NICK LEE CAO

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Education

PhD, Economics, Stanford University — expected 2026

Bachelor of Economics (Honours), University of Sydney — 2018

References

Patrick Kehoe (primary)
Department of Economics, Stanford University
pkehoe@stanford.edu

Elena Pastorino
Department of Economics, Stanford University
epastori@stanford.edu

Luigi Bocola
Department of Economics, Stanford University
lbocola@stanford.edu

Research Fields

Macroeconomics, financial economics

Job Market Paper

Exchange Rates under Home Portfolio Bias

The standard view in international macroeconomics is that exchange rate dynamics are inconsistent with the notion that international financial markets enable countries to share risk effectively. I develop a model of international financial frictions that is consistent with two facts about international asset holdings: (i) home portfolio bias and (ii) the elasticity of substitution in international portfolio choice, and I show that these portfolio facts characterize the extent to which countries share risk in equilibrium. When matched to observed portfolio allocations and elasticities, the model implies extensive international risk sharing, yet it solves the key Backus-Smith exchange rate puzzle, which is that a country's consumption increases when its consumption bundle becomes more expensive (a real exchange rate appreciation). In particular, a shock that increases relative demand for a country's goods raises their price and increases their firm's profits; under home portfolio bias, it also raises the relative income of domestic households, who own most of the country's firms, so they consume more. More generally, this mechanism delivers the procyclical, volatile, and persistent exchange rates seen in the data, whereas other popular shocks in the literature cannot do so when matched to observed portfolios.

Working Papers

Technology Stealing and Back-loaded Technology Diffusion

Production technologies differ enormously across countries. Given that wages are lower in poor countries, it is puzzling that international technology diffusion occurs so slowly. I develop a model of the speed of technology diffusion consistent with this phenomenon: although firms want to transfer production technology abroad to enjoy lower wages, doing so exposes them to the risk of foreign competitors imitating or stealing their technology. Critically, foreign governments cannot credibly commit ex ante to prevent technology stealing. In an optimal-contracting framework, slow technology transfers incentivize

foreign governments to limit the rate of stealing by back-loading promises of future transfers. However, in the long run, once the firm has no technology left to transfer, its foreign competitors steal its technology, abetted by their government. Firms prefer higher short-run profits from producing abroad at lower wages over maintaining their long-run technological lead. Quantitatively, the model generates slow international technology diffusion but eventual catch-up over multiple decades.

Previous Positions

Stanford University
- Research Assistant for Patrick Kehoe & Elena Pastorino 2021–2025

Reserve Bank of Australia
- Analyst, International Financial Markets 2020
- Graduate Economist, Regional and Industry Analysis 2019–2020
- Intern, Economic Research Department Summer 2017–18

HoustonKemp Economics, Intern Consultant Winter 2017

Teaching

Stanford University, Teaching Assistant
- Graduate Macroeconomics III, for Luigi Bocola and Patrick Kehoe Spring 2025
- Financial Markets, for Monika Piazzesi and Martin Schneider Winter 2025
- Price Theory, for Chris Makler Spring 2024

Stanford Athletic Academic Resource Center, Tutor Spring 2021

University of Sydney, Teaching Assistant
- Intermediate Macroeconomics, for Matthew Smith Spring 2018
- Monetary Economics, for Mariano Kulish Autumn 2018
- Intermediate Microeconomics, for Vladimir Smirnov Autumn 2018
- Introductory Macroeconomics, for Mark Melatos Spring 2017
- Introductory Macroeconomics, for Samuel Wills Autumn 2017

Scholarships and Awards

Scholarships
- Dixon and Carol Doll Graduate Fellowship (SIEPR) 2025
- Dr Carl M and Mrs Carolyn C Franklin Endowed Fellowship in Economics 2020–22
- Reserve Bank of Australia Financial Study Assistance 2018
- University of Sydney Honours Scholarship 2018
- University of Sydney Chancellor's Award 2015–17

Awards
- University Medal 2018
- University of Sydney Academic Merit Prize 2018
- Donald George Crew Memorial Prize for Economics III 2017
- Geoffrey Dale Prize for Third Year in the Faculty of Economics and Business 2017
- University of Sydney Academic Merit Prize 2017
- University of Sydney Dean's List 2017
- Kelvin Dodge Scholarship 2016
- GS Caird Scholarship in Economics II 2016
- Emily McWhinney Memorial Prize in Economics 2016

- Frank Albert Prize for Second Year Economics 2016
- University of Sydney Academic Merit Prize 2016
- University of Sydney Dean's List 2016
- Economic Research Society's Prize for Economics I 2015
- Frank Albert Prize for First Year Economics 2015
- University of Sydney Academic Merit Prize 2015
- University of Sydney Dean's List 2015

Nationality: Australian