

School of Economics Review



THE UNIVERSITY OF
SYDNEY

**Student turned teacher:
Hugh Harley**

**Giving plastic bags the
sack**

**New Social Sciences
building**

**5 to 50: Five minutes
with our graduates**



Welcome

Welcome to first edition of the School of Economics Review.

I am proud to present the School of Economics Review. In sitting down to decide on the content, it quickly became clear that our original plan – a compendium of our research and wider activity – was quickly going to morph into something much bigger!

The reasons became clear. When I joined as Head of School in 2012, it was a group of just over 35 economists. Soon, that group will touch 65...and growing still. The breadth of activity of that group, and the excellence of their research, is striking and we try to capture that in our Review. Not only is the research excellent, it is highly relevant and topical as you will see through a series of research ‘snapshots’ from colleagues.

However, that growth in the School reflects only a fraction of the story of where we are today. Student numbers in Economics have almost doubled, and now Economics is one of the most popular areas of study in the University at undergraduate, honours and postgraduate level. We have a growing cohort of PhD students at the School. We highlight the work of these students in the Review.

These students of course will go on to become our alumni, who know well how the training in Economics equips you with the skills you need to succeed in an ever-changing environment. As you will see reflected in this Review, careers in Economics – or using an Economics degree – are diverse, from food and agriculture to



government and banking. We take great pride in our graduates, but are also honoured by the way they give back to the School with their time, effort and support. We highlight just some of these amazing people in the Review – and we thank them sincerely for all their help.

One thing many of our alumni may have misty-eyed memories of is the Merewether Building. That memory may be evocative, but Merewether long passed the point of being fit for the delivery of a modern economics education and research agenda. The spectacular image on the front cover of the Review is of our new home – a purpose built facility on the main campus but with a link to our heritage through the renovation of the RD Watt Building – familiar to any who studied agricultural economics. We give an overview of the new facility in the Review.

So, as said, our original plans for a simple snapshot of facts and figures has morphed into something much bigger but much more representative of the School today – a modern, vibrant School representing the very best of the discipline, but doing so with a strong emphasis on impact and on being relevant to the University we are in and the society we are part of.

It is an honour to be Head of such a fantastic team of academic and professional colleagues. I hope you enjoy this Review, and keep in touch with the School’s activity through our website and social media.

Professor Colm Harmon
Head of the School of Economics

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Cover image (Architectus):
Render of R.D Watt building and new Social Sciences building

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Social media

School of Economics
 @USydneyEcon

Colm Harmon
 @colmharmon

Kevin Schnepel
 @KSchnepel

Stefanie Schurer
 @StefanieSchurer

Hayley Fisher
 @DrHayleyFisher

Life Course Centre
 @lifecourseAust

Justin Wolfers
 @JustinWolfers

Marian Vidal-Fernandez
 @MVidalFdez

Garry Barrett
 @GarryFBarrett

Russell Toth
 @russell_toth

David Ubilava
 @dubilava

Betsey Stevenson
 @BetseyStevenson

Faculty of Arts and Social Sciences, University of Sydney
 ArtSS_Sydney

Contact us

Please send us your feedback:

Editor, Karen Ho

k.ho@sydney.edu.au

– sydney.edu.au/arts/economics

New Social Sciences building



Image (Architectus): Render of the new building as seen on Parramatta Road

By Karen Ho

In a few short months, the School of Economics will be relocating to our new home in the recently constructed Social Sciences Building on the Camperdown campus. The design of the building will provide a modern space for teaching – complete with a lecture theatre, seminar rooms and collaborative learning spaces – with the aim of bringing together students, academics and University partners. While it is an exciting next step for the School to be moving into a new, state-of-the-art facility, it also signifies an important period in the history of Economics at the University of Sydney.

Prior to being a formal Faculty on its own, Economics was very much present at the University as the Department of Economics and Commerce. In 1913 the Bachelor of Economics was created, with the first conferral of the degree occurring a year later in 1914. The Faculty of Economics was formally established in 1920 with thirteen faculty teachers. Since its inception, Economics has been housed in the R.C Mills Building (1951-1965) and the Merewether Building (1965 – 2018) but where was Economics housed and taught in the years prior?

According to accounts as recorded by Professor Peter Groenewegen in his book, *‘Educating for Business,*

Public Service & the Social Sciences: A History of the Faculty of Economics at the University of Sydney 1920-1999’, the Department was housed ‘in a cramped corner of the old Geology Building’ that bordered Parramatta Road.

To the amusement of our staff, alumni and surely our current students, the description of a cramped corner of an old building could likewise be used to describe Merewether Building. New furniture sits in rooms alongside old bookcases and modern computers are connected in rooms with archaic wiring. Say what you will about the ageing architecture and outdated space, but Merewether continues to feature significantly in the minds of our alumni community as the “home” of Economics.

As Head of School, Colm Harmon, is apt to point out, “What may not be so obvious to many is the rich legacy of key influencers of Australian economics who worked and shaped the country from their offices in Merewether – Warren Hogan, Sir Hermann Black, Syd Butlin and Geelum Simpson-Lee, to name a few. As it stands, Merewether continues to be the home of some amazing economists and a new generation of colleagues and fantastic students who want to make a difference to Australian lives.”

With the rapid growth of the School, it has become evident that there is limited capacity for our academic and professional team, which parallel the reasons for the construction of Merewether Building 67 years ago. “While Merewether had teaching spaces”, Colm continues, “it was often set apart from academic offices. For the first time, this new building will bring together students and academic staff, research programs and visitor spaces into the one precinct. With the sounds of the students moving, studying and ‘living’ in the new building, there will be a greater sense of community and interaction.”

Collaboration and community have been the two core philosophies behind the new building design by architecture firm, Architectus. The design has also incorporated the old with the new. Two buildings – the newly built six-storey Social Sciences Building and the heritage-listed R.D Watt Building – will together form the precinct, all of which will house the School of Economics, School of Political and Social Sciences, and two key research initiatives: the Sydney Social Sciences and Humanities Research Centre (SSHARC) and the new Sydney Policy Lab.

A central atrium connecting all the floors will provide a focal point for the building and act as a space for researchers, professional staff and students to meet and interact. The main teaching and learning spaces will be located on level one and will include seminar rooms and a 230-seat lecture theatre. The School of Economics will be housed on the fifth and sixth levels with offices, meeting rooms and collaborative spaces. The top floor will have a landscaped roof terrace, a social space for staff to mingle and host functions. In a first of its kind for the University, the new building will have a Media Room, which will allow for two-way live interviews to be conducted with external broadcasters. Staff and students will also have access to a custom-built econometrics and experimental lab.

As time progresses and technology advances, it is often the simple but important updates such as improved AV and IT facilities or contemporary spaces designed for collaboration that will bring benefits to our research and teaching. Likewise, the additional spaces for workshops, visitors, and hosting our alumni will add to our sense of connection with our partners that was previously difficult to achieve.

When asked about what he is most excited about in the new building, Colm is optimistic about the new student spaces – consultation rooms for tutors, student lounges and study areas. “We have lacked a ‘hub’ where students could be young social scientists together – working and learning from each other.”

While Merewether holds fond memories for many of our alumni, the School of Economics is looking forward to adopting a new home – one that will serve as the backdrop for our future students in their formulative years learning at the University. We are excited to welcome our alumni back for the launch and to begin creating memories in our new building, just like the Faculty of Economics did all those years ago.



Photos (University of Sydney Archives): View of city from Merewether Building in 1978 (L), opening of Merewether Building - 1966 (C) and Faculty of Economics in 1930 (R)

What I can't leave behind

Our team reflect on what they will be bringing with them to their new offices when the School of Economics moves premises in 2018.



Rami Tabri

The title of the Escher print is “*Convex and Concave*.” While it relates to the geometrical shapes in the print, convex and concave are mathematical notions that are ubiquitous in economics, and have profoundly influenced my research in statistical and econometric theory.

The fractals printed onto canvas remind me of my undergraduate mathematics class on ‘Chaotic Dynamics’. In one of the problem sets of that class, we were asked to compute the box-counting dimension of these fractals, and I was able to do so using first principles (i.e. without appealing/invoking high level results on the subject). The professor loved my solution and presents it each time he teaches that class.



Russell Toth

In 2016 I had the privilege of giving invited lectures on microeconomic research at the Yangon University of Economics in Myanmar, formerly a leading economic department in Southeast Asia before decades of military rule. I received this traditional picture, which is made up of small, coloured crystals, as a gift.



Colm Harmon

It might seem odd to be so attached to a mug from the National Bureau of Economic Research (NBER), but the mug captures so many important memories. A sticker on the base shows that it belongs to Professor Orley Ashenfelter of Princeton University. Orley is a colossus of labour economics, and an academic hero. It is said that you should never meet your heroes but for me, that has never been true and Orley is no exception.

As a young geeky postdoc from Dublin visiting Princeton, I was surrounded by all these people and touch-points that defined why I loved economics. One of these was the NBER, whose little yellow covered working papers I devoured when they appeared in my mailbox at university (yes, I do feel old writing that!). I mentioned this to Orley. That mug appeared carefully boxed up and wrapped one cold winter day at my office at University College Dublin. I have loved economics since Lecture One back in 1988, and I still do. The mug captured that somehow – and still does.

Ye Lu

This beautifully dyed textile with a globe pattern has been hanging on the wall in front of me since last July. It was the first décor that I brought into my office. I always gain inspiration through seeing the world – something that I can never leave behind.



Zoe Morrison

This is a 3D wall plaque made from plaster and decorated with tiny beads. I picked it up on a trip to Guadalajara, Mexico. In Mexican culture, the sun is said to represent life and flourishing nature and the moon represents the world of the dead. Each bead is laid in by hand and I watched as my plaque was made. I love the bright nature of it and the detail is outstanding. It hangs on my office wall beside my desk and every time I look at it, I smile.



New academic staff



James Morley

What is your research interest?

I want to better understand the nature of business cycles and what macroeconomic policy can do to mitigate their effects.

My research suggests business cycles are highly asymmetric – i.e. they behave more like recurring pandemics from which the economy only partially recovers than the typical metaphor of a “rollercoaster ride” with the ups and downs averaging out over time. In terms of policy, I find that fiscal stimulus is most effective during deep recessions, but is far less potent when the economy is in better health.

What are you looking forward to in your new role?

Being part of an academic community with a lot of really smart students and colleagues.

What are you currently reading/watching/listening to?

‘Commonwealth’ by Ann Patchett, ‘Endeavour’ Season 4, and ‘A Deeper Understanding’ by The War on Drugs.

Favourite travel destination?

Pender Island in the Salish Sea, where I’ve had the good fortune to sit on a deck watching orcas swim by every (northern) summer for most of my life.



Rebecca Taylor

What is your research interest?

My research focuses on the consequences of environmental and food policies aimed at altering consumer behaviour. What and how we eat impact our environment, and our environment impacts how and what we eat. With public concern over reducing pollution and health care costs, policymakers often turn to economic interventions to change how consumers consume (e.g. taxes, bans, and advisory campaigns). I am interested in the effectiveness of such policies, especially when there is debate over optimal policy design. I am also interested in how these policies displace consumption in unintended ways and how these policies interact with issues of equity.

What are you looking forward to in your new role?

I am looking forward to collaborating with students, faculty, staff, and alumni to ask policy driven questions, with the goal of making positive contributions both locally and globally.

Where could we find you on the weekend?

Running. It is my favourite way to get to know all the ins and outs of a new city. I also love racing – anything from 5ks up to marathons. I was a steeplechaser in university, but half-marathons are my favourite distance these days.



Christian Gillitzer

What is your research interest?

My research interests are at the intersection of macroeconomics and public finance. I have recently been doing work looking at how people's political beliefs affect their economic expectations.

What are you looking forward to in your new role?

I'm really looking forward to having the time and support to work on research questions that I'm passionate about. I'm also looking forward to interacting with students in the classroom and as an advisor.

What are you currently reading/watching/listening to?

I'm currently reading Michael Lewis's 'The Undoing Project'.

What would you be if you weren't an economist?

Formula 1 race car engineer.



Mariano Kulish

What is your research interest?

My research is on macroeconomics and time-series econometrics. I have worked on extending solution and estimation methods for structural models with rational expectations to situations of structural change. These methods can be used to understand the behaviour of economies that are undergoing different forms of structural changes and that are populated by forward-looking agents. There are many situations in practice for which the assumption of constant parameters does not apply and for which the behaviour of the economy would be poorly captured using standard linear solution techniques.

What are you looking forward to in your new role?

These are exciting times to research and teach macroeconomics. I am looking forward to motivating the next generation of macroeconomists, so they can contribute down the road. I am also looking forward to contributing towards establishing the University of Sydney as a leading institution for macroeconomic policy research.

Where could we find you on the weekend?

If I am not injured, you'll find me playing tennis at my local tennis club. If I am injured, you'll also find me there socialising and supporting my teammates.

5 to 50: Five minutes with our graduates



Peter Cadwallader (BEC'64)

Executive Chairman of Intercontinental Shipping.

What is the fondest memory you have of your time at University?

Professor Black's lectures on the economics of developing countries, making permanent friends at great parties and drinks at the pub with our law lecturer, Barry O'Keefe AM QC.

Why did you choose an economics degree?

I knew what I did not want to be i.e. lawyer, doctor, engineer, vet etc. but not what I wanted to do. I thought that economics with its philosophical bend plus a practical major like accounting would give me a good selection of jobs to choose from.

What would you like to ask a current economics student?

Are you enjoying your course intellectually? Would you like more face-to-face lectures or tutorials?

What advice would you give to the student version of yourself?

Have as much fun as you can but always subject to the proviso that you must get through!



Craig Emerson (BEC '77)

Former Australian Government Minister and founder of Craig Emerson Economics.

What is the fondest memory you have of your time at University?

Meeting with many friends from high school who were also doing degrees at Sydney University. Listening to bluegrass music in an old tin shed near the Merewether Building. Attending lectures by Ted Wheelwright. Attending tutorials by Lex Watson.

Why did you choose an economics degree?

My mother told me I would make a lot of money. She was wrong.

What would you like to ask a current economics student?

How personalised is the attention you receive? Is doing courses largely online isolating?

What advice would you give to the student version of yourself?

Try to understand the basic ideas behind economics and question them, instead of learning how to draw diagrams and manipulate equations.



Cristina Cifuentes (BEC '82)

Commissioner, Australian Competition & Consumer Commission (ACCC)

What is the fondest memory you have of your time at University?

After graduating I did a stint as an economics tutor. I unwittingly found myself on the wrong end of a student/faculty protest when I was barred from entering my office. In the space of a few months I'd gone from being the "oppressed" to the "oppressor". It taught me the importance of perspective.

Why did you choose an economics degree?

I'd like to think that economics chose me and that I was always destined to become an economist. I think the reality is that I had no idea where it would lead me and it wasn't until after I'd left uni and started to apply what I had learnt that the true scope of economics became apparent.

What advice would you give to the student version of yourself?

Life probably won't turn out the way you expected. So, be flexible in your thinking and actions. Take opportunities even if they don't fit your immediate plans. Don't let linearity be your constraining factor. And above all, don't worry about making mistakes - we all make them - just don't keep making the same ones!

From graduating over five years ago to fifty, we ask our alumni about their time with us.



Joanne Masters (MEc '95)

Senior Economist, ANZ

Why did you choose an economics degree?

In all honesty, I did economics because I was good at it and I didn't really know what I wanted to do. I was advised that economics was well regarded and had many potential applications, keeping my options open seemed important. Luckily for me, I found that I enjoyed the framework that economics brings to real life problems.

What would you like to ask a current economics student?

Technology and artificial intelligence are rapidly changing the way we can use data and approach economic problems. I'd be interested to hear how current students see that evolving – what do they envisage is possible and what are the challenges.

What advice would you give to the student version of yourself?

To consciously build a broad network of peers and maintain it – which social media has made easier. This can be a significant source of support as you build your career. And, to adopt a growth mindset – think not just about your knowledge base but about your capabilities (in terms of strengths and weaknesses).



Robert Montgomery (MEc '11)

Chief Economist & Head of Policy, Infrastructure Partnerships Australia

What is the fondest memory you have of your time at University?

Time spent on campus in between classes; making new friends, chatting to old friends and discussing new ideas.

I also remember the feeling of achievement when I encountered a maths subject which was initially too difficult for me and then through hard work, I managed to understand it and get a good final mark.

Why did you choose an economics degree?

Before choosing economics, I studied international relations as an undergraduate and completed internships with the US Consulate and the World Wide Fund for Nature (WWF). After these experiences, economics was a great way of complementing my softer skills with a hard problem solving toolkit.

What advice would you give to the student version of yourself?

When you learn a new concept in class, look for contemporary real world examples where you can apply the concept. This not only helps you to remember the concepts, but makes them a lot more interesting.



Image: Skitterphoto, Pexels

Collusion without communication

Can companies engage in collusion by simply changing prices?

By Nicolas de Roos

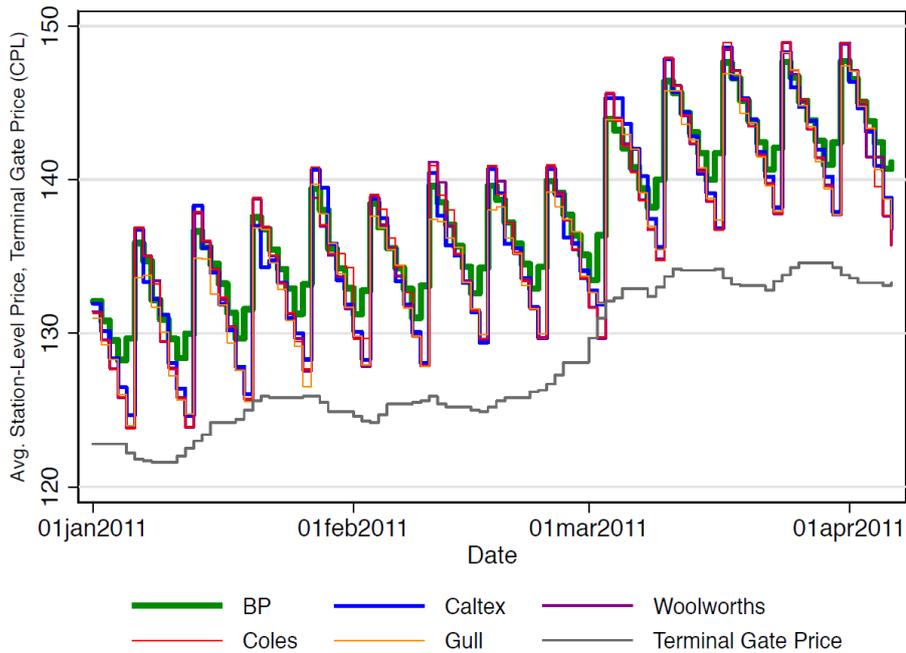
In most markets, the same group of firms battle for customers each day. Rather than competing, the practice of collusion is a cooperative relationship in which firms raise prices and restrict output. Collusion causes harm to consumers, and is illegal in Australia. Like any relationship, collusion is complicated. There are many details to resolve. When should prices be raised? How high? Who should raise price first? How quickly must others follow? Should errant firms be punished? How severely? How should firms respond to a change in cost or demand conditions? Successful collusion requires an agreement on all of these details that is mutually understood by all firms.

Imagine forming such a collusive agreement without direct communication. This is precisely what my co-author, David Byrne from the University of Melbourne, and I observe in the

market for retail petrol in Perth. Market leaders established two simple pricing rules, tested the understanding of these rules among their competitors, and used the rules to gradually increase margins and profits. This was achieved by communicating only through prices set in the marketplace.

The city of Perth exhibits a dramatic dynamic pattern of petrol pricing. Over a five year period, from 2010-2015, every Thursday, each major firm raised the price of petrol by 10-15 cents per litre across their network of stations. Every other day of the week, stations across the market lowered their price by exactly two cents per litre. This remarkable degree of coordination was achieved through persistent price leadership. The major oil firm BP played the role of price leader. Every Wednesday, starting in 2009 and continuing until August 2012, BP raised prices by 10-15 cents at a

Figure 1: Retail petrol price cycles



Source: David P. Byrne and Nicolas de Roos (2017). "Learning to coordinate: A study in retail gasoline", working paper. Coloured lines depict average daily prices by retailer; grey line indicates wholesale "Terminal Gate" price.

subset of its stations. Its rivals responded by raising prices by the same amount the following day. BP tested whether its rivals understood this simple pricing pattern by occasionally withholding leadership and observing the actions of its rivals. Once a mutual understanding was achieved, price leadership was no longer needed to maintain this simple pricing rule. A similar technique was used to establish the second pricing rule: two cent price cuts every other day of the week. With these rules in place, BP was able to raise margins by controlling the size of the price jump each week.

There has long been a disconnect between the theory of collusion and practice. Economists define a market as collusive if firms earn profits that are only possible through cooperation. Selfish pursuit of individual profits by any firm would jeopardise a collusive agreement, and firms are kept in line by the expectation that they will be punished for violating the agreement. Communication does not play an important role in this standard definition. However, policy makers and legal practitioners have long recognised that communication plays an important facilitating role in the initiation of a collusive agreement. The law in Australia (and other major jurisdictions such as the United States and Europe) reflects this: communication about collusion is per se illegal, while the act of collusion itself generally is not. Our work demonstrates that prices themselves may be an effective medium for communication.

Nicolas de Roos



Nicolas de Roos is an Associate Professor in the School of Economics, specialising in industrial organisation, dynamic games and applied econometrics. His current research interests include the dynamics of retail petrol markets and obfuscation in collusive environments. His working paper with Dr David Byrne on collusion has been widely referenced in the media.

– nicolas.deroos@sydney.edu.au

School of Economics prize ceremony

Each May, the School of Economics celebrates the achievements of our students.

The School of Economics would like to thank our donors for their support. Without the generosity of our donors and sponsors, none of the following prizes would be possible.

2017 Prize Recipients

Arthur Oakes Memorial Prize for History of Economic Thought

Seung Yup BAEK

Commonwealth Bank Undergraduate Scholarship in Economics

Harrison ROGERS

Donald George Crew Memorial Prize for Economics III

Tomer FELACH

Junhao LIU

Nelson MA

Harrison ROGERS

Qianyao YE

Dr Mary Booth Scholarship for Proficiency in First and Second Year by a Woman Candidate

Lea JURKOVIC

Economic Research Society's Prize for Economics I

Callum RYAN

Emily McWhinney Memorial Prize in Economics

Nick CAO

Evening Students' Association Prize for Economics III

Alex BAIN

Frank Albert Prize for First Year Economics

Callum RYAN

Frank Albert Prize for Second Year Economics

Nick CAO

Frank Albert Prize for Third Year Economics

Qianyao YE

Harrison ROGERS

Geoffrey Dale Prize for Third Year in the Faculty of Economics and Business

Qianyao YE

Harrison ROGERS

GS Caird Scholarship in Economics II

Nick CAO

Joye Prize in Economics

Gian-Piero LOVICU

Kelvin Dodge Scholarship

Nick CAO

Michael Casper Blad Memorial Prize for Economic Theory

Harrison ROGERS

Randolph G Rouse Prize in Economics

Gian-Piero LOVICU

Xuanrong LYU

Peter BOWERS



Left (Top): Lea Jurkovic with family
 Left (Middle): Nick Cao with family
 Right (Top): Professor Tony Aspromourgos with Qianyao Ye
 Right (Middle): Laura Wilson, Professor John Romalis,
 Professor Colm Harmon and Professor Deborah Cobb-Clark
 Bottom: 2017 School of Economics prize winners



Life Course Centre



Photo: Deborah Cobb-Clark, Marian Vidal-Fernandez, Kevin Schnepel and Sarah Dahmann

By Deborah Cobb-Clark

The School of Economics is collaborating in a major new initiative – the Australian Research Council’s Centre of Excellence for Children and Families over the Life Course – that is targeting socioeconomic disadvantage and transforming the way that social science research is undertaken in Australia.

Deep and persistent disadvantage is a wicked problem. It generates complex challenges for Australian communities and policy makers; imposes substantial social and economic costs on individuals, families and societies; and is one of the most intractable scientific problems of our time. Why does a country such as Australia, with high rates of GDP growth, high living standards, good quality health care, strong educational systems, technological advancement, and strong consistent government and social service infrastructure experience widening gaps between rich and poor and increasing numbers of children

living in poverty? Why do some individuals, families, groups and communities consistently experience social disadvantage and why is it so difficult to provide these people with the skills, opportunities and resources to live the life they choose?

Dr Kevin Schnepel joined the School in 2013 after completing his PhD at the University of California Santa Barbara. He is currently investigating the causes of antisocial behaviour and is acutely aware of the role that social and economic disadvantage plays. “It is increasingly clear from rigorous academic research that disadvantage early in life can amplify social and economic disparities throughout the life course,” he says. “Early-life health problems (e.g. low birth weight, exposure to environmental toxins) have profound impacts on behavioural development that cause higher rates of juvenile and adult criminal activity.”

Dr Marian Vidal-Fernandez's research agenda focuses specifically on outcomes for disadvantaged children. She also points to the complexity of the problem. "Fighting economic disadvantage is not only about equality of opportunity," she suggests. "But it is key to ensuring and fostering the economic growth of future generations. There is overwhelming evidence that adequately timed and targeted investments in disadvantaged children enables them to escape a poverty trap and save tax payer's money in the form of lower future welfare payments, health expenses, costs of crime and higher income tax revenues due to increased wages and education."

The mission of the Life Course Centre is to support researchers in uncovering the key drivers of disadvantage; to understand how these are strengthened or mitigated at specific points in the lifecycle; and to identify the best way to intervene to support disadvantaged individuals and their families.

Achieving this mission is requiring us to rethink the way we go about our research. Social scientists often work in small teams concentrated in a single discipline. In contrast, we have established an extensive research partnership with nearly two dozen organisations including the Universities of Western Australia, Queensland, Melbourne and Sydney; Commonwealth Departments (Social Services, Education and Employment), the Australian Institute of Health and Welfare, state government departments, and the Brotherhood of St Laurence. This unprecedented collaboration between the university, government, and non-government sectors has laid the foundation for a multi-disciplinary approach to using big social data to inform policies targeting social and economic disadvantage.

"It is increasingly clear from rigorous academic research that disadvantage early in life can amplify social and economic disparities throughout the life course."

Through these collaborations, the Life Course Centre is having a profound impact on the career trajectories of early-career researchers. Dr Sarah Dahmann joined the School as a Post-Doctorial Fellow in the Life Course Center in March 2016. She says, "I particularly enjoy being part of the LCC, because it is a network of highly motivated researchers with different backgrounds who are all dedicated to the common goal of alleviating disadvantage. For me, this provides an excellent opportunity to engage in interdisciplinary exchange, collaborate with researchers across the country, and especially strengthen the social impact of our work."

Life Course Centre (LCC)



preventing deep disadvantage: realising life's potential
ARC Centre of Excellence for Children and Families over the Life Course

The Life Course Centre (LCC) a national research centre and ARC Centre of Excellence. The Life Course Centre aims to identify the mechanisms underlying the transmission of disadvantage across generations and within families over the life course.

The LCC was established in 2013 and is headquartered at the University of Queensland.

– lifecoursecentre.org.au

 [@lifecourseAust](https://twitter.com/lifecourseAust)

Bringing behavioural economics to Canberra

We talk to Professor Robert Slonim about his latest activity as Research Director of the Behavioural Economics Team of the Australia Government (BETA) and what led him to behavioural and experimental economics.

You were recently appointed as Research Director of the Behavioural Economics Team of the Australian Government (BETA). BETA was launched within the Department of Prime Minister and Cabinet (PM&C) with the purpose of incorporating behavioural economic insights to improve public policy outcomes. Can you briefly describe your role?

BETA provides education, diagnosis and research for, and collaborates with, many departments across the Australian government with respect to how behavioural insights (BI) from academic research and other BI units can improve the effectiveness of its policies and programs. My role includes providing educational programs within BETA and across government departments, academic leadership on many of BETA's research projects, and advice on task forces and requests from government officials.

Educationally, within BETA and PM&C I give a lecture series, 'Thinking Fast and Slonim' (a pun on Nobel Laureate Danny Kahneman's book '*Thinking Fast and Slow*') that include talks such as 'The Top Ten Behavioural Insights', 'Everything you need to know about Randomized Control Trials', and 'Ethics for behavioural interventions'. I also give presentations to many government departments explaining Behavioural Economics and how it may be able to improve policies, and discuss the importance of RCTs. On research, I provide leadership to BETA on the use of academic and scientific insights for specific and practical policy issues, trial design, econometric data analyses and writing reports for a broad range of policies.





Image: BETA podcast featuring Bob Slonim

What have been some of the challenges you have found in contributing research to policy-making decisions?

The challenges of applying research to policy are enormous! Comparing academic and policy research, academic research is more contained and controlled; requiring a much higher depth of knowledge on singular subjects. In contrast, applying academic knowledge to policy questions requires a much broader breadth of knowledge given the inter-connected issues, implications and consequences of policy. For instance, a small change to a policy, or change to the implementation of a policy, may not only affect the welfare of those directly involved as well as those not involved directly, but also government revenues and redistribution in the short and long term, and we should take into consideration pragmatic and ethical considerations.

You are often referred to as a pioneer in experimental economics. How do you design the experiments so that they are able to capture the genuine responses and actions of the participants?

I might be a pioneer because of my grey hair and all the years I have been in the profession. When I was in graduate school in the early 1990s there was still resistance from some corners of the economics profession regarding whether laboratory experiments could inform our understanding of economic behaviour. This resistance made us think carefully about how and where experiments could contribute, and also their limitations.

There are many types of experiments. Economists who run laboratory experiments almost always provide financial incentives that depend on participants' choices (and possibly the choices of others) to motivate responses and actions that go beyond attitudes and opinions. Lab experiments are good to test theories and understand how different factors influence choice.

Outside the lab, economists increasingly run "natural" experiments referred to as randomized control trials (RCTs). In these experiments, 'participants' are unaware

that they are in an experiment, and thus are providing responses as if they were not participating in an experiment. RCTs have many advantages including scientific value such as avoiding self-selection biases regarding who participates, and avoiding social desirability biases – that is, avoiding decisions being affected by decision makers knowing they are being watched by an experimenter.

What drew you to study economics and in particular, behavioural and experimental economics?

I was an electrical engineer during my undergraduate studies at UC Berkeley. During this time I took many economics courses and was drawn to the "big" questions about how the economy works and the role of government. I was inspired by the unifying approach of academic economic research, especially with regards to optimal decision making, equilibrium and efficiency, and specifically regarding contributions to understanding markets and market failures such as externalities, monopoly power and imperfect information. As a graduate student at Duke University, I found the mathematical elegance in game theory – the study of strategic behaviour – to be intoxicating to my nerdy inclination for a need for precision. The details and minutia in how markets operate can make all the difference in the world for understanding what will happen – for example it is critical to know what information decision makers have, what they know about the information and incentives of others, how are they allowed to bargain, etc. Lab experiments provided a beautiful test bed to examine theories since the experimenter could control all of the details to test the role of anything. In other words, when I first started learning about experimental methods it was love at first sight.

My interest in behavioural and experimental economics arose at the identical time. While studying game theory and experimental economics, I found myself increasingly fascinated by the social science kings of experiments. Psychologists were publishing an enormous amount of research challenging many of the most basic assumptions being made in the economics profession. This research, which is now

the foundations of behavioural economics, stressed the cognitive limitations of people, and how these limitations lead to short cuts in decision-making, known as heuristics, that in turn can cause systematic differences in choices from those predicted by *Homo Economicus* who would not have any cognitive limitations. It also stressed the need for a richer understanding of the social side of the human condition including consideration for others and the need to incorporate altruism, social preferences, reciprocity and adherence to norms into the motivations that affect our behaviour.

Over the past decade, your research has been focused on blood donations and understanding how policy can incentivise people to donate. What led you to focus your research in this particular area?

Looking back, I can say that a Funny Thing happened to me on the way to the Opera. In particular, two events occurred that changed my research trajectory towards understanding volunteer behaviour and blood donations. First, I heard many behavioural economic talks in the late 1990s on how to motivate donations, but none were satisfying because I found almost no economics in the behavioural economics research. In particular, the research would examine whether a particular intervention, such as a matching scheme, presence of a lead donor or appeal to a social norm, would increase donations to a specific cause, but not whether it would increase donations overall, which to me was the critical public policy question – an intervention might increase donations for one program, but simply come at the expense of another charitable cause. But in the late 1990s, and indeed until very recently, this was extremely difficult to test. Nonetheless, I became extremely interested in whether interventions could indeed generate more giving overall, or simply would result in Robbing from Peter to pay Paul. A dozen or more studies later, it appears that most interventions do a bit of both.

The second factor that led to my research on blood donations was the extensive literature examining whether monetary incentives could crowd out intrinsic motivations. Starting with Gneezy and Rusticini's empirical provocative work showing that if you increased penalties for parents coming late to day care, parents were more likely to come late (the exact opposite of what traditional economic theory would predict). Experimental and behavioural economists went into hyper-active research showing in countless lab experiments that incentives can crowd out intrinsic motives in many situations. This research supported the long-standing policies of the World Health Organization and Red Cross organisations around the world recommending no compensation for blood

donations. However, this policy has never been tested, and in many countries shortages of blood donations remain the norm.

Behavioural economics also suggests that people do not always make rational decisions. What has been some of the findings in your research that have surprised you?

While I have been surprised several times by the results on my work (indeed, this is why we run experiments, to see if our hypotheses are correct), two results were especially surprising.

By the early 1990s it was well established in lab experiments that participants would be willing to sacrifice money to punish other participants that had treated them unfairly. However, many economists thought this result was uninteresting and unimportant since the money being sacrificed was just a few dollars. Working with Professor Alvin Roth, we examined whether the concerns for fairness would persist if the stakes were a lot higher. We found that when the stakes were more than two weeks wages, participants nonetheless were still willing to sacrifice a lot of money if they felt they had not been treated fairly. It was quite surprising (from an economic perspective) how much people are willing to sacrifice their financial well-being for the emotional satisfaction to punish someone who has not treated them well.

The other result that was especially surprising was from our work on incentives to motivate blood donations. In the early 2000s the experimental economics literature was almost unequivocal in showing that rewards could undermine intrinsic incentives. So, when we first examined millions of observations from the American Red Cross that occasionally offered rewards for donations, it indicated that rewards caused more donations. I initially thought we must have miscoded the data. But even after triple checking and running our own RCTs, we found consistently that donors were motivated by getting rewards for donating. Our work has now been replicated by several other teams across several countries. The results were not only surprising to us and other economists, but also in direct contradiction to the policies of the WHO and blood collection agencies around the world that believed rewards would decrease donations. My mother had the most prescient observation of anyone on this decade of work. She noted that we seemed to be showing that if you pay someone to do something, they will be more likely to do it; after some delay she said, "and you need to get a PhD for this work?" Perhaps researchers can indeed get too clever and miss the obvious. It is good to have loved ones to help us keep our work in perspective.



Edition 1

Rev 3



Alumni connection: Sarah Smith

For alumni and University Medallist Sarah Smith, her return visit to the School of Economics has seen her come full circle since beginning at the University in 2012.

By Karen Ho

It is almost serendipitous that Sarah Smith is the one now standing at the lectern, speaking to current students about her role as an Economist and Commodity Analyst at the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). It was only a few years ago that Sarah was sitting in a lecture theatre herself as a student and learnt about the work of ABARES. It wasn't long before she knew it would be an organisation that she would hope to work for after graduation.

Growing up in Singleton in the Hunter Valley, Sarah had some exposure to agriculture but it was really her degree choice and time studying at the University of Sydney that cemented her decision to pursue resource economics. "The Bachelor of Resource Economics hit so many things I wanted in a degree—an applied use of economics, and I got to do chemistry and maths. Learning the economic fundamentals and using them to solve real world problems was a fundamental reason why I found it so interesting." While the Bachelor of Resource Economics is no longer an offered degree, under the new curriculum the School of Economics has a combined Agricultural and Resource Economics major.

Reflecting on her time at the University of Sydney, one particular highlight for Sarah was a trip to Laos taken as part of her degree in her third year. Along with twenty of her fellow classmates, she experienced first-hand the different agriculture and farming methods in Laos. For Sarah, the trip allowed her to experience a new culture and appreciate the differences in scale of farming – especially seeing how small the plots were compared to Australia!

After graduating in 2015, Sarah has remained connected to the School primarily through her work with Dr David Ubilava, her Honours supervisor and now co-author. Their paper 'El Niño Southern Oscillation Cycle' was recently accepted for publication by the Journal of Global and Environmental Change. The paper was based on Sarah's Honours thesis which explored the El Niño phenomenon as a climate driver and its impact on the economy, primarily for developing countries. Previous research had shown that there was a distinct relationship between food prices, civil conflict and social unrest. "I found that there was a big gap in the literature about El Niño and its impact on developing countries. We should think that they are the most vulnerable to significant climate variation." It does not seem much of a surprise that Sarah has found a pathway to further understanding environmental influences on natural resources and the economy.

In her current role, Sarah provides analysis and forecasting of the wheat market. As a government organisation, their aim is to better inform the market to become more efficient. "What I love about ABARES is that we give people in those individual industries a sense of how they fit into a broader system. If you're operating in wheat, you need to consider how your market relates with substitutes such as corn or barley and with sources of demand such as livestock production. They are all concepts you learn about in university but I get to apply them to a market, write valuable commentary on how the market operates and where it will likely go in the future."

In looking at the future challenges Australia faces with the wheat industry, Sarah cites variable climate and the increasing pressure of climate change. However, her outlook remains positive. Research from the department has shown producers are making the most of years with poor yield and

mitigating the consequences. "The more you talk to producers, the more you realise they are some of the smartest people. They face the normal risks associated with being a business owner but with the additional risk of climate. We often hear their interesting and innovative strategies for moving forward in a globalised world."

Another increasingly relevant issue for Australian agriculture and commodities is biosecurity. Australia has traditionally held a reputation for having high quality produce in the international commodities market. The need to maintain that reputation by protecting biosecurity threats in Australia will be increasingly important with the rise of international trade. For example, Amazon's expansion will see more products flow between countries, heightening the risk of pests, which could have detrimental consequences on trade flows and export for Australia. For Sarah, using the simple concepts of demand and supply from her studies go a long way in helping to communicate situations and ideas in her everyday work.

"The more you talk to producers, the more you realise they are some of the smartest people. They face the normal risks associated with being a business owner but with the additional risk of climate."

When asked if there's any plans for her future, Sarah admits that she feels very lucky to be working at ABARES. "Their work is really quite interesting and I am still learning a lot every day." But Sarah's time at ABARES will be on pause from mid-2018 as she's recently accepted a scholarship to study a PhD at the University of California, Davis. "Davis has one of the best agricultural and resource economics PhD programs in the world and I'm so excited to start. While I'm there I hope to build on my interest and research in agricultural production and climate, perhaps with some cross-continental collaboration with David if he's up for it!"





Photo: Keynote speakers, Craig Emerson (L) and Charles Littrell (R) with Head of School, Colm Harmon

Celebrating 100 years

The Master of Economics commemorating a century of teaching

By Anna-Sophia Zahar

On 20 September 2016, alumni, staff and special guests were invited to Customs House to commemorate the 100th anniversary of the Master of Economics degree. Customs House, one of Circular Quay's historic Sydney landmarks, was a location well chosen to host the cocktail reception – the building is also celebrating its centennial milestone in Sydney's history. Over 120 former Master of Economics students gathered to celebrate a degree that has shaped the lives and careers of many of Australia's most innovative economists, and in turn the field of economics.

Over the past century, the Master of Economics has introduced knowledge and intellectual acuity to the field of economics, providing graduates of economics and those with no prior

economics training with a broad knowledge base of their chosen discipline. The degree has aimed to strengthen the capacity of students to think analytically in every aspect of their lives. University of Sydney Master of Economics graduates hold positions in federal and state policy departments and financial agencies, markets and institutions around the world.

The diversity and achievement of our alumni was reflected in the quality of speeches and discussion during the event. Craig Emerson, Bachelor of Economics (Hons) and Master of Economics ('78) graduate, presented a keynote address on how important the degree was to him personally as well as its importance for our wider society. His previously held positions of Minister for Trade and Competitiveness, Minister

for Tertiary Education, Skills, Science and Research, and Minister Assisting the Prime Minister on Asian Century Policy have cemented his legacy as an alumnus who has made an impact in both the fields of economics and politics.

Also addressing the guests was Charles Littrell (*Mec'98*) who held a previous role as Executive General Manager of the Australian Prudential Regulation Authority (APRA) and oversaw Australia successfully through the Global Financial Crisis (GFC). Charles is currently the Inspector of Banks and Trust Companies at the Central Bank of the Bahamas. His speech, a recounting of his experiences completing the degree and its importance, was wise and informative, and added to the excitement of the event.

Students who attended on the night and had supplied their theses to the School of Economics Thesis Library, which dates back to 1937, were gifted with a copy of their thesis as a reminder of their hard work and dedication. The reception was marked by a universal feeling of excitement about economics as a field of study that is rapidly changing and developing. The School of Economics is looking forward to celebrating another 100 years of this important degree program.



Photos: Master of Economics alumni, current students and School of Economics staff

The next generation: High school Economics

The School speaks to Leith Thompson (*BEC '91, Grad Dip '94*) about what it means to study economics at high school.

By Karen Ho

On Tuesday 5 September 2017, the School of Economics hosted over 100 students from Year 11 and Year 12 for our first HSC Economics at Sydney afternoon. The event was held in the Charles Perkins Centre and was organised in collaboration with Leith Thompson, Economics co-ordinator at Burwood Girls High School and alumnus of the University (*BEC '91, Grad Dip '94*). Leith is a recipient of the Reserve Bank of Australia's Premier Teaching Awards and has been working with the Women in Economics Network (WEN) to actively encourage students to pursue economics both in high school and at university.

Leith's inspiration for HSC Economics at Sydney developed from her observations around participation and inclusion in economics. "Not only do we have low numbers of students choosing economics, we also have inequality in participation based on gender, educational sector and geography. If we are to engage greater numbers and a more diverse cohort, economics needs to be taught in an inclusive way. The ambition for the HSC Economics event at Sydney was to deliver an educational event, accessible for all students, that would provide them with HSC content support as well as an introduction to broader, interesting applications of economics."

The event program included a combination of talks from keynote speakers featuring topics from the HSC curriculum followed by a workshop led by academics from the School. The occasion was opened by our Head of School, Professor Colm Harmon. The welcome address



Photo: Professor Colm Harmon and Leith Thompson with students at HSC Economics at Sydney

was given by Dean of the Faculty of Arts and Social Sciences, Professor Annamarie Jagose who spoke on the importance of economics, both to business and society as well as highlighting the breadth of the discipline.

Thanks to the support of the University, the Women in Economics Network, and the Reserve Bank of Australia, the event secured some exceptional speakers to attend and discuss microeconomic reform, global economic conditions and the effectiveness of the monetary policy transmission mechanism. The speakers included Gianni La Cava (Senior Research Manager at the Reserve Bank of Australia), Belinda Allen (Senior Analyst at Colonial First State) and Ann Whitfield (Partner at Houston Kemp). “It was great to see so many students participate as well as so many students travel significant distances to participate,” Leith said. “A study of economics allows the development of critical thinking skills and analysis that are not only relevant but useful to everyone, irrespective of the career they ultimately find themselves in.”

Students were invited to select a workshop which explored an area of economics not traditionally covered in the HSC curriculum. The interactive sessions aimed to share the breadth of research interests in economics and provide students with an understanding of content beyond their current studies. Workshops were hosted by Professor Colm

Harmon (*‘So why should we invest in education?’*), Dr Kevin Schnepel (*‘Do prisons make economic sense?’*), Leith Thompson (*‘Trade: who wins?’*), Dr Samuel Wills (*‘Does the environment matter? Some evidence from surfing’*) and Associate Professor Andrew Wait (*‘What are the role of auctions?’*).

“A study of economics allows the development of critical thinking skills and analysis that are not only relevant but useful to everyone, irrespective of the career they ultimately find themselves in.”

When asked what makes Leith so passionate about encouraging students to consider economics as a future degree or career, she says, “Passion comes from knowing that economics is the language of power, policy and change. It is a framework for thinking and decision making that can be applied to innumerable challenges, both on a micro and a macro level. Not only is the global demand for economists a growing field, the ability of economics to tackle the world’s greatest issues – climate change, inequality, poverty, developments in AI – make the study of economic crucial for global and national development. There is much that can be done to encourage greater participation in economics and indeed, greater inclusion in a subject that democracy relies on to function.”

“There is much that can be done to encourage greater participation in economics and indeed, greater inclusion in a subject that democracy relies on to function.”



Photo: Ann Whitfield (L) talks about applying HSC economics to the real world and Kevin Schnepel (R) presenting his workshop 'Do prisons make economic sense?'





Warren Hogan Memorial Lecture

Anna-Sophia Zahar writes about our seventh annual Warren Hogan Memorial Lecture.

The Warren Hogan Memorial Lecture is a public lecture series focusing on public analysis of policy issues. The first lecture of the series began in 2011 and was named in honour of Warren Hogan (1929–2009), a Professor of Economics at the University of Sydney from 1968 to 1998. Hogan had accrued a reputation as a scholar who challenged economic orthodoxies and advocated for the modernisation of the economics curriculum. He was also a firm believer in education incorporating quantitative research methods and analysis. An inspiration to students and colleagues, Hogan’s legacy is celebrated annually in the Memorial Lecture, an opportunity for an esteemed speaker to deliver an address pertaining to significant economic issues of the day. Previous speakers have included Mr Glenn Stevens, Governor of the Reserve Bank of Australia (2011), Mr Hugh Harley, Financial Services Leader of Price Waterhouse Coopers (2014) and Ms Annabel Spring, Group Executive of Wealth Management at the Commonwealth Bank of Australia (2016).

The 2017 Warren Hogan Memorial Lecture was held on 26 October and the School of Economics was honoured to invite Dr Guy Debelle to deliver the keynote speech. Dr Debelle graduated from the University of Adelaide with an Honours degree in Economics and gained his PhD at the Massachusetts Institute of Technology (MIT). Since September 2016, Dr Debelle has held the position of Deputy Governor of the Reserve Bank of Australia and is Deputy Chair of the Reserve Bank Board, as well as Chair of the Reserve Bank’s Risk Management Committee.

Dr Debelle’s keynote titled ‘Uncertainty’ pulled no punches highlighting concerns about economic uncertainty, confirming that the Reserve Bank’s ability to perform economic forecasting existed within a wide margin of error. He suggested that the RBA should move away from ‘false precision’. Economic modelling previously performed by the RBA showed that as the unemployment rate falls, inflation and wages should rise. However the weak inflation report released earlier in October contradicted this projection. “Economics has to deal with the vagaries of human behaviour which seems to be more difficult to predict and are more consequential than the vagaries of the weather,” Debelle warned.

The lecture was a highlight event of 2017, an occasion which both honours a great economist of the past and continues to celebrate those of the present and future. Dr Debelle’s address questioning the shortcomings of economic forecasting and whether a future of low wage-growth in Australia is unavoidable was both sharp and topical, provoking much thought and discussion.

You can find more information about the Warren Hogan Memorial Lecture at:

– sydney.edu.au/arts/economics/alumni/annual-lecture.shtml

Student turned teacher: Hugh Harley

Hugh Harley reflects on his time as a student with the School and what it means to be teaching the next generation of economists.

By Hugh Harley

I came to the University of Sydney in 1980 as an Economics/Law student, fully expecting to pursue a career in law. By the end of 1980, I was veering towards a career in economics and a year or two later, that intention was sealed.

Many factors influenced that decision, not least the wider politics and economics of the day. The Cold War certainly felt very real; Thatcher and Reagan were falling in love; Chairman Deng was using any colour of cat to catch as many mice as he could. At home, the Fraser government was struggling; Hawke and Keating were warming up to leave their mark.

But really it was the teachers from the Department of Economics who proved most influential and memorable to me - Warren Hogan, Peter Groenewegen, Joseph Halevi, Ted Wheelwright DFC, Judith Yates and Frank Stilwell.

In those days, there was no Business School or School of Economics or Department of Political Economy. Instead, there was a dedicated Faculty of Economics with separate departments such as Economics, Accounting, Government and Industrial Relations. My goodness, there was even a Department of Economic History.

Three things stand out for me as personal markers of my time in Merewether.

The first is a fascination with economics as a tool for solving practical problems, but also as an intellectual jigsaw, at the intersections between philosophy and mathematics, between data and beliefs, between human aspirations and physical constraints.

The second is an abiding belief that economics by its nature must be a very broad church. The early 1980s was also the era when “economics” and “political economy” were vying for the hearts and minds of

students in the one Department of Economics. The conflicts and differences were there for everyone to see; indeed, they added some spice to Merewether. But they also complemented the messy state of the world, convincing me to think about the relevance of different frameworks and different tools.

Third, a disdain for poor or lazy teaching. It wasn't the norm, but there was still too much of it.

Nearly 35 years have passed since I finished my Bachelor of Economics, much of it spent either in banking or in professional services. For much of that time, I had only the loosest of connections with Sydney Economics, mostly through my friendships with a number of the teaching staff. That changed a few years ago when I was invited to a reception to meet Colm Harmon, the recently appointed Head of the newly created School of Economics.

Fortunately, he responded well to my eclectic views of economics and teaching!

I have been enormously impressed by the reinvigoration of Economics at the University of Sydney which has happened in recent years, particularly in the renewal and extension of the teaching staff under Colm's leadership. I will be interested to see if that judgement is borne out by the other reflections in this Review. What I certainly do know is that the wider academic community of economists - both in Australia and offshore - is well aware of the reinvigoration of Sydney's School of Economics over the past few years.

I have also enjoyed enormously the opportunity to play a modest role in undergraduate teaching in the School through a unit designed for first-year students, The Australian Economy (ECON1005). The fact there was no such course at Sydney five years ago is pretty telling in itself. John Romalis (picking up from Russell Ross) has moulded a range of external contributors, myself



Photo (University of Sydney Archives): Student overcrowding in Merewether Lecture Theatre 1 (1988)

included, into a coherent introductory course. Contributors include the former Chairman of APRA, Dr John Laker AO (giving a bird's eye view of the global financial crisis) and officials from Treasury (for perspectives on fiscal policy). My own contribution is eight hours on Australian economic history in a global perspective – from our earliest indigenous origins through to today's emerging challenges and opportunities, including digital disruption, private and public debt, demographics, energy and climate change.

For me, the circle is about to turn 360 degrees as I return to teach more actively in the School as I transition from full-time employment to a “portfolio career.” I will take over co-ordination of ECON1005 in second semester, including the introductory and concluding lectures. If I pass that test, I am hoping to be allowed to teach some economic history at postgraduate level in 2019, perhaps helping students to see some rhyme in the *longue durée* of 1,000 years of global economic, legal and social transformation and its relevance to today's issues.

This opportunity to return to economics at the University of Sydney in a more formal capacity is a reflection of a passion for economics which has never dulled since my earliest undergraduate days. It also reflects my hope to share broader lessons learnt in professional life – not just the lessons of dollars and cents but hopefully some broader thoughts on purpose and perspective for those embarking on adult life in the 21st century.

My teachers in Merewether in the 1980s have moulded so much of my professional endeavour over the last 35 years. I feel very lucky to have a chance to follow in that tradition. I hope I can do them justice.

Professor Peter Groenewegen passed away on 4 May 2018, after this piece had been submitted. He was a towering academic, and, of my many teachers, he was without doubt the most influential.

Hugh Harley



Hugh Harley is the Financial Services Leader, Asia-Pacific for PriceWaterhouseCoopers. Hugh has 30 years experience in the banking sector with executive and non-executive roles at Commonwealth Bank of Australia, ING Bank (Australia) and ASB Bank (NZ). Hugh graduated with BEc(Hons)/LLB (Hons) ('86) from the University of Sydney and has a MPhil ('87) from Cambridge University.

Introducing the Economics of Human Development

Stefanie Schurer on why human development lies at the core of basic economic research.

By Stefanie Schurer

My research focuses on the Economics of Human Development, a newer field in microeconomics which is concerned with the dynamic formation of soft and hard skills, health, and character traits, and cost-effectiveness evaluation of policies that target their development. Having been trained in the tradition of the Rhine Capitalism – Germany’s model of a social market economy that combines fair competition with an encompassing welfare state – I am a firm believer that spending money on human development is an investment in the innovation-potential and productivity of an economy.

The reason is simple: a social market economy needs inventors and entrepreneurs who are persistent and open to new ideas; a workforce strong on softer skills, such as adaptability, sociability, and resilience, to weather the challenges of a labour market characterised by automation and globalisation; and tax income to finance redistribution schemes, hence it relies on tax payers’ honesty and social preferences. Allowing segments of society to fall behind in their development may result in substantial negative externalities. For instance, deficits in mental health and character traits have been shown to lead to lost productivity, increased health care utilisation, or conflict with the law. These costs impose an extra burden for the tax payer and stifle productive investments.

I believe that the family is a key producer of children’s health, skills, and character traits, a process that starts at birth and continues into young adulthood. Thus, I study the behaviour of parents: the ways parents treat their children and how involved they are in their children’s lives. Parenting behaviour can be broadly classified into the good, the bad, and the ugly. My research has focused on all three dimensions.

A key focus of my ARC fellowship was to better understand why some children perform exceptionally well or poorly on standard measures of skills, relative to what would be expected given their socioeconomic background. We find that children who outperform their peers from disadvantaged backgrounds in terms of their socioemotional skills, have parents who invest a lot of time in their children, and practise consistent and warm parenting styles. Similarly, children from privileged backgrounds, who perform poorly on cognitive skills relative to expectations, have parents who spend less time with their children and practise inconsistent and cold parenting styles. We concluded that parenting behaviours differ substantially within socioeconomic groups and that it seems to be scarcity in parenting resources – rather than scarcity in material resources – that impairs human development.



In an extension to this research, we found that fathers' time investments in the child's education play an important role in the lifecycle maturation process of self-efficacy, one specific soft skill associated with resilience, and better education and labour market outcomes. Children with fathers perceived to be highly interested in their education (as reported by their school teacher) are 20% more likely to adopt healthy self-efficacy beliefs in every stage of the lifecycle; these children are protected against lifelong poor self-efficacy beliefs. This is especially true for girls and children from economically disadvantaged families. Our finding highlights the important role of fathers, who are so rarely studied. Engagement with the school environment has been shown to be malleable, and thus it is conducive to policy interventions.

“I study the behaviour of parents: the ways parents treat their children and how involved they are in their children's lives. Parenting behaviour can be broadly classified into the good, the bad, and the ugly. “

I also conducted research on child maltreatment, the very ugly side of parenting behaviours. We demonstrated that children who experienced chronic parental neglect are more likely to develop character traits associated with poor mental health (neuroticism), and less likely to develop character traits associated with hard work and persistence (conscientiousness) by young adulthood. The lifetime economic burden of child neglect is likely to be high. In a new research study we have shown that children who were neglected by their parents (according to school-teacher reports), have an earnings penalty of 23%, and are 80% more likely to be dependent on welfare payments by age 55, than comparable children who were not assessed as neglected.

In the last three years, I have taken this line of research to a higher level by explicitly asking whether public policies that target families in the broadest sense can have a long-lasting impact on children's development. I was invited to become a chief investigator in two of Australia's most innovative administrative data-linkage projects: a NHMRC Centre for Research Excellence (EMPOWER), led by epidemiologist John Lynch at the University of Adelaide; and a NHMRC Partnership Project, led by child development psychologist Sven Silburn at the Menzies School of Health Research in the Northern Territory (NT). These collaborations have matured into an ambitious research programme to study the causal impact of early childhood medical interventions (Special Care Nurseries), or of current welfare policies (Baby Bonus, Income Management).

This new data architecture allows us to rigorously evaluate the cost-effectiveness of such policies because we observe the children's complete health care utilisation records, preschool skills, test scores and educational attainment, and contact with child protection services and criminal justice. Our main objective is to find out whether prima facie expensive programs have long-term social benefits or unintended additional costs that need to be considered when evaluating their cost-effectiveness, especially for vulnerable populations (e.g. Aboriginal children). What is so exciting about my research programme in the NT is that it also involves relationship-building with stakeholders – for instance with Aboriginal community representatives – which teaches me the social responsibility that I, as a researcher, carry.

Stefanie Schurer



Associate Professor Stefanie Schurer leads the Economics of Human Development research node in the Charles Perkins Centre. She is a SOAR Fellow, outgoing ARC Early Career Researcher and a chief investigator of two NHMRC projects. She is a member of HCEO Global Network at the University of Chicago, and serves as an associate editor of the Journal of Economic Behavior & Organization.

– stefanie.schurer@sydney.edu.au

 [@StefanieSchurer](https://twitter.com/StefanieSchurer)

Incentive compatible artificial intelligence

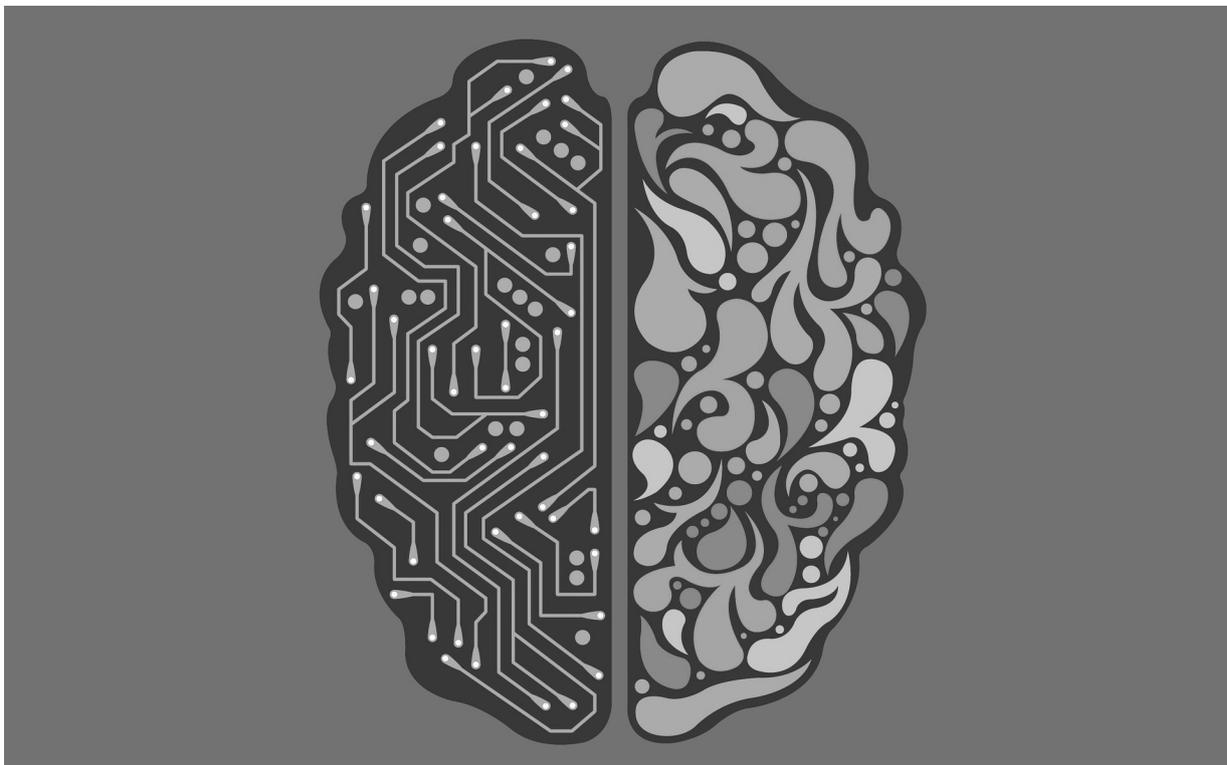


Image: Pixabay

How do we develop the “good” social rules when it comes to AI? Murali Agastya writes about how mechanism design may provide a solution.

By Murali Agastya

“Artificial Intelligence” (AI) looms large on many recent word clouds – both in the media and academia. And why not? Lawyers and doctors increasingly fear automated expert systems. Teachers fear algorithms that grade NAPLAN English essays. Postmen fear the arrival of Amazon’s drones competing with their Christmas deliveries. The fear of robots running amok more generally, not simply taking over jobs across the spectrum, has led to investments in “safe AI” – the billion dollar not-for-profit venture OpenAI by the Silicon Valley moguls Elon Musk, Peter Theil and friends is just one case in point.

However, agreeing on what constitutes a “well behaved” robot is anything but easy. For example, a self-driving car may, on occasion, have to decide whether to sacrifice its sole occupant or swerve onto a pedestrian path with a sizeable footfall. In addition, this choice has to be coded into the software *a priori*? Such modern incarnations of the well-known trolley problem and similar dilemmas concerning ethical decision-making then have to be confronted head on.

Perhaps surprisingly, the above scenarios are not new for economic theory. After all, choices made by an autonomous software are analogous to economic policies – both typically must consider the differing impact on individuals. Think of a decision to drop or add a drug to the Pharmaceuticals Benefit Scheme. It can be a matter of life and death – quite literally. Welfare Economics is an area of economic theory that seeks to develop “good” social rules while making interpersonal comparisons of changes to individuals’ well-being. And, at least since the seminal Arrow’s Impossibility Theorem, it is well known that such comparisons are inevitable. Moreover, some individuals will gain at the expense of others. The question is often who should be compensated and by how much!

The issue of compensation to self-interested individuals makes the study of ethical behaviour in Economics distinct from other sciences and philosophy. It is simply not enough to design a universally desirable rule. Individuals will inevitably try to game the rule. For example, even if we settle on how to value a patient requiring a kidney transplant, the necessary information for determining the value may lie with the patient. Every patient will have an incentive to overstate their case. One needs to design a regulatory framework to elicit the truth from strategically motivated individuals. It must be incentive compatible for the individuals to comply with the framework. Mechanism Design is the area of microeconomics that intersects Welfare Economics with Game Theory that shows when and how this can be done.

Mechanism Design has had spectacular success – a Nobel Prize in the field every three and half years on average since 1994 is a clear testimony of that fact. The applications side has a new name too – Market Design – and turns an economist into an engineer. It takes the theory and carefully evaluates the proposed rules for robustness through simulations, field trials and experiments. Successful applications of market design thus far includes the design of auctions for the sale of spectrum rights, efficient procurement practices and more generally, kidney exchanges and various job matching and school matching methods for efficient allocation.

The recent attention and concerns surrounding what constitutes “responsible AI” in the community, seen in the formation of ventures such as OpenAI roughly corresponds to the notion of ‘welfare economics’. A natural next step is incentive compatible AI, following on to the analogy with Mechanism Design. Porting these insights to the design of AI presents an exciting area for current research. Moreover, concerns of joint or several liabilities will in turn create new challenges to the Mechanism design literature. One expects this to be a vibrant area of research, and teaching, for several years going forward.

Murali Agastya

Murali Agastya is an Associate Professor with the School of Economics. His research and teaching areas include the theory of auctions, market microstructure and learning in games. His current work involves modelling decision rules with incomplete knowledge of the rules underlying strategic situations.

– murali.agastya@sydney.edu.au

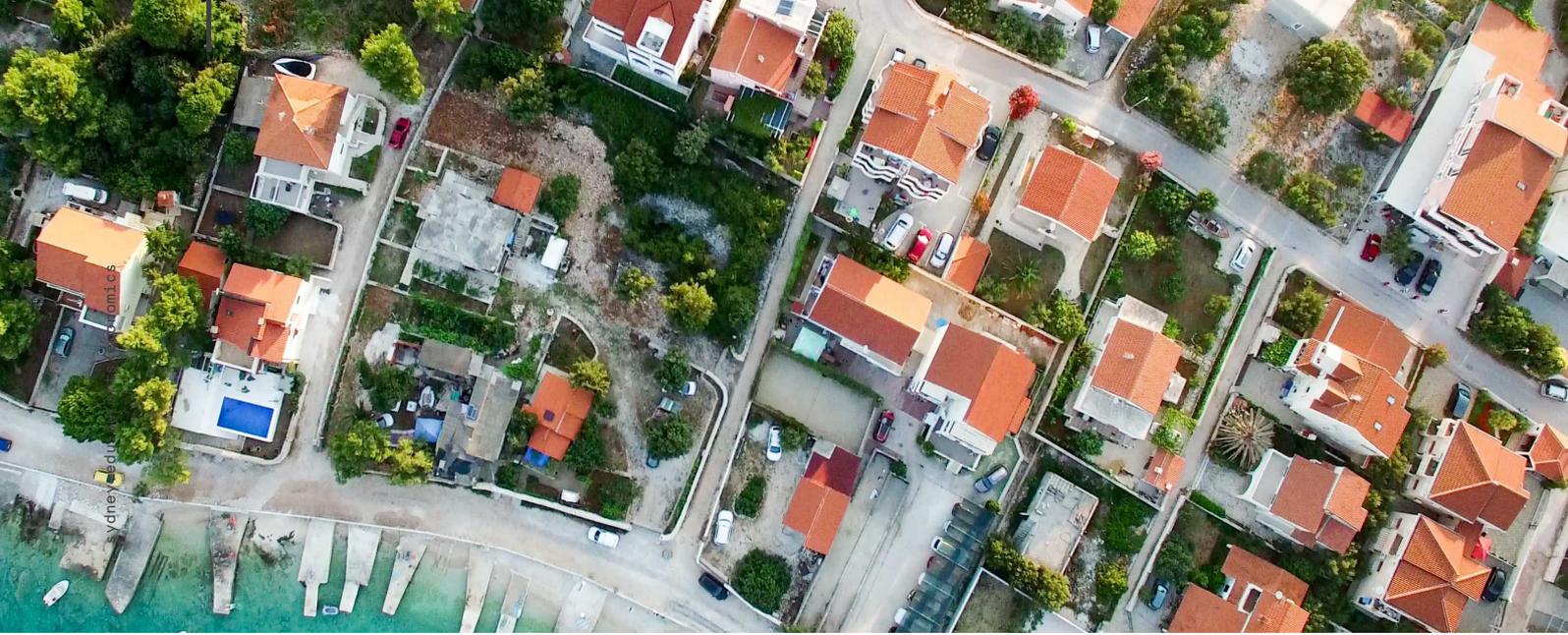


Image: Palo Cech, Pexels

Housing research at the School of Economics

By Rebecca Edwards

A number of researchers at the school are actively involved in studying the broader economic impacts of the recent fluctuations in the Australian housing market. These researchers include **Professor Garry Barrett**, **Associate Professor Stephen Whelan**, **Honorary Associate Professor Judy Yates**, **Dr Kadir Atalay** and **Dr Rebecca Edwards**. Our students (including PhD candidate **Ang Li** and former honours student **Betty Y.J. Liu**) are also engaged in this research agenda.

Our research has traversed a wide gambit of housing related topics. On the one hand we consider the effects of changes in housing wealth resulting from the large variation in housing prices across Australia over the past 15 years. We study the impact of these changes in wealth on a wide range of household outcomes, including household debt levels and the type of debt held, the labour market activity of household members, the fertility decisions and fertility intentions of the household and the physical and mental health of household members. A second strand of work has focussed on the effects of parental financial transfers and bequests on the housing market. More specifically, to what extent do transfers and bequests facilitate entry into the housing market? And what are the implications of these intergenerational transfers for inequality?

We take an economic approach to studying these questions, blending insights from economic theory with rigorous empirical analytical work. Yet our research agenda highlights some of the often-overlooked social impacts – both positive and negative – of fluctuations in the housing market. This research has exploited the rich longitudinal data available on Australian

households in the Household, Income and Labour Dynamics in Australia (HILDA) Survey supplemented with house price data at the local council area level sourced from Corelogic RP Data. To give you more of a flavour of what we have been doing, here we present some of the key findings from just a few of these studies.

Housing wealth and physical and mental health

In this paper, we exploit the large changes in housing prices across both time and space in Australia over the last 15 years to examine the effect of changes in wealth on both the physical and mental health of Australians. We find that an increase in local house prices, and thus an increase in housing wealth for homeowners, is associated with a positive effect on the physical health of outright owners and a negative effect on the physical and mental health of renters. Improvements in physical health for outright owners can be partially attributed to health-related investments and behaviours such as a reduction in weight, an increase in physical exercise and an increase in time allocated to home production, for example, to home cooking.

Housing wealth and fertility

In this research we exploit variation in housing prices across regions and time to study the effect of a change in housing wealth on fertility. International research suggests that higher levels of household wealth associated with increases in the price of housing are positively related to fertility. In our analysis we also find a positive effect of house price growth on fertility among Australian homeowners. The results suggest that this increase in fertility is strongest for married women in their early 30s, who already have at least one child. The effect is stronger if the household is liquidity constrained, that is, if they are unable to easily borrow for short-term cash flow needs.

First home ownership and parental financial transfers

Given the Australian dream of owning your own home, it is no surprise that housing often represents the largest single asset an individual or household acquires during their life. Moreover, owner-occupied housing often represents the largest component in a household's wealth portfolio. Importantly, the recent rapid increase in housing prices opens up the possibility for intergenerational transfers from some parents, who have enjoyed the positive wealth effects of the housing price increases, to their adult children. These transfers may take the form of gifts while the parents are still alive, known as inter vivos transfers, or bequests.

In this study we find that intergenerational transfers, and more specifically bequests, impact on first home ownership along two key dimensions. First, bequests increase the likelihood that the bequest recipient buys their first home. In particular, the probability of becoming a first homeowner is effectively doubled when a bequest is received. As a point of comparison, all else equal, getting married more than triples the probability of becoming a first homeowner. Second, the receipt of a bequest tends to be associated with the purchase of a more expensive – either larger or higher quality – house, rather than a decrease in the value of the mortgage loan taken out.

Parental transfers and bequests – the implications for inequality

In this analysis, we examine the impact of inter vivos transfers and bequests on the distribution of wealth in Australia. In light of the recent rapid increases in housing prices, there is a potential for intergenerational transfers backed by these now higher value housing assets to have a significant impact on the distribution of wealth. In particular, some opportunities for wealth generation – for example, through housing asset purchases by the younger generation partially funded by intergenerational transfers – may be missed by those who do not receive these transfers.

Our methodology here is to compare the actual distribution of wealth that we observe with the distribution of wealth had the bequests and inter vivos gifts not occurred, keeping all else equal. That is, we construct a counterfactual or hypothetical wealth distribution on the basis of what would have happened if no inter vivos transfer or bequests had been received. Our analysis reveals that renters are less likely to receive transfers compared to homeowners. Moreover, the transfers that did occur over the period 2002–10 tended to increase wealth inequality among homeowners. Taken together, these two results indicate that bequests and parental transfers contributed to an overall increase in wealth inequality between 2002 and 2010 in Australia.

Rebecca Edwards



Dr Rebecca Edwards' research focuses on the broad themes of gender, household wellbeing and inequality. Rebecca's interests span household labour supply and fertility decisions, wage inequality, elderly poverty and the impacts of recent housing price variation on Australian households.

– rebecca.edwards@sydney.edu.au



Image: Skitterphoto, Pexels

Structural changes in macroeconomic modelling

By Mariano Kulish

My research studies the behaviour of economies that are populated by forward-looking individuals and are undergoing structural changes. Models with rational expectations provide a systematic way to capture forward-looking individuals. Despite their widespread use, until recently, these models were not well equipped to handle structural changes (regime changes) such as shifts in government policy or institutions as well as certain changes in the production technology. My research has focused on developing new techniques to solve and estimate rational expectations models under structural changes and applying them to policy-relevant questions.

There are many situations in practice for which the assumption of constant parameters does not apply. For example, take the introduction of the Euro. The economies that joined the Euro had to change their monetary policy regime: they went from a flexible exchange rate to a fixed exchange rate regime and delegated monetary policy to the European Central Bank. This is one example of a structural change which, in the context of a macroeconomic model, can be captured as a change of the structural parameters – in this case, the parameters describing monetary policy. The behaviour of the economy would be poorly captured using standard solution techniques which take the parameters to be constant.

The constant parameter solution has been fundamental in determining likelihood-based estimations when examining rational expectations models. In practice, structural change is often addressed in estimation by selecting a sub-sample of the data for which a time-invariant structure appears valid. In the case of the Euro, one would select a sample starting from 1999 to avoid the monetary policy regime change. But while selecting a sub-sample avoids having to deal with a structural change, it comes at the high price of having to discard data from the analysis. In a recent paper with Adrian Pagan, I worked on an econometric representation to the solution under structural change. This representation allows models to be taken to the data and inferences regarding the magnitude and timing of structural changes can be made. The outcome of this is that we are able to more accurately understand the behaviour of individuals in economies.

The solution under structural changes is a fundamental building block of the solution for models with occasionally binding constraints as well. This is because a binding constraint can be captured as a change of one of the model's equation. Models with occasionally binding constraints have become

increasingly important in order to understand the role of financial frictions in the business cycle as well as the role of the zero lower bound in the conduct of monetary policy after the Global Financial Crisis.

In a recent paper with James Morley and Tim Robinson published in the *Journal of Monetary Economics*, we show how the techniques for structural change can be applied to study monetary policy after the Global Financial Crisis of 2008/09. This is a period when the policy interest rate has been fixed near zero. Once the central bank reaches the zero lower bound, monetary policy can continue to influence the economy through an expectations channel: communicating the expected path of the policy rate. Because expectations are important determinants of consumption and investment decisions, monetary policy can use forward guidance to stimulate the economy when its policy rate reaches the zero lower bound. Forward guidance refers to announcements made by the central bank about the future path of interest rates. These announcements can therefore increase spending to the extent that they lower households and firms' speculation or attempts to forecast future interest rates.

In the paper we show how estimates of the structural parameters and of the expected durations of the zero interest rate regime can be obtained post 2009. We find that the expected duration has changed considerably in the United States, increasing by 4 quarters or more when explicit forward guidance was used by the Federal Reserve. We estimate the shocks that drive economic fluctuations and assess the extent to which the zero lower bound represented a constraint. We also estimate the output cost associated with the zero lower bound and find that the 22 quarters of zero interest rates imply a cumulative loss of output of 45 per cent.

In a paper with Dan Rees recently published in the *Journal of International Economics*, we have applied the methods for structural change to study the macroeconomic implications for Australia of the commodity price boom-bust cycle. As is well-known, the ongoing development of Asia exposed commodity-exporting economies to a surge in global commodity prices. A recurring question for commodity exporting economies is the extent to which the recent increases in commodity prices are permanent. Using an open economy model we estimate changes in the long-run level and variance of Australia's terms of trade and study the quantitative implications of these structural changes.

We find strong evidence that long-run commodity prices for Australia increased by around 35 per cent in mid-2003 and that the volatility of shocks to commodity prices doubled soon after. The increase in the level of commodity prices is smaller than what visual inspection might suggest but the economic implications are, however, significant. And the fact that long-run commodity prices increased by 35 per cent in the early 2000's and not by more implies that increases beyond that level are temporary. So the falls in commodity prices between 2012 and 2016 were to be expected in light of the estimates.

Currently, I am working on other applications to which the structural change methods can be fruitfully applied to, like changes in the conduct of fiscal policy, changes in trend growth and changes in labour market institutions that can impact the natural rate of unemployment.

I have also worked on other issues on macroeconomics such as ageing, housing prices, disinflation policies and equilibrium determinacy in open economies.

Mariano Kulish



Professor Mariano Kulish's research includes macroeconomics, monetary economics and applied econometrics. Mariano has developed new techniques to solve and estimate rational expectations models and apply them to policy-relevant settings. His work has been published in international economics journals including the *Journal of Monetary Economics*, the *Journal of Applied Econometrics*, *European Economic Review* and the *Review of Economics and Statistics*.

– mariano.kulish@sydney.edu.au



Image: Altus AFB

Giving plastic bags the sack

What will happen when Woolworths and Coles phase out plastic carryout bags? Lessons from plastic bag regulations in the U.S.

By Rebecca Taylor

In July 2017, two weeks after I began working at the University of Sydney, Woolworths and Coles – the largest supermarket chains in Australia – announced they would phase out lightweight plastic carryout bags across the country over the next 12 months. Customers would be required to either bring their own bag, pay at least 15 cents for a reusable bag, or forgo bags altogether.

This was not my first encounter with plastic bag regulations. In 2009 I moved to Washington, DC and a year later the city implemented a plastic bag fee. Then in 2011 I moved to Berkeley, CA and a year later the city implemented a plastic bag ban. As a researcher, I am often inspired by the phenomena I see day-to-day. The contrast in policy design I experienced firsthand led my research to investigate whether bans or fees are more effective in changing behaviour. Now that plastic bag regulations have followed me once again, how might the lessons learned from my previous research on plastic bag regulations apply to the phase out in Australia?

Overuse of Disposable Carryout Bags

When first invented, plastic carryout bags were quite the engineering feat – a durable, waterproof, lightweight container capable of holding a thousand times its weight. However, the characteristics that make plastic bags convenient also make them costly to the environment and to governments trying to keep their streets and waterways clean. Their light weight and aerodynamics make it easy for them to blow out of waste streams and into the environment, where, due to their durability and water-resistance, they persist for a long time.

Given the sizable costs of plastic bags, one might be tempted to answer the age-old question “Paper or Plastic?” with a resounding “Paper.” However, paper bags are not without their own costs: paper bags are more energy and water intensive to manufacture than plastic bags; paper bag production generates more air and water pollutants than the production of plastic bags; and paper bags are 9 times heavier than plastic bags, requiring more space in transportation and landfills.

Another issue with disposable plastic and paper bags is that customers perceive them as free. Economists like to say “there is no such thing as a free lunch” and in this case, supermarkets pass the cost of carryout bags onto their customers in the overall price of groceries. However, without directly seeing a price, customers are prone to use more bags than they would be willing to pay for at face value, leading to overconsumption. Woolworths says it currently provides more than 3.2 billion lightweight plastic bags a year – which equates to over 133 bags per person every year in Australia.

Competing Policy Tools

With disposable bag clean-up costing governments millions of dollars annually, disposable carryout bag (DCB) policies are gaining popularity around the world (*Figure 1*). DCB policies can be divided into two competing approaches: (1) bag bans – command-and-control approaches to regulate behaviour directly; and (2) bag fees – market-based approaches to incentivise individuals to change their own behaviour. It is noteworthy that Woolworths and Coles have both opted to self-ban plastic bags before they are required to do so by law.

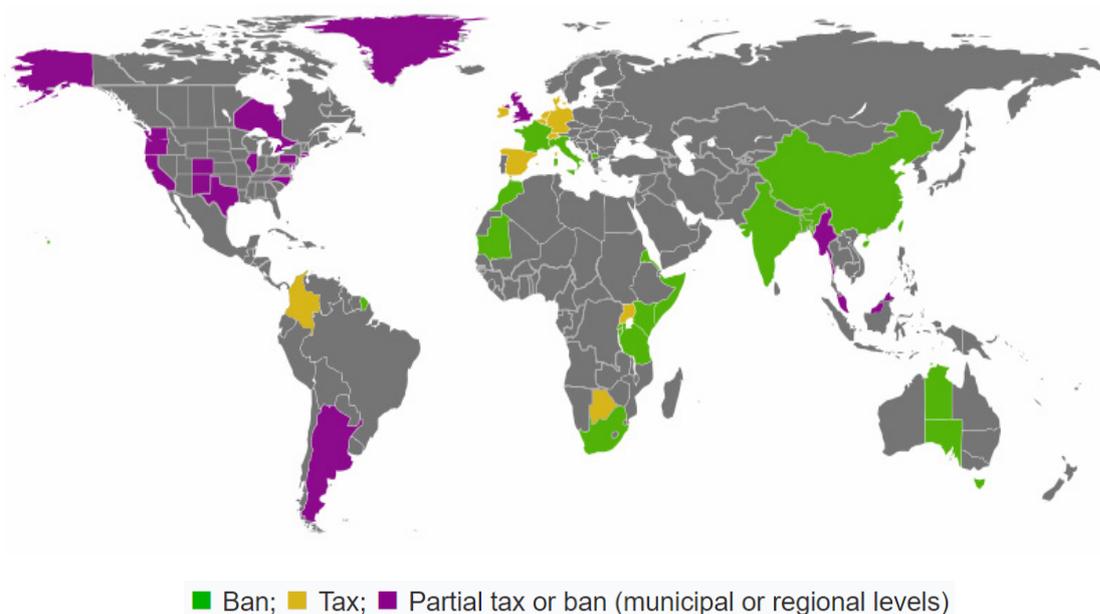
Does the Policy Tool Matter?

Given the pervasiveness of both policies (*Figure 1*), does the policy tool matter with respect to changing consumer behaviour? To answer this question, my co-author and I took advantage of a policy change in

California. Starting January 2014, three cities began to prohibit supermarkets from providing lightweight plastic bags at checkout. Any supermarket that provided paper or reusable bags to customers were required to charge a minimum of 5 cents per bag. With a team of undergraduate researchers, we made bi-weekly visits to a set of treated and control stores during the months before and after the policy change. We observed customers during checkout and recorded the number and types of bags used, whether a bagger was present, and basic customer demographic information. With these data, we measured how bag bans affect customers’ demand for various types of disposable and reusable bags. We then investigated how bag bans and bag fees compared by juxtaposing our analysis with a study on a concurrent 5-cent plastic and paper bag fee in Maryland.

Additionally, to measure whether changes in consumer behaviour would vary across fee size and store type, we collected data at two markedly different grocery chains within the same treated and control cities. The management of these chains chose different responses to the same policy. The first chain, which we refer to as the National Chain, chose to charge the minimum required 5 cents per paper bag. Alternatively, the second chain – referred to as the Discount Chain – chose to charge 10 cents per paper bag and introduced a 15-cent thick-plastic reusable bag. This 15-cent thick-plastic bag is similar to the 15-cent reusable bags proposed to be sold at Woolworths and Coles when they phase out lightweight plastic bags.

Figure 1: Map of Lightweight Plastic Bag Laws



Source: By Elekh (Own work), via Wikimedia Commons. 26 April 2014.

Main Results

(1) Plastic bag bans led to significant increases in paper bag demand (Figure 2).

At the National Chain, the percent of customers using paper bags climbed from less than 5% before the policy to over 40% afterwards.

(2) Selling inexpensive reusable bags led to smaller increases in paper bag demand (Figure 2).

The percent of customers using paper bags only increased to 10% at the Discount Chain where 15-cent reusable bags were sold.

(3) Bag bans and bag fees had the same effect on reusable bag usage (Figure 3).

Roughly 45% of customers brought reusable bags under both bans and fees. The level of paper bag usage under a bag fee is also surprisingly similar to the level of lightweight plastic bag usage under a bag tax.

Figure 2: Per cent of transactions using each bag type

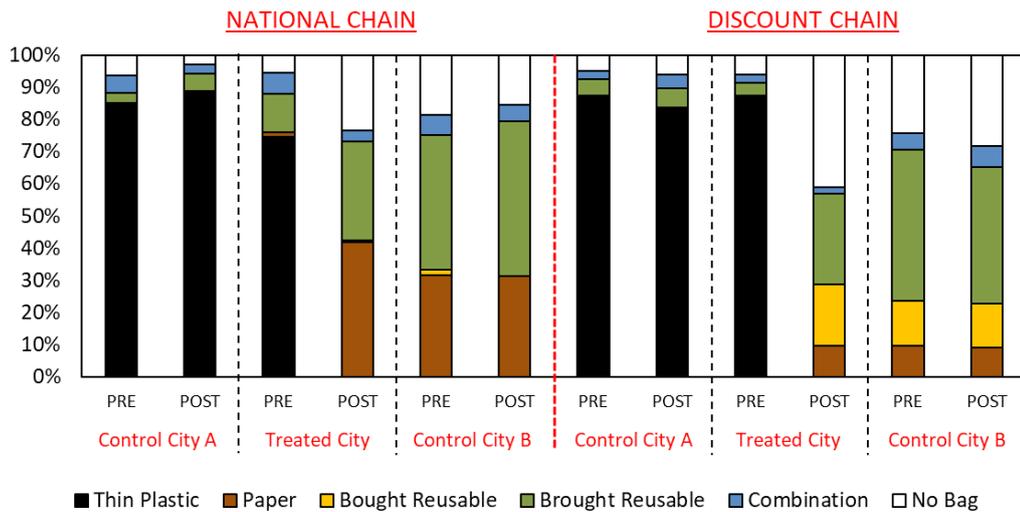


Figure 3(a): Proportion of customers bringing reusable bags, across policy jurisdictions

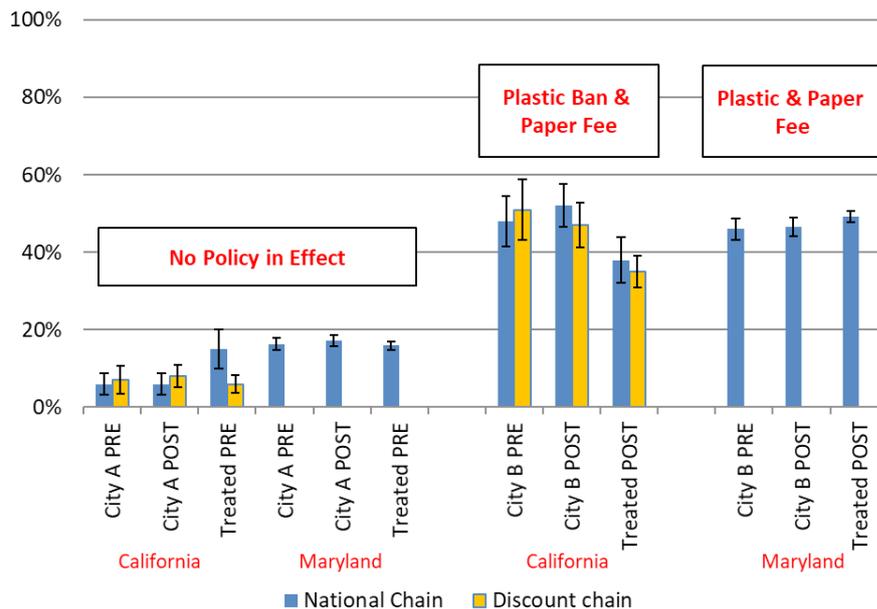
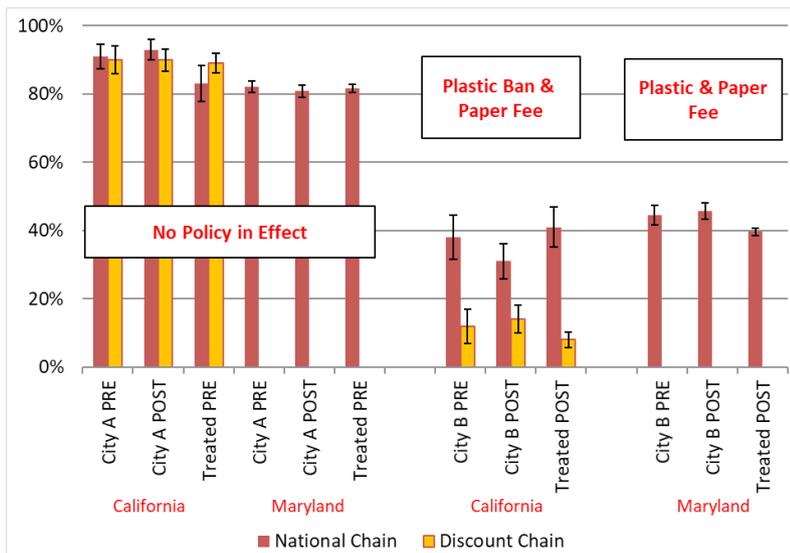


Figure 3(b): Proportion of customers using disposable bags, across policy jurisdictions



Implications for Australian Shoppers

Based on our study, the first policy recommendation for governments considering a DCB policy is that retailers should be required to make the price of all types of bag they offer transparent to their customers at purchase. Just by having a salient price, much of the externality of the overuse of disposable bags is eliminated. The second policy recommendation is for governments that opt for lightweight plastic bag bans to also incentivise the production and sale of inexpensive thick-plastic reusable bags. The main issues with the current plastic bags are that they are “free” – leading them to be excessively overused – and lightweight – making them difficult to landfill and recycle. Selling a bag that is neither free nor lightweight solves both of these issues. Moreover, our study finds that when stores offer their customers 15-cent bags, it leads to a lower level of paper bag use than at stores not offering these thicker plastic bags. Thus, if the environmental costs of both plastic and paper bags are a concern to policymakers and the public, it is important to also consider the types and prices of reusable bags stores choose to sell in lieu of – or alongside – disposable bags.

The phase out of lightweight plastic bags announced by Woolworths and Coles addresses both of our recommendations above – the retailers plan to charge for all carryout bags and plan to offer inexpensive reusable bags. However, disposable and reusable bag usage is not the only measure of policy success. In subsequent research, I find that plastic bag bans lead to a 67% increase in small garbage bag sales, offsetting much of the decrease in plastic. Furthermore, DCB policies lead to 3% slower checkout transactions, a cost that aggregates quickly when considering all grocery shopping trips made annually. These unintended consequences are not news to the retailers. Woolworths has performed a cost-benefit analysis which indicates their decision will be cost-neutral, with the savings for the company from not supplying “free” bags offset by slower transaction rates at checkout. Policymakers need to make a similar cost-benefit analysis of their DCB policies, considering both the intended and unintended consequences for all constituents; otherwise the success of these policies may be overstated.

Rebecca Taylor



Dr Rebecca Taylor is a lecturer in the School of Economics. She completed her PhD at the University of California, Berkeley in Agricultural & Resource Economics, and received her undergraduate degree in Economics from Washington & Lee University. Her research interests lie in the intersection of consumer behaviour, food policy and environmental regulation.

– r.taylor@sydney.edu.au

Awards

FASS Teaching Excellence Awards

The Faculty of Arts and Social Sciences Teaching Excellence Awards recognise the teaching excellence of staff at all career levels. Recipients have shown a critical reflection of their approach to teaching and learning and demonstrate an improvement to enhancing student learning.

Congratulations to:

Associate Professor Pablo Guillen Alvarez (2017)
Associate Professor David Kim (2017)
Dr David Ubilava (2017)
Associate Professor Andrew Wait (2016)
Dr Hayley Fisher (2016)
Dr Kadir Atalay (2016)
Dr Simon Kwok (2015)
Dr Stella Huangfu (2015)
Dr Stephen Cheung (2015)

Society for NeuroEconomics Early Career Award

Associate Professor Agnieszka Tymula received an Early Career Award from the Society of NeuroEconomics in recognition of her significant contributions to the understanding of decision making.

FASS Highly Commended Awards for Mentoring

The Faculty of Arts and Social Sciences recognises academics who have provided an active commitment to research and academic career mentoring as nominated by their colleagues. Congratulations to Associate Professor Murali Agastya for his mentoring efforts and dedication.

Darwin C. Hall Best Paper Award

Dr Rebecca Taylor received the Darwin C. Hall Best Paper Award at the 2018 Western Economic Association conference for her paper titled 'Giving Plastic Bags the Sack: The Hidden Time Costs of Regulating Behavior'.

“My teaching is based on three key fundamentals: it’s about being concise, being consistent and being passionate.”

Recent grant success

Australian Research Council

Discovery Project: The rate of time preference in choice experiments: a systematic re-analysis

Chief Investigator: Stephen Cheung (University of Sydney)

This two-year project aims to explain the sources of extraordinary variation in estimates of the rate of time preference in choice experiments. Time preference is a core concept in both theoretical and applied economics, and a key input in public policy, yet empirical understanding of it is poor. Most available evidence comes from experiments, but these have not reached any clear consensus. This project will systematically re-analyse primary data from over twenty years of past experiments. Using today's state-of-the-art estimation techniques, it will generate new estimates of the discount rate for each study. These will then be analysed in a meta-regression analysis to identify the factors that cause discount rates to vary between studies.

Discovery Project: Using behavioural economic insights to overcome student procrastination

Chief Investigators: Stephen Cheung (University of Sydney), Lionel Page (Queensland University of Technology), Martin Kocher (Queensland University of Technology)

Investment in human capital generates vast economic benefits to students, families, employers, and society at large. Yet it is an arduous process whose benefits are realised far in the future. Because of these immediate costs and delayed benefits, behavioural economic theory predicts that students will tend to procrastinate in their work. This project uses economic experiments to study the relations between present-biased time preference, procrastination, and achievement at school. We will measure the time preferences of a large sample of Year 11 students, who will also participate in a randomised evaluation of three interventions designed to overcome procrastination. We will then match our data to students' actual performance in school.

Discovery Project: Testing strategy-proofness in matching markets: an experimental study

Chief Investigator: Pablo Guillen Alvarez (University of Sydney)

The use of matching algorithms to solve allocation problems in designed markets (school or house allocation problems) is about the most successful real world application of microeconomics. Many of the algorithms employed are strategy-proof: participants never gain from strategising, that is, from lying about their preferences. Strategy-proofness had been seemingly validated by experimental research, but new evidence suggests that participants could be prone to follow wrong advice and therefore lie. In order to improve the performance of designed markets I propose to further test strategy-proofness: how advice can affect truth-telling in strategy-proof algorithms and whether learning can counteract or complement the effect of advice.

Linkage Project: The Altruism of the Arts Customer: Evidence from the Sydney Opera House

Chief Investigators: Robert Slonim (University of Sydney), Agnieszka Tymula (University of Sydney), Kevin Schnepel (University of Sydney), Amanda Lee (Sydney Opera House)

Due to rising costs, budget cuts and greater community outreach, many art organisations increasingly rely on their customers for philanthropic support. To date, there has been no scientific research to understand customers' philanthropic motives within the customer-organisation relationship. This project will address this gap by combining existing data with behavioural-economic motivated field and lab experiments to study Sydney Opera House customers' motives for philanthropy. The findings will broaden and deepen our theoretical understanding of altruism and preferences for charitable behaviour within the social science literature, and provide art organisations with empirically-tested approaches to improve their philanthropy.

Future Fellowship: Trade policy, firm entry and welfare: theory and evidence

Chief Investigator: John Romalis (University of Sydney)

Tariffs have fallen significantly globally. The project aims to quantify the effects of these tariff cuts on international trade volumes, firm entry, and consumer welfare. The project aims to incorporate cutting-edge international-trade theory into a parsimonious quantitative model of international trade including almost all countries. The theory and quantitative model will be used to analyse optimal trade policy. The project also aims to compile the most comprehensive international database on tariff barriers. Anticipated outcomes: refinement of international trade theory on the effects of tariff reductions on firm entry into markets; refinement of optimal trade theory in the presence of production linkages; estimates of the effects of actual multilateral and preferential tariff reductions; tool for evaluating trade and industrial policy; and dissemination of international tariff databases.

Australian Housing and Urban Research Institute (AHURI)

Moving, downsizing and housing equity consumption choices of older Australians

Chief Investigators: Stephen Whelan (University of Sydney), Kadir Atalay (University of Sydney), Garry Barrett (University of Sydney), Rebecca Edwards (University of Sydney)

Housing is critical for the wellbeing and prosperity of individuals. As the Australian population ages, policy makers face challenges to ensure that housing outcomes meet the needs of individuals while providing flexibility at critical life junctures. Older Australians in particular may need to adjust their housing circumstances as their financial situation and health evolve. It is likely that choices that are made are driven in part by the incentives embedded in the tax and transfer system. In this project we examine the determinants of housing choices, describe the housing experiences of older Australians and identify their relationship to the tax and transfer system.

Retirement savings policy and asset portfolio decisions of Australian households, 2002-14

Chief Investigators: Stephen Whelan (University of Sydney), Kadir Atalay (University of Sydney)

Housing in Australia is characterised by advantageous tax treatment relative to other asset classes. This research project examined the behaviour of older Australians in the periods from 2002 to 2014. In doing so it provided insight into the asset portfolio decisions of Australian households and the increasingly important issue of how the tax/transfer system influences housing choices around retirement.

University of Sydney – DVC Research

Sydney Research Excellence Initiative 2020: The Behavioural Economics Applied Policy Lab: The BEAP Lab

Chief Investigators: Robert Slonim, Deborah Cobb-Clark, Colm Harmon, Kadir Atalay, Stefanie Schurer, Hayley Fisher, Rebecca Edwards, Kevin Schnepel, Russell Toth

The Sydney Research Excellence Initiative – SREI 2020 is a new program to help Sydney researchers test new ideas, push disciplinary boundaries and identify ways to scale up their research. Currently our economists at the School are a balance of senior and early career research (ECR) staff working on a wide range of social issues including, but not limited to, health, education, employment, poverty, family, crime, retirement, savings and philanthropy. The Sydney BEAP Lab aims to promote and enhance research excellence in a fast-growing area of scholarship, the merger of behavioural economics and applied (econometric) skills. There is an opportunity to build an institutional long-term relationship with policy-makers to increase our research excellence and translate our academic contributions to policy advice that addresses the most pressing societal issues. Another objective of BEAP is to support undergraduate and postgraduate students by offering experiential learning, working directly on public policy and social issues.

Sydney Research Accelerator (SOAR) Program

Sydney Research Accelerator (SOAR) program acknowledges and supports outstanding up-and-coming early and mid-career researchers through a two-year scheme. SOAR Fellows will receive funding for their research, a personalised program of research development support and structured mentoring. SOAR helps researchers to build their leadership skills, establish connections with partner organisations and nurture our researchers in formulating their innovation and development plans.

SOAR Fellowship 2018

Chief Investigator: Kevin Schnepel

Tracking crime and health outcomes among drug users

Analysing the economics of crime, Kevin's research addresses major questions in criminal justice policy. Recently, he has been investigating the short- and long-term impacts of a sudden five-fold increase in the price of heroin in 2001 due to a large reduction in the supply using data that links the administrative health and crime records of NSW heroin users in the late 1990s. Another project studies the potential benefits associated with diversion programs in the US that provide drug offenders with an opportunity to clear their criminal records after a period of community supervision.

SOAR Fellowship 2017

Chief Investigator: Stefanie Schurer

Stefanie Schurer's research centres on the development of life skills and health over the life course for at-risk populations. Supporting her existing research on Indigenous Early Childhood Interventions, Stefanie will continue analysing the effect of pre-school on cognitive ability and the effects of early life health interventions on life skills for Indigenous children. Another of her projects explores whether healthy lifestyle interventions can change life skills of the obese. The support provided by SOAR furthers Stefanie's goal of becoming a leader in Economics and Human Development.

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The School has had great success in the past few years with our publications.

For the entire list, please see our 2016 - 2018 publications on page 64.

Conference recap

11th Annual Organizational Economics Workshop

21 July 2017

The annual workshop hosted by Associate Professor Andrew Wait was held to focus on issues concerning organizational economics, a field that uses economic logic and methods to interpret the design and performance of organisations. A broad range of issues were examined in this workshop, with presentations on topics such as 'Spending Political Capital', 'Endogenous Hierarchies and Centralisation', 'Risk Taking under Limited Liability', and 'Relational Adaption in Outsourcing in the U.S Airline Industry'. Keynote addresses were given by Associate Professor Ricard Gil (John Hopkins Carey School of Business) as well as Rohan Pitchford and Professor Kieron Meagher (Australian National University).

For more information about the Organizational Workshop, please contact: andrew.wait@sydney.edu.au

4th Sydney Econometrics Research Group (SERG) Workshop

27 – 28 September 2017

An event designed to bring together specialists in the field of econometrics, the Sydney Econometrics Research Group held their annual workshop hosted by University of Sydney senior lecturers, Rami Tabri and Peter Exterkate. Bringing together econometrics communities from various universities located around Sydney, this workshop welcomed speakers from University of New South Wales and the University of Technology Sydney, as well as from international institutions. Professor Graham Elliott (University of California, San Diego) delivered the keynote speech on 'Testing for a Trend with Persistent Errors'. Additionally, many of the University of Sydney's own economics academics spoke on a range of topics based around econometric theory and methods.

For more information about SERG, please contact: rami.tabri@sydney.edu.au or peter.exterkate@sydney.edu.au

Life Course Centre Conference

24 – 26 October 2017

Life Course Centre Director Professor Janeen Baxter, along with researchers and staff, welcomed social science researchers and key partners from around the globe to the LCC conference, with delegates from North America, Europe, New Zealand, and most of the Australian States and Territories.

Professor Alissa Goodman, the principal investigator of the 1958 British Birth Cohort Study gave insight into how cohort studies like this one allow researchers to demonstrate how (dis)advantage is accrued throughout the life course. A presentation on the 'Geography of Opportunity', by Professor Rebekah Levine Coley enhanced understanding of the mechanisms associated with intergenerational transmission of advantage and disadvantage. Coley talked about how economic segregation, as well as access to cultural and social resources and exposure to stressors in urban areas, may be particularly important processes by which parents' economic resources trickle down to their children's development. Professor Adrian Raine provided provocative and thought-provoking data in his presentation 'Fighting Violence with Better Brains: a Health Perspective on Crime'. According to Raine, while violence is a major public health problem, it is less frequently appreciated that early health disadvantages increase a child's risk for later antisocial, violent, and criminal behaviour.

A highlight of the conference was the final session coordinated and presented by some of our best Higher Degree Research students. This session featured a video of Life Course Centre students speaking about their backgrounds, their research and their aspirations; results from an online survey of conference participants; and an interactive panel discussion with LCC researchers, complete with photographic evidence of life course pathways.

Behavioural Economics: Foundations and Applied Research

9 – 12 November 2017

The focus of the workshop was academic research relating to behavioural and neuro-economics. Across two days, the behavioural psychologist Professor Graham Loomes (University of Warwick) presented two keynotes on the topics of ‘Different Ways of Incorporating Psychological Features into Decision Theory’, and ‘Incorporating Variability and Error into Decision Theories’. Professor Uri Gneezy (University of California, San Diego) presented on ‘Targeting Incentives’ which addressed the possibilities for engineering incentives to encourage people to adopt good habits, such as regular exercise. Gneezy talked about mental accounting and what happens when incentives are removed, explaining his experiments and their outcomes.

Other presentations covered topics ranging from the influence of the gender of an artist in determining the popularity of art at an auction (Reneé Adams, UNSW), to the effectiveness of a betting market to incentivise university students to work harder (Lester Lusher, University of Hawaii). Giorgio Coricelli (University of Southern California) delivered the final keynote on ‘Strategizing and Attention in Games’, a study about how complex cognitive processes subserve higher level reasoning about others, called recursive thinking.

A panel discussion on diversity, and a final keynote by Graham Loomes on ‘Diagnosing the Causes of Intertemporal Preference Reversals’ all contributed to a thought-provoking event which probed the foundations of behavioural economics and its application in our society.

Workshop on Development Economics

4–5 December 2017

The University was proud to host a two-day workshop focusing on development economics. Dr Yasuyuki Sawada (Chief Economist of the Asian Development Bank) delivered the keynote presentation on ‘Prospects for Asian Growth and Investment’. This was followed the next day by a workshop on development economics which consisted of two panels comprised of leading academics. A wide range of challenging topics were addressed including ‘Diffusion of Conflict in South Sudan’ and ‘The Role of Information in Shaping Preferences for Redistribution’. This stimulating lecture series was concluded with a seminar delivered by Nina Guyon (National University of Singapore) on ‘Desegregation Possible? Evidence from Social Housing Demolitions in France’.

For more information on the Workshop for Development Economics, please contact:
shyamal.chowdhury@sydney.edu.au or russell.toth@sydney.edu.au

5th Continuing Education in Macroeconometrics (CEM) Workshop

30 November 2017

The fifth Continuing Education in Macroeconometrics (CEM) Workshop was held to facilitate discussion and to share knowledge about macroeconomics and econometrics. The event brought together impressive figures in the economics community from various universities including Hilde Bjørnland (BI Norwegian Business School) who delivered a thought-provoking masterclass on ‘Oil and Macroeconomic (In)stability’.

For more information on the CEM Workshop, please contact: james.morley@sydney.edu.au

Alumni feature: Karen Moses



For alumni Karen Moses (*BEC '78, Grad Dip '79*), learning to say “I’ll give it a go” rather than “I’m not ready” has proved to be a philosophy that has taken her to many unexpected places.

By Karen Ho

Karen Moses has often found herself to be the only woman at a meeting or around the boardroom table. With over thirty years of experience in the oil and gas industry, there were times early in her career when people questioned whether a woman was capable of doing the job. While the landscape of the energy sector and the workplace has changed, Karen continues to champion diversity in and out of the boardroom.

For Karen, it all began with a love of Mathematics. While the all-girls high school she attended didn’t offer economics or commerce at the time, they were highly supportive of women with an interest in Science, Technology, Engineering and Mathematics (STEM)-based subjects. While she admits she came out of high school with little idea of the working world, a Bachelor of Economics allowed her to feed her love of Mathematics and to engage her curiosity for learning. “There was the unknown of accounting, and labour relations and the pleasure of combinatorics and statistics. There was the delight of discovering that you could use maths to explain much in the world.”

After completing her bachelor’s degree, Karen went on to complete a Diploma of Education in 1979 with the intent of becoming a Mathematics teacher. However, a year later Karen joined the energy industry in a Graduate Program at BP. As they say, the rest is history. For the next thirty years, Karen served in executive roles at Exxon and Origin Energy, spanning oil, gas, electricity and coal commodities, upstream production, electricity generation including gas, wind, solar, hydro and coal, supply and retail. It may not have been what Karen had expected to pursue after completing university but she thrived on the variety and challenges presented by the industry. “I have had a very fortunate career, in a fascinating industry. The energy industry is core to society and the economy, and requires you to consider a single customer perspective today through to what the industry will be in 2050.”

In an everchanging political and economic environment, Karen’s career has seen her navigate Australia’s electricity and gas sectors through deregulation, privatisation and decarbonation. With this came the formation of new business models,

market structures and products. The roles she took also covered operational aspects, major projects and corporate functions such as finance, capital markets, strategy and transactional activity and information technology. More recently in 2016, Karen was appointed to the Finkel Review into energy security, triggered by the blackouts in South Australia.

Karen maintains that her studies in economics at the University of Sydney gave her the technical skills to analyse financial statements, anticipate competitor behaviour and market structures, and overlay macroeconomic impacts. Perhaps most importantly, Karen refers to her time at university as a place that enabled her to develop an appreciation for the value of diversity – whether it was diversity of discipline, background or experiences. “It helped give me the courage to step into the unknown, tackle opportunities where I didn’t have the knowledge, and use my skills to succeed. I was the Chief Financial Officer but not a qualified CPA. I was the Chief Operating Officer but not an engineer. The majority of roles I had gave me the opportunity to explore new areas, or were new to me. I learnt to say, ‘I’ll give it a go’ rather than ‘I’m not ready’.”

“I have had a very fortunate career, in a fascinating industry. The energy industry is core to society and the economy, and requires you to consider a single customer perspective today through to what the industry will be in 2050.”

When asked about how she has navigated a profession and industry that has traditionally been male-dominated, Karen refers to the great sponsors who have championed her. In 1984, she joined Exxon’s Gas Development team. As a large multinational company, Karen remembers how the value of diversity was understood and shared across the organisation. “The most valuable lesson I learnt was to create a work environment where people are encouraged to be themselves, to be authentic, to see their work and the life as one, to share who they are, to embrace flexibility, and be curious.” Despite the advances made to ensure workplaces are more inclusive, Karen believes there is still some way to go. In moving forward to make a difference, she suggests that we need to recognise the inherent biases that exist in the concept of a “level playing field”, which tend to only reinforce the status quo. For example, testing the employment application process for bias, insisting on a diverse short list of applicants, ensuring the selection panel members are aware of their own biases and providing equal pay even when someone doesn’t ask for it.

Bringing her professional expertise to other passions has led Karen to serve as a Non-Executive Director on numerous listed boards, government boards, and the arts, including the Sydney Symphony Orchestra and Sydney Dance Company where she is the Chair. She is also a Fellow of the Senate at the University of Sydney. When asked what it is about the creative industries that draws her, Karen speaks of the importance of a thriving arts sector and its importance to our lives and health as a society. “Being part of Sydney Dance and the Sydney Symphony is a way for me to contribute the business skills that I have, to support the success of their endeavours and to create a sustainable path. What I receive in return is the pleasure of seeing wonderfully skilled artists create and take us to a different world.”

Reflecting on her career and time since her own graduation, Karen is generous in her advice for those beginning their own first steps into the future: “Prioritise. Believe you can have it all. But don’t try to do it on your own. Define success for you.” Sharing what she believes will make a difference in the future, she advocates for graduates to ‘be’: “Be present, be purposeful in every moment, be political, be proud of what you can contribute and be passionate.” Above all, maybe it is the last ‘be’ that resonates the most with Karen’s own path. “Be persistent. Don’t see problems as a reason to stop. Reframe. The most successful stories are where what we wanted at the beginning changed along the way, into something greater and something that we could accomplish.”



Photo (Matty Williams): Our Wingara Mura-Bunga Barrabugu Economics stream students

Wingara Mura-Bunga Barrabugu Summer Program 2018

By Karen Ho

On 14 January 2018, over 170 students from Aboriginal and Torres Strait Islander backgrounds arrived at the University of Sydney campus for the Wingara Mura-Bunga Barrabugu (WMBB) Summer Program. The WMBB Summer Program provides the opportunity for students in Year 10, Year 11 and Year 12 to experience university in an immersive six day residential program. Students elected an academic stream of their choice as a Faculty Program and spent the day attending their designated 'classes'. During the evenings, they experienced student life through extra-curricular activities such as talent shows and outdoor film screenings. The 2018 Wingara Mura-Bunga Barrabugu Summer Program was the fifth year the University of Sydney had run the program and the first time the School of Economics had participated as part of the Faculty Program.

Six students from across Australia attended the Economics stream – Bandala Farrowell, Ashlee

Ferguson, Ryan Jones, Kathryn Niki, Lily Rae and Reginald Townsend. Seven academics from the School of Economics and Faculty of Arts and Social Sciences were involved in teaching the program. While many of the students confessed not knowing what economics was prior to the week, they were quickly absorbed in learning more. The students were exposed to foundational microeconomic and macroeconomic principles and explored various specialisations in economics.

For one of the students, Reginald Townsend, his experience of the week opened his eyes to the diversity of economics. "It's just really interesting that there are so many different components to economics like the geo-economics, business economics, behavioural economics and things like that. It was just really interesting to see all the different categories." Fellow participant, Lily Rae agreed and spoke about the applicability

of economics to her everyday life that she had not expected. “Honestly I just think economics is such a broad topic and if you ever need to make a choice in your life, you can use economics because it’s basically the study of gathering a whole heap of information and making a choice.”

A key focus of the week was a project based on the Adani Carmichael coal mine, developed by academic co-ordinator Dr Shauna Phillips. “The Adani mine was selected as the theme for the program as it neatly demonstrates some key economic concepts, and is associated with issues surrounding Indigenous Land Use Agreements. The students engaged with the individual sessions on various fields within economics, and with the challenge to come up with alternatives to expenditure on the rail line for the Adani Carmichael coal mine.”

A highlight of the week was a visit to the Reserve Bank of Australia in Martin Place. Students were given presentations from economists about the role of the Reserve Bank in conducting monetary policy. Students also heard from a regional economist on developments in the Queensland economy relevant to their Adani coal mine project. Particularly engaging for everyone was learning about how bank notes were produced and some of the new security features embedded in the new notes. There was also the opportunity to hold \$20,000 worth of shredded \$20 bank notes! The presentations concluded with the curator of the Reserve Bank Museum sharing some Indigenous aspects incorporated into the design of the bank notes.

At the end of the week, students worked on effectively communicating their ideas for the Adani project through a recorded video. For Reginald, this was his favourite part of the week. “It could have been anything and we just pumped it out and we just hit the grind. It was cool that we could all work like that in a group. I definitely feel like I achieved something and it’s really great.”

One of the key aims for the Wingara Mura-Bunga Barrabugu program is to encourage students to recognise their potential and view higher education as an option. While Lily says that she is still figuring out what she would like to study, the week has still had an impact on her thinking. “It has changed my perspective. Now I’m looking at things in different ways. I haven’t just gained skills for school and university, I’ve also gained very important information that I can use in the future.”

For both professional and academic staff, the experience of being part of the program was incredibly positive, especially for Dr Shauna Phillips as academic co-ordinator. “Enlarging the cohort of Aboriginal and Islander students across Australian universities is an important goal and it was great for the School of Economics to be part of the University’s Wingara Mura-Bunga Barrabugu Summer Program for 2018. It was great to work with colleagues on the Program, and the students were lively and interested. It is great to see that the School will continue to participate in the Program moving forward.”



Photo (Matty Williams): Academic co-ordinator, Shauna Phillips

Nudgeathon

Faculty of Arts and Social Sciences students Mara Hammerle, Mary-Alice Doyle, Maria Fidler, Tycho Hugh, Liliana Tai and Paige Taylor were named winners of the 2017 Nudgeathon.

Mara Hammerle writes about her experience as part of the team.



Photo: Mary-Alice Doyle, Tycho Hugh, Paige Taylor, Liliana Tai, Maria Fidler and Mara Hammerle

On Sunday 17 September 2017, a group of economics students from the University of Sydney set off for Brisbane. We were headed to the inaugural Nudgeathon, a behavioural economics competition where we would be asked to work in teams to develop a solution for the government. The Nudgeathon aims to challenge students by using real-life social issues – in our case, how to increase youth volunteering rates in Australia. It was to be a busy three days full of new faces, high expectations and frantic preparation.

We landed in Brisbane for day one with two hours to spare before the competition was due to start at the University of Queensland (UQ). ‘Enough time’, we thought. That was if we hadn’t ended up giving the wrong directions to the taxi driver, forcing us to sneak in late – not the best start.

The rest of the first afternoon went much better though. We did some team building exercises, including one where we were asked to choose a group name and form a symbol with our bodies to represent it. We honourably named ourselves ‘Titanium Nuggets’. The afternoon concluded with a few sessions on behavioural economics

concepts before retiring with the other teams to enjoy Brisbane.

We were back early at UQ for day two of the Nudgeathon. The day commenced with talks by guests who were involved with volunteering in Australia. As a young person who has grown up in Sydney, it was astonishing for me to hear about the people who are affected each year by bushfires and the important roles that volunteers play in helping them. The rest of the day was spent working on our proposals. A lot of this time was spent heading down a certain direction with our thoughts, stopping and then choosing a slightly new but hopefully improved direction. Luckily our group was able to easily connect, despite only having just met one another. The team was supportive and each one of us brought something new to the table. By the time we stopped for dinner, our final idea was only just forming. We continued working on our ideas after dinner, progressing late into the night.

“A lot of this time was spent heading down a certain direction with our thoughts, stopping and then choosing a slightly new but hopefully improved direction.”

The final day would see us present our proposals to a panel of judges from the Behavioural Economics Team of the Australia Government (BETA), the Department of Social Services and Warwick Business School in the UK. The morning was rushed to get everything done on time. Our presentation slides still needed to be completed and our trial run was stopped half-way by the competition organisers who needed to start the session! Yet somehow we managed to finish everything. Our slides were submitted, speeches had been written and we were ready to start.

Over lunch and prior to the winners being announced, we would guess the winning teams with the hope that we might get third place. This might have explained our disbelief and the resounding “what?” that would echo across the room when our team was announced as taking first place.

The Nudgeathon was an incredible experience, one that was made even better by the people I was lucky enough to work with. It was both challenging and inspirational, stressful yet invaluable.



2017 NSW Rhodes Scholar: Tom Williamson

Tom Williamson (*BEC '13*)
on Sydney, Oxford and
his passion for economic
development in East Africa.

By Tom Williamson

Initially I chose to study economics because it asks the big questions, such as why some nations are wealthy while others poor, and seeks to answer them using a multidisciplinary approach, drawing on mathematics, statistics, history and social science. I decided to continue studying economics into the School of Economics Honours program because of the professors, lecturers and peers that I encountered at the University of Sydney.

The Honours program was formative in my academic development. A year to discuss cutting edge work in small classes lead by outstanding teachers was a rare and valuable experience. The rigorous nature of the course meant that I formed close friendships with my peers that remain close today.

It was an honour to be named the NSW Rhodes Scholar for 2017. Rhodes Scholars have a long history of service and contribution to communities around the world, and it is exciting to be given an opportunity to make a contribution to that legacy. My passion lies in economic development, particularly in building the private sector in emerging economies, and I am currently studying a Masters in Economics for Development at the University of Oxford.

Addressing what constrains the growth of enterprises in emerging economies is an important means of empowering communities to improve their lives and lift themselves out of poverty. Prior to commencing study at Oxford, I worked with an international development consultancy looking to strengthen the coffee industry in East Africa. Working in Ethiopia, I saw how improving the business practices of a smallholder coffee farmer and linking them to markets and finance can

fundamentally change their lives, helping them to send their children to school and even university.

Later this year I will be working with CDC Group in London. CDC is a development finance institution wholly owned by the UK government's Department for International Development, who invest in sub-Saharan Africa and India. It aims to support the building of businesses in Africa and South Asia by providing capital to businesses and entrepreneurs. These businesses go on to employ thousands of people and strengthen key sectors such as infrastructure, financial institutions, health and education.

In the long term it would be fulfilling to be involved with an Australian-based development finance institution. Development finance institutions are specialised banks or funds established to support private sector development in developing countries through lending and investment. While the Australian government does not currently have a bilateral development finance institution, there is scope to create one to complement Australia's current foreign aid program. Such an organisation would foster growth in partner countries, by providing targeted injections of capital and generating co-investment from private sector organisations. One of the benefits of such an approach is that it aims to be financially sustainable, with the returns on initial investment capital being used to fund new projects or increase investment in existing ventures.



Photo: Zoe Morrison, Catriona Elder, Hayley Fisher and Colm Harmon

First in My Family launches with a bang

By Theodora Chan

The bustling sounds of conversation and exclamations of delight fill University of Sydney's Courtyard Cafe, as students and alumni greet each other with a warm handshake before diving into deep conversation. It's the launch of the School of Economics' First in My Family Mentoring Program, and the first opportunity for mentors and mentees to connect face-to-face, after being paired based on their career goals, experience, and personal fit.

Over the next five months, mentors and mentees are expected to meet at least once a month, and set up a series of goals, covering topics like networking, skills development, applying for a job, and transitioning to the professional environment. In addition to this, mentees are also required to complete a reflective journal after each session, taking note of key information and analysing what worked, what didn't work, and how to improve for the next meeting. It may be extra work, but well worth the effort.

For many students, the path from graduation to employment can be a tricky one, but for those who are the first in their family to attend university, the journey

holds more challenges. The fundamental difference is that first generation university students do not have access to the same insights as those whose parents have successfully navigated university before them.

According to mentee Joel Forister, "Because I'm the first in my family, I can't really ask my family for uni advice. There are a lot of difficult choices to make at university and I signed up for First in My Family because I thought it would be a good opportunity to meet somebody who's been in the same position."

The First in My Family Mentoring Program leverages the existing knowledge and experience of School of Economics alumni to support students who are the first in their family to attend university, giving them the support and guidance required to navigate the transition between education and employment.

"Outside of university, the options you have are overwhelming, especially with economics because there are so many different fields you can go into," says mentee Billy Shaia. "I want to get a sense of direction in terms of my career."

BEC/LLB student Amos Potter agrees. “I think degrees aren’t always directly preparing you for the workforce so this face-to-face interaction is exactly what I need. I’m looking to benefit from the experiences of the mentors who are industry leaders, and use what they’ve learned over their careers to help me progress from study to work.”

This view is echoed by the mentors themselves, with Edwina Chen of the NSW Aboriginal Land Council stating, “Often when you’re starting out in a career, there are so many unknowns. You can ask your family and friends for advice but it’s different to having someone in the industry.”

The high calibre of mentors taking part in the First in My Family Mentoring Program means that students now have the ability see the variety of applications of their degree, from the esteemed Wayne Lonergan, founding director of Lonergan Edwards & Associates and Adjunct Professor in Accounting, and Abdallah Allaou who acts as the Analytics Manager for Aldi Australia, to Thomas Morgan who works for the Institute for Economics and Peace and Eliza Owen of CoreLogic who will be a guest speaker at the upcoming Outside the Square panel.

For some mentors, many of whom have been in the same position as their mentees, the program presents a fantastic opportunity to give back to their community.

“A few years ago, I was on the other side of the mentoring relationship and a mentee myself, and I benefited hugely from the experience. My mentor passed some great insights on to me and I’m glad of the opportunity to pay it forward,” says mentor Junran Cao, economist for the ATO.

For others, the program is set to change the face of the industry as we know it. According to mentor Robert Montgomery, Chief Economist & Head of Policy at Infrastructure Partnerships Australia, economics has typically been a very homogenised industry. “Because economics is a social science, there should be more people in standard economics roles coming from different backgrounds. The more people we can get from diverse backgrounds into economics, the better the field will be.”

The First in My Family Mentoring Program may still be in its infancy, but with over a quarter of the School of Economics student body being the first in their family to attend university, there is no doubt that the demand is there.

“The generosity of the mentors has been overwhelming,” says mentee Joshua Peters. “I have definitely set some ambitious goals for myself and I’m excited to see where this goes.”

For more information about First in My Family Program, please contact: zoe.morrison@sydney.edu.au



Photos (Catriona Elder): Top Left: Shane Grace (mentee) and Robert Montgomery (mentor), Top Right: Zoe Morrison, Gabriella Skoff (alumni engagement) and Joshua Peters (mentee), Bottom Left: Launch at Courtyard Cafe, Bottom Right: Wayne Lonergan (mentor) and Amos Potter (mentee)



Donation in action: My experience with a scholarship

By Rachael Gibson and Karen Ho

From a young age, Rachael Gibson was interested in economic systems and why economic disparities exist across the world. “I wondered how economics has evolved, what has been successful and what has not? Naturally, choosing to study economic history at university would help me to answer these questions.” It seems very fitting that Rachael was the recipient of the 2017 Mary Henderson Scholarship for the Study of Economic History.

The Mary Henderson Scholarship was created to encourage talented female students to undertake senior levels of study in economics with a specific focus on studies in economic history. For Rachael, the impact of the scholarship has been tremendous. “Studying Honours in Economics, a particularly challenging year for my university degree, was made significantly less stressful by this scholarship. Having the resources to reduce my workload outside of study and to spend more time on my personal development goals and extra-curricular activities made my year more enjoyable and has significantly improved my results.” While balancing coursework and conducting her own research has made the year particularly demanding, Rachael still counts her experience at university as unforgettable (in a positive way!). Citing the relationships she has built during her time here, she says, “I have made the closest group of friends, having studied together in the Honours cohort for three years.”

In her pursuit of understanding more about the history of economics, Rachael has learnt about how business was conducted prior to the establishment of modern regulatory and governing bodies. From studying the progression of markets from Ancient Rome to the 21st century, it has been a journey into observing which systems worked and which ones did not. Her studies have led to the exploration of theories explaining the development of nations including the effect of geography, culture, colonisation and institutions on wealth.

Aside from learning the theory behind economic thought, Rachael has enjoyed the critical thinking that has been part of her studies such as debating whether market intervention has been effective through the ages to ensure fairness and improve economic

prosperity. “The study of economic history has allowed me to hold genuine beliefs about societal and economic structures that exist today, as I know when, why and how they were developed.”

Through her study and experiences with the School of Economics, Rachael has formed interests which will guide her in future pursuits. “My studies this year have confirmed my interest in developmental economics and the history of economics – it has created an understanding of how I can use my studies through my career.” The importance of utilising the lessons of economic history to drive future decisions are not lost on Rachael, “This knowledge is important to justify the use of intervention in the current economy and I hope that in my career, I may contribute to policy decisions with the hindsight of economic history.”

For Rachael, her experience with the Mary Henderson scholarship has been invaluable. “Receiving a scholarship allowed me to embrace the opportunities that came my way and helped shape the most enjoyable year of my life so far.”



Photo: Rachael (L) with fellow classmate

Q&A with Sally Auld

Dr Sally Auld (*BEC'94, MEd'97*), Chief Economist and Managing Director at J.P. Morgan reflects on her studies and career.

What was your experience of studying a Bachelor of Economics at the University of Sydney? Why did you decide to study economics?

I first studied economics at high school, and it was one of my favourite subjects. I was lucky enough to have a wonderful teacher – Jill Tuffley – who kick started my interest in the subject matter. It made sense to continue studying in that field when I was thinking about what to do at university. I actually enrolled in a combined economics and law degree when I started, but I never finished my law degree. I found economics a far more compelling discipline, and I quickly worked out that I didn't want a career as a lawyer. So instead I completed an honours year, and had the privilege of being taught by Professors Hogan and Groenewegen, two greats of the University's economics faculty for many years.

Three other lecturers stand out for their influence – Elizabeth Savage, who opened up an entire area of economics to me which I found very compelling given its solid theoretical founding but immediate relevance to policy. It was thanks to her course in Public Economics that I started to learn about the work of Professor Tony Atkinson, who later became my doctoral supervisor at Oxford. And, had I not taken her course, I probably wouldn't have met Michael Plumb, who has been one of my closest friends for the last 25 years. Flora Gill was also an inspiring teacher – she managed to place her course subject matter in a much broader context which gave meaning to the discipline in its entirety (she also introduced me to the writing of Margaret Atwood, one of my favourite authors).

Finally, Tony Aspromorgous introduced me to the study of economic history; his classes on Keynes and Marshall were fantastic for placing the work of such important economists in an historical context, and giving understanding to their influence on the broader discipline.

You then went on to complete a Doctor of Philosophy in Economics at Oxford University a few years after graduating from the University of Sydney. Could you tell us about your thesis and experience completing a PhD (D.Phil)?

I applied to do a D.Phil at Oxford University, under the supervision of Professor Tony Atkinson. I couldn't quite believe my luck when not only was I accepted into the program, but Nuffield College provided me with a scholarship for my tuition and college fees. Oxford was a wonderful place to study – the city and its surrounds are beautiful, the University offers so many extra-curricular activities and my peers in the D.Phil program were highly talented economists. I was very lucky indeed to have Tony Atkinson as my doctoral supervisor – he was a generous, gentle and patient supervisor who was always willing to share his immense knowledge and perspectives on any given matter.

My thesis was an exploration of the distributional impact of the regulation and privatisation of utilities in the UK. Given that privatisation is usually pursued on efficiency grounds only (on the view that the private sector can provide the good or service more efficiently than the public sector), the distributional impacts had not really been considered in detail. Writing a D.Phil is an interesting experience – I look back now and wonder why it took me so long! But like any form of study, it requires dedication, self-motivation and perseverance. It took me a while, but I found that once I had the structure of my thesis bedded down, the task of writing was no longer so daunting. The great thing about writing a thesis is that you have lots of flexibility in how you structure your time, so I was lucky enough to hold a lectureship in economics at Worcester College (teaching undergraduates) as well as represent the university in cricket for four years. I also managed a fair few trips to Europe as well!

Could you describe some of the work you do in your current role as Managing Director, Chief Economist and Head of AUS/NZ Fixed Income and FX Strategy at J.P. Morgan?

Effectively I run macro research for J.P. Morgan in Australia/New Zealand. My team and I are responsible for compiling forecasts on the Australian and New Zealand economies, as well as producing forecasts for AUD and NZD currencies, and AUD and NZD interest rates (including the RBA and RBNZ policy rates). We strive to be the best macro research team in Australia/New Zealand by producing high quality economic and market research that adds value to our clients. We are part of J.P. Morgan's global research offering, and so are part of a much larger and very talented team of economists and market strategists across the globe. A large part of what I do – aside from writing research – is marketing our views on the economy and financial markets. This requires a fair bit of time out of the office visiting clients in Australia and overseas, but the meetings are generally very engaging and often thought provoking.

What are some of your interests and hobbies that you enjoy pursuing?

I have three children and a dog, so that doesn't tend to leave much time to pursue hobbies and interests! But I do enjoy reading fiction, cooking (especially baking) and trying to improve my crossfit skills and fitness at my local gym.



Photo: Sally Auld at her Bachelor of Economics (Honours) graduation in 1994 with her University Medal.

What have been some of your highlights or challenges since graduating from a professional and personal standpoint?

I feel very grateful for my career – on the whole I don't feel as if I have faced many serious challenges. On a personal level, at times it has been challenging to manage the elusive work/life balance but I think I have become better at doing that the older (and more senior) I have become. And I would be dishonest if I didn't say that there were times that I felt like I wasn't enjoying my job as much as I should be. But luckily, these periods never lasted for long. I believe that taking the opportunity to put things in perspective can help get you back on track. And I think you also have to take responsibility for your career – so if change is necessary, then you should take responsibility for that, rather than blaming others.

Professionally, I think the challenges I have faced have been broader change in the industry in recent years (for example, more regulation). There have definitely been highlights – when your job is forecasting the future, the times you get it right are memorable. This is even more the case when your view is not held by the majority, but still turns out to be correct. And as I have become more senior, I have also enjoyed the opportunity to mentor and manage younger colleagues at J.P. Morgan.

“I believe that taking the opportunity to put things in perspective can help get you back on track. And I think you also have to take responsibility for your career – so if change is necessary, then you should take responsibility for that, rather than blaming others.”



Image: Worcester College, WikiCommons

The School of Economics is currently involved in new initiatives to encourage diversity within economics but there is still some way to go. How has your experience been navigating a career in a traditionally male-dominated profession and industry?

There is no doubt that finance is still a male dominated industry. But there is certainly more gender diversity now relative to when I started, so that should give us confidence that things are moving in the right direction. I have been lucky enough to have some wonderful male mentors/sponsors at various times who have played a critical role in helping me to progress my career. But there have also been times (mostly earlier in my career) where I felt uncomfortable about some of the behaviors I witnessed. I strongly believe that a culture that offers everyone the opportunity to bring the best version of themselves to work is the one that works best for both employees and shareholders, so it has been pleasing to see the industry focus more closely on cultural issues in recent years. While banking has been through its ups and downs over the past decade, I still believe that it offers great careers, and I would encourage any interested undergraduates to learn more about the industry and the opportunities it offers.

On being an economist, I'd observe there are now more high profile female economists in both the public and private sector than there were when I first started my career, which is great to see. And just last year, a Women in Economics Network was founded in order to develop women's progression in the profession.

More generally, I have found that over time, clients and colleagues respect hard work, consistency and high quality output. Regardless of gender, these qualities are necessary to build a long-term successful career in any field.

Reflecting upon your time since graduation, what advice would you give to the younger version of yourself?

I'd offer three pieces of advice to my younger self. First, don't doubt your capabilities. Second, don't be afraid to ask for something if you want it. Third, make sure you find a job you enjoy!

Sally Auld



Dr Sally Auld is the Managing Director, Chief Economist and Head of AUS/ NZ Fixed Income and FX Strategy at J.P. Morgan. Sally has over 15 years of experience in the financial markets with roles at Credit Suisse and ANZ in Interest Rate and Economic Research. Sally graduated with BEc(Hons) and a MEc from the University of Sydney and has a D.Phil in Economics from the University of Oxford.

Thesis talk

PhD Candidate Ang Li shares her research into housing and fertility with us.



What is your thesis topic and what was the inspiration behind it?

Like many developed countries, Australia has experienced fertility rates below replacement levels in the past few decades. The fertility decisions of women will often rely on the cost of children, which is affected by many economic and social variables – one of which is the price of housing. With the surge in housing prices in Australia over the years, how the housing market influences fertility demands our attention. I investigate empirically how the decisions of women in Australia are affected by changes in housing prices. Additionally, increases in the price of housing should have different implications on the childbearing decisions of homeowners and renters.

What did you discover from your research?

The price of housing is an important factor in fertility decisions and fluctuations in the housing market can have an influence on fertility intention and fertility choices. Using Australian data, we find wealth changes associated with housing price variation can encourage female homeowners to fulfil their fertility aspirations. Changes in housing wealth has no impact on renters. In environments with greater access to housing finance, there is a stronger responsiveness to changes in home prices on the childbearing decisions of homeowners. As a by-product of fertility decisions, residential mobility of families are intractably associated with fertility intentions in the family planning stage.

Who is your supervisor?

My supervisor is Associate Professor Stephen Whelan. He is an experienced researcher and knowledgeable mentor. He is a prominent expert in the field who has a lot of great guidance to offer. Stephen has helped me become a better researcher, challenging me to learn and achieve more. His help has guided me on the right path during my course of study, supporting me and my research throughout my PhD journey. I also owe my gratitude to Dr Kadir Atalay who has provided great support and encouragement along the way.

How have you found the process of completing a PhD?

It has been a challenging but rewarding journey. I have grown substantially as a person and as a researcher. With the help of my supervisor and other supportive academic staff, the PhD course has developed my skills in critical thinking, data analysis, and presentation. The course of study cultivates my independence in problem solving and motivates me to pursue greater knowledge. I have a better understanding of many academic topics by firsthand analysis and through discussions with experienced researchers. The PhD journey can be a bumpy ride but with trust in oneself, hard work and with the support of your supervisors, the research experience is invaluable.

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School of Economics

Faculty of Arts and Social Sciences

T +61 2 9351 5055

E economics.enquiries@sydney.edu.au

sydney.edu.au/arts/economics

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