Pamela Low

Progressing Climate Outcomes with the Community

Pamela Low (Class of 2018) majored in Economics. While at NUS, she initiated campaigns to reduce single-use disposables in canteens and residences. For her efforts in sustainability initiatives, she was awarded the OCBC Cares for the Environment Fund, the FASS Student Leadership Award, and the HSBCNYAA Youth Environmental Award in 2018. In 2019, she received a scholarship to attend a summer programme at the Smith School of Enterprise and the Environment at the University of Oxford.

Pamela’s 9–5 job is at Sentosa Development Corporation while her 5–9 job is at Tingkats.

Tell us about your day job at Sentosa Development Corporation.

I’m in the Business Development division in Sentosa Development Corporation, which is a statutory board. My team is responsible for driving domestic and international footfall and revenue — what we call the “island economy” — through channels development, partnerships, and sales initiatives. I also contribute to the organisation with my experience in sustainability as we are developing plans for sustainable tourism.

What about your “night job” at Tingkats?

I founded Tingkats after returning to Singapore from exchange in Germany. In Germany, I lived like a local — bringing my own bag to the supermarket and separating my recyclables. I also took a module, Energy Law in the European Union, where I learned about the importance of sustainability and the responsibility I have towards our shared resources.

“Tingkats” are tiffin carriers that were used to dabao food before the advent of single-use containers. I use “Tingkats” to symbolise the culture of thrift and resource optimisation. Through Tingkats, I have partnered with like-minded individuals, organisations, and schools to drive climate outcomes by co-creating initiatives and policies for more sustainable practices.

My most recent partner is TreeDots, which redistributes surplus produce (poultry, seafood, vegetable) to F&B businesses (business-to-business) and households (business-to-consumer) at affordable prices, while reducing food loss.

Tell us about your collaboration with TreeDots.

I spearheaded TreeDots’ business-to-consumer chapter in January. We have three objectives: (i) reduce food loss; (ii) return cost savings to households (retail is expensive!); and (iii) allow more people to enjoy cooking at home. Since we sell surplus produce, our prices can be up to 70% lower than the prices at supermarkets. We provide wholesome food at wholesale prices.

Households can pool together to buy produce via a “group buy” model. We organise weekly group buys, with collection points islandwide.

When the circuit breaker was implemented in early April, we lowered the minimum order from $500 to $400 per collection point to enable more households to purchase produce at affordable prices without having to queue at the supermarket.

What other initiatives are you currently working on? Good Food for Community, which provides hot meals to underserved communities during the circuit breaker.

In early April, my friend, Shihui, posted about her experience ordering groceries online, and how the website had crashed. I noticed that she was purchasing essentials for communities whose livelihoods have been impacted by COVID-19. Being able to purchase groceries online and queue at supermarkets are privileges that I do not take for granted. I am keenly aware that there are individuals who can afford neither the time nor the budget to shop at supermarkets; these individuals are also the ones who are most severely affected by COVID-19.

Working with TreeDots, I have access to surplus produce at deep discounts. I reached out to Shihui, and we quickly put together a plan to raise funds to provide meals to communities in need. Shihui obtained the number of beneficiaries from social service agencies and set up a crowdfunding platform, while I reached out to a catering partner of TreeDots. As we use surplus produce, we are able to provide meals at a cost that is at least 40% lower than the next best option in the market.

We have served more than 20,000 meals to 21 communities between April 7 and May 11. We are still raising donations on https://www.swithyou.sg/gffc.

Considering how COVID-19 has exposed Singapore’s food supply vulnerabilities, particularly for the poor, I’m surprised by the abundance of surplus produce that still needs to be redistributed to recipients who can benefit most from it. There are Pareto improvements to be had!

What compelled you to launch Good Food for Community?

I feel the responsibility to look out for those who may slip through the cracks during the circuit breaker. I encourage those who can, to do something within their sphere of influence. Social inequalities have been accentuated during the circuit breaker, highlighting the need for systemic change.

What do you think are some major lessons from COVID-19?

COVID-19 has shown us how interdependent economies are in our globalised world, and the subsequent impacts on our food security. The gaps in our social safety nets have been exposed. I hope to see more active citizenship in advocating for progress in our social and environmental policies.
Integrating Sustainable and Inclusive Practices into the Heart of Businesses

Joshua Foong (Class of 2018) majored in Economics and minored in Political Science. In recognition of his contributions as President of the FASS Club, he was awarded the FASS Student Leadership Award in 2015 and the NUS Student Achievement Award (Bronze) in 2016.

Joshua co-founded bantu, a tech-for-good social enterprise providing customer relationship management solutions to organisations focused on social impact. His start-up was awarded the President’s Challenge Social Enterprise Award for Start-up of the Year in 2019.

In December 2019, he joined the Company of Good.

What is your biggest takeaway from your time at bantu?
My time at bantu gave me a clearer direction in life, and a better sense of my identity beyond entrepreneurship. I learned that giving back to the community takes on many forms, from having employers taking better care of their employees, to participating in consumer and investor activism through dollar-voting. This realisation has allowed me to consider a wider range of roles to ensure that my work reflects my principles on giving back.

Tell us about the Company of Good.
The Company of Good (COG) was developed by the National Volunteer & Philanthropy Centre (NVPC). At COG, we empower businesses across Singapore in their ESG (Environmental, Social, and Governance) and corporate-giving endeavours. We help to ensure that their giving is strategic, sustainable, and impactful. We do this through our programmes that include training, community engagements, national recognition, and business-to-business partnerships.

For example, the third intake of our Fellowship training programme in 2019 brought together 35 working professionals from more than 30 companies, such as Expedia, Shell, and Shiseido. Among the many post-programme efforts, one company went on to incorporate inclusive hiring in its HR policy, while another company expanded its corporate-giving efforts to emerging causes in Singapore, such as migrant communities and climate change.

What is your role at the Company of Good?
My team manages programmes and platforms focusing on topics related to corporate-giving. We aim to bring the corporate-giving community closer together, facilitate greater business-to-business partnerships, and spread awareness on corporate-giving functions.

One programme we have is called Community Series. The events in the series are open to the public. We invite corporate panellists to share on a particular topic relating to corporate social responsibility (CSR) or ESG. Past topics include sustainability reporting, inclusive hiring, and ageing issues. As of May 2020, we have hosted ten panels that were attended by close to 250 companies.

Can you address a misconception that we might have about corporate-giving?
Many still believe that corporate-giving is a cosmetic public relations effort by companies that want to look good without necessarily delivering true positive social change. But what many do not understand is that corporate-giving is much broader than what is reported in the news; it is also about having parental leave for new parents, reducing food wastage in F&B production, and investing exclusively in ESG-aligned assets.

What’s more, both consumers and governments must move in tandem with this growing wave of altruism from corporations. For example, if a company wants to embrace LGBT rights in the workplace but the general population is resistant, it is difficult for the company to propagate this cause effectively.

What is the current state of corporate-giving in Singapore?
NVPC conducted a Corporate Giving Survey in 2017, and we found that more than half of corporations do give back. While most corporations engage in philanthropic action, there is an increasing trend of corporations that blend donations with employee volunteering.

More mature companies have incorporated giving back into their products and services. For example, more and more financial institutions now offer pro bono financial advice to the elderly who often struggle with savings, while providing complementary offerings that fit their ageing needs.

In response to the challenges wrought by COVID-19, what ventures has your team embarked on?
Our team recently completed a project called Eat for Good. The idea is to have families and companies purchase meals from F&B businesses to be donated to those in need. This way, we can create multi-level collaborations among SMEs, MNCs, and NGOs in Singapore to help consolidate and amplify food-related efforts for our vulnerable communities.

Our collaborators included the Food Bank Singapore, which managed the distribution of these meals; Maybank, which sponsored our first 1,000 Eat for Good meals; and TripAdvisor, which was our publicity partner.

What sort of change do you hope to see post-COVID-19?
Personally, I would like to see more efforts towards propagating migrant rights. Beyond their living conditions, many migrants are still subjected to nefarious agency fees, late or no payment of salaries, poor healthcare, non-existent employee benefits, and social or racial discrimination. COVID-19 has unearthed the depth of the problem in Singapore, and hopefully companies can take on this issue and practice greater discernment when selecting contractors that are reliant on migrant workers.
How have the circuit breaker measures affected your work with senior citizens?
My colleagues and I have been mainly working from home. This has greatly affected our means of reaching out to seniors, as we can no longer visit them and talk to them face-to-face. However, this limitation has pushed us to think out of the box and adopt a new mode of engagement — tele-engagement. Since April, we have been making regular calls to seniors to check on their wellbeing and follow up on their needs.

As seniors have been advised to stay at home as much as possible, we have reached out to render assistance to seniors who are living alone or who have no family support. This includes mobilising our staff and volunteers to cater to their needs, for example, by arranging meal deliveries or grocery deliveries, collecting medication, and running errands.

Have you assumed any new responsibilities because of COVID-19?
I am currently helping our Crisis Response Team in the operations of the mass swab testing exercise to test all nursing home staff and residents for COVID-19. As part of this exercise, I helped to pack the test kits and biohazard bags to be delivered to 80 nursing homes islandwide. I also helped to coordinate the transportation of test samples to the National Public Health Labs, as well as to answer phone enquiries from nursing homes. In short, my colleagues and I successfully set up our own unofficial courier company for this exercise, complete with packing services and service helpline.

What was your most memorable experience during this circuit breaker period?
I would say it was going on a scavenger hunt with my colleagues throughout the Ministry of National Development (MND) building looking for boxes with which to pack the test kits. As we had received instructions to do the packing on such short notice, we had not prepared packing boxes. We ended up going to the printing rooms of each office to collect the cardboard boxes that were used to store A4 printing paper. We also sliced some scissors, cellophane tape, and other stationery along the way.

I had a moment where it really felt like I was in an apocalyptic movie or some survivor game — all the offices were dark and locked up, and we were the only people running around the building looking for supplies. It was a little creepy, but luckily no zombies were sighted.

What are some of the challenges that you have faced in your various roles?
I think the main challenge that I faced was really the speed at which our operations have been evolving because of COVID-19. For example, when the circuit breaker measures were introduced in early April, we needed to adapt quickly and move into tele-engagement. Within a span of three weeks, we had set up a call system, run a pilot, consolidated our learnings, refined our processes, and trained all our staff to conduct telephone engagements. It was nothing short of phenomenal.

Any last thoughts?
Going through this COVID-19 period has undoubtedly caused a lot of uncertainty for all of us. However, I also find myself grateful that it has brought my colleagues and me together. My colleagues have been a constant source of support for me, and I am really thankful that we are facing these challenging times together to try to meet the needs of our senior citizens.
Associate Professor Zhong Songfa was the sole recipient of the FASS Award for Excellent Researcher in AY2019/20. A/P Zhong’s research expertise lies in behavioural economics, experimental economics, neuroeconomics, and genoeconomics — a field of protoscience combining molecular genetics and economics based on the premise that genes can predict economic and financial behaviour.

Can you tell us about your current research?
I'm currently working on a project related to beliefs associated with culture and religion. I am particularly interested in Eastern culture, and I have been pondering over the notion of *karma*. To put it in layman’s terms, if you do something good, something good will happen to you in the future; conversely, if you do something horrible, something horrible will happen to you in the future. Although *karma* is an Eastern philosophy, it is in line with aspects of Western culture, such as the idioms “you reap what you sow” and “what goes around comes around”.

To formulate a question from an economic perspective and to use an economic framework to study *karma* is rather challenging. I noticed that karma can be interpreted as a form of “false” belief that things that we do are correlated to what happens in the future. For example, we may be more willing to donate to charity while we are searching for a job and we are faced with uncertainty, compared to a situation where we have already secured a job. How much do we worry when faced with uncertainty? If we worry a lot, we may believe that doing good things may form a sense of protection for our future. Many of us consciously or subconsciously perceive that good deeds are correlated with good outcomes.

There are also psychological underpinnings, for instance, belief in fortune telling. Here’s another example. A fortune teller predicts that your future will be bright. You may or may not wholly believe what the fortune teller is saying. But perhaps you absorb it to a certain extent. The fortune teller’s prediction could potentially affect you. You may unconsciously work harder in response to the prediction. When you succeed, you might be inclined to attribute your success to the fortune teller’s prediction, even as you acknowledge that your hard work played a role.

*Oracle bones — pieces of ox scapula or turtle plastron — were used as a form of divination in ancient China, primarily during the late Shang Dynasty. (Source: National Museum of China)*
What kind of data related to Eastern culture have you used?

I looked at collected data sets from Chinese history. In ancient China, before a regime goes to war, very often the leader will turn to divination for guidance. The diviner might advise the leader to go to war while some officials might advise against it. The leader eventually makes the final decision.

We analyse historical records spanning the last 2,000 years of China’s history. We observe that if the diviner predicts that the leader should go to war, and the leader heeds his advice (and goes to war), the war is won more than 70% of the time. Conversely, if the diviner predicts that the leader should not go to war, but the leader ignores his advice (and goes to war), the war is won less than 25% of the time.

As there are apparent sample selection issues, we are going to explore these questions in experimental settings — whether and how beliefs in predictions lead to self-fulfilling prophecies. Knowing if something is testable is important. I once came across this quote by Galen, a physician in the Roman Empire: “All who drink of this remedy recover in a short time, except those whom it does not help, who all die. Therefore it is obvious that it fails only in incurable cases.”

So we know that genetics and the environment both influence our behaviour — the perennial nature vs. nurture debate. What should we do with this knowledge?

First, knowing that genes play a role in human behaviour essentially changes how we perceive problems. For example, when something goes wrong, we tend to blame someone. If the problem is due to genetics, should that person be held accountable?

This year I advised a student, Elizabeth Chin, who wrote her honours thesis on beliefs in the effects of genetic factors versus environmental factors. She assigned different readings to two groups. One group read about how genes are important in determining social behaviour, and the other group read about how environmental factors are important in determining social behaviour. She showed that compared to those in the environmental factors group, those in the genetic factors group are more likely to punish individuals who violate social norms, but less likely to differentiate whether the violation of norms was intentional or not. This is probably due to a sense that the notion of intention can be delusive in light of genetic influences.

Another thing we should consider is how we as economists may fail to control for certain things in our regression analyses, and hence end up with biased estimates. One issue that garners a lot of attention these days is the intergenerational transmission of wealth. Suppose we conduct an empirical analysis of how parents’ wealth is correlated to their children’s wealth. One important but missing variable is the genetic factor.

But of course, getting access to genetic data is difficult. Personally, I believe it is a matter of time before some genetics information will be incorporated in big surveys. Then we will be able to control for genetics, and have a better idea of how genes contribute to economic phenomena.

Based on your research, to what extent do you think genetics has an effect on individuals? Does genetics play a large role in our behaviour?

The first law of Behavioural Genetics says that everything is heritable, and all behaviour can be traced to genes to a certain degree. Geneconomics is concerned about the heritability of behavioural traits, such as how risk-seeking you are, how patient you are, how altruistic you are.

In 2010, we wrote a paper summarising the research that has been done on the genetics of social cognition. Overall, we discovered that between 40% and 60% of individual differences in social behaviour can be attributed to genetics. So genes do play an important role.

At the same time, the environment matters as well. Given the amount of effort that parents put in to create a conducive environment for their children, I find it interesting that we know very little about the impact of environmental factors on individuals. Compared to genes that can be measured with DNA sequencing, environmental factors turn out to be much harder to measure.

Would it be difficult for undergraduate Economics majors to work on behavioural economics since we may not have sufficient knowledge of psychology or genetics?

I think that the challenge in conducting interdisciplinary work is not just the knowledge gap, but also the disciplinary gap in terms of how to deal with a problem.

As an undergraduate, you may consider taking a course on biology or genetics and another course on cognitive neuroscience in the Psychology Department. In economics, we always talk about marginal returns; depending on your cost function, if you have already taken 20 courses in economics, what is the additional value of taking yet another economics course? It may be less than the value you would get from taking a course in a different discipline.

I think it’s important for undergraduates to keep an open mind. As individuals, we are always limited by how much energy we have, and there are only so many things we can do. At this stage, before you specialise and become a professional in a particular area, it’s good for you to broaden your mind and widen your horizons.
What has been the most rewarding experience so far throughout your research journey?
I think the most rewarding experience has been learning how to deal with failure.

I started doing genetics in 2007, and I spent five years on this. I did DNA sequencing, scanned people’s brains, and measured people’s hormones. In terms of academic output, I wrote some papers showing that genes affect behaviour, and that some particular molecules influence risk-taking. I could only conclude that genes affect behaviour, but I was not able to probe deeper into why or how that is relevant to economics.

I do not feel that these papers contributed much to my publication profile. In this regard, my early research pursuits are not considered “successful”. But personally, I find that experience to be rewarding because I learned new perspectives of looking at problems.

How do you incorporate your research into your teaching?
I may include some material that I think is useful for students to know. For example, I may talk a little bit about neuroeconomics, and about how genes, the environment, and the brain work together in decision-making. I provide students with some basic scientific knowledge.

Additionally, I assign some readings that I think is appropriate for discussion purposes. For example, during tutorials, I discuss some readings that are more relevant to the local context, such as the behavioural considerations underlying kiasu-ism, fertility decisions, and the design of the CPF.

Kiasu-ism can be understood as a form of loss aversion in the social context.

Fertility decisions may be viewed as a form of intertemporal decision-making, in which cost is immediate and reward is delayed; consequently, people who are present-biased delay parenthood.

The design of the CPF needs to consider the preferences and cognitive biases of ordinary people.

What skills do you think are important in doing research?
I think it’s important to be persistent, as doing research is a lifetime pursuit. As long as we feel like we are doing better this year than last year, we are succeeding. As we grow older, we accumulate knowledge and experience, and hopefully we become wiser.
Huang Yuting
(PhD Class of 2020)

Goh Keng Swee PhD Scholarship in Economics

What is your favourite Singaporean food?
Nasi lemak. My grandparents used to make nasi lemak when I was a child. They were Chinese Indonesians who migrated from Indonesia to China when they were in their twenties. When I was in primary school, I usually spent summers with my grandparents, and they would prepare all kinds of yummy Indonesian food.

What do you do for fun?
I enjoy swimming. Swimming is quite relaxing — I feel free from any distractions when I’m in the water.
I also enjoy watching documentaries, primarily on travel and food.

Tell us about your research.
My research interests are in labour economics and international trade. The first chapter of my thesis, *Property Division Upon Divorce and Household Decisions Within Marriage*, started as a group project in my Labour Economics class in my first year, and evolved into a paper with A/P Juan Pantano, Ye Han, and Dr Yi Junjian. We examine the effects of a reform in property division laws in China on spouses’ relative bargaining positions, and ultimately, households’ intertemporal decisions. We focus on three outcomes: intrahousehold bargaining power, intertemporal financial decisions, and intergenerational investments. We find that relative to families where the wives have sole ownership of the marital home, when the home is registered under the husbands’ names, the law reform decreases women’s intrahousehold bargaining power, slows down households’ asset accumulation, and reduces investments in children’s human capital.

My second chapter, *Population Aging and Directed Technical Change*, co-authored with Dr Li Bingjing, investigates the effects of a greying population on technological change through a reduction in the supply of certain skills. If skills (e.g., memorisation, information processing, physical coordination, dynamic flexibility) vary across a worker’s life cycle, then the mix of skills possessed by the average worker changes as the population ages. Changes in the supply of these skills may affect the relative costs of such skills, which could in turn raise the demand for alternatives.

My third chapter, *Regional Trade Integration and Multinational Production Networks: Evidence from the ECFA*, co-authored with Dr Li Bingjing, is on the implications of a regional trade liberalisation between mainland China and Taiwan. We explore how the reduction in tariffs on imported inputs and final goods affect the geographical location of the production process.

What is the biggest challenge you face in doing research?
Coming up with research ideas. This requires assessing whether the topic is indeed interesting and worthwhile, as well as having familiarity with the literature.

What advice would you give to students who are interested in a PhD or who are just starting their PhD?
Talk to people who have done a PhD. What does “doing research” entail? What are the exciting parts and what are the hardships?
Another important thing is mental wellbeing. When I look back at myself five years ago, I feel I would have benefitted from talking more to my peers. A support network is crucial for our mental health, especially at the very beginning of the PhD journey as the transition between undergraduate studies and graduate studies is quite dramatic.

Finally, what is one way in which our lives might change post-COVID-19?
The pandemic has made visible the supply chain and economic interconnectedness, and may be a turning point for globalisation. Countries may want to reshore more production activities in order to prevent supply chain disruptions in critical sectors such as agriculture, medical equipment, and other primary manufacturing. Multinational corporations may also try to avoid over-reliance on single-source suppliers, and reconsider the location choices of manufacturing plants.

But on a more optimistic note, the pandemic also calls for the need to strengthen economic connectivity, which could help essential supplies flow more effectively (e.g., the trade initiatives between Singapore and New Zealand amidst the pandemic). After a difficult recovery period, the world will continue to be interconnected, hopefully in a more coordinated way.
What is your favourite Singaporean food?
I love salted egg dishes. I have tried many creative salted egg food pairings in Singapore, for example, salted egg yolk prawns, pork ribs, potato chips, pumpkin, and croissants. The rich, opulent taste seems to pair well with almost everything.

What do you do for fun?
I run outdoors. It’s relaxing, and makes me feel connected with nature. When I run, I feel refreshed, happier, and stronger. Currently I run 5 km every other day around campus or in the park. Especially when I feel down, I have learned that I need to force myself to run.

Tell us about your research.
My research integrates health economics and behavioural economics. The first chapter of my thesis, Decision Fatigue in Physicians, co-authored with Dr Yi Junjian and A/P Zhong Songfa, explores the consequences of physicians’ excessive workload from the perspective of decision fatigue — the decline in decision quality due to an increased number of patients and decisions. Leveraging an administrative dataset of more than 250,000 emergency department (ED) visits, we find that an increased number of patients decreases inpatient admission rates, task orders, and patients’ length of stay. Subsequently, both patient revisit rates and mortality rates increase. The results are robust after using the number of ambulance arrivals as an instrumental variable to address potential endogeneity.

My second chapter, Patient-Physician Race Concordance, Physician Decisions, and Patient Outcomes, co-authored with Dr Yi Junjian and A/P Zhong Songfa, focuses on the role of patient-physician race concordance. After addressing nonrandom matching between patients and physicians, we find that ED physicians, when treating patients of their own race, are less likely to recommend inpatient admissions, and more likely to reduce task orders.

My third chapter, Time Dependency in Physician Decision-Making, co-authored with Dr Lawrence Jin, Rui Tang, Dr Yi Junjian and A/P Zhong Songfa, studies whether and how the sequence of past decisions affects the current medical decision. After controlling for both patient and physician characteristics, we observe strong evidence of positive autocorrelation in physician decision-making, e.g., inpatient admissions, ordering of imaging tests, and prescription of painkillers. We find that the path dependency effect decreases when physicians have more medical experience, and decays fully when the current and previous cases occur in different shifts.

What is the biggest challenge you face in doing research?
My inadequate skills in academic writing and communication. In the beginning, writing an academic paper was really a headache for me. I struggled to express my ideas clearly and ran into difficulty structuring the paper.

Now I attend writing consultations, and I hope to improve one step at a time.

What advice would you give to students who are interested in a PhD or who are just starting their PhD?
For those who are considering a PhD, think carefully before committing to it. You can talk to different PhD students, not just the academic “stars”. Get more information on what life as a PhD student is really like.

For those who are just starting their PhD, maintain a healthy work-life balance. Establish a clear plan early, and break down your goals into actionable steps. It is better to work steadily throughout your programme than to work intensively and burn out.

Finally, what is one way in which our lives might change post-COVID-19?
The rise of remote working and learning. The COVID-19 pandemic is forcing the majority of the population in many countries to work from home. Telecommuting brings many challenges but also opportunities. We start to realise that many meetings can be done virtually, and that work can be done remotely. What really matters is productivity, and not how much time we spend in the office. Telecommuting saves commuting time, and gives employees more freedom over their work hours and location. In the post-pandemic world, I think flexible work arrangements will be an option in more workplaces.
What is your favourite Singaporean food?  
Black pepper crab.

What do you do for fun?  
I paint. When I have some spare time, I would find a picture — usually a funny figure — and paint it. I use my paintings to decorate my room. The funny figures make me laugh, and I also have a sense of accomplishment.  
I also cook. While cooking, I would listen to TED talks, BBC news, or an English TV series to improve my oral English.

Tell us about your research.  
My research is on mechanism design and information design. The first chapter of my thesis, **Optimal Selling Mechanisms with Buyer Price Search**, co-authored with Professor Lu Jingfeng, explores the optimal dynamic selling mechanism where buyers can search for an outside optional price in a later period. We find that the optimal dynamic mechanism degenerates to a static mechanism, and takes on the form of a posted price when buyers’ searched prices are private information. Our findings can be applied to help sellers design their pricing strategies in a changing market.

The second chapter, **Electoral College versus Popular Vote: Should the U.S. Change Its Election Scheme?**, co-authored with Professor Lu Jingfeng and A/P Zhou Junjie, was motivated by the controversy surrounding the results of the 2016 U.S. presidential election. We compare the two election schemes — electoral college and popular vote — in a multi-battle contest environment. We show that the prevailing election scheme in the U.S. — the electoral college — elects the stronger candidate with a higher probability under some regularity conditions, and generates a lower election inversion rate.

The third chapter, **Optimal Disclosure of Value Distribution Information in All-Pay Auctions**, co-authored with Professor Lu Jingfeng, examines the revenue-maximising public information disclosure policy in all-pay auctions with affiliated values. Our results can be applied to solve the information disclosure issue in competitions for job promotions, mineral rights, etc.

What is the biggest challenge you face in doing research?  
Finding interesting and doable research ideas. I used to have ideas that I wanted to research on, but after digging through the literature, I found that those ideas have already been studied.

I attend seminars and read papers to learn from scholars in the field. I think about the key factors, and see if there is any possibility for extension or variation. I observe how things work in real life, and ask why it is so and whether I can do some research on it.

What advice would you give to students who are interested in a PhD or who are just starting their PhD?  
For students who are interested in a PhD, ask yourself two questions: (i) “Have I ever done any research?”; and (ii) “Do I like doing research?”.

Talk with senior PhD students; ask them about their research experience and the difficulties they encounter during research. After that, ask yourself: “Is that the life I want?” and “Do I have the required qualities?”. If the answer to both questions is “yes”, then talk with professors, and formulate a workable research plan.

For students who are just starting their PhD, the most important thing is to decide on your research field. Read papers, especially the most recent survey papers. Try to form a whole picture of the research field; know the topics, methodologies, and direction of future research.

Most importantly, exercise regularly, and pay attention to your physical and mental health.

Finally, what is one way in which our lives might change post-COVID-19?  
There will likely be a resurgence in healthcare-related industries and research. The pandemic has drawn our attention to the problems in existing healthcare systems all over the world. Many countries will likely increase their budgets on public health and urban planning, as well as on healthcare systems and infrastructure.
Lifting the Mask: COVID-19 Through the Eyes of a Fresh Grad

My friends and I started the year as gung-ho almost-graduates, prepared to plow through our last modules and make the most of our final semester. Our excitement was tempered with the anxiety of job search or grad school applications but there was a whiff of optimism in the air and a promise of a fresh start in a new decade.

With only four months left until graduation, we decided that there was not a moment to waste. We made bucket lists of canteen stalls we hadn’t tried, parts of NUS we hadn’t seen, and campus concerts we wanted to attend. We started planning our grad trip, debating the merits of Seoul over Bangkok. And then a pandemic happened, running our plans into the ground.

When the first few cases were reported in Singapore, none of us foresaw the extent of the crisis that would unfold, or how the COVID-19 circulars would escalate in severity over the semester, evolving from gentle reminders to maintain personal hygiene to announcements regarding the cancellation of exchange semesters and later, the transition to full e-learning.

Perks and perils of e-learning
While we were grateful for the timely measures to keep us safe, keeping up with the various academic adjustments during the semester was challenging, particularly since the transition to e-learning was implemented differently across modules. Moreover, online assessments, although a necessity, weren’t flawless; any honest student will admit that there are deviously intelligent ways to exploit the Zoom-proctored system.

However, e-learning surprised us with some silver linings. Those of us who felt uncomfortable speaking up in face-to-face lessons found it less intimidating to voice our views on Zoom. We also felt much less anxious during Zoom presentations since the audience was more focused on the content and less focused on our awkward selves.

We’ve all lost something precious in this pandemic: an exchange semester, a job offer, or the warm embrace of a dear friend. During the semester, we tucked these losses beneath a growing pile of assignments and kept on marking. But now, as the dust begins to settle, we’ve the time and energy to reflect on our losses. My friends and I lost a much-anticipated grad trip that was greenlit by our families after several months of persuasion. Graduating seniors about to enter the working world have lost an economic climate that was more hospitable to job-seekers. We’ve all lost opportunities to make a few more memories together at NUS. But things could be much, much worse.

Inequalities and fault lines
This is a crisis not only of health, but also of inequality. It has hit the poor, the aged, and those at risk of facing domestic violence the hardest, exacerbating pre-existing inequalities. Consider the transition towards home-based learning (HBL). A child from a less affluent family can borrow a laptop thanks to government measures, but perhaps she lacks support from her parents, who may be essential workers who do not have access to the largely white-collar privilege of working from home and supporting their children with HBL. Thus, the child may fall even farther behind her peers.

Vithiya Ragu

The pandemic has also exposed hidden fault lines in our society, as illustrated by the number of cases in the migrant worker community. While it is encouraging to see that the government has taken steps to control the spread of the virus in worker dormitories, and has pledged more comprehensive, long-term measures for migrant worker housing after dealing with the crisis at hand, there remain several fundamental concerns. More spacious and hygienic dormitories would have lessened the severity of the current crisis, but will they prevent the next one? Storms take many forms, and the next may not be a pandemic. Post-pandemic, should we continue to rely on an economic model that depends substantially on low-cost migrant labour? These are questions that we, students and researchers of economics, could help to answer through our work.

NUS students and alumni are actively helping society in numerous ways, for example, by volunteering to befriend migrant workers and seniors in isolation, assisting in fundraising efforts for social organisations, and distributing masks. It is heartening to see generosity and selflessness come to the fore in these trying times.

Graduating in a pandemic
This semester has been intense for all students, and doubly so for the Class of 2020. Graduating in a pandemic feels like watching a coming-of-age film that cuts to the credits midway through the climax. There is no satisfying resolution typically afforded by a celebratory grad party or trip. I now realise that the joy of reaching certain milestones in life comes not from the milestones themselves, but in the shared social memories made possible through them. Still, all is not lost. We’ll always carry with us the friendships and memories we’ve made since orientation.

Things are beginning to look up. Although social distancing measures are still in place, the circuit breaker is slowly being eased, and the economy is gradually reopening. Commencement has been postponed, not cancelled; the Class of 2020 still has a shot at the sweet resolution that we and our families have eagerly anticipated for years. In the meantime, we’re dusting off our shoulders and getting back on our feet, readying ourselves to navigate this precarious economy.
What were your favourite economics modules at NUS?
EC4305: Applied Econometrics was probably the most useful module in preparing me for my honours thesis. Having struggled with the abstractness of the core econometrics modules, this module was where things started to come together. Quantitative fundamentals are necessary, but what good are they as mere formulas etched in your brain without application to a practical context? Even if you don’t envision yourself designing randomised controlled trials in your career (I didn’t!), you’ll get exposure to research designs and econometric methods that can augment even the casual consumption of news articles and pop economics books.

EC4398: Economics of Inequality stood out not just as an economics module, but also as a “life skills” module. The content itself was interesting, but for me the greatest takeaway was the platform to hone my writing. We were tasked with conveying salient arguments within tight word limits. In my work today, where bosses have limited time and unlimited responsibilities, crafting concise yet sufficiently comprehensive emails is a valuable skill.

What does your job at CPF entail?
When I started as an Assistant Manager, I would often joke that I manage nothing but myself and my bosses’ expectations. There is still some truth to that; I don’t currently supervise any staff, and part of my work involves ensuring that my bosses have the updates they need to make informed decisions.

I work in the Policy Department, where things are very dynamic. Policy reviews not only involve working with the relevant ministry to develop policy submissions, but also liaising with colleagues from operational departments to understand their processes and the feasibility of proposed changes, and coordinating with legal officers to ensure that the policy intent is reflected in legislative amendments. These three workstreams are rarely linear; each feeds into the others in an iterative cycle.

I’ve also had the opportunity to work on assignments involving vastly different skills, such as ground-sensing projects (e.g., surveys and data dashboards) through which we obtain insights from the ground to feed into policy design. With the sheer variety of tasks that occupy my days, I make to-do lists, but I never know if I’ll get to work on that list the next day, or if some new issue will arise. Managing multiple timelines becomes second nature.

Pearlyn (right) chatting with a member at a CPF Retirement Planning Roadshow in 2019.
Has your job scope changed due to COVID-19?
The far-reaching consequences of the pandemic has meant public servants working tirelessly on all fronts. The CPF Board, for example, has been busy rolling out some of the key economic support measures: the Jobs Support Scheme (JSS), the Self-Employed Person Income Relief Scheme (SIRS), the Care and Support Package (CSP), and the recently disbursed $600 Solidarity Payment.

Implementation is just the beginning. We also monitor and assess the effectiveness of these measures. In times like these, we get to appreciate with greater clarity the wider impact of the work we do.

What are some common misconceptions that people have about CPF?
I have been volunteering at CPF Retirement Planning Roadshows for a number of years. Here are some common misconceptions that I’ve heard voiced by people who stop by the roadshows.

Myth: We need to set aside a specific dollar amount for retirement, by hook or by crook. Even among people who know about the three Retirement Sums — Basic, Full, and Enhanced — some have the impression that they need to choose one of the three sums, and set aside exactly that figure.

Fact: You are not required to make a withdrawal or top-up to set aside exactly the figure stipulated under a particular Retirement Sum; any amount in between is perfectly fine. You may certainly choose to top up your CPF if you’re keen to boost your retirement payouts. Regardless of how much you have in your Retirement Sum, you will still get your monthly payouts when you retire.

Myth: If I use my CPF monies to pay off my housing loan, I’ll have to pay the interest back to the government when I sell my house.

Fact: When you sell your house, you will refund the principal amount withdrawn and accrued interest into your own CPF account. The monies can be used again when you buy your next property (subject to the usual rules, of course). You are not required to top up in cash if the selling price is not sufficient to fully refund your principal and interest, as long as the property is sold at market value.

Myth: My CPF monies automatically go to my nominees’ CPF accounts when I pass away.

Fact: The CPF website states unequivocally that CPF monies will be paid out to nominees in cash. If you want your monies to be transferred to your nominees’ CPF accounts when you pass away, you will have to apply under the Enhanced Nomination Scheme.

What are the biggest grievances regarding CPF?
I’ve heard of two gruses, and sometimes the same people harbour both: “the Retirement Sum is too high” and “retirement payouts are too low”.

If we want higher payouts, we need to set aside more in our Retirement Sum. Conversely, setting aside less in our Retirement Sum will result in lower payouts.

Naturally, the Retirement Sum must keep increasing, not just to account for inflation and higher costs of living, but also to reflect our higher expectations of a basic retirement lifestyle. If we’re able to regularly top up our CPF, even in small amounts, we’ll benefit significantly from interest compounding over the years, and enjoy higher payouts in our retirement.

Compound interest — interest earned on interest — is touted as the eighth wonder of the world.

What traits do you think are most important in the public sector?
I think an important trait, likely not just in the public sector but anywhere, is adaptability. Each of my colleagues have different job scopes and work experiences, depending on our respective portfolios. The work we do and the skills we tap on can often boil down to the luck of the draw; none of us could have known exactly what our work would entail on the day we joined. Having to deal with unfamiliar topics and additional responsibilities is also not uncommon.

In all these situations, an ability to adapt to our constantly changing circumstances is what keeps us afloat.

Another trait that I personally value and that I also see embodied in my organisation is a spirit of collaboration. This spirit doesn’t have to be exemplified through frequent group meetings, but can indeed be expressed by taking an extra five minutes of our time to help a colleague with a task. In such an intricate system as the CPF, every part must work smoothly with the others to contribute to a synergistic whole. Inter-department project teams are common, and a collaborative disposition can grease the wheels of any complex task.

Do you have any advice for undergraduates?
Don’t let your major limit your learning. Deepening your knowledge in a field is a key part of tertiary education, but this is the best time to broaden your horizons as well. Take modules that are completely unrelated to your field. I was thrilled to take modules ranging from Formal Logic to the Phenomenology of Pain, not just for the modular credits, but because they were truly fascinating.

Talk to people from different majors and different faculties. You may find yourself fascinated by something in their field. Conversations with fellow students in the University Scholars Programme were what drove me to apply for a second degree in Business at the end of Year 2 — a bold move when almost no double degree applicants were accepted beyond the Year 1 cycle.

Your exploration doesn’t just have to be academic either; classes are a mere fraction of your time in university. Opportunities abound! My rock-climbing journey started out with gathering some friends and arranging for a group course, and I’ve never looked back. The common saying is “go out of your comfort zone”, but to that I’d add “and create new ones”! You might end up finding comfort in the new things you try.
**Could you tell us about your role at World Wildlife Fund (WWF)?**
I have been with WWF-Singapore’s Market Transformation team since September 2017. The Market Transformation team leverages on key market players in Singapore and the region to deliver on the office’s priorities. We identify strategic opportunities to build partnerships with the corporate sector — both large and small companies — and to influence positive actions across the value chain in Singapore and Southeast Asia.

We launched our business engagement platforms on palm oil (SASPO) and plastics (PACT) in 2017. We help to empower businesses to make more responsible business choices through workshops, company commitments, and co-creation of innovative solutions for the industry.

**Tell us about your journey from NUS to WWF.**
When I first applied to NUS, I applied for the Environmental Sciences programme. However, I ended up at FASS, which I enjoyed as I could pick and choose modules that sparked my interest. I majored in Economics and minored in Geosciences, and also took modules in Political Science, Global Studies, and the Faculty of Science.

One thing that I took away from economics was the concept of negative externalities. Negative externalities demonstrate that the issues that we as a society struggle with today, such as climate change, can be resolved only through systemic change.

I also volunteered for two Overseas Community Improvement Projects (OCIPs) at NUS. The work included forest restoration in Chiang Mai, Thailand. But upon coming home, I realised that what we had done was unlikely to be sufficient to address the root causes of deforestation. I did a lot of self-reflection, and felt that what I was doing wasn’t enough. I couldn’t just keep doing small things. WWF provided a way for me to channel my energies into passionate action.

**What has your experience in WWF been like?**
I have gotten so much exposure to conservation science and sustainability principles for businesses. The resources I have been able to tap on in the WWF network, and the opportunities for us to engage with people and businesses to forge towards a common goal — conservation — has made the job very meaningful.

We set up voluntary business engagement platforms to help MNCs and SMEs commit to and work towards a sustainable supply chain. We want to understand the challenges that businesses face in trying to achieve their sustainability goals. For example, most businesses do not have internal sustainability experts to rely on for advice. The people I usually speak to are marketing or procurement professionals who are not trained in environmental sustainability and may thus struggle to understand the complex jargon.
What are the greatest threats to wildlife?
The greatest threats are illegal poaching, destruction of habitat from agriculture and rapid urbanisation, pollution, and climate change. Globally, 27 football fields of tropical forests, which are some of the most biodiverse forests in the world, are cleared every minute.

Southeast Asia, relative to other tropical regions, has the highest rate of deforestation and the highest proportion of threatened species. Most of the large-bodied animals native to the region (e.g., tigers, rhinos, elephants, orangutans) are already endangered or critically endangered. They are unlikely to recover if we do not immediately address the threats.

In your opinion, what are the issues in wildlife conservation that do not get sufficient coverage in the media?
Everyone pays attention to the cute giant panda and the charismatic lion. But we don’t realise that there are many other types of wildlife that are close to extinction or endangered.

I wish that the media would give more coverage to the not-so-charismatic wildlife, such as insects. Bees, for instance, are extremely important because of their role in pollination in agriculture. Globally, bee populations are at serious risk due to rising temperatures, excessive use of pesticides, and habitat loss. Companies have had to create unnatural pollination techniques or come up with new technologies to address this problem. Businesses are spending millions just to ensure that their crops are successfully pollinated.

This problem is a clear indication that we forget how closely intertwined we are with nature. There is a really delicate balance in the ecosystem that needs to be protected. Maintaining this balance is not possible if we continue the rate at which we are consuming natural resources and destroying our natural environment.

What is the most challenging part of your work?
The Market Transformation team is quite new in Singapore, and the initiatives that we have been pushing for are long term. It can be quite demoralising sometimes because I know that in the short term it is hard to see any results. I have to remind myself that it takes a long time for the benefits to be realised.

Five years from now, I hope to look back on how everything has slowly come together, and how business sustainability has improved in Singapore and Southeast Asia.

What can we expect post COVID-19?
The drivers of emerging infectious diseases such as COVID-19 are increased land-use change and degradation of nature, intensification of livestock production, and the continued sale and consumption of high-risk wildlife.

As countries recover and rebuild post-pandemic, it is essential that we do not go back to “business as usual”. Instead, we need to take the opportunity to introduce systemic change. Otherwise, we can expect future pandemics to be as severe as COVID-19, or even more so.

In Singapore, I hope to see that we will increase our consumption of sustainable commodities, adopt more stringent enforcement of the illegal wildlife trade, and place greater emphasis on sustainable finance and a green economic recovery.

What advice would you give to students who are thinking of pursuing careers with NGOs?
Maximise your university experience, and continue to develop yourself as a person. Don’t be overly focused on your grades. Take modules that interest you, join student groups to explore new interests, and so on and so forth. Doing so will help you understand what you really want to achieve in life, and help you become a more well-rounded person who is not defined solely by your grades.
You are currently a trader at DRW. Can you tell us about what you do?
DRW is a diversified proprietary trading firm that utilises our own capital, and trades at our own risk. I am a trader with the Delta One team. Delta One trading involves financial derivatives and products that have no optionality component. Thus, the change in the price of a derivative product relative to the change in the price of the underlying asset — the delta — is close to one. I trade primarily equities and equity derivatives across various exchanges in Asia, Europe, and the U.S.

What made you want to be a trader?
I did a Double Degree Programme in Economics and Mechanical Engineering at NUS. I was drawn to the proprietary trading industry because the work requires quantitative skills and a solid grasp of finance and economics. I felt that this industry would allow me to fully utilise my training in both disciplines.

Trading is also one of the few careers where I can experience the same level of intellectual intensity that I experienced as a student at NUS. I read papers, derive mathematical models, and interpret economic events during the course of trading.

What is your daily work routine like?
I wake up before 6:00 a.m. to catch up on the news and on how the markets performed in Europe and the Americas while I was asleep.

Upon reaching my office, I start up my programmes and prepare for the opening of the Asian markets. Thereafter, I multitask — I keep a lookout for trading opportunities, optimise my daily positions, track the direction of the markets, stay up-to-date on the news, and work on developing new strategies. Work requires 100% focus, so DRW caters breakfast and lunch every day.

If there are interesting things happening in the markets, such as the release of central bank policy statements or key economic data like non-farm payrolls, I could stay past the opening of the U.S. market, which could mean more than 16 hours in the office.

What is the most challenging thing about your job?
Developing new trading strategies. Strategies have expiry dates; as more market participants come to know of a certain strategy, your slice of the pie shrinks.

What is the most useful skill you learned in NUS, which is applicable to your work?
The analytical and problem-solving mindset — to identify the opportunity or problem, zero in on the root cause, and execute the solution.

I learned the most when I was working on my honours thesis. Under Professor Julian Wright, I had the freedom to choose the direction of the thesis, which meant total responsibility in identifying potential research topics, developing the research question, exploring possibilities, and working through the solution.

What are some of the challenges in this period?
Certain strategies are not working as they used to. Quant strategies including those involving machine learning are generally trained on past data, but market swings in this period have not been seen since 1987.

For example, circuit breakers in the U.S., which impose trading halts during very volatile conditions, have been used only once since they were designed after the October 1987 crash. That one time was during the Asian Financial Crisis in 1997. In the past few months, however, we have experienced the U.S. circuit breakers on four occasions. In response, the higher risk in quant strategies have to be accounted for, and the risk-reward of each strategy reassessed.

Returning to direct arbitrage strategies, this is more a period of opportunities than challenges. Thus we have to maintain focus and take advantage of market opportunities.
Do you have any insights to share regarding how specific industries have been impacted by COVID-19? Industries that have been hit hard by COVID-19 include luxury brands, tourism, airlines, aircraft manufacturers, and energy. Luxury conglomerates including LVMH, Richemont, and Kering have become reliant on Chinese demand, and were affected earlier on due to the Chinese postponing overseas trips and quarantining themselves. As the virus spread, countries began closing their borders and tourism, airlines, and aircraft manufacturers like Boeing and Airbus were consequently impacted, with airlines cancelling most of their flights and reducing orders for new aircrafts. Oil prices and the energy industry eventually suffered with reduced travel and economic activity in general.

The pharmaceutical industry on the other hand has been outperforming the broader economy due to the understandable increase in demand for drugs and other healthcare products, and the development of potential vaccines and cures.

Communication companies have also benefited as many white-collar workers are now working from home. In a classic example of market irrationality, some market participants betting on the videoconferencing platform Zoom bought shares in Zoom Technologies, a mobile phone component manufacturer. The stock price of Zoom Technologies rose by more than six times in the early months of the virus, while the stock price of videoconferencing platform Zoom Video Communications “merely” doubled.

What advice do you have for students who are interested in starting a career in trading? What is the most important skill that a trader needs?

Trading is a demanding job that requires long hours of high concentration with minimal tolerance for mistakes. It is intellectually stimulating and rewarding if you find profitable strategies, but it can be punishing otherwise. The financial markets are constantly evolving; thus we have to be flexible in order to thrive in this industry.

The most important skill as a trader is having an eye for opportunities. In order to be successful, we have to be tuned in to the latest global developments, and we have to be inquisitive, which means being willing to question assumptions and the status quo.
Master of Economics Seminar Series

How Economists Can Be Great Data Science Practitioners
October 31, 2019
Mr Cliff Chew Kuo Ting received his Bachelor’s and Master’s degrees from the NUS Economics Department. Cliff worked as a Data Analyst at Carousell before joining Grab in July 2019. He is currently a Senior Data Analyst in the Trust, Identity and Safety team (TIS), where he sifts through data to help identify different types of risks and fraud. During the seminar, Cliff shared how he picked up Python on his own, and how he enjoys the powers of coding. Economists are beneficial to the data analytics team in any corporation because they are trained to understand both microeconomic (business) and macroeconomic trends.

An Introduction to Asset Allocation Models for Investment Decision-Making
November 14, 2019
Mr Ding Li is a Senior Vice President with the Economics & Investment Strategy department at GIC. He has been at GIC since 2014. Previously, he worked at CPP Investment Board, a Canadian Crown corporation. During the seminar, Ding gave a brief introduction on asset allocation and portfolio quantitative analysis, and shared about GIC and the asset management industry.

NUS Economics Alumni Inaugural Virtual Networking Event
May 13, 2020
By Valerie Chow
(President, NUS Economics Alumni)

“Always turn a negative situation into a positive situation.” — Michael Jordan

The NUS Economics Alumni Committee did just that during the COVID-19 circuit breaker. We held our Inaugural Virtual Networking Event on Zoom — a first in the 13 years since the inception of the NUS Economics Alumni.

We had a great turnout of 30 people, including five committee members who hosted the break-out rooms, and Professor Satoru Takahashi, the Head of the Economics Department. For a majority of attendees, it was their first time networking online.

There was a good mix of alumni ranging from those who graduated in the 1980s to more recent graduates. Many Zoomed in from Singapore, and some from Shanghai and Tokyo. Attendees were from a range of industries, including finance, recovery services, manufacturing, oil & gas, consulting, law, and the civil service. We also had alumni from Facebook, ByteDance (TikTok), and NUS joining us. The breadth of industries and roles shows how versatile an Economics degree can be.

“It was great meeting Economics alumni and faculty too. Looking forward to more such events!”
Vikrum Trehan (Master of Social Sciences in Economics, 2004; Goldman Sachs)

“Thanks to the committee who made it possible for us to connect with Economics graduates of different age groups, from peers to mentors and industry veterans. I’m looking forward to the next meeting, hopefully in a real setting post-COVID-19.”
Evan Loh (BSoSci (Hons) in Economics, 2019; ExxonMobil)

“I fully enjoyed the networking session organised by the NUS Economics Alumni Committee. It was my first time attending a networking session via Zoom during the COVID-19 period; I’d say it was very well organised!”
KC Ho (NUS-Waseda Double Degree Programme, BA in Liberal Arts and BSoSci (Hons) in Economics, 2012; Facebook)
Asian and Australasian Society of Labour Economics Conference
December 12–14, 2019

NUS hosted the third AASLE Conference on December 12–14, 2019. A/P Jessica Pan, Dr Nina Guyon, Dr Kelvin Seah, Dr Gong Jie (Business School), and Dr Xing Xia (Yale-NUS) were part of the organising committee.

Invited speakers presented their research: Professor David Autor (MIT) on the evolving content and geography of new work in the 20th century; Professor Hilary Hoynes (UC Berkeley) on the long-run effects of the U.S. Food Stamp Program; Professor Jérôme Adda (Bocconi) on the effect of legal status and cultural distance on intermarriages and separations in Italy; Professor Seema Jayachandran (Northwestern) on social norms as a barrier to female employment in developing countries; Professor Basit Zafar (Arizona State University) on gender differences in regrades in college; Professor Yves Zenou (Monash) on the spillover effects of a large-scale early childhood intervention in Chicago.
as where our food comes from. In this class, I learned how government policies heavily influence food markets in countries that are very reliant on agriculture, such as India, China, and Australia. I was also exposed to the different agreements that are in place to ensure fair trade of food commodities, which is highly relevant in Singapore's context, since we import most of our food.

**What impressed you most about the people you met in Melbourne?**
The people in Melbourne are very convicited in the fight against global warming and climate change. Many people bring their own recyclable bags to supermarkets, and use personal mugs when ordering coffee.

One of my classes was cancelled because the lecturers were attending a climate change protest to raise awareness on climate change.

**Tell us about your most memorable experiences.**
I took a few days to explore the different coffee shops in Melbourne. It is said that Melbourne is one of the best places to get coffee in the world, and I mostly agree with that claim.

Even the cheap coffee at 7-Eleven and other convenience stores were pretty good, and they served me well while I was studying for my finals.

Melbourne is a city that is easy to get lost in. I spent a few days exploring and wandering around aimlessly with my camera, which allowed me to get a good sense of what the city was all about.

**What did you miss most about Singapore?**
The cheap and delicious hawker food. It’s not to say that Melbourne has bad food but I am definitely not happy to pay $15 for a plate of chicken rice!

**Do you have any advice for future exchange students?**
Do take care of yourself while overseas because seeking medical treatment can be expensive! I had to visit a doctor for an infection, and ended up shelling out $200 because insurance doesn’t cover 100% of the costs.

Regardless of the country you are visiting, try to be open-minded and adventurous. Singapore is but a small dot in this large world, and you will probably encounter many things that you might not understand at first.
Tell us about your experience in Ontario.

Western University is located in London, Ontario. This London is unlike the huge metropolis of London in the UK, or even Toronto or Vancouver. It is a small city that is a 2-hour drive from Toronto.

Some may say that London, Ontario has nothing much to offer. But for me, living and studying here was a refreshing change from the usual hustle and bustle in Singapore. I enjoyed the relaxed and slow-paced life in London.

Getting to school by bus takes 30-45 minutes. Buses are not very frequent, and the inconvenience is especially felt in the winter. You can imagine that waiting for a not-very-regular bus at sub-zero temperatures was not exactly fun.

What was your most memorable experience?

My housemates and my family back in Singapore collaborated to organise a birthday surprise for me.

Earlier that day, I had Chinese food for lunch at the university’s cafeteria. Chinese food in Canada usually comes with a fortune cookie. As cheesy as it sounds, the note in the fortune cookie that day said: “Something wonderful is about to happen to you.” Maybe a fortune cookie is more than a snack; it could be a sweet surprise, hitting you when you least expect it.
How did you find Vancouver?
Vancouver feels like a city that has the world in it. I was able to make friends with people from many different places — from the Middle East to Africa to Europe.

I lived on campus, which is up on a mountain. Getting to town is a 15-minute bus ride down the mountain. There were many occasions when bus services were cancelled because of union strikes. Students who lived off-campus would have to either walk up the mountain (which takes an hour) or skip classes. This has become such an issue that the city council approved a proposal by the university for a gondola lift to be built to connect the foot of the mountain to the university campus.

What was your most memorable experience?
I was invited to go on a hike with another Singaporean, a French, and a Belgian. I thought it was going to be a manageable hike, but I was so wrong. It turned out that I was hiking with three veteran hikers who never stopped even once for a water break. We went up 1,000 metres at -12 degree Celsius. I felt like the hike would never end, and my body was breaking down bit by bit with every step.

Finally, after six hours, we reached the summit! The views were worth the pain. The hike was tough but it really reminded me of life — you want the good, you’d better be okay with the grind.

How did you find your classmates at Simon Fraser?
I found my classmates to be commendably proactive learners. Surprisingly, unlike many of us, they were hardly ever distracted in class. Each time I scanned the lecture hall, my classmates were actively listening — they were not on their phones or on their laptops surfing social media.

Also, they were never afraid of asking questions. I was encouraged to also become an active member of my classes. I was made to think harder and more critically.

Tell us about your favourite class.
Sasha Ramnarine is a name I will probably never forget. He taught me Business Law. I had thought that it was just a module that I would be taking to clear my unrestricted electives, and that was it.

Sasha’s use of real-life examples made law, which had appeared to me as something dull, come to life. He also walked us through how laws are actually quite dynamic, as they change with the times and are never fixed.

What is your biggest take-away from your student exchange experience?
Canada has been one of the biggest blessings in my life. Going there was like hitting pause on my life. I was able to leave all my emotional baggage back at home, and truly live in the moment and just do me — like the true me.

Before leaving for Canada, I was pretty introverted. I took a long time to make friends because I was always overthinking how people might perceive me.

In Canada, I did not have to concern myself with what people thought of me, which allowed me to be more open to new experiences and friendships. Now, I am still in contact with my Canadian classmates, some of whom have decided to apply for exchange in Singapore next year (yay!).

A celebratory photo session at the top of Mount Garibaldi.

Dwarfed by the beautiful Moraine Lake.
Tell us about your NOC experience.
I am interning in SPICE VC, a venture capital company that is focused on the tokenization and blockchain industry. I chose this company as it offers a great balance between gaining broad exposure in private equity and deep knowledge in the blockchain industry.

The company comprises just the two co-founders and myself, which gives me the opportunity to work really closely alongside my bosses and be involved in almost all parts of the company’s operations from investor onboarding to market research.

Two bosses and no colleagues — that must be an interesting experience!
As it turns out, I did have colleagues! My office was located in the same room as one of SPICE VC’s portfolio company, Securitize. As my bosses were traveling most of the time, the majority of my office time was spent with the Securitize team.

The team gave me a welcome gift on my first day of work — a nerf gun. It is part of the company culture to engage in spontaneous nerf-gun fights, and trust me when I say that these fights are not to be taken lightly.

My colleagues were a jolly bunch to be around. They are also extremely talented and committed in their work. It was not uncommon for some of us to stay back in the office working overtime on our projects. It really is an office that embodies the “work hard, play hard” motto to a tee.

How did you find Israel?
I was deeply enchanted by how the country mixes the old with the new. In Jerusalem, you can take a highly-developed tram system that whisks you through streets that are thousands of years old. In Tel Aviv, you can stand along the 4,000-year-old Jaffa port and admire the tall skyscrapers lining the coast. These moments make up some of my defining memories of Israel.

Tell us about the highlights of your time in Israel.
There are so many great things about Israel!

Yad Vashem, the World Holocaust Remembrance Centre, is one of the most impressive museums I have ever visited. Israel is a country deeply shaped by its history, and the trip to Yad Vashem allowed me to appreciate the spirit of resilience that is deeply embedded in the Israeli culture.

Probably the most memorable experience I had was abseiling down a cliff in Mitzpe Ramon, which overlooks the world’s largest erosion cirque. Being completely surrounded by nature and seeing the landscape stretch out to beyond the horizon filled me with pure amazement.

Did you encounter any unique challenges while living in Israel?
Adjusting to Shabbat was definitely a unique challenge. Shabbat translates to “rest day” and occurs weekly; it starts on Friday evening and lasts till Saturday evening. During Shabbat, almost all shops will be closed and most public transport will not be running. Religious Jews will not touch anything electronic, including their mobile phones and computers.

Having gotten used to the bustling city lifestyle of Singapore — where everyone perpetually has something to do and somewhere to be — this was truly a fascinating experience. My roommates and I would often go to the Tel Aviv beach to watch the sunset — a common activity among the locals during Shabbat.

Shabbat really made me appreciate the value of taking a breather once in a while and reorienting myself.

Annina on a road trip at Mitzpe Ramon, after a hike up to the peak of Har Ardon.

Annina Zhang
NUS Overseas Colleges: Israel
January – June 2020

What did you learn during your NOC experience?
I think the lesson learned can be summarised in one word — chutzpah! Chutzpah is a word that Israelis use to describe an audacious attitude.

In Singapore, we’re very used to looking to an authority figure for instructions or following guidelines. While this is certainly important (especially during this COVID-19 season), it also tends to breed a mentality where we are more comfortable conforming to the norm and not taking any risks.

Chutzpah is about having the courage to deviate from conventional routes even if that means embracing a more impractical option or facing a higher chance of failure. I saw this spirit being embodied by many of the people I met in Israel. It is not uncommon to hear about people switching fields entirely mid-career or going back to university in their mid-thirties to pursue a newfound passion.

So applying that spirit to my own life, I learned not to dismiss ideas so quickly on the grounds of them being too “impractical” or “crazy”.

The second half of your NOC experience is in Singapore due to the COVID-19 situation. How has the transition been for you?
Thanks to the nature of my work, transitioning to remote work has not posed any challenges in terms of productivity. I am also really lucky that the Israel–Singapore time difference is just five hours; so I am still able to have regular calls with my bosses.

However, I definitely do miss being in Tel Aviv and sharing coffee breaks with my colleagues!
showcase the pre-released features, the Head of Demand Generation would share about the upcoming project to update the website, and the COO would brief us on the company’s overall progress. Everyone would have a clear idea of each team member’s role, and the direction the company was headed in.

The company emphasised open communication between managers and juniors. My manager would meet with me every month to discuss my performance, and provide constructive feedback on how I could improve. She would also ask me about what projects I would like to work on. Thanks to her, I got to be involved in projects I was interested in, work with different people in the company, and gain a range of perspectives.

How did you find Toronto?
The weather in Toronto is very unpredictable compared to Singapore. I picked up a habit of asking my Google Mini, “Hey Google, how is the weather today?” before getting dressed every morning. Even though my office was about a three-minute walk from home, it could be a disaster if I wore the wrong jacket.

I find that the people in Toronto are generally more open to starting a conversation. I could easily make friends with the people I met. I even stepped out of my comfort zone to talk to a stranger while we were both waiting for our coffee — something I had never done in Singapore.

Tell us about one defining moment during your time in Toronto.
When the Raptors won the NBA Championship in 2019! People went crazy, doing pull-ups on lamp posts, climbing onto buses, cheering and shouting till 3:00 a.m.

It was even more memorable when everyone from the company literally “took a break” from work on the day of the Raptors’ championship parade in downtown Toronto. We waited for four hours before we managed to catch them.

What lessons did you learn during NOC — expected and unexpected?
NOC is renowned for its great opportunities to kickstart one’s entrepreneurial journey. I expected to learn more about starting a company, and I did.

The one thing that I did not expect myself to learn was how to love myself. Loving myself includes taking care of myself physically and mentally, understanding myself, and recognising what I want and need in life.

What would you like to bring with you to the next chapter of your life?
Being adaptable. Taking my very first step out of Asia was not easy. I also challenged myself to step out of my comfort zone at least twice a month — through meeting new people, trying new things, travelling. Though uncomfortable, the sense of achievement that I had every time I stepped out of my comfort zone was truly amazing.

Being positive. When I catch myself thinking self-critical thoughts, I consciously change those thoughts into positive ones. I believe that a positive mindset is essential to developing healthy self-esteem that will give us more courage in the face of adversity.

Being resourceful. Working at Keyhole allowed me to wear multiple hats and pick up new skills on the fly. I really enjoyed the process of finding answers by myself and building things from scratch.
Tell us about your NOC experience.
I worked at Resonance China, a digital and social media agency based in Shanghai and Beijing. It services foreign brands entering the Chinese market through digital consulting, social communications, social customer relationship management, and social e-commerce.

Although my official job title was “Accounts Executive”, I was more akin to a “jack of all trades”. I had a highly variable job scope, ranging from drafting pitch-decks, writing VBA codes, writing a research report, managing clients’ accounts, conducting internal training, and at times, functioning as a personal assistant for my bosses.

One particularly memorable project that I worked on was a 50-page independent research report on the digital consumer journey of a Chinese Free Independent Traveller (FIT). I had the chance to dive deep into the mindset of a Chinese consumer, and understand the Chinese social media spaces within the travel niche. I was able to value-add to the Beijing team with this domain knowledge.

How was the work culture at Resonance China?
At Resonance China, everyone except the founder is Chinese. The company retains the conservative nature of employer-employee relationship, whereby the employee follows fixed structures and working styles with little cross-pollination. It’s probably similar to traditional SMEs in Singapore, where employees largely stay within their job scope.

What did you like about Beijing?
One of my favourite aspects of Beijing is the convenience of having immediate gratification in almost every part of my daily life, as I can purchase almost any good or service using my phone. In Singapore, services like food delivery are more expensive, and mobile payment and e-commerce are less widespread.

Beijing is filled with people from all over China seeking better employment opportunities. Resultantly, the city has a wide variety of Chinese food — that was my favourite part of NOC! I love the kao leng mian (烤冷面), translated as “grilled cold noodles”.

What did you not like about Beijing?
One downside is that food offerings tend to be predominantly Chinese. I was often unable to get good non-Chinese food without burning a hole in my wallet. As much as I love the variety of Chinese food in Beijing, Singapore has a wider selection of food from all over the globe.

What do you miss most about Beijing?
My fellow NOC-ers and I lived in an area very near to the conglomeration of bars and clubs. As a result, we spent a lot of time eating out, and bonded over barbecued meat and beer, which is a lot cheaper in Beijing than in Singapore. I miss the barbecued meat and beer very dearly.

What was one unexpected thing you experienced in Beijing?
Beijing has a very large community of magicians. As a magician myself, I had a lot of fun immersing myself in the community there, often staying till late at magic bars and jamming with other magicians. I had the opportunity to participate in a magic convention involving all tertiary institutions in Beijing. I was able to watch Chinese traditional magic by masters that are not seen outside of China. I even had sessions with the best magicians in Beijing till late at night on various occasions.

What was one thing that you learned during NOC that you probably would not have learned at NUS?
In Beijing, I was exposed to a fast-changing digital media landscape that is unimaginable for those of us who are familiar with the dominance of Facebook or Google. For example, amidst the fierce competition, the market share of a social media platform may either double or die out within a year or less. Moreover, other than WeChat, there is no monopoly over the social media space. Incumbents are constantly challenged by new platforms with different niches.

Furthermore, from my limited interactions with Chinese entrepreneurs, it appears that their mindset is vastly different from Singaporeans’. At NUS, I was taught to put thought into business models, and to identify problems or gaps in the market before conceptualising the product. However, from my conversations with Chinese entrepreneurs and performers (magicians), they are often more product-centric and less particular about identifying specific gaps in the market, for they seek to service the entire city or country with their products, and can confidently do so due to the large domestic market. As such, I learned about alternative approaches to business that I would never have learned in an NUS classroom.
Trade, Pollution and Mortality in China
Matilde Bombardini, Bingjing Li
*Journal of International Economics, forthcoming*
Did the rapid expansion of Chinese exports between 1990 and 2010 contribute to China’s worsening environmental quality? We exploit variation in local industrial composition to gauge the effects on pollution and health outcomes of export expansion due to the decline in tariffs faced by Chinese exporters. In theory, rising exports can increase pollution and mortality due to increased output, but they may also raise local incomes, which can in turn promote better health and environmental quality. The paper teases out these competing effects by constructing two export shocks at the prefecture level: (i) the pollution content of export expansion; (ii) export expansion in dollars per worker. We find that the pollution content of exports affects pollution and mortality; a one standard deviation increase in the shock increases infant mortality by 4.1 deaths per thousand live births. The dollar value of export expansion reduces mortality by 1.2 deaths, but the effect is not statistically significant. We show that the channel through which exports affect mortality is pollution concentration. We find a negative but insignificant effect on pollution of the dollar-value export shocks, a potential “technique” effect whereby higher income drives demand for clean environment. Finally, we find that only infant mortality related to cardio-respiratory conditions responds to export shocks; deaths due to accidents and other causes are not affected.

The Optimal Composition of Public Spending in a Deep Recession
Hafedh Bouakez, Michel Guillard, Jordan Roulleau-Pasdeloup
*Journal of Monetary Economics, forthcoming*
We study optimal fiscal policy in an economy plunged into a deep recession characterized by a liquidity trap, and in which the government can allocate spending both to consumption and investment goods. Public investment increases the stock of public capital subject to a time-to-build constraint. The zero lower bound on the nominal interest rate binds as a result of a large shock that increases households’ desire to save in the risk-free asset, pushing the natural rate of interest below zero. Under nominal rigidities and sub-optimal monetary policy, the shock leads to a large decline in private consumption and investment. We show that the optimal response to such a shock is to temporarily raise public spending above the level that would be dictated by classical principles, and to tilt its composition towards public investment. This compositional shift lasts well after the natural rate has ceased to be negative. Our results suggest that the American Recovery and Reinvestment Act of 2009 was insufficiently oriented towards public investment.

Biased Aspirations and Social Inequality at School: Evidence from French Teenagers
Nina Guyon, Elise Huillery
*Economic Journal, forthcoming*
Socially disadvantaged students are less likely to aspire to the top educational pathways than their advantaged classmates who have the same test scores. We identify two behavioural biases that explain most of this gap; socially disadvantaged students are less aware of the top educational pathways and underestimate their academic ability, relative to their advantaged peers. We also find that lower educational aspirations at a point in time are associated with poorer school outcomes later on after controlling for many important factors. Debiasing aspirations through information campaigns and self-esteem building programs could thus help reduce social inequality in educational attainment.

Superstition, Conspicuous Spending, and Housing Market: Evidence from Singapore
Jia He, Haoming Liu, Tien Foo Sing, Changcheng Song, Wei-Kang Wong
*Management Science, Vol. 66, No. 2, Feb 2020*
We study the effect of superstition and conspicuous spending motives on housing demand and price in Singapore. We find that buyers pay less for homes with unlucky addresses and more for homes with lucky addresses. There were fewer housing transactions on auspicious days of the lunar calendar when people are advised to avoid making major economic decisions. This suggests that superstitious belief still affects economic activities. The demand for lucky addresses is also weaker on these auspicious days, suggesting that superstitious belief indeed affects the demand for lucky addresses. Moreover, the price premium for a lucky address is significantly higher for apartments of larger size or on top floors. Because these two housing features can signal wealth and are highly visible, the larger price premium suggests that conspicuous spending motives also play a significant role in the Singapore housing market. We also find that informed buyers, even with less superstitious or conspicuous spending motives, might still pay price premiums for lucky addresses. In contrast, uninformed buyers are unlikely to pay a premium for these addresses.

Gender Gap under Pressure: Evidence from China’s National College Entrance Examination
Xiqian Cai, Yi Lu, Jessica Pan, Songfa Zhong
We examine gender differences in the response to competitive pressure using data from the most competitive entrance exam — China’s Gaokao. Compared to male students, females underperform on the competitive and high-stakes Gaokao, relative to their performance on the low-stakes mock examination. Moreover, women’s performance suffers more than men’s in response to negative performance shocks in an earlier exam on the same day. These effects are more pronounced for subgroups of students where the stakes matter more. Overall, these findings appear to be best explained by women’s lower tolerance for pressure and weaker incentives to do well in high-stakes settings.
Migration, Transportation Infrastructure, and the Spatial Transmission of COVID-19 in China
Bingjing Li, Lin Ma
Working paper
This paper evaluates the impacts of migration flows and transportation infrastructure on the spatial transmission of COVID-19 in China. Prefectures with larger bilateral migration flows and shorter travel distances with Hubei, the epicenter of the outbreak, experienced a wider spread of COVID-19. In addition, richer prefectures with higher incomes were better able to contain the virus at the early stage of community transmission. Using a spatial general equilibrium model, we show that around 24% of the infections outside Hubei province can be explained by the rapid development in transportation infrastructure and the liberalization of migration restrictions in the past decade.

Age of Decision: Pension Savings Withdrawal and Consumption and Debt Responses
Sumit Agarwal, Jessica Pan, Wenlan Qian
Management Science, Vol. 66, No. 1, Jan 2020
This paper exploits an administrative regulation in Singapore that allows individuals to withdraw between 10% and 30% of their pension savings at age 55. We find a large and highly significant increase in individuals’ bank account balances within the first month of turning 55, which declines by about a third by the end of 12 months. Consumers use the increase in disposable income to pay down credit card debt. Liquidity constrained individuals are significantly more likely to increase their spending upon turning 55 than unconstrained individuals. Nonetheless, the spending response of constrained individuals is concentrated on nondurable and nonvisible goods rather than visible goods. We also provide evidence that withdrawal behavior is responsive to the prices of durable goods such as cars. Consumers appear willing to forego much higher interest rates in their retirement accounts by leaving a sizeable portion of their withdrawn savings in a low-interest accruing bank account for at least a year after withdrawal. We show that, for some consumers, part of this behavior may be due to the desire to invest in the property market when housing returns are high.

Aggregate Consequences of Credit Subsidy Policies: Firm Dynamics and Misallocation
In Hwan Jo, Tatsuro Senga
Review of Economic Dynamics, Vol. 32, Feb 2019
Many countries adopt policies that attempt to alleviate credit constraints faced by small and young firms. We study the aggregate impact of such targeted credit subsidies in a heterogeneous firm model with collateral constraints and endogenous entry and exit. We find that credit subsidies resolve misallocation of resources, raise individual productivity among targeted firms, and enhance aggregate productivity. However, in equilibrium, increased factor prices reduce the number of firms in production, which in turn depresses aggregate productivity. When the model incorporates the observed heterogeneity in the size and age of U.S. firms, both welfare and aggregate productivity increase. But when the model abstracts from an empirically consistent firm size distribution, the indirect general equilibrium effects dominate the direct productivity gains.

Did the Communists Contribute to China’s Rural Growth?
Yi Lu, Mengna Luan, Tuan-Hwee Sng
Explorations in Economic History, Vol. 75, Jan 2020
The communist revolution brought unprecedented changes to China. Yet there is no consensus on its role in the history of China’s modern economic growth. We investigate whether local communist party membership affected developmental outcomes from 1957–78 (the Maoist period) and 1978–85 (the reform period). Focusing on Sichuan, China’s most populous province, we use the Long March as an instrument to tease out causal effects. We find that counties with more communist members made larger strides in educational attainment, road construction, and agricultural mechanization during the Maoist period. However, these counties recorded faster output growth only after 1978. Our findings provide empirical support to field studies conducted by sociologists and historians who argue that the communists improved the organizational infrastructure in China’s countryside. Furthermore, we highlight the futility of solving collective action problems without heeding private incentives.

Sequential Expert Advice: Superiority of Closed-Door Meetings
Parimal K. Bag, Tridib Sharma
International Economic Review, Vol. 60, No. 4, Nov 2019
Two career-concerned experts sequentially give advice to a Bayesian decision maker (D). We find that secrecy dominates transparency, yielding superior decisions for D. Secrecy empowers the expert moving late to be pivotal more often. Further, (i) only secrecy enables the second expert to partially communicate her information and its high precision to D, and swing the decision away from the first expert’s recommendation; (ii) if experts have high average precision, then the second expert is effective only under secrecy. These results are obtained when experts only recommend decisions. If they also report the quality of advice, a fully revealing equilibrium may exist.

Individual Preference for Longshots
Robin Chark, Soo Hong Chew, Songfa Zhong
Journal of the European Economic Association, forthcoming
Results from studies on risk-taking behavior suggest that people tend to be risk seeking when making choices over lotteries that involve longshots — small probabilities of winning sizable payoffs. To investigate preferences over longshots systematically, we conduct an incentivized experiment using state lotteries in China, each involving a single prize and fixed winning odds. This enables our construction of single-prize lotteries involving winning odds between 10–5 and 10–1 and winning prizes ranging from RMB10 (about USD1.60) to RMB10,000,00 (about USD1.60 million) across different expected payoffs. For lotteries with expected payoffs of 1 and 10, subjects exhibit heterogeneous preferences for longshots; some prefer the smallest winning probability while others favor intermediate winning probabilities. As the expected payoff increases to 100, subjects become predominantly risk averse, even for the lowest winning probability of 10–5. Our findings pose challenges for utility models of decision-making under risk.
Faculty News

Dr Timothy Wong was promoted to Senior Lecturer. He received the Faculty Teaching Excellence Award in AY2016/17 and AY2017/18. He teaches transport economics, urban economics, industrial organisation, and intermediate microeconomics. He researches transport demand and behaviour, in particular vehicle demand and public transport commuter decisions.

Dr Kelvin Seah was promoted to Senior Lecturer. He received the Faculty Teaching Excellence Award in AY2016/17. He teaches economics of education, econometrics, and introductory microeconomics. His research focuses on the economics of education, and he is particularly interested to know how various educational inputs contribute to student achievement.

Associate Professor Zhong Songfa was the sole recipient of the FASS Award for Excellent Researcher in AY2019/20. He uses a wide range of methodologies from behavioural economics, experimental economics, genetics, and neuroscience to conduct research on decision making. His work encompasses theory, experiment, and application. He has published in *Econometrica*, *American Economic Review*, *Review of Economics and Statistics*, *Journal of European Economic Association*, *International Economic Review*, and *Proceedings of the National Academy of Sciences*. He teaches behavioural economics.

Associate Professor Alberto Salvo received a sustainability award from the Brazilian branch of the Society of Automotive Engineers in 2019. The award recognised his research on the environmental and health impacts of Brazil’s use of transportation fuels such as gasoline, ethanol, and diesel.

Professor Julian Wright was appointed a Member of the Singapore Competition Appeal Board under the Ministry of Trade and Industry in September 2019.

Dr Gregory Cox was appointed Associate Editor of the *Review of Economics and Statistics* in February 2020.

Professor Satoru Takahashi and Associate Professor Zhou Junjie Associate Editor of the *Journal of Mathematical Economics* in January 2020. Professor John Quah has been serving as Co-Editor of that journal since 2013.

Associate Professor Jessica Pan was appointed Associate Editor of the *Journal of Population Economics* in May 2020 and the *Journal of Economic Behavior and Organization* in January 2020. Professor Lu Jingfeng has been serving as Associate Editor of the *Journal of Economic Behavior and Organization* since 2015.

Staff News

Ms Tang Yuchen, Stella joined the department as an Executive in April 2020.

Ms Woon Swee Yoke was promoted to Manager.

Faculty Appointment

Dr Yogita Shamdasani (Ph.D., Columbia University) joined the department as Assistant Professor in May 2020. Previously she was Assistant Professor of Economics at the University of Pittsburgh from 2017 to April 2020. Her research interests are in development and labour economics. She uses field experiments and natural experiments to study the causes and consequences of labour market frictions in developing countries, and to explore constraints to labour productivity. In recent work, she examines how transport infrastructure influences agricultural productivity and sectoral reallocation of workers under climate change. She has published in the *Quarterly Journal of Economics*. She teaches development economics and introductory econometrics.