# Chengzi Yi

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#### FIELDS OF INTERESTS

Macroeconomics, Firm Dynamics, Financial Frictions, Firm Heterogeneity

#### EDUCATION

Ph.D. in Economics (5 <sup>th</sup> year), European University Institute	2020-present
Supervisors: Russell Cooper and Alexander Monge-Naranjo	
Ph.D. in Finance, Fudan University	2016-2020
Dissertation Title: <i>Monetary Policy, Real Estate Development and Firm Financing</i> (Supervisor: Lijian Sun)	
Tinuncing (Supervisor: Lijian Sun)	
M.A. in Finance, Hong Kong Polytechnic University	2011-2012
B.A. in French and B.A in Economics, Guangdong University of Foreign	2007-2011
Studies	2007-2011

#### **VISITING EXPERIENCES**

Visiting Researcher, Bank of Finland Institute for Emerging Economies	2024/11
Visiting student, Universitat Pompeu Fabra	2023/03-2023/07
Visiting student, London School of Economics and Political Science	2018/09-2019/03

#### WORKING PAPERS

# **Collateral Constraints and Asset Composition**

Abstract: This paper investigates how collateral constraints influence firms' investment allocation between real estate and non-real estate capital. I develop a model that incorporates adjustment costs and collateral constraints, where capital assets differ in both adjustment costs and pledgeability. Using data from Chinese listed firms, I estimate the model and demonstrate that financial frictions and adjustment costs play critical roles in shaping firms' capital investment behaviour. The model explains the observed high proportion of real estate in firms' capital composition, especially for smaller firms. Introducing collateral constraints improves the model's fit to the data. The estimation results indicate significantly higher fixed costs for adjusting real estate capital and greater pledgeability of real estate assets. Removing financial frictions leads to lower aggregate capital and revenue due to zero collateral value and reduced capital investments, whereas eliminating both frictions increases them. A real estate crise, where real estate becomes unpledgeable, can distort firms' investment decisions and overall economic output, resulting in a 4.6% decrease in aggregate TFPR and a 0.3% reduction in aggregate revenue.

# Revisiting the Investment Regressions: State-owned Firms vs. Private Firms in China

Abstract: The investment regression on a sample of Chinese listed firms shows that there is a significant correlation between investment rate and cash flow ratio after conditioning on average Q. This is true for both state-owned firms and private firms, which are conventionally considered to have different financial conditions. As noted by Cooper and Ejarque (2003), the violation of the constant-returns-to-scale assumption creates a wedge between average Q and marginal Q and can lead to a spurious cash effect in the investment regression even when there are no financial frictions. Following their argument, this paper examines the investment regression results of the Chinese firms by estimating a standard Hayashi's (1982) model which allows for decreasing returns to scale. The estimation results suggest that despite the decreasing returns to scale of capital, the presence of financial constraints brings the standard capital adjustment model closer to the data moments of both state-owned and private firms in China.

# Decentralized Industrial Policy and Multi-Region Production Network (with Xiaoyan Fan)

Abstract: We study industrial policy in a multi-region economy interlinked by regional input-output networks. Regional governments implement industrial policy to maximize local output, ignoring the potential impact on other regions. The externality varies across regions and industries depending on the multi-regional input-output network. The central government, on the other hand, takes on the role of correcting misaligned incentives. We first construct marginal intervention incentives of central and regional governments using a multi-region, multi-sector general equilibrium model. We use our measurement of marginal incentives to evaluate how central and regional governments implement the industrial and fiscal policy in China. We found that industrial policies enforced by direct subsidization and tax reduction are more aligned with the objective of regional governments, and the effect is stronger in regions with higher fiscal capacity. In contrast to the regional government, the central government implements its industrial policies through financial system, which provides lower-cost credit to targeted industries and regions.

#### **WORK IN PROGRESS**

### **Export Dynamics of Multi-product Firms with (Non-)Differentiated Products**

This project examines how product differentiation affects the product scope and export intensity of multiproduct firms. It explores the interactions between product and export dynamics by estimating a structural model, leveraging detailed firm-product-level data from Slovenian manufacturers in both domestic and foreign markets. It addresses a policy-relevant question: How do trade restrictions or industrial policies affect firms across industries with varying degrees of product differentiation? The findings aim to enrich the literature by linking technical efficiency and demand factors to export sorting, uncovering the mechanisms that drive firm behaviour and trade outcomes.

# Product Differentiation and Export Dynamics of Multi-destination Multi-product Exporter (with Marius Gruenewald)

This project investigates the effect of product differentiation on the export decisions of multi-destination multi-product firms. The project draws insights from Colombian export data and highlights distinct expansion patterns in both product and geographic dimensions for exporters producing non-differentiated versus differentiated goods.

#### **TEACHING**

TEACHING	
Graduate TA	
Dynamic Economics: Simulation Based Estimators for Prof. Russell	2022/01-2022/03
Cooper, EUI PhD Core Course	
Financial Theory and Policy for Prof. Lijian Sun, Fudan University	2017/02-2017/06
Master Advanced Course	
Undergraduate TA	
Econometrics for Prof. Giampiero M.Gallo, NYU Florence	2022/09-2022/12
Undergraduate Course	
Other TA	
Digital Currencies and Digital Finance for Prof. Thorsten Koeppel and	2023/05-2023/12
Prof. Olena Havrylchyk, Central Banking Supervision and Banking	
Supervision Executive Education Programme	
Machine Learning: Tools and Applications for Policy for Prof. Iman	2022/06
Van Lelyveld and Prof. Dieter Wang, Florence School of Banking and	
Finance	
International Finance for Prof. Xiaoyan Fan, Fudan International	2019/07-2019/08
Summer Session	

BOFIT Seminar, Bank of Finland	2024/11/20
European Doctoral Programme Jamboree 2024, Barcelona	2024/06/0
Marco Working Group, European University Institute	2024/04/13
Finance Seminar, Universitat Pompeu Fabra	2023/05/23
PROFESSIONAL ACTIVITIES	
External Research Consultant, The Competitiveness Research Network	2024/05-presen
Co-Organizer, Macro Working Group at EUI	2021/09-2022/0
SHORT COURSES AND SUMMER SCHOOLS	
Firm Dynamics in Macro-Finance: Tools and Applications	2022/0
BSE, Instructor: Andrea Caggese	
Production and Financial Networks	2021/0
CEMFI, Instructor: Alireza Tahbaz-Salehi	
Beliefs and Social Networks	2021/0
EABCN, Instructor: Johannes Stroebel	
AWARDS & GRANTS	
The Italian Ministry of Foreign Affairs and International Cooperation –	2020-2024
Grants for Foreigners, EUI	
Outstanding Graduate, Fudan University	202
State Scholarship, China Scholarship Council	201
Outstanding Ph.D. Student, Fudan University	201
Scholarship for Outstanding Students, GDUFS	200
Scholarship for Freshmen, GDUFS	200
SKILLS	
Programming: Python, Julia, MATLAB, Stata, R	

2013-2015

2012-2013

OTHER PROFESSIONAL EXPERIENCES

East Asia

Financial Officer, Financial Service Department, Guangdong Materials

Import and Export Corp.
Assistant Business Officer, Corporate Banking Department, The Bank of