., Thorp, S. and Wu, S. (January 2018). Income-indemnity Long-term Care Insurance: Selection, Informal Care and Precautionary Savings. ASSA (American Economic Association) Annual Meeting. Philadelphia, USA.
- 19 Bateman, H., Stevens, R., Alonso-García, J. and Ponds, P. (2018). Valuing Annuities: The Role of Information and Engagement. 22nd International Congress on Insurance: Mathematics and Economics, July, Sydney, Australia and American Risk and Insurance Association Annual Meeting, August, Chicago, USA.
- 20 Bateman, H., Stevens, R., Thorp, S. and Wu, S. (August 2018). Flexible Long-term Care Insurance: An Experimental Study of Demand. 4th Annual Conference of Long-Term Care Directors and Administrators. Sydney, Australia.
- 21 Booth, H. (September 2018). Longevity in Australia: Prospects and Implications. 2nd International Living to 100 Conference. Sydney, Australia.



- 22 Booth, H., Peters, S. and Raissi, M. (July 2018). Pathways to Health: The Role of Socio-demographic Homophily in Non-kin Networks of Older People. British Society of Gerontology Conference. Manchester, UK.
- 23 Byles, J. (2018). What Policies and Research do we Need to Change this Dynamic? Women, Ageing and Disadvantage Symposium, Seniors Rights Service, November, Sydney, Australia.
- 24 Byles, J. (September 2018). Successful Ageing and Longevity Among Australian Women. 2nd International Living to 100 Conference. Sydney, Australia.
- 25 Byles, J. (August 2018). Prospects for Healthy Ageing and Longevity for Future Generations of Australian Women. 2018 International Centenarian Consortium (ICC) Meeting. Blue Mountains, Australia.
- 26 Byles, J. October 2018). Linking Longitudinal and Administrative Data for Women's Health. Australian Academy of Health and Medical Sciences Annual Scientific Meeting. Melbourne, Australia.
- 27 Byles, J. (November 2018). Providing and Needing Care: Insights from Older Australian Women. 2018 AAG Conference. Melbourne, Australia.
- 28 Byles, J. (November 2018). Plenary. ABC Radio National's Big Ideas Broadcast. 2018 AAG Conference. Melbourne, Australia.
- 29 Capatina, E. and Maruyama, K. (February 2018). Health Shocks and the Evolution of Consumption and Income over the Life-Cycle. GRIPS-KEIO Macroeconomics and Policy Workshop. Tokyo, Japan.
- 30 Capatina, E. and Fan, X. (February 2018). Why a College Educated Spouse Brings Healthy Life. 9th Workshop on the Economics of Health and Wellbeing. Hepburn Springs, Australia.
- 31 Capatina, E., Keane, M. and Maruyama, K. (2018). Health Shocks and the Evolution of Consumption and Income over the Life-Cycle. North American Summer Meeting of the Econometric Society (NASMES), June, Davis, California, USA and Western Economic Association International Conference (WEAI), June, Vancouver, Canada and Econometric Society Australasian Meeting (ESAM), July, Auckland, New Zealand.
- 32 Clare, L. (July 2018). Living Well With Dementia: Findings from the Improving the Experience of Dementia and Enhancing Active Life (IDEAL) Study. Alzheimer's Association International Conference. Chicago, USA.
- 33 Clemson, L. (May 2018). Introducing the Tailored Activity Program to the Australian Health Context: A Pilot Study of an Occupational Therapy Program for People with Dementia and their Carers. World Federation Occupational Therapy Congress. Cape Town, South Africa.

- 34 Clemson, L. (November 2018). Integrated Solutions for Sustainable Fall Prevention in Primary Care, the iSOLVE Implementation Project: Lessons Learnt, Future Directions and Challenges Ahead. Australian S New Zealand Falls Prevention Conference. Hobart, Australia.
- 35 Clemson, L. (August 2018). Establishing Pathways and Processes to Implement and Sustain Evidence-based Fall Prevention in Primary Care. 4th International Conference of Long-Term Care Directors and Administrators. Sydney, Australia.
- 36 Clemson, L. (May 2018). Interventions to Prevent Falls in Older People: The LiFE Program. Workshop: LiFE Implementation and Collaboration in the Community. 4th Asia-Pacific Bone & Mineral Research Meeting and Osteoporotic Fracture Prevention & Treatment Conference. Sha Tin, Hong Kong.
- 37 Cumming, R. (August 2018). Preventing Falls in Older People – What's the Evidence? 4th International Conference of Long-term Care Directors and Administrators. Sydney, Australia.
- 38 Deng, Y. (August 2018). Medicare Buy-in, Medicare Delay Enrollment and Medicare Costs of Older Americans. Third Annual Meeting of China Labor Economists Forum. Inner Mongolia, China.
- 39 Deng, Y., Fang, H., Hanewald, K and Wu, S. (2018). Delaying the Public Pension Age in China: Implications for Labor Force Participation and Individual Welfare. 18th China Economics Annual Conference, December, Guangzhou, China, and the 9th Annual APRU Research Conference on Population Aging, December, Hong Kong, China.
- 40 Ginnivan, N., Butler, T. and Withall, A. (February 2018). The Rising Health, Social, and Economic Costs of Australia's Ageing Prisoner Population: Why Should we Care? World Psychiatric Association, Thematic Congress - Innovation in Psychiatry, Effective Interventions for Health & Society. London, UK.
- 41 Ginnivan, N., Chomik, R., Piggott, J., Butler, T. and Withall, A. (November 2018). Australia's Ageing Prisoner Population. Institute of Criminal Policy Research & Wellcome Trust Conference: Mapping Inequalities in Prisoner Healthcare Worldwide. London, UK.
- 42 Gong, C. (May 2018). Socio-economic Determinants of Health Inequality at Later Life. The Inequality and Development Conference. Sichuan Financial and Economic University. Sichuan, China.
- 43 Gong, C. and Kendig, H. (July 2018). Effects of Age Pension, Intergenerational Transfers and Expected Future Care Support on Quality of Life Among Older Chinese. 26th Colloquium on Pensions and Retirement Research. Sydney, Australia.

- 44 Gong, C., Strazdins, L., Heyes LaBond, C. and Yu, P. (November 2018). Socio-economic Determinants of Mental Health: How Workplace Matters to Workers by Gender at Different Life Stage. The Australian Association of Gerontology AAG Conference 2018. Melbourne, Australia.
- 45 Gong, C., Xiaojun, H.E. and Qingshan, N.I. (May 2018). How Intergenerational Living Arrangements and Preferences Changed by Cohorts and its Impact on Mental Health among Older Chinese: Evidence from CHARLS. US-Hong Kong 2018 Conference: Aging across Time and Contexts. Hong Kong, China.
- 46 Gong, C.H., He, X., Ni, Q. and Rong, P. (July 2018). How to Age Well with a Filial Piety Culture. Effects of Age Pension, Intergenerational Transfers and Perceived Future Care Support on Quality of Life Among Older Chinese. 26th Annual Colloquium on Pensions and Retirement Research. Sydney, Australia.
- 47 Hanewald, K., Bateman, H., Fan, H. and Wu, S. (2018). Reverse Mortgage Demand in China. 4th Annual Population Ageing and the Chinese Economy Workshop, June, Shanghai, China; 26th Annual Colloquium on Pensions and Retirement Research, July, Sydney, Australia; and 22nd International Congress on Insurance: Mathematics and Economics, July, Sydney, Australia.
- 48 Hillman, A., Jones, I.R, Nelis, S., Quinn, C. and Clare, L. (July 2018). Risking Vulnerability: The Precariousness of Living with and Caring for those with Dementia. British Society of Gerontology Conference. Manchester, UK.
- 49 Hillman, A., Jones, Ian Rees, Quinn, C., Nelis, S., Lamont, R. and Clare, L. (July 2018). Letting go of Coherence: Qualitative Interviews and the Challenges of Representing Dementia. British Society of Gerontology Conference. Manchester, UK.
- 50 Holzmann, R., Alonso-García, J., Labit Hardy, H. and Villegas, A.M. [July 2018]. NDC Schemes and Heterogeneity in Longevity: Proposals for Redesign. 26th Colloquium on Pensions and Retirement Research. Sydney, Australia.
- 51 Keane, M., Neal, T., Ketcham, J. and Kuminoff, N. (January 2018). Evaluating Consumers' Choices of Medicare Part D Plans: A Study in Behavioral Welfare Economics. Western Economic Association International 14th International Conference.

 Newcastle, Australia.

- 52 Kudrna, G., A. Woodland, and C. Tran. (2018).
 Sustainable and Equitable Pensions with Means
 Testing in Aging Economies. 26th Annual Colloquium on
 Pensions and Retirement Research, July, Sydney,
 Australia; APRU Population Ageing Conference,
 December, Hong Kong, China; and Australian Labour
 Market Research Workshop. University of Adelaide,
 December, Adelaide, Australia.
- 53 Kudrna. G. (December 2018). Means Testing Public Pensions: A Policy Option for an Ageing Demographic. 10th Biennial Conference of the Czech Economic Society. Prague, Czech Republic.
- 54 Labit Hardy, H. and Arnold, S. (June 2018). Cause-of-Death Mortality and Socio-Economic Status: A Study of a Portfolio Dynamics. 31st International Congress of Actuaries: ICA 2018. Berlin, Germany.
- 55 Labit Hardy, H. and Sherris, M. (November 2018). Long-term Care Insurance Incorporating Systematic Trends and Uncertainty: Design and Pricing for the Australian Market. Emerging Researchers in Ageing Conference. Melbourne, Australia.
- 56 Labit Hardy, H., Sherris, M. and Villegas, A.M. (2018). The Implications of Mortality Heterogeneity on Longevity Sharing Retirement Income Products. 22nd International Congress on Insurance: Mathematics and Economics (IME 2018), July, Sydney, Australia; 26th Colloquium on Pensions and Retirement Research, July, Sydney, Australia; and 7th Algerian Life Insurance Actuarial Day, November, Alger, Algeria.
- 57 Li, H. and O'Hare, C. (September 2018). Mortality Modelling: How Far Should We Look Back in Future. Actuarial Risk Modelling and Extreme Values Workshop. Canberra, Australia.
- 58 Li, H., Li, H. and Lu, Y. (June 2018). A Flexible Multi-factor Age-period-cohort Approach to Mortality Modeling with ForecastReconciliation. 38th International Symposium of Forecasting. Boulder, USA.
- 59 Li, H., Li, H., Lu, Y and Panagiotelis, P. (2018). A Forecast Reconciliation Approach to Cause-of-death Mortality Modeling. 14th International Longevity Risk and Capital Markets Solutions Conference, September, Amsterdam, Netherlands and 38th International Symposium of Forecasting, June, Boulder, USA.
- 60 Morris, R., Quinn, C., and Clare, L. (July 2018). Measuring Subjective Accounts of Symptoms and Diagnosis in Dementia: The Development of the RADIX. International Neuropsychological Society Conference. Prague, Czech Republic.
- 61 Neal, T. (July 2018). Multidimensional Slope Heterogeneity in Panel Data Models. Econometric Society Australasian Meeting (ESAM). Auckland, New Zealand.

- 62 Olivo Villabrille, M. (2018). Assortative Marriages and Household Income Inequality. International Conference on Demographics, Immigration, and the Labor Market, April, Nuremberg, Germany and Canadian Economics Association Annual Conference June, Montreal, Canada.
- 63 Parker, S. K. (June 2018). Keynote. Transforming Work Places Through Work Design. Australia Pacific Health Leadership Congress, State Annual Conference: The Call to Leadership. Perth, Australia.
- 64 Parker, S.K. (November 2018). Enhancing Proactivity in the Workforce. 3rd Annual Organisational Behaviour/ Human Resources Symposium. China Europe International Business School. Shandhai. China.
- 65 Peters, R. and Anstey, K. (June 2018). Antihypertensives and Cognitive Function, a Systematic Review and Meta-analysis. Australian Dementia Forum. Sydney, Australia.
- 66 Petery, G. A., and Barnes and Farrell, J. (November 2018). Same as it ever was: Comparing Young Adults' Age Bias Toward Older Workers from 1989 and 2015. 17th National Conference of Emerging Researchers in Ageing. Melbourne, Australia.
- 67 Hernaes, E., Jia, Z., Piggott, J. and Vigtel, T. (October 2018). Flexible Pensions and Labor Force Withdrawal. 8th APRU Population Aging Conference. Singapore.
- 68 Pitacco, E. (June 2018). Health-linked Life Annuities. Combining Protection and Retirement Income. International Congress of Actuaries. Berlin, Germany.
- 69 Pitacco, E. (June 2018). Can Frailty Models Improve Actuarial Calculations in Health Insurance? International Congress of Actuaries. Berlin, Germany.
- 70 Rahman, M.M. (August 2018). Predicting Transition of Older Women into and through the Aged Care System Over Time: A Multi-state Modelling Approach Using Aged Care Linked Data. The Joint International Society for Clinical Biostatistics and Australian Statistical Conference. Melbourne. Australia.
- 71 Sherris, M. (January 2018). Market Price of Longevity Risk for A Multi-Cohort Mortality Model with Application to Longevity Bond Option Pricing. Western Risk and Insurance Association Annual Meeting. Las Vegas, USA.
- 72 Sherris, M. (August 2018). Plenary. An Actuarial Perspective on Long-term Care Insurance 4th International Conference of Long-Term Care Directors and Administrators. Sydney, Australia.
- 73 Sherris, M. (September 2018). Keynote. Modelling Health Status and Functional Disability with Applications to Life Annuities and Long-term Care Insurance. UNIS Actuarial School. Paestum (Salerno), Italy.

- 74 Smyrnis, G., Bateman, H., Dobrescu, I., Newell, B. and Thorp, S. (May 2018). Motivated Saving: The Impact of Projections on Retirement Saving Intentions. Boulder Summer Conference on Consumer Financial Decision Making. Boulder Colorado, USA.
- 75 Truxillo, D. M. (September 2018). Workplace Interventions: Implications for Worker Health and Wellbeing. The 13th European Academy of Occupational Health Psychology. Lisbon, Portugal.
- 76 Vatter, S., Stanmore, E., McDonald, K.R., McCormick, S.A., Clare, L., and Leroi, I. (July 2018). The Relationship Dissatisfaction of Caregiving Spouses of People with Parkinson's-related Dementia. British Society of Gerontology Conference. Manchester, UK.
- 77 Xu, M., Alonso-García, J., Sherris, M. and Shao, A.W. [2018]. Demand for Annuities and Long-term Care Insurance with Recursive Utility: Impact of Housing. 2018 Joint IRFRC & APRIA, July-August, Singapore, Malaysia; 31st International Congress of Actuaries, June, Berlin, Germany; and 45th Annual EGRIE Seminar, September, Nuremberg, Germany.
- 78 Xu, M., Alonso-García, J., Sherris, M. and Shao, A.W. (2018). Housing, Long-term Care Insurance, and Annuities with Recursive Utility. 31st International Congress of Actuaries, June, Berlin, Germany; 2018 Joint APRIA-IRFRC Conference, July, Singapore; and European Group of Risk and Insurance Economists, September, Nuremberg, Germany.
- 79 Xu, X., Alonso-García, J., Sherris, M. and Ziveyi, J. (July 2018). Advanced Pricing Models and Comparisons for Variable Annuity Guarantees. 22nd International Congress on Insurance: Mathematics and Economics (IME 2018). Sydney, Australia.
- 80 Xu, M., Sherris, M. and Shao, A.W. (September 2018). Portfolio Insurance Strategies for Target Annuitisation Funds. 14th International Longevity Risk and Capital Markets Solutions Conference. Amsterdam, the Netherlands.
- 81 Yang, S., Guo, F. and Zhang, Z. (October-November 2018). The Health Inequality of Migrants in Urban China. International Metropolis Conference. Sydney, Australia.
- 82 Yang, S. (October-November 2018). The Health Status of China-born Elderly Migrants in Australia. International Metropolis Conference. Sydney, Australia.



SEMINAR PRESENTATIONS

- 1 Alonso-García, J. and Bonekamp, J. (2018). Retirement Drawdown Defaults: The Role of Implied Endorsement. CPB (Netherlands Bureau for Economic Policy Analysis) Seminar, February, The Haque, the Netherlands.
- Bateman, H. (2018). Flicking the Switch: How Prescribed Disclosures Drive Retirement Plan Choice. CPB (Netherlands Bureau for Economic Policy Analysis) Seminar, January, The Hague, the Netherlands.
- Bateman, H. (2018). Flexible Long-term Care Insurance: An Experimental Study of Demand. Queensland University of Technology (School of Economics and Finance), September, Brisbane, Australia.
- 4 Byles, J. (2018). A Lifelong View on Women's Health. 2018 TMU-UoN Joint Symposium: Recent Advances in Women's Health, April, Taipei Medical University, Taiwan
- 5 Byles, J. (2018). Women's Health across the Life-course and across the Generations – Lessons from Australia. International Longevity Centre-UK Lecture and Debate, May, London, UK.
- 6 Byles, J. (2018). An Ecological Model of Housing in Later Life: From Personal to Policy. Singapore University of Technology and Design Lee Kuan Yew Centre for Innovative Cities Seminar, May, Singapore.
- 7 Deng, Y. (2018). Delaying the Public Pension Age in China: Implications for Labor Force Participation and Individual Welfare. Empirical Micro Seminar, November, UNSW Sydney, Sydney, Australia.
- 8 Gerpott, F. H. (September 2018). Using Interaction Analysis to Enhance Leadership Research. RSM Research Seminar Series. Rotterdam, the Netherlands.
- 9 Ginnivan, N. (2018). The Rising Health, Social, and Economic Costs of Australia's Ageing Prisoner Population. Centre of Research Excellence in Offender Health Annual Symposium, November, Sydney, Australia.
- 10 Gong, C.H. (May 2018). Socio-economic Determinants of Health Inequality at Later Life. Guangdong Financial and Economic University. Guangdong, China.
- 11 Gong, C.H. (May 2018). Comparison of Health Life Expectancies in China and Australia. Hunan University. Hunan, China.
- Hirchi, A. (June 2018). Consideration of Non-work Life Roles as Driver of Work Experiences and Career Development. International Conference on Leadership, Team and Innovation. School of Business Administration, Zheshang Research Institute, Zhejiang Gongshang University. Hangzhou, China.

- 13 Hirchi, A. (January 2018). Career Development and Employability in the 4.0 Economy. Forum für Universität und Gesellschaft. University of Bern. Bern, Switzerland.
- 14 Holzmann, R., Alonso-García, J., Labit Hardy, H. and Villegas, A.M. (2018). Non-Financial Defined Contribution (NDC) Schemes and Heterogeneity in Longevity: Proposals for Re-design. UNSW Sydney Pensions and Superannuation Seminar, April, Sydney, Australia.
- 15 Kudrna, G. (2018). Sustainable and Equitable Pensions with Means Testing in Aging Economies. University of South Australia Seminar, April, Adelaide, Australia.
- 16 Kudrna, G. (2018). Population Ageing and Fiscal Policy Responses. University of Adelaide Semniar, May, Adelaide. Australia.
- 17 Kudrna, G. (2018). Introduction to CEPAR. Future of Employment and Skills (FES) Research Centre, University of Adelaide, June, Adelaide, Australia.
- 18 Liu, X. and Keane, M. (November 2018). A Life Cycle Study on the Taxation Implications on Consumption and Housing Demand. The Pensions and Superannuation Seminar. Sydney, Australia.
- 19 Neal, T. (2018). Comparing Deep Neural Network and Econometric Approaches to Predicting the Impact of Climate Change on Agricultural Yield. ANU Seminar, November. Canberra. Australia.
- 20 Peters, R. (2018). Risk factors for Cognitive Ageing, Gaps in the Evidence Base and Next Steps. Interventions in Cognitive Ageing Seminar, June, Herriott Watt University, Edingburgh, UK.
- 21 Pitacco, E. (2018). Product Design and Technical Features. European Actuarial Academy Seminar - Life Annuities: From Basic Products to Capital Management, April, Stockholm, Sweden.
- 22 Pitacco, E. (2018). Hetrogeneity in Mortality: A Survey with an Actuarial Focus. Department of Mathematics Seminar. April. Stockholm. Sweden
- 23 Pitacco, E. (2018). Heterogeneity with Respect to Mortality: A Survey. Department of Mathematics Seminar, University of Southampton, September, Southampton, UK and Cass Business School, City University, September, London, UK.
- 24 Rudolph, C.W. (February 2018). Debunking Common Myths and Stereotypes about Generations at Work. University of North Carolina. North Carolina, USA.

- 25 Sherris, M. (2018). Market Price of Longevity Risk for A Multi-Cohort Mortality Model with Application to Longevity Bond Option. Pricing Seminar at Department of Insurance Economics and Risk Management, Friedrich-Alexander University, Erlangen-Nurnberg (FAU), June, Erlangen, Germany and University of Parma Bond Option Pricing Seminar, April, University of Parma, Italy.
- Yang, S. (2018). Breaking the Barriers: How has Urban Home Ownership Changed Migrants' Settlement Intentions in Chinese Cities? Pensions and Superannuation Seminar, UNSW Sydney, August, Sydney, Australia.

COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

27,048

151

9

2,070

WEBSITE HITS IN 2018 83,811 PAGE VIEWS MEDIA ARTICLES
IN PRINT, RADIO,
TV & ONLINE MEDIA

MEDIA RELEASES

SOCIAL MEDIA FOLLOWERS ON TWITTER, LINKEDIN, YOUTUBE & FACEBOOK

CEPAR'S ANNUAL RESEARCH
TRANSLATION, COMMUNICATION,
EDUCATION AND OUTREACH PLAN
DETAILS A PROGRAM OF EVENTS
AND OUTREACH ACTIVITIES
TARGETED AT MAXIMISING THE
CENTRE'S IMPACT AND ENHANCING
COMMUNITY UNDERSTANDING.

In 2018, CEPAR developed and implemented several communication strategies to execute the plan and enhance relationships with external stakeholders in government, industry, academia and the community. CEPAR's communication focused on creating awareness of the Centre's research and expertise through its communication channels, translating its research findings, publicising events and contributing to public debate on population ageing issues.

The Centre engages in an ongoing dialogue with, and translates its research in forms accessible to, government, industry, academia and the community. 2018 achievements are detailed on the following pages.

WERSITE

CEPAR's website continues to be a key element of the Centre's public profile and the website traffic steadily grows. In 2018, 17,450 people [86.6% of whom were new] visited www.cepar.edu.au for 27,048 sessions. This represents a 78% increase in visitors and sessions compared to 2017 figures. By far the largest proportion of visitors was from Australia [41%], with those from the United States following at 17% and China at 10%. 58 news items were published on the webpage.

The website also saw several spikes in traffic with over 3,130 page views in the week following the launch of the research brief on cognitive ageing and decline, and over 3,260 page views in the week following the release of the research briefs on retirement income in Australia. Both launches were extensively covered in the media. People, Events and News were the top three most viewed sections of the site in 2018.

SOCIAL MEDIA AND NEWSLETTER

The Centre has invested significant resources in developing its online media presence over the last year to improve its communications with external stakeholders and the wider community.

The newsletter is designed to provide subscribers with a regular update on CEPAR's activities in population ageing research. In 2018, the CEPAR newsletter format and layout were redesigned to improve usability. Nine newsletters were sent out to over 1.3k subscribers.

The Centre has a social media presence on Twitter, LinkedIn, YouTube and Facebook. CEPAR is most active on Twitter and LinkedIn and has increased its use of these platforms in 2018. Compared to the previous year, posts doubled on LinkedIn and increased nine-fold on Twitter.

MEDIA

In 2018, CEPAR's media strategy centred on promoting the Centre's research findings and activities as well as providing expert commentary on public policy issues, particularly in the areas of retirement income, aged care, macroeconomics and population policy. The Centre also promoted its publicly available research briefs which synthesise knowledge about a particular issue, drawing on the latest research findings and fact sheets, which provide up-to-date information on ageing-related issues. During 2018 CEPAR issued nine media releases, and researchers featured in national and global print and broadcast media as well as in metropolitan media in Sydney, Canberra and Melbourne.

Regular appearances and columns in the media, and commentary in online publications such as The Conversation and newspaper op-eds such as the Australian Financial Review, raised the profile of the Centre and its researchers as well as the issue of population ageing. A full list of media mentions is provided on pages 110-112.



COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

MEDIA FOCUS

OLDER WORKERS

Major national news outlets interviewed CI Marian Baird throughout the year on women's workforce participation, including the ABC and The Sydney Morning Herald.

ABC Radio featured Director John Piggott on the radio show 'The Economists', talking about the key need to redesign work for mature workers in order to maximise workforce participation as the number and proportion of older Australians continues to grow.

DEMOGRAPHY AND MIGRATION

CI Peter McDonald's expert knowledge was sought by several media outlets in relation to managing Australia's population growth. He was featured on global and national news, including ABC News, The Sydney Morning Herald, Channel News Asia, The Strait Times and BBC News.

He was also featured in ABC's Four Corners Series 'Big Australia: Are We Ready?', addressing the issue of the nation's preparedness to manage demographic change.

John Piggott was interviewed on the radio show 'Money News' by Ross Greenwood on 2GB about managing Australia's population in relation to migration policy.

LONGEVITY

CI Philip Clarke's research on the life expectancy of chess players attracted media coverage and has been widely referenced, particularly on social media.

FALLS PREVENTION

CI Robert Cumming's research on falls prevention was featured on *Channel 9* national news.

COGNITION AND DECISION MAKING

Global and national news outlets, including the ABC, The Sydney Morning Herald, Channel 9 and China News reported on CIs Kaarin Anstey's and Hazel Bateman's research which was featured in the cognitive ageing and decline research brief.

CI ROBERT CUMMING ON CHANNEL NINE NEWS



LEADING THE DEBATE

CEPAR RESEARCHERS PUBLISHED SIX ARTICLES IN THE CONVERSATION:

- Australia is one of the world's best places to retire, or is it? Rafal Chomik & David Rodgers 2 April 2018
- Checkmate: top chess players live longer Philip Clarke & An Tran-Duy 7 May 2018
- Retiring at 70 was an idea well ahead of its time Rafal Chomik 6 September 2018
- It's hard to make money in aged care, and that's part of the problem Rafal Chomik 18 September 2018
- Renters Beware: how the pension and super could leave you behind Rafal Chomik 5 November 2018
- Why cutting Australia's migrant intake would do more harm than good, at least for the next decade Peter McDonald 18 December 2018

CEPAR RESEARCHERS PUBLISHED SIX **OP-EDS AND COMMENTARIES:**

- How countries could respond to Trump's trade war Warwick McKibbin Australian Financial Review 5 March 2018
- Confronting story highlights challenge awaiting us all Neil Jeyasingam The Sydney Morning Herald 11 May 2018
- It's not the Reserve Bank's job to pick winners and losers Warwick McKibbin Australian Financial Review 8 August 2018

- Now is the time to care about older people Julie Byles Newcastle Herald 14 August 2018
- Many triggers could ignite the next financial crisis Warwick McKibbin Australian Financial Review 9 September 2018
- How does Australia manage population growth? Peter McDonald Pursuit 2 October 2018 (Picked up by major national newspapers The Sydney Morning Herald, The Age, Herald Sun and global media outlet BBC News1

Perspective

8-9 September 2018
The Australian Financial Review | www.afr.com



Many triggers could ignite the next financial crisis



Warwick McKibbin The 10th anniversary of the September 2008 events that heralded an

The 10th anniversary of the September 2008 events that heralded an unprecedented collapse of global financial markets has prompted many to look back. But what have we learnt in the past decade? In a very real sense the global economy today looks very much like the global economy in 2006 – but weekers.

worse.
There has been a long period of low interest rates and a large build-up-of interest rates and a large build-up of public and private debt. The large Trump fiscal stimulus has generated a spurt in US economic activity. However, as interest rates rise, the distortions in the world economy built up over many years will begin to show

signs of increasing stress. The US housing market is not overextended in this financial cycle, but the US sharemarket and other asset prices appear to be overvalued. On these high asset valuations has been built a huge tower of debt.

asset valuations has been built a huge tower of debt.

There are now many triggers that could ignite the next crisis including. President Trump's fiscal policy or a trade war. The problem this time around is that many countries, including Australia, have not addressed the fundamental internal treatment and the statement of the countries. structural problems and these countries have used excessively loose monetary and fiscal policy in an

attempt to sustain economic growth. Eventually, debt can only be a saviour for a slowly growing econom if the assets that are created with the debt lead to higher productivity growth. This has not been the case

globally. With depleted fiscal positions, weak productivity growth, a popullat backlash against an open global economy, and both but rising interest major financial crisis.

Back in September 2008, the BIM was ready for a US adjustment at least two years before the worst before the worst before the production of the worst before the worst equity markets had long been a cause of worry. Andy Stoeckel and I wrote a paper in

mid-2006 on why the housing r into-2000 of why are holding market collapse in the US could cause a recession. This departed from the view at the RBA and in the US Federal Reserve Board that, because the value of housing assets at risk from a US housing crash would be relatively

small compared with the size of the US economy, the effects on GDP would be

we based our study on the analysis by Nouriel Roubini, which we implemented in our global conomic model. Roubini had worked with me in the 1898s on developing my global economic model as fellow PhD students even with the conomic model as fellow PhD students even and excident in implement his securatio into our model with securatio into our model. I was surprised at how large the negative impact on U.S.GDP of a housing crush was in our model, through the channels of falling equily through the channels of falling equily continued to the control of the channels of falling equily through the chan by Nouriel Roubini, which we

investment and consumption spending. Nonetheless, we did not appreciate the extent to which the exposure to the securitised assets debt obligations had created an enormous

system. The problems could be traced back to a number of US policy changes, but particularly the long period of low interest rates in the US from 2001 to interest rates in the US from 2001 to 2004 which generated a search for higher yielding assets by global investors. With the removal of regulatory oversights, securitised assets were created that somehow could take high-risk debt and package it into an apparently low-risk scenario from 2001 to 2011 was a faciantaling experience. A major leason I learnt was that, without the correct information, it is easy

the correct information, it is easy to ignore systemic vulnerabilities in an increasingly interdependent and

complex global economy. While Australia was well position with policy space and well-regulated financial markets, the knowledge about the systemic interlinkages in financial markets, particularly outside

REGULARLY PUBLISHES NEWSPAPER OP-EDS AND COMMENTARIES

COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

EVENTS

LAUNCH OF CEPAR AND RESEARCH BRIEFS

The Minister for Education, the Hon. Dan Tehan, formally launched the Centre's new seven-year research program on 31 October 2018 at Parliament House, Canberra. Speaking to researchers and senior representatives from CEPAR university nodes, as well as stakeholders from industry and government bodies, the minister said that 'population ageing is one of the most important challenges facing Australia in the 21st century'. Other speakers included Sue Thomas, Chief Executive Officer of the Australian Research Council; Nicholas Fisk, Deputy Vice-Chancellor (Research) at UNSW Sydney; Chris Styles, Dean of the UNSW Business School; and CEPAR Director John Piggott. CEPAR Advisory Board Chair Marc de Cure acted as Master of Ceremonies.

To highlight the impact of the Centre's innovative research program, CEPAR also launched at this event its new set of three research briefs on retirement income in Australia, featuring findings from over 40 of CEPAR's leading researchers. (See Feature Box at right.)



L-R: MARC DE CURE (CEPAR ADVISORY BOARD CHAIR), NICHOLAS FISK (DEPUTY VICE-CHANCELLOR (RESEARCH), UNSW SYDNEY), SUE THOMAS (CEO, AUSTRALIAN RESEARCH COUNCIL), MINISTER FOR EDUCATION THE HON DAN TEHAN, JOHN PIGGOTT (CEPAR DIRECTOR), CHRIS STYLES (DEAN, UNSW BUSINESS SCHOOL)

RESEARCH BRIEFS AND FACT SHEETS

Research briefs and fact sheets integrate research findings to present a synthesis of evidence pertaining to a particular area of knowledge or policy issue. Informed by a multidisciplinary knowledge base, the briefs are written and presented in a format accessible to academic, business, the media and the government. Fact sheets are designed to provide short informative summaries of key

issues relevant to population ageing targeted at a general audience.

These are not advocacy documents – instead they seek to be authoritative in their discussion of relevant research findings and provide a knowledge base for decision makers.

In 2018, two research briefs and two fact sheets were published. A brief focused on Cognitive ageing and decline: Insights from recent research was released in April and a set of three briefs on

Retirement income in Australia was launched in October. CEPAR also released two fact sheets in February and March. Australian life tables: 150 years in the making marked 150 years since the first official estimate of the lifespan of Australians. Measuring up? International indices of ageing critically compared some of the well-known ageing indices, such as the Melbourne Mercer Global Pension Index and the Global Ageing Preparedness Index.



FACT SHEETS AND RESEARCH BRIEFS RELEASED IN 2018



COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

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LAUNCH OF CEPAR AND RESEARCH BRIEFS ON RETIREMENT INCOMES AT PARLIAMENT HOUSE, CANBERRA

LAUNCH OF RESEARCH BRIEF ON COGNITIVE AGEING AND DECLINE

In April 2018, the new research brief on cognitive ageing and decline was released at two launch events, held at NSW Parliament House and Neuroscience Research Australia (NeuRA) in Sydney. More than 80 participants, including representatives from government, the wider scientific community, media and the general public gained insights into the most recent research on cognitive ageing and decline.

The breakfast event at NSW Parliament House included media, NeuRA board members, CEPAR officials, ministers and distinguished guests, including the Hon. Scott Farlow MLC who spoke about the need for research in this area. The event, co-hosted by NeuRA and CEPAR, included presentations by Director John Piggott and co-Deputy Directors Kaarin Anstey and Hazel Bateman. NeuRA Director Peter Schofield was the MC for the event.

A second event at the NeuRA headquarters on the same day provided an opportunity for academics and the wider community to hear from the three CEPAR presenters. Major national media outlets reported on the research insights.



JOHN PIGGOTT (CEPAR), HAZEL BATEMAN (CEPAR), SCOTT FARLOW MLC, KAARIN ANSTEY (CEPAR) AND PETER SCHOFIELD (NEURA) AT NSW PARLIAMENT HOUSE



CEPAR'S KAARIN ANSTEY, HAZEL BATEMAN AND JOHN PIGGOTT PARTICIPATING IN A PANEL DISCUSSION ON COGNITIVE AGEING AND DECLINE, CHAIRED BY NEURA DIRECTOR PETER SCHOFIELD, AND FILMED BY CHANNEL 9 NEWS



THE HON. SCOTT FARLOW, MLC LAUNCHING CEPAR'S RESEARCH BRIEF ON COGNITIVE AGEING AND DECLINE AT NSW PARLIAMENT HOUSE



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COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

PUBLIC TALKS

Public lectures and forums are designed to communicate key messages to the wider community and enhance community understanding of critical issues. In 2018, several CEPAR researchers delivered public talks and were invited to participate as panel members in discussion forums

JAMES NAZROO PUBLIC LECTURE

In May, CEPAR Partner Investigator James Nazroo, Professor of Sociology at the University of Manchester, delivered a public lecture on inequalities affecting people in later life, as part of the Grand Challenges Program at UNSW. Welcomed and introduced by Ian Jacobs, President and Vice-Chancellor of UNSW Sydney, James Nazroo discussed the importance of later life events in shaping inequality and argued that research and policy need to bring these into sharper focus.



L-R: RICHARD HOLDEN (UNSW SYDNEY), JAMES NAZROO (CEPAR) AND JOHN PIGGOTT (CEPAR)



JAMES NAZROO BEING INTERVIEWED BY UNSW SYDNEY BUSINESSTHINK



PROFESSOR JAMES NAZROO
BSc MB BS Lond.,
PhD UC Lond.
PARTNER INVESTIGATOR

James Nazroo is Professor of Sociology at the University of Manchester, UK. He also serves as co-Director of the Manchester Institute for Collaborative Research on Ageing and Deputy Director of the Centre on Dynamics of Ethnicity. His research focuses on issues of inequality, social justice and underlying processes of stratification, particularly in relation to ageing and ethnicity. He works on the social determinants of health and wellbeing in later life, social inequalities over the life course, and longitudinal surveys of health and retirement.

He was the lead investigator for the six year interdisciplinary research programme 'Frailty, Resilience and Inequalities in Later Life (fRaill)' (2011-2017); is a Chief Investigator on the ongoing 'English Longitudinal Study of Ageing (ELSA)'; and was a Partner Investigator on the ARC Discovery grant 'Socioeconomic determinants and health inequalities over the life course' being conducted in collaboration with CEPAR Investigators Kendig, Loh, Byles and O'Loughlin.

PETER MCDONALD PUBLIC LECTURES

Addressing groups at the University of Melbourne and the Australian National University in October 2018, CI Peter McDonald discussed Australia's population and labour force prospects. He argued Australia's population policy is about right when it comes to managing ageing, immigration, economic development and the cities and regions.

CEPAR PANEL AT UNSW ALUMNI EVENT IN HONG KONG

In March, Director John Piggott, CI Hazel Bateman and Advisory Board Chair Marc de Cure participated in *The Future of Asia Alumni Summit*, an event hosted by UNSW Sydney for its alumni in Hong Kong. In a panel session on *'Asia in the Ageing Century'*, the CEPAR researchers, along with Professor Albert Park of the Hong Kong University of Science and Technology, discussed the social challenges and the business opportunities created by an ageing demographic.

FEDERAL BUDGET COMMENTARY

As part of the Federal Budget 2018 week, several CIs were invited to present and analyse key budget measures. CI Warwick McKibbin presented a pre-budget seminar at Parliament House, Canberra. His talk on *'Risks and Policy Challenges in the Global Economy to 2030'* gave a broad overview of the issues affecting the Australian economy. Director John Piggott joined a panel of academics from the UNSW Business School to provide independent analysis on the 2018 Federal Budget in a livestreamed roundtable.

A full list of public talks is provided on page 113.

JOHN PIGGOTT (CEPAR, SECOND FROM RIGHT) AT THE UNSW BUSINESS SCHOOL PANEL DISCUSSION ON THE 2018 FEDERAL BUDGET



CI PETER MCDONALD DELIVERING A PUBLIC LECTURE ON AUSTRALIA'S POPULATION AND LABOUR FORCE PROSPECTS



JOHN PIGGOTT (CEPAR, THIRD FROM LEFT) PARTICIPATING IN A PANEL AT THE FUTURE OF ASIA ALUMNI SUMMIT IN HONG KONG





COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

PRINT (NEWSPAPERS AND MAGAZINES)

Equal pay between genders legally enforceable in Iceland The Sydney Morning Herald and The Age 08 Jan 2018

- featuring Marian Baird

Prepare for a shock to the system as 2018 proper gets under way

The Australian 25 Jan 2018 - featuring Cathy Gong

Taxes just part of the mix as we seek to back the bold The Australian 02 Mar 2018 - featuring Marian Baird

How countries could respond to Trump's trade war Australian Financial Review 06 Mar 2018

- by Warwick McKibbin

Major career study shows young Australian women are missing in debate about future of work

The Sydney Morning Herald, Daily Life, The Age and other regional Fairfax papers 07 Mar 2018

- featuring Marian Baird's research

Find a happy balance

The Daily Telegraph 31 Mar 2018 - featuring Marian Baird

Experts urae love, exercise to avoid dementia

The Sydney Morning Herald, print edition 11 April 2018

- featuring Kaarin Anstey

Australians warned to protect brain health

The Australian 11 April 2018

- featuring Kaarin Anstey and CEPAR research

There's only one way to clean up toxic capitalism - sack them all

The Sydney Morning Herald 27 April 2018

- featuring Marian Baird

Coming of age

Elle Australia 1 May 2018 – featuring Hal Kendig

Confronting story highlights challenge awaiting us all

The Sydney Morning Herald 11 May 2018

- by Neil Jeyasingam

Retirees urged to tap into home value: Please, don't leave it all to the kids

Australian Financial Review 11 May 2018

- featuring John Piggott

Our women among most influential

Adelaide Advertiser 02 June 2018 - featuring Marian Baird

Australia's boom isn't equally shared between men and women

The Sydney Morning Herald 07 June 2018

- featuring Marian Baird

Boom times? Ask Australian women

The Age 08 June 2018 - featuring Marian Baird

Australia orders 'world first' sexual harassment inquiry

Financial Times 24 June 2018 - featuring Marian Baird

Prepare Australians for rate hikes now. Warwick McKibbin tells RBA

Australian Financial Review 24 June 2018

- featuring Warwick McKibbin

'Shadow' board urges Reserve Bank to hike rates on Tuesday

Australian Financial Review 02 July 2018

- featuring Warwick McKibbin

Break from the herd as downturn looms: McKibbin

Investment Magazine 06 July 2018

- featuring Warwick McKibbin

Bridging visa numbers soar as background checks get tougher

The Australian 17 July 2018 – featuring Peter McDonald

Opinion: It's not the Reserve Bank's job to pick winners and losers

Australian Financial Review 08 August 2018

- by Warwick McKibbin

Opinion: Now is the time to care about older people Newcastle Herald 14 August 2018 - by Julie Byles

Many triggers could ignite the next financial crisis

Australian Financial Review 9 September 2018

- by Warwick McKibbin

A Rapidly Ageing Australia

Female Magazine 10 September 2018 - featuring CEPAR research

'Pretty ridiculous': Nine hours a day, five days a week, just to cover the rent

The Sydney Morning Herald 12 September 2018

- featuring Marian Baird

Future generations to pay for immigration cuts The Sydney Morning Herald 09 October 2018

- featuring Peter McDonald

Migration cut would lead to shortage of young workers The Age 9 October 2018 - featuring Peter McDonald

Parallel political universes for experts and governments

The Sydney Morning Herald 11 October 2018

- featuring Peter McDonald

Demographer Peter McDonald says cutting migration would cause brain drain in regional areas

Herald Sun 26 October 2018 - featuring Peter McDonald

Our oldies have actually never had it so good

The Sydney Morning Herald and The Age 05 November 2018 - featuring CEPAR research

'Classic no-win situation': Harassment can mean career suicide for workers, reputational damage for companies

The Canberra Times 10 November 2018

- featuring Marian Baird

Warwick McKibbin queries RBA's inaction on rates

Australian Financial Review 12 November 2018

- featuring Warwick McKibbin

Australia needs 'well managed population growth', not cuts

The Sydney Morning Herald 21 November 2018

- featuring Peter McDonald

Aussie PM flags migration cuts amid urban pressures

The Strait Times 21 November 2018

- featuring Peter McDonald

Don't push the immigration 'panic button', leading demographer tells Gladys Berejiklian

The Sydney Morning Herald 24 November 2018

- featuring Peter McDonald

Sydney named as Australia's only 'superstar' city, Melbourne a 'regional hub': McKinsey report

The Sydney Morning Herald 24 November 2018

- featuring Peter McDonald

Rising inequality hollows out the middle class

Sun Herald 2 December 2018 - featuring Peter Whiteford

The wrong path on retirement incomes

The Canberra Times 4 December 2018

- featuring CEPAR research

Population expert warns of risks involved in cutting Australia's migration rate

The Australian and Fairfax Media channels

12 December 2018 - featuring Peter McDonald

PM puts national population plan on agenda after migration pitch falls flat

The New Daily 12 December 2018 - featuring Peter McDonald

Morrison signals population cut after premiers warn on infrastructure

The Sydney Morning Herald 12 December 2018

- featuring Peter McDonald

Scott Morrison backs big Australia at COAG

Australian Financial Review 12 December 2018

- featuring Peter McDonald

Scott Morrison fails to persuade states to lower migration rate at COAG

The Guardian 12 December 2018 - featuring Peter McDonald

Scott Morrison's population expert at odds on migrant cut, amid win over national plan

The Australian 13 December 2018

- featuring Peter McDonald

Melbourne's migrant mums keeping Australia fertile

The Age 16 December 2018 - featuring Peter McDonald

RADIO AND TELEVISION

Interview with Marian Baird

ABC Goldfields 01 Feb 2018 - featuring Marian Baird

Interview with Marian Baird

ABC The Business 19 Feb 2018 - featuring Marian Baird

Study finds huge gap between women's career goals and workplace reality

Channel Ten's Eyewitness News, The Project and Sky News 06 Mar 2018 - featuring Marian Baird

Big Australia: Are we ready?

ABC Four Corners 12 March 2018 - featuring Peter McDonald

Talkback: Big Australia. Interview with Peter McDonald ABC RN 13 March 2018 - featuring Peter McDonald

Fact check: Did Nick Xenophon vote with

Malcolm Turnbull to cut the Age Pension? ABC Fact Check 13 March 2018 - featuring Rafal Chomik

Interview with Marian Baird

ABC Radio Darwin and 2CC Canberra – featuring Marian Baird

Working at 96: The rising trend of never retiring

Nine News Australia 1 April 2018 – featuring Rafal Chomik

Policy settings in Australia don't encourage men to be stay at home dads, according to report

ABC NewsRadio 05 Apr 2018 - featuring Marian Baird

Interview with Marian Baird

ABC News 24 08 Apr 2018 - featuring Marian Baird

Grandmother who lost husband to dementia urges others to protect their brain health

Nine News Australia 11 April 2018 – featuring Kaarin Anstey

A new report has revealed at least a third of Australians over 70 will suffer from some cognitive decline

POWER FM 11 April 2018 - featuring Kaarin Anstey

Interview with Kaarin Anstev. Professor of Psychology, UNSW Sydney

ABC Radio 11 April 2018 - featuring Kaarin Anstey

There is fresh hope for people at risk of dementia as new research reveals

Channel 9, Perth, Nine Afternoon News 11 April 2018 - featuring Kaarin Anstey and Hazel Bateman

Australians need to work to protect ageing brains Radio Adelaide 11 April 2018

- featuring Kaarin Anstey and CEPAR research

The Health News Australia

healthprofessionalradio.com.au 13 April 2018 - featuring CEPAR research

Interview with Professor Kaarin Anstey, CEPAR Chief Investigator

2GB Radio 14 April 2018 – featuring Kaarin Anstey

Interview with Marian Baird on budget measures for women's economic security

ABC News TV, Bay FM Geelong and 2GB 9 May 2018 - featuring Marian Baird

Interview with Susan Thorp on a draft report by the Productivity Commission

ABC Radio National and ABC TV 29 May 2018

- featuring Susan Thorp

Interview with Marian Baird on figures in the NSW budget which showed women are driving up iob's growth

ABC Mid North Coast June 2018 - featuring Marian Baird

Extended interview with Warwick McKibbin

ABC News 30 July 2018 - featuring Warwick McKibbin

How the elderly can prevent potentially deadly falls Channel 9 News 03 August 2018

- featuring Robert Cumming

Super funds face royal commission scrutiny

Channel 9 News 05 August 2018 - featuring Susan Thorp

'We need people to die': funeral businesses worry about slowdown in deaths

The Sydney Morning Herald and The Age 18 August 2018

- featuring Peter McDonald

Migration cut 'could backfire on cities' on [sic] regions

The Australian 25 August 2018 - featuring Peter McDonald

Why The Australia Institute is a climate wrecker with false claims

Australian Financial Review 29 August 2018 - featuring Warwick McKibbin

Alan Tudge backs 'a bigger Australia' as he eyes the demon of population policy

The Sydney Morning Herald 02 September 2018 - featuring Peter McDonald

Tudge to reach out to migrants in 'big Australia' The Age Sunday 02 September 2018

- featuring Peter McDonald

Hal Kendig: Unraveling the secret elements of ageing

Brisbane Times 04 September 2018 - a tribute to the late Hal Kendig

Retiring at 70 was an idea well ahead of its time

The Canberra Times 06 September 2018

- featuring Rafal Chomik

Corporate gender equality 'won't happen without the quota' ABC News 26 September 2018 - featuring Marian Baird

The Outlook: for retirement

SBS World News Radio 26 September 2018

- featuring Rafal Chomik and Susan Thorp

Australia immigration: New migrants may have to live in rural areas

BBC News 09 October 2018 - featuring Peter McDonald

Fact check: Is Australia's population the fastest growing in the developed world?

ABC News 11 October 2018 - featuring Peter McDonald

Interview with Rafal Chomik

ABC Tropical North Breakfast with Meech Philpott 05 November 2018 - featuring Rafal Chomik

Ageing Australia

ABC The Economists 08 November 2018 - featuring John Piggott and CEPAR research

Interview with Marian Baird about a Grattan Institute report into the super industry, and women's superannuation savings

ABC News TV 08 November 2018 - featuring Rafal Chomik

Scott Morrison warns permanent migration needs to be cut to ease city congestion

ABC News 20 November 2018 - featuring Peter McDonald

Money News by Ross Greenwood: Interview with John Piggott

2GB 20 November 2018 - featuring John Piggott

Many Australian women trapped in part-time work: Marian Baird

ABC The World Today 21 November 2018

- featuring Marian Baird

FIFO workers want action on mental health in mining industry

7News Perth 5 December 2018 - featuring Sharon Parker

Don't blame migrants for infrastructure woes, say business leaders

SBS News 11 December 2018 - featuring Peter McDonald

Expert says cutting immigration would be a 'disaster' 3AW Radio 12 December 2018 - featuring Peter McDonald

Population expert disagrees with slashing migrant intake ABC Radio National 12 December 2018

- featuring Peter McDonald

Leaders plan for population framework

9News 12 December 2018 - featuring Peter McDonald

ONLINE

It's 2018 — Isn't It Time We Started Talking About Our Salaries?

PopSugar 28 Jan 2018 - featuring Marian Baird

Acknowledging #MeToo This International Women's Day New Matilda and Women's Agenda 08 Mar 2018

- featuring Marian Baird

Australia is one of the world's best places to retire, or is it? The Conversation 2 April 2018 – by Rafal Chomik

Here's the best science on how you can avoid dementia

The Sydney Morning Herald 11 April 2018

- featuring Kaarin Anstey

Treat your brain like you would your super

SBS News 11 April 2018 - featuring Kaarin Anstey



COMMUNICATIONS, EDUCATION & COMMUNITY OUTREACH

Super should cater for coanitive decline

Money Management 11 April 2018 - featuring Hazel Bateman

Default options safeguard retirement savings: Research Financial Standard 11 April 2018 - featuring Hazel Bateman

Call for community education on dementia risk factors

Australian Ageing Agenda 11 April 2018

- featuring Kaarin Anstev

'We are only beginning' to navigate superannuation and dementia: Report

nestegg.com.au 11 April 2018 - featuring CEPAR research

Report identifies seven ways to prevent dementia Medical Xpress 12 April 2018 – featuring Kaarin Anstey

Groundbreaking discoveries about dementia WYZA 20 April 2018 – featuring Kaarin Anstey

Socio-Economic disparities in American healthcare spending: The role of public vs private Insurance Austaxpolicy 30 April 2018

- by Elena Capatina, Michael Keane and Shiko Maruyama

Tax cuts, infrastructure spending to highlight Australian budget

Xinhua News Asia & Pacific Edition 7 May 2018

- featuring Warwick McKibbin

Checkmate: Top chess players live longer

The Conversation 7 May 2018

- by Philip Clarke and An Tran-Duy

Checkmate age: Does chess add years to your lives? Business Standard 8 May 2018

- featuring Philip Clarke and An Tran-Duy

Professional players live longer than ordinary people: Study The Siver Times 9 May 2018

- featuring Philip Clarke and An Tran-Duy

Inequality the unsolved burden on older people, says UNSW quest lecturer

UNSW Sydney Newsroom 15 May 2018

- featuring James Nazroo

Australian Budget 2018: Blue skies for baby-boomers BusinessThink 16 May 2018 - featuring John Piggott

Chess grandmasters show the same longevity advantage as elite athletes

Research Digest 18 May 2018 - featuring An Tran-Duy

Elite chess players live longer lives Pacific Standard 23 May 2018

- featuring Philip Clarke and An Tran-Duy

Professor Marian Baird named in top 100 people in gender policy

MyScience and Modern Diplomacy 25 May 2018

- featuring Marian Baird

Checkmate: Elite chess players live 14 years longer Nest Egg 29 May 2018

- featuring Philip Clarke and An Tran-Duy

Want to live as long as an Olympian? Become a Chess Grandmaster

Mental Floss 29 May 2018

- featuring Philip Clarke and An Tran-Duv

Budget a step in right direction: Thinktank

The Senior 30 May 2018 - featuring John Piggott

Investors have little hope of understanding superannuation disclosure information – expert comments on Productivity Commission draft report

eGlobal Travel Media 30 May 2018 – featuring Susan Thorp

Public survey on ethnic inequality & mental health launches The Voice Online 11 July 2018 - featuring James Nazroo

Global conference tackles evolving aged care challenges UNSW Sydney Newsroom 30 July 2018

- featuring CEPAR research

International Pension Industry Conference held in Sydney to discuss strategies to address population ageing China News 1 August 2018 - featuring CEPAR research

Primary care services lack awareness on falls prevention

Australian Ageing Agenda 01 August 2018

- featuring Lindy Clemson

Choice under CDC not translating into practice, study finds Community Care Review 03 August 2018

- featuring CEPAR research

Call for national rollout of quality assessment tool

Community Care Review 06 August 2018 - featuring CEPAR research

Shifting to a wellbeing model will ensure sustainability of aged care system, says expert

Australian Ageing Agenda 08 August 2018 - featuring CEPAR research

A last call to action

Australian Ageing Agenda 10 August 2018

- featuring Hal Kendig

Better outcomes: James Nazroo on the challenge of inequality in later life

BusinessThink 15 August 2018 - featuring James Nazroo

Retiring at 70 was an idea well ahead of its time

The Conversation, republished by Daily Bulletin, The Canberra Times 06 September 2018

– by and featuring by Rafal Chomik

It's hard to make money in aged care, and that's part of the problem

The Conversation, republished by Modern Australian, Property Observer 18 September 2018

- by and featuring Rafal Chomik

Charting Melbourne's unrelenting population growth

news.com.au 21 September 2018

- featuring Peter McDonald

How does Australia manage population growth?

Pursuit 02 October 2018 - by Peter McDonald

Future generations would pay for heavy cuts to immigration, researcher warns

The Sydney Morning Herald 09 October 2018

- featuring Peter McDonald

New ageing institute launched at UNSW Sydney

Community Care Review 23 October 2018

- featuring Kaarin Anstev

Supporting our ageing population

Mirage News 31 October 2018 - featuring CEPAR research

How Aussies spend super in decumulation set to change Money Management 01 November 2018

- featuring Michael Sherris

Australia's retirement system one of the 'most progressive in the world'

startsat60.com, 01 November 2018

- featuring CEPAR research

Research centre urges focus on super decumulation

Self Managed Super 01 November 2018 - featuring Michael Sherris

Women's choice drives more sustainable global birth rate Futurity 01 November 2018 - featuring Peter McDonald

How Aussies spend super poised for change, research shows

Super Review 02 November 2018 – featuring CEPAR research

How Australia's golden oldies are spending their lump sum super payouts

The New Daily 02 November 2018 - featuring CEPAR research

Renters Beware: how the pension and super could leave you behind

The Conversation 05 November 2018 - by Rafal Chomik

Funding puts focus on meeting the challenges of an ageing Australia

Aged Care Guide 05 November 2018 - featuring CEPAR research

How the pension and super could leave you behind

Modern Australian, Yahoo Finance News 05 November 2018 - featuring Rafal Chomik

How should we fund retirement in the Ageing Century? CEPAR Releases New Research Briefs

Austaxpolicy 07 November 2018 – featuring CEPAR research

Australia flags migration cuts over urban pressures Channel News Asia 20 November 2018 - featuring Peter McDonald

Interview with Warwick McKibbin on RBA monetary policy yourmoney.com 12 December 2018 - featuring Warwick McKibbin

Why Cutting Australia's Migrant Intake Would do More Harm than Good, at Least for the Next Decade

The Conversation, 18 December 2018 - by Peter McDonald.

END USER LINKS

PRESENTATIONS/BRIEFINGS

PUBLIC

- 1 Andel, R. (June 2018). Is Retirement Bad for your Brain? Ted X Fullbright Canberra Event. Canberra, Australia.
- 2 Andrei, D.M. (June 2018). A Diversity Framework to Support Flourishing of Mature Workers in Organisations. Leading Innovation Through Diversity Forum. UWA Business School. Perth, Australia.
- 3 Anstey, K. (April 2018). Cognitive Ageing and Decline. Launch of the 'Cognitive Ageing and Decline: Insights from Recent Research' Research Brief Launch, NeURA. Sydney, Australia.
- 4 Anstey, K. (June 2018). Ageing Well for Life Seminar, Healthy Ageing Week. National Gallery Victoria. Melbourne. Australia.
- 5 Anstey, K. (June 2018). Ageing Well for Life Seminar, Healthy Ageing Week. Sydney Town Hall. Sydney, Australia.
- 6 Anstey, K. (October 2018). The Science of Us Series 2018, 'When We Age'. Australian Academy of Science. Canberra, Australia.
- 7 Baird, M. (March 2018). Women and Work Futures, Australian Labour and Employment Relations Association, ACT 2018 Conference: Fair Work – Past, Present, Future. Canberra, Australia.
- 8 Baird, M. (November 2018). The New Life Cycle of Women and Policy Gaps. Labour, Employment and Work Conference. Victoria University. Wellington, New Zealand.
- 9 Bateman, H. (March 2018). Asia in the Ageing Century (Panellist). The Future of Asia Alumni Summit. Hong Kong, China.
- 10 Bateman, H. (April 2018). Financial Decisions and Cognitive Decline. Launch of the 'Cognitive Ageing and Decline: Insights from Recent Research' Research Brief, NeURA. Sydney, Australia.
- 11 Gerpott, F. H. (July 2018). Bridging the Gap Between Experts and the People: Rethinking Science Communication (Panellist). Euroscience Open Forum. Toulouse, France.
- 12 McDonald, P. (October 2018). Population and Labour Force Prospects for Australia. University of Melbourne. Melbourne, Australia.
- 13 McDonald, P. (October 2018). Population and Labour Force Prospects for Australia. Australian National University. Canberra. Australia.

- 14 Nazroo, J. (May 2018). Inequality in later life: The Impact on Health and Wellbeing. UNSW Sydney Grand Challenges Program. Sydney, Australia.
- 15 Piggott, J. (March 2018). Asia in the Ageing Century (Panelist). The Future of Asia Alumni Summit. Hong Kong. China.
- Piggott, J. (April 2018). Cognitive Ageing and Retirement. Launch of the 'Cognitive Ageing and Decline: Insights from Recent Research' Research Brief NeURA Sydney, Australia.

GOVERNMENT

- Alonso-García, J. (April 2018). Mortality and Morbidity Risk. CEPAR Health and Ageing Roundtable. Sydney, Australia
- 2 Anstey, K. (April 2018). Cognitive Ageing and Decline: Insights from Recent Research. CEPAR Research Brief Launch Event Talk. NSW Parliamentary Breakfast. Sydney, Australia.
- 3 Anstey, K. (April 2018). Future Directions and Opportunities on Health-related Research. CEPAR Health and Ageing Roundtable. Sydney, Australia.
- 4 Anstey, K. (April 2018). Dementia Risk Assessment Medical Benefit Scheme Review. General Practice Primary Care Clinical Committee (GPPCCC). Canberra, Australia.
- 5 Baird, K. (July 2018). Carers Strategy and Mature Age Workforces. Implementation and Performance, Inclusion and Early Intervention Commissioning Division of NSW Department of Family and Community Services. Sydney, Australia.
- 6 Baird, M. (November 2018). Women and Work: Choices over the Life-cycle. CEPAR and Crawford School Policy Dialogue. Canberra. Australia.
- 7 Bateman, H. (April 2018). Financial Decisions and Cognitive Decline. CEPAR Research Brief Launch Event Talk. NSW Parliamentary Breakfast. Sydney, Australia.
- 8 Bateman, H. (November 2018). International Developments in Retirement Incomes Policy (Panellist). CEPAR Policy Dialogue on Retirement Incomes. Canberra. Australia.
- Bateman, H. (December 2018). Guiding Financial Decision Making. Commonwealth Department of Health. Canberra, Australia.
- Bateman, H. (December 2018). Guiding Financial Decision Making. Institute of Health and Welfare. Canberra, Australia.

- 11 Bateman, H. (December 2018). Guiding Financial Decision Making. Commonwealth Treasury. Canberra, Australia.
- 12 Bateman, H. (December 2018). Guiding Financial Decision Making. Commonwealth Department of Social Services. Canberra. Australia.
- 13 Byles, J. (June 2018). Social Determinants of Health: Significance for Aged Care Policies and Services for Older people in Australia. Commonwealth Department of Health Executive Roundtable. Canberra, Australia.
- 14 Clarke, P. (April 2018). Overview of CEPAR Health Research. CEPAR Health and Ageing Roundtable. Sydney, Australia.
- 15 Cumming, R. (April 2018). Social Determinants of Successful Ageing. CEPAR Health and Ageing Roundtable Sydney, Australia.
- 16 Kudrna, G. (June 2018). OLG Modelling. Australian Treasury. Canberra, Australia.
- 17 Labit Hardy, H. (December 2018). Financial and Insurance Product Design. Commonwealth Treasury. Canberra, Australia.
- 18 Labit Hardy, H. (December 2018). Financial and Insurance Product Design. Commonwealth Department of Social Services. Canberra, Australia.
- 19 Labit Hardy, H. (December 2018). Financial and Insurance Product Design. Commonwealth Department of Health. Canberra, Australia.
- 20 Labit Hardy, H. (December 2018). Mortality and Morbidity Risk. Australian Institute of Health and Welfare. Canberra, Australia.
- 21 Labit Hardy, H. (December 2018). Mortality and Morbidity Risk. Commonwealth Department of Health. Canberra, Australia.
- 22 McDonald, P. (September 2018). Discussion on cities and population policy with the Hon. Alan Tudge, Minister for Cities, Urban Infrastructure and Population. Melbourne, Australia.
- 23 McDonald, P. (December 2018). Discussion on immigration policy with the Prime Minister. Canberra, Australia
- 24 McDonald, P. (October 2018). Population and Labour Force Prospects for Australia. Department of the Treasury. Canberra, Australia.
- 25 McDonald, P. (December 2018). International Migration. Council of Australian Governments. (COAG). Adelaide, Australia.



END USER LINKS

- 26 McDonald, P. and Temple, J. (February 2018). Meeting on National Transfer Accounts and on demographic trends with the Manager, Model Development Practice, Commonwealth Department of the Treasury. Melbourne, Australia.
- 27 McDonald, P. and Utomo, I. (March 2018). Meeting on field research results with the Deputy Minister for Human Development, Society and Culture of the Indonesian National Planning Board, and two Directorate Heads. Jakarta, Indonesia.
- 28 McDonald, P. (April 2018). Discussion on English language proficiency of migrants in Australia with the Hon. Alan Tudge, Minister for Citizenship and Multiculturalism. Melbourne, Australia.
- 29 McDonald, P. (November 2018). Job Futures in Australia: A Demographic Perspective. Australian Taxation Office. Sydney Australia.
- 30 McDonald, P. (November 2018). Security Implications of Global Demographic Change. Presentation to Senior Executive Level officers of several Commonwealth Government departments. Canberra, Australia.
- 31 McDonald, P. (November 2018). Discussion with the Department of Prime Minister and Cabinet on Australian population policy. Canberra, Australia.
- 32 McKibbin, W. (May 2018). Risks and Policy Challenges in the Global Economy in 2030. Parliament House. Canberra, Australia.
- 33 Parker, S.K. (October 2018). Work Design Principles. Department of Mines, Industry Regulation and Safety. Perth, Australia.
- 34 Parker, S.K. (October 2018). The Psychology of Good Work Design. WorkCover Queensland's Injury Prevention and Return to Work Conference. Brisbane, Australia.
- 35 Piggott, J. (January 2018). Introduction to CEPAR and long-term care research initiatives. Austrade. Sydney, Australia.
- 36 Piggott, J. (April 2018). Cognitive Ageing and Retirement. CEPAR Research Brief Launch Event Talk. NSW Parliamentary Breakfast. Sydney, Australia.

INDUSTRY/BUSINESS/END USERS

- Andrei, D.M. (November 2018). Workers in Organisations

 Challenges and Opportunities for an Organisational Based Approach. GHD. Perth. Australia.
- 2 Anstey, K. (September 2018). Keynote: Dementia Australia. Canberra, Australia.
- 3 Anstey, K. (January 2018). Plenary: Neuroscience Research. Supreme Court and High Court Judges. Sydney, Australia.
- 4 Anstey, K. (December 2018). Wine, Sudoku, Green Tea or Fish Oils? Reducing Risk of Dementia and Optimising Cognitive Function. Judicial Development Day. Adelaide. Australia.
- 5 Anstey, K. (March 2018). The Next Frontier. PwC. Sydney, Australia.
- 6 Anstey, K. (May 2018). Modifiable Lifestyle Factors. MS Australia. Sydney, Australia.
- 7 Anstey, K. (May 2018). Briefing: Modifiable Lifestyle Factors in MS. MS Foundation. Sydney, Australia.
- Anstey, K. (April 2018). WHO Global Dementia Observatory and the Global Dementia Action Plan. NHMRC National Institute for Dementia Research. Canberra, Australia.
- 9 Baird, M. (July 2018). Employers for Carers Project. Careers NSW. Sydney, Australia.
- 10 Baird, M. (October 2018). Carers Needs and the Policy Context. Carers NSW 2018 Biennial Conference, Caring: Yesterday, Today, Tomorrow. Sydney, Australia.
- Baird, M., Dinale, D. and Williams, A. (November 2018). All China Women's Federation Delegation. Sydney, Australia.
- 12 Bateman, H. (May 2018). ASIC Workshop Presentation. ASIC. Sydney, Australia.
- 13 Bateman, H. (May 2018). Picking up the Baton on the Income Challenge (Panellist). CSRI Leadership Forum: Seeking Income Security for Older Australians. Canberra. Australia.
- 14 Bateman, H. (June 2018). Inquiry into Efficiency and Competition of the Superannuation Industry. Productivity Commission. Sydney, Australia.
- 15 Bateman, H. (August 2018). Unisuper. Melbourne, Australia.
- 16 Bateman, H. (October 2018). Sydney launch of the 2018 Melbourne Mercer Global Pension Index (Panellist). Financial Services Council, Sydney, Australia.
- 17 Chomik, R., Lu, B. and Piggott, J. (March 2018). Population Ageing and Fiscal Sustainability in East Asia and Pacific. UNESCAP. Bangkok, Thailand.

- 18 Clemson, L. (August 2018). Evidence to Practice: Preventing Falls and Managing Dementia. Hunter Occupational Therapy Education and Networking Day. Maitland, Australia.
- 19 Clemson, L. (August 2018). Introduction to LiFEworkshop. Hunter Occupational Therapy Education and Networking Day. Maitland, Australia.
- 20 Clemson, L. (August 2018). Environment-person Interaction and Falls in Home and Hospital. AAG Fall Prevention Forum. Bunbury, Australia.
- 21 Hirchi, A. (April 2018). The Guidelines for Vocational Education in 2030 and Career Counseling of the Future. Annual Convention of the Career Counseling Centers. Canton of Bern, Switzerland.
- 22 Lu, B. (May 2018). Challenges in China's Long-term Care Policy. 8th China Aged Care Administrators and Directors Conference. Xi'An. China.
- 23 McDonald, P. (July 2018). Plenary: Population Ageing in Regional Australia. Australian Population Association Conference. Darwin, Australia.
- 24 McKibbin, W. (October 2018). Demographic Change and Challenges for Asia, the Globe and Australia. 10th Annual Commonwealth Bank Conference. Sydney, Australia.
- 25 Parker, S. K. (May 2018). The Future of Work, Government and Risk Management Forum. Insurance Commission of WA. Perth, Australia.
- 26 Parker, S. K., and Jorritsma, K. (March 2018). Transformative Design Leadership Breakfast. Melbourne. Australia.
- 27 Parker, S.K. (June 2018). Social Work Environment, Well-being, and Health. Australian Faculty of Occupational and Environmental Medicine. Perth, Australia.
- 28 Parker, S.K. (October 2018). Make Tomorrow's Work Better. Curtin University Faculty of Business and Law Advisory Boards' Networking Event. Perth, Australia.
- 29 Parker, S.K. (May 2018). Keynote: CEDA WA's 2018 Future of Work Series. Perth, Australia.
- 30 Parker, S.K. (July 2018). Keynote: Work Design: Because Good Work Matters. Superfriend. Brisbane, Australia.
- 31 Piggott, J. (March 2018). The Golden Years (Panellist). ASIC Annual Forum. Sydney, Australia.
- 32 Piggott, J. (May 2018). UNSW Business School Budget Roundtable Sydney, Australia.

- 33 Piggott, J. (May 2018). Keynote: Population Ageing and Technology: Two Megatrends Shaping the Labour Market in Asia. Paper Technology and an Aging Workforce; Maximize the Gains from Longevity and Long Working Life Conference. Asian Development Bank Institute and the Asian Development Bank. Seoul, South Korea.
- 34 Piggott, J. (May 2018). Technology and an Aging Workforce; Maximize the Gains from Longevity and Long Working Life Conference (Panellist). Asian Development Bank Institute and the Asian Development Bank. Seoul, South Korea.
- 35 Piggott, J. (October 2018). Council of the Aged Consumer Focussed Retirement Incomes Roundtable hosted by Mercer. Melbourne, Australia
- 36 Piggott, J. (November 2018). International Developments in Retirement Incomes Policy (Panellist). CEPAR Policy Dialogue on Retirement Incomes. Canberra, Australia.
- 37 Pitacco, E. (December 2018). Innovations in Product Design to Manage Longevity and Long-term Care Risks. ASTIN – AFIR/ERM Joint Seminar. Mexico City, Mexico.
- 38 Sherris, M. (May 2018). Australian Country Report. International Actuarial Association Mortality Working Group. Berlin, Germany.
- 39 Sherris, M. (May 2018). Longevity Risk Management and the Development of a Value-Based Longevity Index. International Actuarial Association Mortality Working Group. Berlin, Germany.
- 40 Sherris, M. (July 2018). Long-term Care and Morbidity Models - Frailty, Multiple State, Functional Disability, Incorporating Systematic Improvement, Incorporating Uncertainty. CEPAR Longevity and Long-Term Care Risks and Products Workshop. Sydney, Australia.
- 41 Thorp, S. [May 2018]. ASIC Workshop Presentation. ASIC. Sydney, Australia.



CENTRE FINANCE

CONSOLIDATED FINANCIAL STATEMENT 2017-2018

| INCOME | | 2017(\$) | 2018(\$) |
|--|--------|-----------|-----------|
| ARC Centre Grant distributed as follows: | | | |
| University of New South Wales | NOTE 1 | 2,579,024 | 2,820,862 |
| Australian National University | NOTE 2 | _ | 461,452 |
| University of Sydney | | 255,732 | 792,658 |
| University of Melbourne | | 420,305 | 509,529 |
| University of Western Australia | NOTE 1 | 246,688 | - |
| University of New South Wales | NOTE 3 | 548,551 | 719,196 |
| Australian National University | | - | 138,396 |
| University of Sydney | | 83,839 | 114,522 |
| University of Melbourne | | 73,980 | 145,975 |
| University of Western Australia | NOTE 4 | 54,260 | -50,677 |
| NSW Department of Industry (Research Attraction and Acceleration Program) | NOTE 5 | 66,000 | 153,915 |
| Department of Foreign Affairs and Trade | | 30,000 | - |
| Department of Health | | 50,000 | 50,000 |
| Department of Social Services | | 50,000 | 50,000 |
| Medibank | NOTE 6 | 50,000 | 50,000 |
| National Wealth Management Services Limited | | 50,000 | 50,000 |
| NSW Treasury | | 50,000 | 50,000 |
| PwC | | 40,000 | 40,000 |
| Reserve Bank of Australia | | 50,000 | 50,000 |
| Willis Towers Watson | | 65,000 | 65,000 |
| Commonwealth Treasury | | | 50,000 |
| UNSW Contestable Funds / Strategic Funds / UNSW Business School Funds | | | 379,153 |
| Superannuation Colloquium Registration Fees | | | 21,650 |
| Long-term Care Directors Conference Registration Fees | | | 12,038 |
| International Network for Pensions, Aging and Retirement Research Conference Sponsorship | | | 33,902 |
| Total Income | | 4,763,379 | 6,707,571 |

| EXPENDITURE | 2017(\$) | 2018(\$) |
|--|-----------|-----------|
| Salaries | 61,325 | 3,239,416 |
| Scholarships | - | 158,812 |
| Travel | 2,872 | 336,156 |
| Emerging Researchers in Ageing initiative: annual contribution | = | 80,000 |
| Events | 335 | 124,216 |
| Other research related expenses | 581 | 45,035 |
| Recruitment and relocation expenses | 3,034 | 22,753 |
| Centre administration, consumables and I.T. maintenance | 145 | 27,837 |
| Equipment | - | 19,855 |
| Website, branding and marketing | 4,978 | 50,190 |
| Total Expenditure | 73,270 | 4,104,270 |
| Opening balance at the beginning of the year | | 4,690,109 |
| Closing balance as at year end | 4,690,109 | 7,293,409 |

NOTE 1: The announcement of Sharon Parker's move from the University of Western Australia (UWA) to Curtin University necessitated a variation to the Eligible Organisation Agreement. It was agreed between the parties that the distributions of ARC funds to support Professor Parker's research in 2018 would be made to Curtin University following the finalisation of the variation. The 2018 distributions to Curtin University and the internal contributions by Curtin will be made in 2019 and reflected in the 2019 financial statement.

NOTE 2: Includes a delayed distribution for 2017 following the finalisation of a variation to the Eligible Organisation Agreement in 2018 necessitated by Kaarin Anstey's move from ANU to UNSW.

NOTE 3: Includes a delayed contribution for 2017 for Kaarin Anstey's research program following the finalisation of the variation to the Eligible Organisation Agreement in 2018.

NOTE 4: Consistent with the variation described in Note 1, UWA did not make a 2018 contribution and clawed back unspent 2017 UWA funds.

NOTE 5: A total of \$1,000,000 was received in 2017, covering the period 2017-2023. \$153K is reported for 2018 and includes annual interest payments.

NOTE 6: A total of \$150,000 was received in 2017, covering the period 2017-2019. \$50K is reported for 2018.



ESTIMATES OF FUTURE INCOME AND EXPENDITURE

INCOME

The Centre's main source of funds in 2019 will be the Australian Research Council (ARC). The administering and collaborating organisations, as well as the partner organisations will make contributions at their contracted rates. The UNSW Business School will provide in 2019 an additional \$325,000 to support the hiring of research personnel associated with new research on developing policy and business responses to Asia's ageing demographic. In total, we estimate 2019 Centre income to be around \$6.6 million.

EXPENDITURE

In 2019 the Centre plans to fund a range of initiatives as detailed in the 2019 activity plan provided on pages 8-10. Salaries for Early Career Researchers (ECRs) will continue to account for a large portion of the Centre budget. We anticipate that we will spend about \$7 million in total, of which approximately \$5.5 million will be allocated to salaries and scholarship stipends.

PERSONNEL

It is anticipated that the Centre will spend approximately \$4.4 million in 2019 on research personnel, most of whom will be ECRs.

It is expected that 30 students will be supported by CEPAR scholarships in 2019 at a total cost of \$315,000. This includes scholarships for undergraduate and PhD students.

MENTORING OPPORTUNITIES FOR ECRS AND STUDENTS

CEPAR will continue to support the Emerging Researchers in Ageing (ERA) initiative in 2019 as well as offer workshops for ECRs and PhD students.

Funds will be made available to support PhD student conference participation and provide opportunities for both research fellows and PhD students to spend time at one of our international partner organisations with the aims of enhancing their career experience and building links between these key international hubs of ageing research and the next generation of researchers.

The anticipated cost of these initiatives in 2019 is approximately \$212,000.

COLLABORATION, OUTREACH AND DISSEMINATION OF RESEARCH FINDINGS

Conferences and workshops showcase the Centre's research, increase our international footprint, and provide opportunities for our industry partners to engage with the Centre. Our research briefs and fact sheets translate research for a wider audience.

Leading international experts will visit the Centre under CEPAR's Distinguished Visitor Program and funds will be available for CEPAR personnel to visit international collaborators and present research findings at major conferences. Funds will be also made available to support the involvement of our partner and associate investigators in the research program and outreach activities. It is expected that these activities will be supported by a combination of industry and collaborating university funds. Total estimated expenditure for these activities in 2019 is \$920,000.

OTHER

Approximately \$800,000 will be spent on supporting the operation of the Centre. This includes salaries for administrative personnel, equipment, materials and other costs associated with the running of the Centre.

An estimated additional \$310,000 will be spent on other research related activities including surveys.

NEW GRANTS

NEW GRANTS AWARDED TO RESEARCH TEAMS WHICH INCLUDED CEPAR CHIEF INVESTIGATORS BATEMAN, H.

Australian Securities and Investment Commission:

Advancing Performance-based Approaches to Financial Regulation in Australia

Total amount awarded: \$13,636

LEVER, M., BATEMAN, H., PONDS E., BONEKAMP, J., STEVENS, R., DILLINGH, R., TER RELE, H. AND BOLHAAR, J. Netspar:

Choice Architecture in Pensions and Retirement

Total amount awarded: €250,000

RADFORD, K., BROE, G., DELBAERE, K., DRAPER, B., GARVEY, G., CUMMING, R., WRIGHT, D., FULHAM, M., PIGUET, O. AND SACHDEV, P.

NHMRC Targeted Call for Research into Dementia in Indigenous Australians:

Our MOB (Mind Our Brains): Dementia Prevention across the Life Course with Aboriginal Australians

Total amount awarded: \$3,020,383

FONG, J.H., HONG, P.K., PIGGOTT, J. AND CUMMING, R. NUS-Global Asia Institute
NIHA Research Grant 2018

Ageing and Long-term Care in Asia: A Comparative Analysis

Total amount awarded: \$\$198,500.00

NEW GRANTS AWARDED TO TEAMS
INCLUDING CEPAR RESEARCHERS AND
ASSOCIATE INVESTIGATORS ON TOPICS
RELATED TO POPULATION AGEING

AGNEW, J., HUNG, A. AND THORP, S. TIAA Institute:

White Label Funds: How Important is the Name?

Total amount awarded: US\$75,000

BYLES, J., LOXTON, D., LEIGH, L., HOLLIDAY, E., BEARD, J., KOWAL, P. AND JAGGER, C. ARC Discovery Project:

Beyond Successful Ageing: Longevity and Healthy Ageing among Australian Women

Total amount awarded: \$236,310

FANG, H. AND HANEWALD, K.

Tsinghua University:

Demand for Home Equity Release Products in China

Total amount awarded: RMB100,000

ISKHAKOV, F.

ARC Future Fellowship:

Investigating the Interactions between Firms over Time and how these Interactions Drive Economic Markets.

Total amount awarded: \$857,585

LI, H., HANEWALD, K. AND LIAO, P. Society of Actuaries:

Constructing Occupation-Specific Life Tables for China

Total amount awarded: US\$24,441

VILLEGAS, A.

US Society of Actuaries:

Analysis of Historical U.S. Population Mortality Improvement Drivers Since 1950

Total amount awarded: \$67,575



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AWARDS, PRIZES & RECOGNITION

JENNIFER ALONSO GARCÍA, HAZEL BATEMAN, RALPH STEVENS, JOHAN BONEKAMP AND ARTHUR VAN SOEST

International Congress of Actuaries 2018 Best Paper Award in Aspects of Long-Term Savings: Uncertainty in Low Real Returns, Longevity and Inflation

KAARIN J. ANSTEY

Australian Psychological Society Distinguished Contribution to Psychological Science Award 2018

Appointed Director of the UNSW Futures Institute on Enabling Optimal Ageing for Individuals and Society

MARIAN BAIRD

Included in Apolitical's Top 100 Most Influential people in gender equality in the world

PHILIP CLARKE

Appointed Director of the University of Oxford's Health Economics Research Centre

MICHAEL KEANE

Elected to the Econometric Society Council

JOHN PIGGOTT

Appointed Co-chair of 2019 G20 Taskforce on the Ageing Population and its Economic Impact

CHIA-HUEI WU

Academy of Management - Careers Division 2018 Best Overall Paper Award

SHANG WU

2018 UNSW Business School HDR Student Thesis Award

MENGYI XU, MICHAEL SHERRIS, JENNIFER ALONSO GARCÍA AND ADAM SHAO

International Congress of Actuaries 2018 Best Paper Award in Health Section

MENGYI XU

2018 Hal Kendig Prize for best CEPAR PhD thesis in 2017

CONTACT DETAILS

UNIVERSITY OF NEW SOUTH WALES (ADMINISTERING ORGANISATION)

Level Three, South Entry, East Wing 223 Anzac Pde Kensington Campus UNSW Sydney Sydney NSW 2052

NeuRA Margarete Ainsworth Building Barker St Randwick NSW 2031

E cepar@unsw.edu.au T +61 (2) 9931 9202 W cepar.edu.au

AUSTRALIAN NATIONAL UNIVERSITY NODE

Crawford School of Public Policy JG Crawford Building 132 Lennox Crossing Australian National University ACT 0200 Australia

E cama.admin@anu.edu.au T +61(2)61258108

UNIVERSITY OF MELBOURNE NODE

Centre for Health Policy School of Population and Global Health Level 4, 207 Bouverie Street The University of Melbourne VIC 3010

E mcdonald.p@unimelb.edu.au

UNIVERSITY OF SYDNEY NODE

School of Public Health Faculty of Medicine and Health Edward Ford Building A27 The University of Sydney NSW 2006

E nicola.atkin@sydney.edu.au

T +61(2)91141228

The University of Sydney Business School Discipline of Work and Organisational Studies Abercrombie Building The University of Sydney NSW 2006

E marian.baird@sydney.edu.au

T +61 (2) 9351 6439

CURTIN UNIVERSITY NODE

Centre for Transformative Work Design The Future of Work Institute Curtin Graduate Business School Murray St Perth WA 6000

E s.parker@curtin.edu.au T +61 (8) 9266 4984

DESIGN

Peter Campbell Design

EDITING

Anne Gordon, CEPAR

PRINT

Peachy

PHOTOGRAPHY

Daniel Coelho, Natural Exposure; Cath Muscat Photography; Stuart Hay, Australian National University; Irene Dowdy; Aran Anderson Photography