

## Flexibility or Certainty?

# Aggregate Effects of Casual and Zero-hours Jobs on Labour Markets

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# What is it about?

- ▶ Heated controversy in the U.K. on the role and desirability of zero-hours contracts
- ▶ Proponents of zero-hours contracts point to the benefits of having flexible labor contracts in the face of fluctuating demand conditions
- ▶ Opponents express concerns about potential exploitation of workers (especially due to significant monopsony power in markets where these contracts are largely used)

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- ▶ Opponents express concerns about potential exploitation of workers (especially due to significant monopsony power in markets where these contracts are largely used)
- ▶ The divide is not strictly between employers on the one hand and workers on the other hand



# This paper

- ▶ An equilibrium search model to study the employment and welfare effects of casual jobs
- ▶ Heterogeneous workers, with some workers who enjoy the flexibility afforded by casual jobs
- ▶ Counterfactual experiments on the aggregate effects of a ban on casual jobs

# Outline

- ▶ An equilibrium search model to study the employment and welfare effects of casual jobs  
⇒ A neat model with interesting modeling tricks
- ▶ Heterogeneous workers, with some workers who enjoy the flexibility afforded by casual jobs  
⇒ Participation, and how this heterogeneity would change with a ban on casual jobs
- ▶ Counterfactual experiments on the aggregate effects of a ban on casual jobs  
⇒ Which level of aggregation is more appropriate to measure these effects?

# A neat model to study casual jobs

Is volatility a good thing or a bad thing for production?

- ▶ Think about match productivity being driven by

$$\log y' = \rho_j \log y + \sigma_j \varepsilon'$$

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- ▶ With this type of firm heterogeneity, hard to predict which  $j$  would prefer to offer casual jobs
- ▶ In the model, production is given by

$$z \cdot x$$

where  $z$  is fixed  $x$  is a “shifter” that is redrawn every period (every week)

- ▶ Low- $z$  firms prefer to offer casual jobs

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## How to keep the job search decision tractable?

- ▶ In a casual job, production depends on  $z, x$  at the current employer. Searching on the job means drawing a new bundle  $z', x'$
- ▶ Timing of the model is such that  $x'$  is drawn only after moving to the new employer
- ▶ ... and search on the job occurs only when the worker is not called up or not supplying labor, meaning that current  $x$  is irrelevant at the time of meeting a poacher
- ▶ As a result, the job search decision is nicely summarized by a reservation function  $\underline{z}^*(z)$

# Worker heterogeneous leisure preferences

- ▶ Type-*H* workers' utility function is  $u(w) = w$ :
- ▶ Type-*L* workers' utility function is:

$$u(w) = w - \varepsilon, \quad \varepsilon = \{0, \bar{\varepsilon}\},$$

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- ▶ Not clear how exactly the calibration pins down  $\phi$  and  $\bar{\varepsilon}$
- ▶  $\gamma$  is fixed, set equal to a labor force survey data moment. However, we might think of  $\gamma$  as being endogenous to the availability of casual jobs
  - ▶ Individuals who prefer flexible work schedules join the labor market to take advantage of these jobs

# Worker heterogeneous leisure preferences

## Suggestion:

- ▶ Suppose that individuals join the market as either type  $H$  or type  $L$
- ▶ There is a cost  $\kappa$  of being type  $H$  instead of type  $L$ .
- ▶ The probability distribution of  $\kappa$  among non-participants is some  $F(\cdot)$
- ▶ Then the equilibrium proportion of type- $L$  workers,  $\gamma$ , is

$$\gamma = \Pr\{U_L > U_H - \kappa\} = 1 - F(U_H - U_L)$$

- ▶ Adds an extra loop in the computations because equilibrium is now also a fixed point in  $\gamma$

# Aggregate effects of a ban on casual job

Table 4: Steady state comparison

	Casual regime	Standard regime	% change
Measure of unemployed workers	0.07	0.13	+85%
Job-finding rate	6.3%	3.6%	-43%
Average measure of workers called-up and accepting work	0.85	0.86	+1%
Aggregate production	1.10	1.05	-5%
Aggregate production, less wages	0.20	0.14	-30%
Aggregate per-period utility (type H) <sup>a</sup>	0.91	0.87	-4%
Aggregate per-period utility (type L)	0.03	0.02	-33%
Average per-period earnings of employed worker <sup>b</sup>	0.98	1.05	+7%

Note: <sup>a</sup>Per-period utility is the expected wages and unemployment flow benefit paid to all workers, less the disutility of labour suffered by type L workers with regular jobs. <sup>b</sup>Earnings for employed workers consist of wages and unemployment benefits in periods where casual workers are not called-up. <sup>c</sup>All type H workers in casual jobs and type L in regular jobs are considered mismatched.

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- ▶ Any entering firm is susceptible of becoming a zero-hours contract employer
  - ▶ This is by assumption of  $z$  being drawn after posting a vacancy

The firm's value of meeting a worker conditional on posting is high → Calibrated parameters:

- ▶ Minimum wage  $\underline{w} = 1$
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- ▶ Equivalent to having productivity equal to between 27 and 36 times the minimum wage!

# Aggregate effects of a ban on casual job

## Suggestion:

- ▶ Think of the model as capturing the equilibrium of a segment of the labor market
  - ▶ Low-wage service sectors
  - ▶ Younger and unskilled workers
  
- ▶ Modulo data availability, it would be important to estimate the parameters of the matching function for this particular segment of the labor market

## Concluding remarks

- ▶ This is really interesting and relevant work:
  - ▶ An equilibrium model of the coexistence of regular and casual jobs, with potential mismatch between workers and job types
  - ▶ Clever way to address key trade-offs faced by workers and firms in this environment
- ▶ Model rationalizes the contrasting views about zero-hours contracts: less unemployment but uncertain effects on workers' well-being
- ▶ Excellent quantitative tool to investigate the joint effects of casual jobs and minimum wage on low-wage segments of the labor market