

# YUSUF OZKARA

✉ [ozkaray@bc.edu](mailto:ozkaray@bc.edu) | [in](#) [Linkedin](#) | [Website](#) | ☎ +1 (978) 930-7651

Boston College, Department of Economics

140 Commonwealth Avenue, Chestnut Hill, MA 02467-3859, USA

## EDUCATION

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| <b>Boston College, United States</b><br>Ph.D. in Economics               | 2018 - 2024 |
| <b>Koc University, Turkey</b><br>M.A. in Economics                       | 2016 - 2018 |
| <b>University Paris 1 Pantheon-Sorbonne, France</b><br>M.A. in Economics | 2014 - 2016 |
| <b>Bogazici University, Turkey</b><br>B.A. in Economics                  | 2009 - 2014 |

## FIELDS OF INTEREST

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Applied Macroeconomics, Empirical Industrial Organization

## WORK EXPERIENCE

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| Teaching Fellow (Instructor), Econometric Methods, Boston College        | Fall 2023          |
| Teaching Assistant, Principles of Economics, Harvard University          | Summer 2022 & 2023 |
| Teaching Fellow (Instructor), Aspects of Economic Growth, Boston College | Summer 2023        |
| Teaching Assistant, Boston College                                       | 2018 - 2023        |
| Research Assistant for Prof. Theodore Papageorgiou, Boston College       | Fall 2019          |
| Summer Analyst, The Savings Deposit Insurance Fund of Turkey             | Summer 2013        |

## PROGRAMMING SKILLS

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Python, Matlab, Julia, SQL, Stata, Dynare, L<sup>A</sup>T<sub>E</sub>X

## JOB MARKET PAPER

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### ”Intangible Assets, Knowledge Spillover, and Markup”

Intangible assets have unique characteristics compared to physical capital; they are scalable and exhibit spillover effects. This paper develops a structural model to empirically test these features of intangible assets. I introduce intangible capital into the production function as an additional factor input and external knowledge as a productivity shifter. I estimate production functions at the firm level including labor-augmenting, and Hicks-neutral productivity without imposing any parametric functional form. My empirical results indicate a positive and significant impact of intangible capital on a firm’s production. This return to intangibles increases with firm size in all sectors, suggesting that intangible capital exhibits scalability. Moreover, knowledge spillovers increase firm productivity, and the extent of this increase varies depending on firm size, and sector. Large firms and firms in the health sector tend to benefit more from their rival’s knowledge stock. Additionally, I reveal that markups tend to rise with a firm’s intangible intensity, suggesting a potential explanation for the recent rise in market concentration.

## RESEARCH IN PROGRESS

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**”Intangible Capital Meets Skilled Labor: The Implications for U.S. Business Dynamism”**, joint with *Suleyman Gozen*

The U.S. economy has been experiencing an increase in productivity dispersion, which also co-moves with the rise of intangible capital. How would intangible capital lead to heterogeneous impacts on productivity patterns? To explore this question, we introduce a new channel in which intangible capital meets skilled labor to internalize its economic benefits, which requires economies of scale. Using firm-level measures of intangible capital and skill intensity, we document four related stylized facts: i) increasing productivity dispersion driven by large firms, especially in intangible intensive sectors, ii) rising intangible capital concentration by large firms, iii) higher skill intensity in large and intangible firms, and iv) higher intangible capital - skill labor complementarity in large firms. Based on these motivating facts, we build an empirical framework to quantify the impacts of the intangible capital - skilled labor complementarity on firm-level productivity dynamics. We document that firms with higher intangible capital and skill intensity have higher productivity, which is amplified with firm size, i.e. the complementarity brings higher productivity in large firms, whereas it has no effect on small firms. Hence, large firms’ surge in intangible capital combined with skilled labor accounts for an increasing trend in productivity dispersion. To rationalize the reduced-form empirical evidence, we build a general equilibrium model with non-homothetic CES production technology to elucidate how the economies of scale shapes the complementarity within the firm-level production framework, which enables us to discipline our related empirical evidence. Our calibrated model suggests that 80% of the complementarity between intangible capital and skill labor over time is attributable to the economies of scale. It is consistent with the empirical evidence that the intangible capital-skilled labor complementarity is more pronounced at large firms, which increases over time.

**”Market Concentration, Income Inequality, and Business Cycles”**

Two significant trends have been well-established in recent literature: the increasing concentration of markets and rising income inequality, particularly in the US economy. This has resulted in a greater concentration of sales and investment, leading to the economies depending more on large firms’ sensitivities to aggregate shocks. Simultaneously, income inequality has escalated, with poor households getting stagnant and the rich getting richer. Do these two simultaneous changes have any impact on the impulse response of economies to aggregate shocks? This study establishes a connection between these trends and reveals an amplified response of aggregate consumption and output to both monetary and productivity shocks. The degree of this amplification increases with inequality, market concentration, and productivity gap among firms.

## FELLOWSHIPS, HONORS, AND AWARDS

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| Fully Funded PhD Fellowship, Boston College, USA                             | 2018-2024   |
| Research Scholar CEMFI, Spain  | 2017        |
| Fully Funded Master Fellowship, Koc University, Turkey                       | 2016 - 2018 |
| Honor Student Grant, Bogazici University, Turkey                             | 2014        |
| Erasmus Exchange Student Scholarship at Toulouse School of Economics, France | 2013        |
| Honorable Mention Award, Oyak Math Olympiads, Turkey                         | 2009        |

## LANGUAGES

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Turkish (Native), English (Fluent), French (Advanced), German (Intermediate)

## REFERENCES

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Peter Ireland  
Professor of Economics  
Boston College  
+1 (617)552-3687  
[peter.ireland@bc.edu](mailto:peter.ireland@bc.edu)

Zhijie Xiao  
Professor of Economics  
Boston College  
+1 (617)552-1709  
[zhijie.xiao@bc.edu](mailto:zhijie.xiao@bc.edu)

Robert Ulbricht  
Assistant Professor of Economics  
Boston College  
+1 (617) 552-0902  
[ulbricht@bc.edu](mailto:ulbricht@bc.edu)