Does the Online Gig Work Weaken the Short-Run Effect of Monetary Policy on Employment and Output?

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October 16, 2025

Research question & why it matters

Questions

Does a larger online gig sector **weaken** the short-run effects of monetary policy on **employment**, **output**, and **slack**?

Why it matters

With the development of the internet economy, the scale of so-called independent professionals or freelancers is rapidly expanding. It's necessary to present some perspectives on the gig economy phenomenon — namely, how it impacts the labor market and the macroeconomy.

Positioning

What we know

The gig economy fundamentally alters labor markets by increasing flexibility (Basselier et al., 2018), entrepreneurship (Denes et al.,2025), and access to work, especially for marginalized or financially constrained individuals (Stanton&Thomas, 2025; Cook et al., 2021).

Digitalization raises price flexibility; larger online trade shares reduce MP real effects. (Glocker&Piribauer, 2021)

What we do not know

What has been the impact of this massive labor market shift on overall economic productivity? Has the effect been positive or negative, and does it represent economic progress or regression?

Mechanism

Wage-rigidity channel:

(wages are sticky $\rightarrow$ rates $\uparrow$ $\rightarrow$ demand falls but wages cannot adjust quickly $\rightarrow$ layoffs $\rightarrow$ large, negative employment IRF)

Higher gig share $\rightarrow$ wage contracts are more flexible (shorter term, more frequent adjustments, flexible working hours and wage)

$\Rightarrow$ smaller changes in the real wage $\rightarrow$ weaker response of employment and output to monetary shocks (employment and output IRF is **smaller** for the same shock)

Research methodology

A. Local Projections

$$\Delta z_{i,t+h} = \alpha_{i,h} + \gamma_{t,h} + \theta_h \, \mathrm{MP}_{i,t} + \psi_h \big(\mathrm{MP}_{i,t} \times \mathrm{OLI}_{i,t-1}\big) + X'_{i,t}\delta_h + \varepsilon_{i,t+h}$$

$z \in \{\text{production, unemployment, capacity utilization, CPI}\}$.

Test: IRFs at low vs. high OLI. weaken $\Rightarrow$ smaller $|\theta_h + \psi_h \cdot \mathrm{OLI}|$ when OLI is high.

B. "Slackish" toy model + calibration

What I have so far

Data (monthly)

OLI (2016 to 2024): The Online Labor Index (OLI) is the first economic indicator that provides an online gig economy equivalent of conventional labor market statistics. It measures the supply and demand of online freelance labor across countries and occupations by tracking the number of projects and tasks across platforms in real time.

Next steps

Main hurdles

Set up the model; clean and align OLI data with macro series.

Next:

1. Method.
2. Model.
3. Build panel & descriptives data.
4. Calibrate