Darapheak Tin

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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 but jointly generate high, non-linear effective marginal tax rates (EMTRs), especially for low-income mothers. Using Australian household survey data (HILDA) and a calibrated dynamic general equilibrium overlapping-generations model with heterogeneous households, I examine optimal policy design for Australia. When optimizing the tax system in isolation, the welfare-maximizing reform reduces progressivity, shifting burdens downward. This boosts maternal labor supply and modestly raises welfare, but simultaneously disadvantages low-education parents, thereby undermining the objectives of child benefits. A joint optimal reform that combines lower tax progressivity with a universal lump-sum child benefit (30%) of average income) offsets these losses for low-education parents and achieves greater parental welfare overall, though at the expense of non-parents. Moderately scaled-back transfers provide smaller but more fiscally sustainable gains. These findings highlight that optimizing taxes alone pushes against the aims of child-related transfers, demonstrating the importance of coordinated, sustainable tax-transfer design to balance efficiency and equity.

Working Papers

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

(with Chung Tran and Nabeeh Zakariyya)

Status: Under Review

(Article, Policy brief)

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.

"Child-Related Transfers, Means Testing and Welfare"

(with Chung Tran)

Status: Under Review (Article, Slides)

This paper examines efficiency—equity trade-offs in child-related transfer programs with meanstesting. We develop a dynamic general equilibrium life-cycle model featuring single and married households, uninsurable income and longevity risks, and endogenous female labor supply and human capital accumulation. Calibrated to Australia, where child benefits are generous but strictly means-tested, our analysis shows that replacing the current system with a universal scheme increases maternal labor supply, output, and ex-ante welfare, and receives majority support. However, this reform raises significant tax burdens that lower single mothers' net lifetime income and welfare. Alternative reforms that reduce the generosity of the universal benefit or adjust means-testing rules lower fiscal costs and yield more equitable outcomes. In particular, the latter generates modest but broadly shared welfare gains for both parents and non-parents. These findings highlight the importance of balancing efficiency and equity in family policy design.

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, 2025

Microeconomics 1 (undergraduate)

Macroeconomics 1 (undergraduate)

Economics 1 (undergraduate, honours track)

Macroeconomics 2 (undergraduate)

International Economics (undergraduate and graduate)

Public Choice and Politics (undergraduate)

Macroeconomic Theory (graduate)

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

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Dana Hanna

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College of Business and Economics, Australian National University

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