Darapheak Tin

Email: darapheak.tin@anu.edu.au Website: darapheaktin.github.io (Latest CV Update) Mobile: +61-456-071-264

EDUCATION Australian National University Canberra, Australia 2019 - 2025

Ph.D. - Economics

DISSERTATION: "Topics in Tax and Child Benefit Design"

M.A. - Economics 2015 - 2017

University of Toronto

Toronto, Canada B.B.A. - Economics Specialist 2009 - 2013

RESEARCH FIELDS Public Finance, Labour Economics, and Macroeconomics

Secondary: Computational Economics

"On the Joint Optimal Design of Taxes and Child Benefits" Job Market Paper (Article)

> Progressive income taxes and means-tested child benefits aim to support low-income families; however, their interaction creates high and non-linear effective marginal tax rates (EMTRs), especially for low-income mothers. I document this equity-efficiency trade-off using Australian household survey data (HILDA), and explore how tax and child benefit systems should be designed to maximize welfare. To this end, I develop a dynamic general equilibrium model of overlapping generations, calibrated to Australia (2012–2018), with rich household heterogeneity in family structure, female human capital, and uninsurable earnings risks. I find that optimal tax reform reduces tax progressivity, shifting tax burdens from high- to low-income brackets to incentivize longer work hours. This scheme produces a modest welfare gain but disadvantages some low-education parents, undermining the objectives of child benefits. A joint optimal system combines reduced tax progressivity, benefiting high-education parents, with a universal lump-sum child benefit at 30% of average income to compensate low-education parents for the increased tax liabilities. This yields superior parental and overall welfare outcomes, but the resulting tax burden imposes notable losses on non-parents. Moderately scaled-back transfers provide smaller welfare gains but at substantially lower costs to non-parents, whereas larger transfers lead to excessive tax burdens that harm the intended beneficiaries. These findings highlight the importance of policy coordination and fiscal sustainability in effectively supporting parents while balancing equity and efficiency.

Working Papers

"Child-Related Transfers, Means Testing and Welfare"

(with Chung Tran)

(Article, Slides) Status: Ongoing

Should child-related transfers be means-tested or universal? Previous studies focus primarily on the U.S. policy settings, and less is known about other designs. We revisit the question from the Australian policy context. We show that means testing exerts significant adverse effects on work incentives and human capital development among married mothers. A structural reform that replaces the status quo means-tested system with a universal system improves female labour supply, output, and overall long-run welfare. However, the universal system increases tax burden by 4 percentage points and negatively impacts single mothers—the intended beneficiaries—by reducing their lifetime after-tax earnings and consumption. Hence, failing to curtail the fiscal costs, the universal system could harm the group it aims to help.

"The Evolution of Earnings Distribution in a Sustained Growth Economy"

(with Chung Tran and Nabeeh Zakariyya)

(Article, TTPI Blog post) Status: Under Review (Labour Economics)

This paper examines the evolution of earnings distribution during three decades of uninterrupted economic growth in Australia (1991-2020). Using a 10% sample of taxpayer records, we document strong upward mobility for both men and women. Earnings inequality increased steadily until the early 2010s, driven by top earners, but has since declined. The gender gap in inequality has narrowed, and even reversed, due to robust earnings growth among low-income women. Early-life disparities now play an increasingly important role in shaping later-life inequality, particularly for younger cohorts. This reversal in inequality trends coincides with a slowdown in economic growth. Moreover, although macroeconomic conditions have been relatively stable, idiosyncratic earnings risk remains persistent, with the greatest volatility at the bottom bracket. Women continue to face higher risk and lower mobility than men, despite their stronger growth. These findings provide new insights into how prolonged economic expansion shapes earnings dynamics across different demographic and income groups.

Publication

"Lifecycle Earnings Risk and Insurance: New Evidence from Australia"

(with Chung Tran)

Economic Record, 99(325): 141-174, 2023

(Article, Slides)

2023

This paper studies the nature of earnings dynamics using Australian household survey data. Our results indicate that the distribution of earnings shocks displays negative skewness and excess kurtosis, deviating from the conventional linearity and normality assumptions. Family and government insurance plays distinct roles in reducing exposure to earnings risk. Government insurance embedded in the targeted transfer system is important in mitigating the dispersion of shocks, whereas family insurance via market activities is dominant in reducing the magnitude and likelihood of extreme and rare shocks. The size and persistence of earnings risk as well as the insurance role of family and government vary across gender, marital and parental status. Accounting for these non-Gaussian and non-linearity features is thus important for policy design and evaluation.

Research Grant: This research was supported by the Australian Research Council. (Grant: DP210102784 to Chung Tran)

TEACHING EXPERIENCE Associate Lecturer, Australian National University

2022 - 2023

Economic Policy Issues (undergraduate and graduate)

Mathematical Techniques for Economic Analysis (graduate)

Public Sector Economics (undergraduate)

Teaching Assistant, Australian National University

2017 - 2021, 2024

Microeconomics 1 (undergraduate)

Macroeconomics 1 (undergraduate)

Economics 1 (undergraduate, honours track)

Macroeconomics 2 (undergraduate)

International Economics (undergraduate and graduate)

Public Choice and Politics (undergraduate)

Average score in teacher evaluations: 4.5/5

(Teaching Dossier, Survey Results)

RESEARCH POSITION

Core member, Macro Public Finance Lab, Australian National University 2023 - Present

Presentations

2025

American Economic Association (AEA) Annual Meeting (poster)

2024

Joint Workshop by Australasian Macroeconomics Society (WAMS) and

Laboratory for Aggregate Economics and Finance (LAEF)

Labour Econometrics Workshop (LEW)

Australian Conference of Economists (ACE)

Society for Computational Economics 30th International Conference

on Computing in Economics and Finance (CEF)

Macroeconomics Seminar Series 2024 (Australian National University)

2023

37th PhD Conference in Economics and Business (University of Melbourne) 17th Western Economic Association International (WEAI) Conference

2022

21st Society for the Advancement of Economic Theory (SAET) Conference

31st Australian Labour Market Research (ALMR) Workshop

PhD Workshop (Australian National University)

Tax and Transfer Policy Institute (TTPI) Seminar Series

(Crawford School of Public Policy, Australian National University)

Macroeconomics Seminar Series 2024 (Australian National University)

2021

Workshop of the Australasian Macroeconomics Society (WAMS)

ALife Conference (Crawford School of Public Policy, Australian National University)

PhD Workshop (Australian National University)

Software Primary: Fortran, Stata, R

> Secondary: MATLAB (+Dynare), Python

Languages Native: Cambodian/Khmer

> Fluent: English (IELTS 8.5) Work-in-progress: Japanese, Turkish

AWARDS

Higher Degree Research Scholarships & Scholarships (Australian National University)

Fourth-Year Honours List for Excellence in Academic Achievement 2013

(University of Toronto)

First Prize for Excellence in Academic Achievement 2009

(Royal University of Phnom Penh)

Admission Scholarships 2009

(Royal University of Phnom Penh)

Professional EXPERIENCE/

Services

External Reviewer

Green Ideals: Exploring Sustainability in ASEAN and Beyond September 2024

Assessment of Land Resources and Economic Potential September - November 2023

of Land Use Transformation in Cambodia

Cambodian Financial Technology Development Policy June 2023

Prosperity or Distress? May - June 2023

An Impact Assessment of Microfinance in Cambodia

Climate Economic Growth Impact Model February - April 2018

Co-Author

UN Environment Programme and Korea Environment Institute Report March - June 2019

Environmental Sustainability in Asia: Progress, Challenges

and Opportunities for the Implementation of the Sustainable Development Goals

Intern

Climate Change Trust Fund Secretariat (Under UNDP, EU, SIDA and DANIDA) October 2013 - June 2014

2019 - 2023

References

Chung Tran

Associate Professor

Research School of Economics, Australian National University

chung.tran@anu.edu.au

+61 2 6125 5638

Robert G. Gregory

Emeritus Professor

Research School of Economics, Australian National University

bob.gregory@anu.edu.au

 $+61 \ 2 \ 612 \ 52192$

Dana Hanna

Associate Dean (Education) and Senior Lecturer

College of Business and Economics, Australian National University

dana.hanna@anu.edu.au

+61 2 6125 4487