# Geyue (Grace) Sun

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### FIELDS OF CONCENTRATION

International Finance, Macroeconomics, Monetary Economomics, Capital Flow

### **EDUCATION**

Ph.D. in Economics

2021-

The George Washington University

Washington D.C., US

Master's degree in International Economics

2018-2021

University of International Business and Economics (UIBE)

Beijing, China

International Exchange Program

2020

University of California, Berkeley

California, US

Bachelor's degree in Finance (Summa cum laude)

2014-2018

Jiangxi University of Finance and Economics (JUFE)

Jiangxi, China

### **PAPERS**

# Bypassing Capital Interventions: Carry Trades via Commodity Futures Market, 2024

Advisor: Tomas Williams

• I study how commodity-collateral-based arbitrage interacts with capital controls and exchange rate dynamics in developing countries. Using a newly proposed general equilibrium model of commodity collateral, I show that producers and traders bypass capital controls by accessing cheaper international financing through commodity markets, especially under liquidity shocks. After drawing on 25,035 commodity contracts (extracted via an LLM) and daily carry trade returns, I applied event-study methodology and Stagger-DID method, finding that liquidity risk significantly reduces arbitrage returns (-0.226), with the effect amplified in countries with tighter capital controls. Precious and Raw Metals are most used in these strategies. The results highlight a new channel linking commodity market frictions to exchange rate volatility and the unintended consequences of capital account control policies.

# Reading by LLMs: Daily Capital Control Index, 2024-2025

with Roberto Samaniego, Tomas Williams, Xiao Liu

• This project introduces the Daily Capital Control Index (DCCI), a high-frequency dataset covering 119 countries from 2000 to the present. We leverage a wide range of event-based information sources and finetune Meta's LLaMA large language model to build DCCI-LLaMA, a domain-specific NLP tool designed to extract and classify capital control measures from IMF AREAER reports and other regulatory texts. The index follows the AREAER framework and categorizes policy actions into 10 detailed subcategories across capital inflow and outflow dimensions, including equity, bond, money market, derivatives, and FDI controls. In the same time, we provide intensity information for each of the capital control policies based on the intervention types, range, etc. The resulting dataset enables real-time, granular analysis of global capital control dynamics, providing new insights into the timing, intensity, and macro-financial implications of capital flow regulation.

### Fencing the Flow: The Impact of Capital Market Interventions on Global Fund Flows, 2025

• This paper constructs a novel high-frequency dataset of capital control measures using data from Global Trade Alert (GTA), covering 65 countries at both daily and monthly frequencies. Through a combination of manual matching and Large Language Models, we quantify the intensity of capital account interventions over time, enabling more precise analysis of capital control effectiveness. Merging this dataset with global mutual fund capital flow data, we assess the impact of capital controls on cross-border flows, with a focus on the roles of global push and domestic pull factors. Using a country-level fixed effects model, we examine heterogeneity across regions and levels of development, and further disaggregate capital controls into detailed subcategories to identify the most effective types of interventions. Our findings reveal that direct investment controls significantly affect flows in developed countries, while commercial credit restrictions are more effective in developing economies. These results provide new evidence on when and how capital controls shape international capital flows, offering valuable insights for policymakers and researchers concerned with macro-financial stability.

# RMB Carry Trade and the Theoretical Framework of "Impossible Trinity" Theory: An Empirical Analysis Based on TVP-SV-VAR Model, *Finance Forum*, 2022

with Guixia Guo

• This paper evaluated China's capital account liberalization and exchange rate marketization by integrating carry trade into the Impossible Trinity framework. Built a theoretical model and using TVP-SV-VAR analysis to examine the short- and long-term impulse responses between carry trade, capital controls, exchange rate stability, and monetary policy independence. Findings revealed that carry trade significantly impacts the independence of monetary policy, supporting a phased approach to capital account liberalization, starting with Portfolio Investment, followed by Financial Derivatives and FDI accounts.

#### PROFESSIONAL EXPERIENCE

## ECON 1012 Principles of Macroeconomics, GWU

2024 - 2025

Teaching Assistant

ECON 8305/8306 Macroeconomics (PhD Level), GWU

Spring and Fall 2023

Teaching Assistant

ECON 1011 Principles of Microeconomics, GWU

**Summer 2022** 

Instructor

MorningStar Data Cleaning and Collections: VBA and Python Application

2022-2023

Research Assistant (with Tomas Williams)

Theory of International Finance, JUFE

2017 - 2018

Research Assistant (with Yang Wang)

### CONFERENCE PRESENTATIONS

- 2025 Chinese Economists Society North America Annual Conference (University of Michigan Travel Awards)
- 2024 Southern Economics Association (SEA) 94th Annual Meeting (GWU Travel Grants)
- 2024 George Washington University Macroeconomics Lunch Seminar
- 2023 Seminar on Big Data and Causal Inference
- 2020 IMI Forum at Renmin University of China (RUC)

### MEMBERSHIP & CERTIFICATIONS

- JPMorgan Chase & Co.'s Quantitative Research
- CMA Piano Performance Certification (Level 10)
- Certificate of Achievement of AI Agents Fundamentals
- Certification of Supervised Machine Learning Course

# HONORS & AWARDS

2021-2026 Graduate Merit Fellowship, John Whitefield Kendrick Graduate Fellowship (College-Wide Award) 2022,2023,2024 John Whitefield Kendrick Graduate Fellowship in Economics (College-Wide Award)

2020 International Exchange Student Scholarship((College-Wide Award))

2017 the 8th Blue Bridge Cup National Software and Information Technology Professional Talent Competition Software Entrepreneurship Team National Selection, (Country-Wide Award, 3rd Prize)

2016 the 2nd National University Internet Finance Application Innovation Competition, (Country-Wide Award, 3rd Prize)

### **OTHERS**

**Nationality:** Chinese

**Languages:** Mandarin (native), English (advanced)