# Yakup Kutsal Koca

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## Research Fields

Macroeconomics, Labor Economics, Economics of AI and Innovation

## Education

**University of Southern California**                                 2020 - 2026 (Expected)

> Ph.D in Economics

**Middle East Technical University**                                              2016 - 2019

> M.S. in Economics
>
> > Thesis: *State Dependent Price Setting and Monetary Non-Neutrality in a Small Open Economy*

**Bilkent University**                                                            2010 - 2015

> Industrial Engineering *(Full Scholarship)*

## Research

### Labor Market Outcomes of AI Automation *(Job Market Paper)*

*Abstract:* There are many predictions regarding occupational AI exposure, but existing measures typically fail to account for worker reallocation and its resulting economic impacts. Hence, exposure measures do not necessarily translate into economic impact. An exposed worker can mitigate wage losses by switching to the next best occupation. On the other hand, this switch creates new competition for the incumbent workers in the next-best occupation. To model these reallocation effects and their impact on equilibrium wages, I build a framework where production can be performed by human workers or by AI technology. I then estimate a model of occupation choice where workers are heterogeneous in terms of their comparative advantage across occupations. Using automation scores, I simulate an AI shock to occupational prices, and then solve for the equilibrium after the workers reallocate. Given that AI shock is uneven across occupations, results suggest that *generalists*, i.e. workers with uniform comparative advantages fare better, whereas *specialists* experience worse outcomes.

### Measuring Limited Mobility Bias *(Work in Progress)*

## Work Experience

**Central Bank of the Republic of Turkey - Researcher / Junior Economist**        2016 - 2020

As part of the modelling and projections team

- Produced medium term forecast for GDP, inflation, unemployment and other policy relevant statistics.
- Worked on the medium-term projection model.
- Worked on the transition to a larger scale model.

As part of the inflation analysis team

- Conducted short term inflation forecasts.
- Contributed to monthly and quarterly inflation outlook reports.
- Developed models for inflation forecasting & analysis purposes.

## Teaching Experience

- Teaching assistant for Intermediate Macroeconomics at USC

- Teaching assistant for Intermediate Microeconomics at USC

- An Introduction to Kalman Filter, *as a part of Applied Econometric for Emerging Market Central Banks, at Istanbul School of Central Banking (2018)*

## Awards

Ph.D Fellowship at University of Southern California

## Programming Languages and Computer Programs

R, Matlab (+Dynare), Python, Stata

## Language

Turkish (Native), English

## References

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