

Chengzi Yi

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FIELDS OF INTEREST

Macroeconomics, Firm Dynamics, Firm Heterogeneity, Trade, Financial Frictions

REFERENCES

Prof. Russell Cooper

Department of Economics
European University Institute
Italy
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Prof. Alexander Monge-Naranjo

Department of Economics
European University Institute
Italy
alexander.monge-naranjo@eui.eu

EDUCATION

European University Institute

Ph.D. in Economics

2020–2026(expected)

Fudan University

Ph.D. in Finance

2016–2020

Hong Kong Polytechnic University

M.A. in Finance

2011–2012

Guangdong University of Foreign Studies

B.A. in French & B.A. in Economics

2007–2011

RESEARCH

Export Dynamics of Multi-Product Firms with (Non-)Differentiated Products

What determines export sorting among firms? This paper explores how product differentiation interacts with heterogeneous firm characteristics to shape export dynamics. Using sectoral data across 16 European countries and Slovenian firm-level data, I document two stylized facts. First, exporter labour productivity premiums (the difference in average labour productivity between exporters and non-exporters) are systematically lower in more differentiated sectors. Second, exporters in more differentiated sectors exhibit greater product concentration, suggesting a "star-product effect." I develop a dynamic structural model incorporating both firm-level productivity affecting marginal costs across all products and firm-product-market-specific appeal shocks. The model features a productivity-appeal interaction where the relative importance of firm efficiency versus product-market-specific characteristics varies with the degree of product differentiation, and economies of scope from shared fixed costs that generate the star-product effect. Calibrating separately for high-differentiation (machinery) and low-differentiation (food) sectors, I find that productivity heterogeneity explains 88% of labour productivity variances in food sector, while appeal shocks explain 65% in machinery sector.

Collateral Constraints and Asset Composition

Presented at BOFIT Seminar (2024/11/26), Bank of Finland; European Doctoral Programme Jamboree (2024/06/07), Barcelona; Marco Working Group (2024/04/18), European University Institute

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 behavior. 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 crisis, where real estate becomes non-pledgeable, 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

Presented at Finance Seminar (2023/05/23), Universitat Pompeu Fabra

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.

Product Differentiation and Export Dynamics of Multi-destination Multi-product Exporter

with Marius Gruenewald

This project investigates how product differentiation affects the export decisions of multi-destination, multi-product firms. We utilise Colombian export data to examine distinct expansion patterns in both product and geographic dimensions for exporters of non-differentiated versus differentiated goods.

Decentralized Industrial Policy and Multi-Region Production Network

with Xiaoyan Fan

This project studies industrial policy in a multi-region economy interconnected by regional input-output networks, where regional governments aim to maximise local output, neglecting externalities on other regions. We construct marginal intervention incentives for central and regional governments using a multi-region, multi-sector general equilibrium model. We evaluate industrial and fiscal policies in China and find that regional governments favour policies such as direct subsidies and tax reductions, with stronger effects in regions with higher fiscal capacity. In contrast, the central government implements industrial policies through the financial system, offering lower-cost credit to targeted industries and regions.

VISITING EXPERIENCES

Visiting Researcher <i>Bank of Finland Institute for Emerging Economies</i>	2024/11
Visiting Student <i>Universitat Pompeu Fabra</i>	2023/03–2023/07
Visiting Student <i>London School of Economics and Political Science</i>	2018/09–2019/03

PROFESSIONAL ACTIVITIES

External Research Consultant <i>The Competitiveness Research Network</i>	2024/05–present
Co-Organizer <i>Macro Working Group, European University Institute</i>	2021/09–2022/06

TEACHING

Graduate TA, Dynamic Economics: Simulation Based Estimators <i>Russell Cooper, EUI PhD Core Course</i>	2022/01–2022/03
Graduate TA, Financial Theory and Policy <i>Lijian Sun, Fudan University Master Advanced Course</i>	2017/02–2017/06

Undergraduate TA, Econometrics <i>Giampiero M. Gallo, NYU Florence Undergraduate Course</i>	2022/09–2022/12
Other TA, Digital Currencies and Digital Finance <i>Thorsten Koeppl & Olena Havrylchuk, Central Banking Supervision and Banking Supervision Executive Education Programme</i>	2023/05–2023/12
Other TA, Machine Learning: Tools and Applications <i>Iman Van Lelyveld & Dieter Wang, Florence School of Banking and Finance</i>	2022/06
Other TA, International Finance <i>Xiaoyan Fan, Fudan International Summer Session</i>	2019/07–2019/08

SHORT COURSES & SUMMER SCHOOLS

Firm Dynamics in Macro-Finance <i>BSE (Andrea Caggese)</i>	2022/07
Production and Financial Networks <i>CEMFI (Alireza Tahbaz-Salehi)</i>	2021/08
Beliefs and Social Networks <i>EABCN (Johannes Stroebel)</i>	2021/06

AWARDS & GRANTS

Grants for Foreigners <i>Italian Ministry of Foreign Affairs & International Cooperation</i>	2020–2024
Outstanding Graduate <i>Fudan University</i>	2020
State Scholarship <i>China Scholarship Council</i>	2018
Outstanding Ph.D. Student <i>Fudan University</i>	2017

SKILLS

Programming: Julia, Python, MATLAB, R, Stata
Languages: Chinese (Native), English (Fluent), French (Intermediate)

OTHER PROFESSIONAL EXPERIENCE

Financial Officer <i>Guangdong Materials Import & Export Corp.</i>	2013–2015
Assistant Business Officer <i>The Bank of East Asia</i>	2012–2013