# Min Kim

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EDUCATION

Ph.D., Economics, 2017 - 2023 (expected) Rutgers University, New Brunswick, NJ, USA

M.A., Economics, 2017

Seoul National University, Seoul, Korea

B.A., Economics, Summa Cum Laude, 2013 Handong University, Pohang, Korea

Work Experience Summer Intern, Fund Internship Program, June – September 2021 Research Department, International Monetary Fund, Washington, DC, USA

Project Title: The use of IPF tools and sovereign default risk

Supervisors: Francisco Roch and Francisco Roldán

FIELDS OF INTERESTS

International Macroeconomics, Monetary Economics

RESEARCH

#### Job Market Paper

# Conducting Unconventional Monetary Policy with Foreign Exchange Reserves

Abstract This paper studies sterilized asset purchase programs in emerging markets and developing economies. Sterilized asset purchase is an unconventional monetary policy implemented for the first time during the recent COVID-19 crisis. The paper provides a theoretical framework to examine the effectiveness of this new policy tool in a sudden stop. The model economy is vulnerable to sudden stops due to financial market imperfection and liability dollarization. In a sudden stop, the balance sheet effect is triggered, causing large contractions in real economic activities. Instead of constrained domestic banks, the consolidated government plays a key role in funding intermediation. Asset purchases by the government break down the balance sheet effect, relaxing banks' constraint. To sterilize asset purchases, the government sells foreign exchange (FX) reserves accumulated in normal times. The policy effectively mitigates the impact of the sudden stop, improving welfare. The policy trade-offs are also discussed. Deep contractions in real activities can be avoided with a large-scale asset purchase. It might, however, potentially impede the economy's recovery. In terms of policy design, the paper shows that purchasing private assets mitigates financial market disruptions more effectively. FX reserve is a better sterilization tool than other alternatives.

### WORKING PAPERS

## A Note on Optimal Foreign Reserve Management without Commitment

Abstract This paper studies optimal policy for foreign exchange reserve management without commitment. The stylized linear-quadratic model incorporates three key ingredients: (i) fear of floating, (ii) forward-looking exchange rates, and (iii) cost of reserve management. The paper first studies two benchmark optimal policies with and without commitment: the Ramsey policy and the Markov-Perfect policy. It then provides a sustainable plan that resolves the time-inconsistency issue in reserve management. Following the plan, the government without commitment achieves the Ramsey outcome in equilibrium.

## Re-estimating Potential GDP: New Evidence on Output Hysteresis (with Diego Anzoategui)

Abstract We propose a simple structural method to estimate potential GDP. Our approach is derived from a standard New Keynesian model, yet it is consistent with a wide range of structural assumptions. Moreover, it is not subject to the Lucas Critique, it does not resort to Bayesian estimation of the underlying model, and it is consistent with a large set of possible parametrizations. We estimate potential GDP for

the US and use our series to contribute to the debate on the effects of demand shocks on aggregate supply. We find evidence supporting hysteresis hypotheses claiming that demand shocks can affect potential GDP.

Optimal Foreign Exchange Intervention and Financial Crises (awarded Best Second Year Paper)

Abstract I study the effects of foreign exchange (FX) interventions in coping with financial crises. The model framework is built on the standard small-open economy framework (Bianchi 2011) where a financial crisis endogenously occurs through the financial amplification mechanism. FX intervention is a policy mix of reserve accumulation and real exchange rate policy. The government is able to boost the real exchange rate by selling FX reserves. Since the intervention is limited by the amount of reserve stock in hand, the government must accumulate reserves in advance that incurs the quasi-fiscal cost. I derive the optimal FX intervention from the Ramsey problem. Under the Ramsey policy, the economy borrows less, experiences financial crises less frequently, and hence, achieves higher welfare.

# Work in Progress

Capital Controls and Sovereign Default (with Diego Anzoategui, Francisco Roch, Francisco Roldán) Abstract This paper studies the uses of capital controls for a government conducting fiscal policies with defaultable debts under limited fiscal space. Anticipating future fiscal needs and default risks, the government uses capital controls to allocate resources across periods. The result shows that government may use capital controls in a way that results in overall welfare losses. In other words, it is not always welfare-improving to use capital controls. The key mechanism is the debt dilution effects. Discretionary policy moves could bring down overall welfare than that would have been with time-consistent policies.

#### Publication

Fair International Protocols for the Abatement of GHG Emissions (with Biung-Ghi Ju, Suyi Kim, Juan D. Moreno-Ternero), *Energy Economics*, 2021

Abstract We study the design of fair international protocols for the abatement of GHG emissions. We formulate normative principles, pertaining to countries' population, emission history, and business as usual emissions, as axioms for allocation rules. We show that combinations of these axioms characterize the so-called equal per capita allocation rules, with or without historical accountability. The allocations provided by these rules are in stark contrast with the allocation suggested by the Kyoto Protocol, which is close to the allocation in proportion to the current and business-as-usual emissions, suggested by the equal per emission (grandfathering) rule. As we illustrate, the equal per capita allocations admit more emissions to developing countries with large populations. And, with historical accountability, developed countries with large historical emissions are clearly penalized.

#### Presentations

2023: AEA Annual Meeting (scheduled)

2022: AEA Annual Meeting (poster session), Rutgers Macro Seminar, 17th CIREQ PhD Student Conference, 70th Korean Economic Association International Conference, Young Economist Symposium at Yale, Korean American Economic Association Job Market Conference, 25th Central Bank Macroeconomic Modeling Workshop, Midwest Macro Meeting Fall 2022, SEA 92nd Annual Meeting 2021: IMF RESSI Monthly Seminar, Rutgers Macro Student Seminar

# Teaching

Instructor

EXPERIENCE

Introduction to Matlab (one-day workshop for first-year PhD, Summer 2020-2022) Intermediate Macroeconomics (half-term, two sections, Fall 2019, 2021)

# Teaching Assistant

Macroeconomic Theory I (graduate), Macroeconomic Theory II (graduate, x2), Intro to Micro/Macro, Intermediate Macro (x2), Money and Banking, Advanced Macroeconomics (x3)

# Grants, Fellowships, & Awards

University and Louis Bevier Fellowship, The School of Graduate Studies, Rutgers, 2022 Travel and Research Support Award, The School of Graduate Studies, Rutgers, Spring 2022

Peter Asch Memorial Scholarship, Department of Economics, Rutgers, 2022

Alfred S. Eichner Prize in Economics, Department of Economics, Rutgers, 2022 Dorothy Rinaldi Award, Department of Economics, Rutgers, 2022

Summer Fellowship of Doctoral Student Academic Advancement Support Program, Rutgers, 2021

Richard Lock Endowed Fund for Economics Award, Department of Economics, Rutgers, 2021 Sidney I. Simon Prize for Outstanding Second Year Paper, Department of Economics, Rutgers, 2020 Sidney Brown Prize in Economics, Department of Economics, Rutgers, 2019 Rie Ashizawa Memorial Award, Department of Economics, Rutgers, 2018 Excellence Fellowship, School of Arts and Sciences, Rutgers, 2017

Personal

Date of Birth: December 2, 1990

Information

Nationality: Republic of Korea (South Korea) Computer Skills: Matlab, Stata, Julia, Python

References

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