Macro 221A WIP presentation:
Measuring the size of the US informal sector

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Research question

QUESTION

WHAT IS THE SIZE OF THE INFORMAL ECONOMY IN THE US?

WHAT (IF ANY) ARE THE DYNAMICS BETWEEN INFORMAL ACTIVITY AND THE LABOR MARKET?

MOTIVATION

INFORMALITY NEEDS TO BE DIFFERENTIATED FROM SLACK TO UNDERSTAND BUSINESS CYCLES
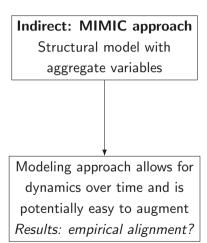
Positioning in the literature

- **Informality measures:** Defined broadly as *"all productive activities that may not be captured in the basic data sources used for compiling national accounts"* (OECD (2002); IMF (2007)), and other measurement techniques (Restrepo-Echavarria (2018), Schneider (2023), Pappada & Rogoff (2023)).

- **Unexplained macro-phenomena**: Stagflation (Feige, 1979, 1983, 1986), consumption volatility (Restrepo-Echavarria (2014), Abraham & Hausman (2018), differences in fiscal multipliers (Romer and Romer (2010)).

- **Labor supply decisions:** In a structural transformation framework (Lewis (1954), Artavanis et al. (2016), Amodio et al (2025)), with respect to the US (Edin and Lein (1997), Abromowitz & Joung (2025)) and the growing gig economy (Farrell and Greig (2016), Hamoudi (2019)).
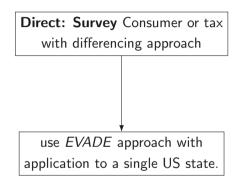
Methodology: overview

- **Modeling approach:** Home production RBC using formal and informal (home) sector. Regression analysis (MIMIC-micro) approach. *Drawback: Macro model requires assumptions hold, regression models are often overfit.*

- **National accounts:** Using OECD classification of activities, and NSA data, calculate informality. *Drawback: Captures statistical differences.*

- **Measure of tax evasion:** Developed by Allingham & Sandmo (1972), informal economy measures evaded tax. *Drawback: US doesn't have VAT data.*

- **Survey methods:** CWS survey (addendum to CPS by BEA) asks individuals - do you partake in supplemental work. Other surveys US Fed's Household Economics and Decisionmaking asks explicitly if they engage in contract / informal work. *Drawback: doesn't contain tax evasion, relies on self-disclosure*

Methodology: approach

Indirect: MIMIC approach
Structural model with aggregate variables

Direct: Survey Consumer or tax with differencing approach

Modeling approach allows for dynamics over time and is potentially easy to augment *Results: empirical alignment?*

use *EVADE* approach with application to a single US state.

Progress

- Data:
  - ▶ BEA, FED, and other US level government statistics on unemployment, LFPR, GNP, GDP, GDP per capital
  - ▶ *Potential data sources:* IRS tax data, state-level tax data
  - ▶ No initial or preliminary analysis has been conducted
- Likely direction:
  - ▶ State level approach: Starting point, as **tax evasion approach**, with direct methods, is most applicable in setting where informality occurs in a developed economy using Pappada & Rogoff (2023) as a framework
  - ▶ Aggregate assessment: I want to try the modeling approaches with the aggregated variables for comparison to main method

Moving ahead

Challenges

- **MIMIC-macro** or other modeling approaches are prone to regression overfits, or have assumptions/parameters intended which create highly sensitive results

- **Project reception**: An attempt to measure unobservable data in a novel way needs justification and is likely to be heavily scrutinized; specifically external validity

Next steps

- Initial download and assessment of aggregate data - BEA National Accounts data

- Review *Hugo effect* literature for any more details on the cyclical indicators of informality

- Exhaust methodological research

- Conduct single-state exercise i.e. California (for size)