

# Monopsony in Labour Markets: A study of power, productivity and wages in the United Kingdom

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# Summary

- We study how monopsony has evolved in UK labour markets, its impact on wages, and how this is mediated by unionisation
- We find no overall trend in monopsony over 20 years, but wide dispersion across industries
- We find that monopsony reduces wages, unless workers are covered by union pay agreements
- The decline of unionisation has enabled monopsonists to reduce wages

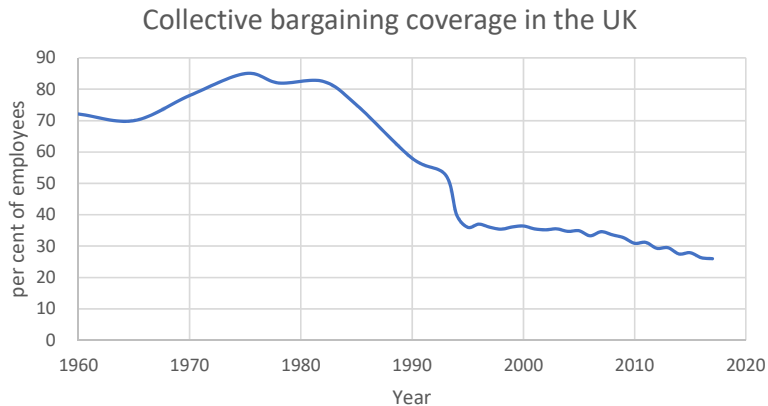
# Plan for today

- Motivation
- Literature
- Stylised facts
- Econometrics: Impact of
  - Oligopsony
  - Union coverage
- Macro implications

- The extent and implications of increased market power are controversial
  - Low productivity growth?
  - Weak wage inflation and falling labour share?
- Much of the literature has focused on the product market
- But firms can have power in the labour market too
- How has this power changed, and what impact does it have?
- How has unionisation counterbalanced this power, and how has it changed?
- What are the macroeconomic implications?

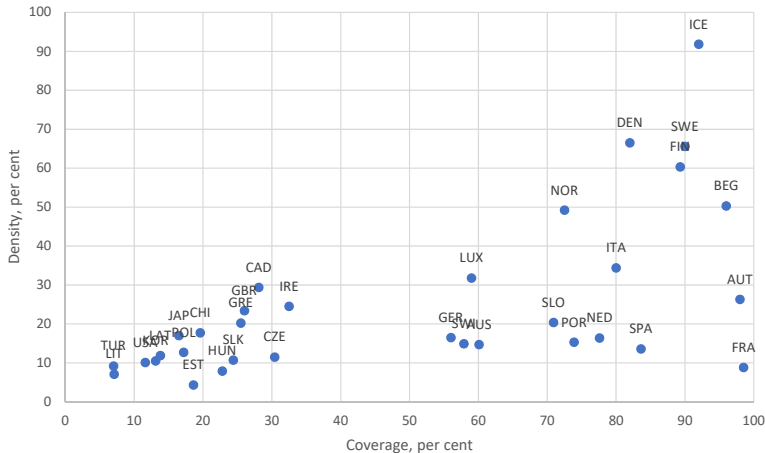
- Market power (e.g. Eeckhout et al. (2019))
- Labour market oligopsony
  - Empirics: e.g. Azar et al. (2017, 2018), Schubert et al. (2020)
  - Theory: Manning (2003), Lamadon et al. (2019), Berger et al. (2019)
- Unionisation and worker power (Stansbury and Summers (2020))
- Our contribution: interaction of oligopsony and union coverage

# Time series of UK collective bargaining coverage



# Coverage and density across the OECD

Union density and coverage, OECD countries, latest year





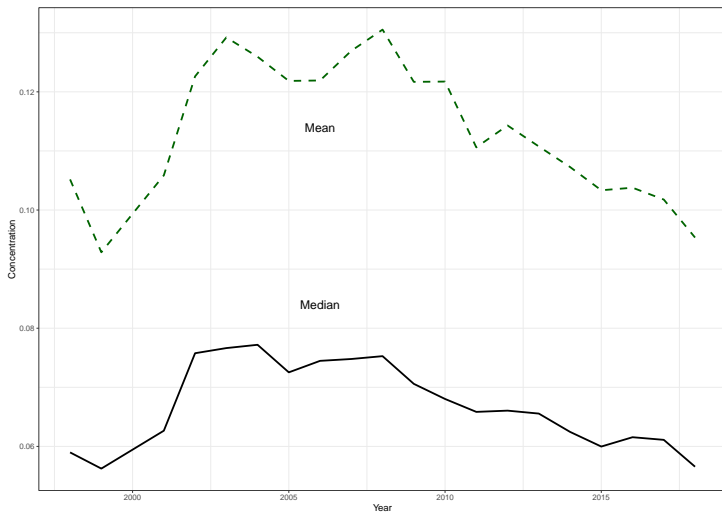
We measure concentration with the HH index

$$HHI_{ind,t,region} = \sum_{j=1}^J s_{j,ind,t,region}^2$$

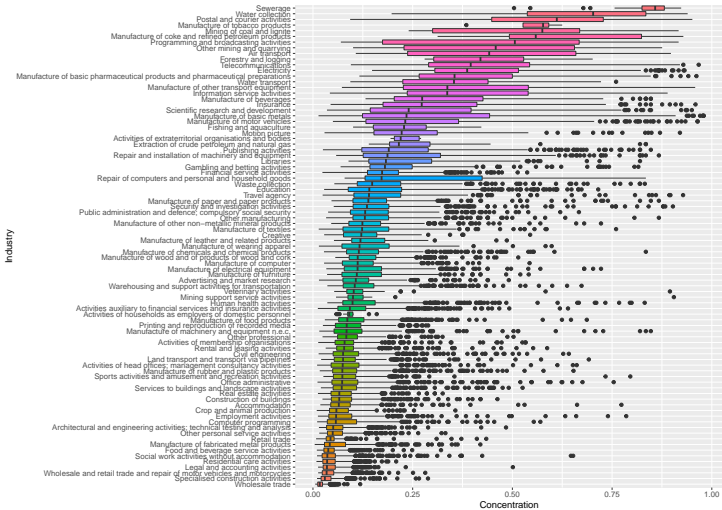
where  $s_{j,ind,t,region}$  is the employment share of firm  $j$  in a given industry-year-region cell

- Wages and worker characteristics are measured with the Annual Survey of Hours and Earnings (ASHE): a 1% annual panel of UK workers, collected from firms
- Concentration is measured from the same data in the baseline
- Firm characteristics measured from business register (BSD)
- A 'labour market' is defined at by region, year and occupation or industry
  - Industry is 2-digit SIC level
  - Region is NUTS2 level - of the order of 1m jobs
- We find similar results when we aggregate by occupation instead of industry

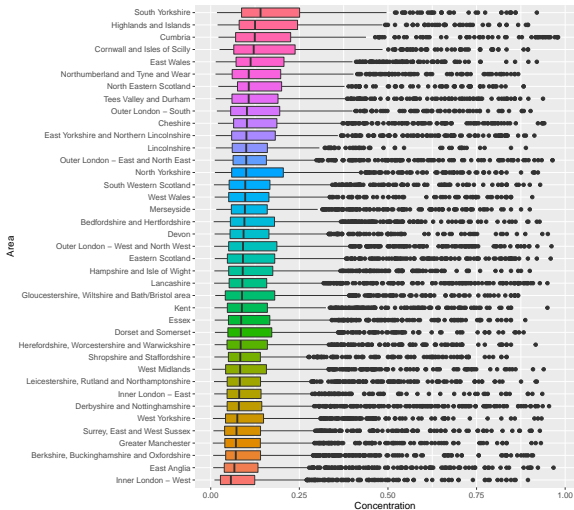
# Time series of labour-market concentration



# Cross-section of labour market concentration by industry



# Cross-section of labour-market concentration by region



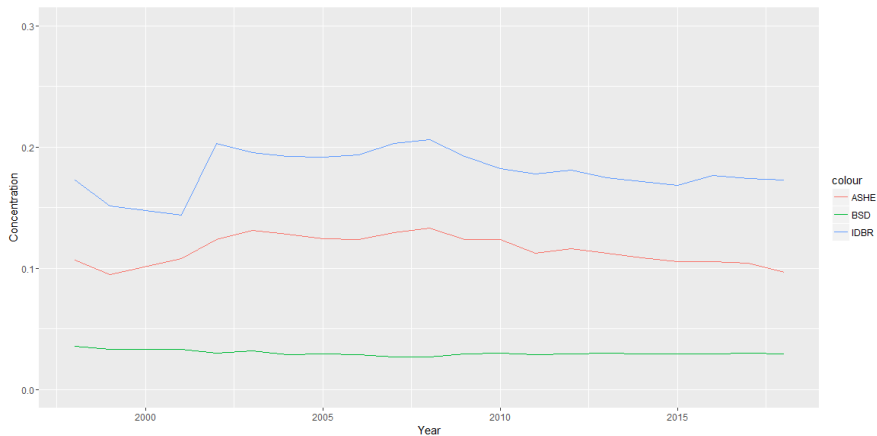
# Alternative measures of concentration

## Description

- Use population of **firms** in the labour market ('IDBR')
- Use population of **establishments** in the labour market ('BSD')

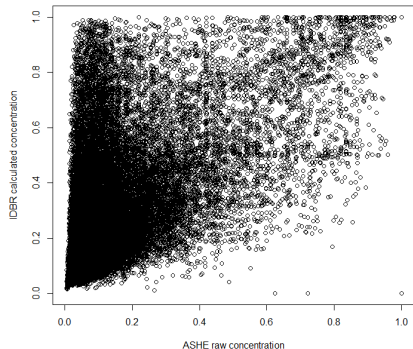
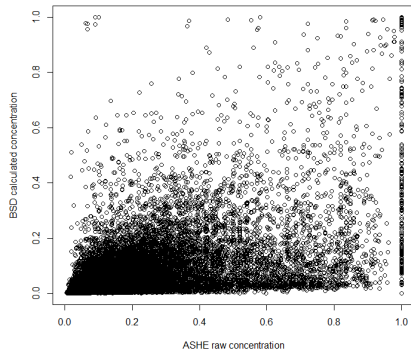
# Alternative measures of concentration

## Time series



# Alternative measures of concentration

## Cross-sectional correlation





We estimate the following panel regression

$$w_{i,t} = \alpha + \beta_1 HHI_{ind,region,t} + \beta_2 CBA_{i,t} + \beta_3 CBA_{i,t} * HHI_{ind,region,t} + \gamma X_{i,t} + e_{i,t}$$

Where

- $w_{i,t}$  is the log of an individual  $i$ 's gross weekly wage in year  $t$ .
- $HHI_{ind,t,region}$  is the labour market concentration for a given industry-year-region combination.
- $X_{i,t}$  is a vector of individual and market-level controls and fixed effects, including age, age squared, gender, union coverage, size of firm the individual is employed at, whether a worker is full or part time and whether they are on a temporary contract; industry, occupation, region and year fixed effects.

# Econometrics

Baseline results table: log weekly pay (concentration from ASHE)

CBA coverage	0.016*** (0.005)	0.054*** (0.010)	0.039*** (0.010)	0.045*** (0.001)
Log concentration	-0.004 (0.005)	-0.013** (0.006)	-0.0139** (0.00594)	0.092*** (0.014)
Log concentration * CBA coverage		0.015*** (0.003)	0.01*** (0.003)	0.011*** (0.003)
Log (Turnover/head)			0.055*** (0.002)	0.028*** (0.005)
Concentration*Log (Turnover/head)				-0.009*** (0.001)
Log(employment)		0.037*** (0.001)	0.035*** (0.001)	0.036*** (0.001)

Notes: All models include occupation, industry, region and year fixed effects.

Standard errors are clustered at the region level

# Econometrics

Robustness: log weekly pay - different concentration variables

Concentration variable	ASHE	IDBR	BSD
CBA coverage	0.054*** (0.010)	0.0417*** (0.00608)	0.0396*** (0.0103)
Log concentration	-0.013** (0.006)	-0.0154** (0.00599)	-0.00244 (0.00603)
Log concentration * CBA coverage	0.015*** (0.003)	0.0161*** (0.00282)	0.00625*** (0.00191)

Notes: All models include occupation, industry, region and year fixed effects.  
Standard errors are clustered at the region level

- Union coverage increases wages by around 5 per cent in competitive labour market
- Higher concentration reduces pay, unless the worker has union coverage
  - Moving from 25th to 75th percentile of concentration reduces pay by around 1 per cent
  - No effect when worker is covered by a CBA
- Concentration weakens the link between productivity and wage levels
- Coming soon: reduce attenuation bias in concentration coefficient by including worker outside options and instrumenting for changes in concentration a la Schubert et al. (2020)

# Macroeconomic implications

Formal model delayed by Covid...

- Unionisation prevents monopsonists from lowering wages
- In the presence of monopsony, lower unionisation has (tentatively)
  - Reduced the labour share (Stansbury and Summers (2020))
  - Flattened the Phillips curve (Denney (2018))

# Summary

- Union coverage protects workers' wages from employers' market power, forcing firms to share rent
- In line with Berger et al. for the US, we find that monopsony power has not increased
- But weaker worker power (a la Stansbury and Summers) means that monopsony matters more - monopsonistic labour markets push wages down more, and share fewer rents with workers
- And may explain part of the fall in the labour share and flattening of the Phillips curve