# NICK LEE CAO

Department of Economics Stanford University Stanford, CA 94305 +1 (650) 223-1917 ncao@stanford.edu nickcao.com

## 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 International 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

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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

1 REVIOUS 1 OSITIONS	
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
<ul> <li>Financial Markets, for Monika Piazzesi and Martin Schneider</li> </ul>	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
<ul> <li>Monetary Economics, for Mariano Kulish</li> </ul>	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 Econo	
• 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 B	
<ul> <li>University of Sydney Academic Merit Prize</li> </ul>	2017

2017

2016

2016

2016

• University of Sydney Dean's List

• GS Caird Scholarship in Economics II

• Emily McWhinney Memorial Prize in Economics

• Kelvin Dodge Scholarship

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• 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

 $Nationality:\ Australian$