### Recall and Unemployment

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#### Overview

- Large number of workers return to the same employer after job separation
  - In SIPP, more than 40% of workers separating into U are recalled
- Recalls and new hires are quite different in terms of:
  - Individual labor market outcomes
  - Cyclical sensitivity of job finding (or rehire) probabilities
- Recalls impact empirical matching function
  - Recalls do not require the matching process
  - Excluding recalls from the estimation ⇒ significant changes in elasticity estimate and time series of matching efficiency
- Oevelop a MP matching model with recall option
  - Match cross-sectional and time-series facts (at least qualitatively)

# Comparison to Katz (1986), and Katz and Meyer (1990)

- Many of our cross-sectional facts are documented by Katz (1986) and Katz and Meyer (1990)
- Our results are based on nationally representative sample over a much longer period
- Our business cycle facts are entirely new

### CPS Evidence on TL

- CPS only identifies Temporary Layoffs (TL)
  - Recall is ex-post outcome and TL capture ex-ante expectation
- Diminished role of TL (?)
  - Small share in stock
  - Much larger share in flow
- Bottom line
  - 1 TL are still important for flow analysis
  - TL are fairly common even outside manufacturing and construction

# SIPP: Recall Rates (Shares)

Panel	Separations in waves	EU		$EU\cdots UE$	
		Recall	Counts	Recall	Counts
		rates	Counts	rates	
1996	1 - 6	0.408	3,725	0.45	3,388
2001	1 - 3	0.402	1,764	0.45	1,555
2004	1 - 6	0.422	1,610	0.49	1,369
2008	1-3	0.414	2,669	0.53	2,096

## SIPP: Recall Rates (Shares) by Reason

Panel	Separations	Temp. Layoffs		Perm. Separations	
	in waves	Recall Rates	Counts	Recall Rates	Counts
1996	1-6	0.845	1,482	0.172	1,906
2001	1 - 3	0.867	679	0.167	876
2004	1 - 6	0.864	663	0.177	706
2008	1-3	0.873	997	0.232	1,099

• Punchline: about 20% of permanently separated (PS) workers are recalled

### SIPP: Recall and Individual Outcomes

- Mean duration
  - Recalls are quick
  - New hires take time
- Ouration dependence
  - Exit to recalls becomes less likely as duration gets longer
  - Exit hazard to new job is flat
- Firm tenure
  - Workers with long firm tenure: much more likely to be recalled
    - ullet More than 60% of workers recalled if tenure  $\geq$  3 years
- Occupation switch after job separation
  - Recall: no occupation switch
  - New job: most of the time (>70%)
- Wage change after job separation
  - Recall: no wage change
  - New job: significant wage decline after long U duration



## Estimation of Matching Function: Standard Procedure

Cobb-Douglas specification

$$\ln\left(\frac{UE_t}{u_t}\right) = \mu + \alpha \ln\left(\frac{v_t}{u_t}\right) + \varepsilon_t$$

- $\alpha = \text{elasticity}$
- $\varepsilon_t = \mathsf{matching} \ \mathsf{efficiency}$

## Estimation of Matching Function: Our Procedure

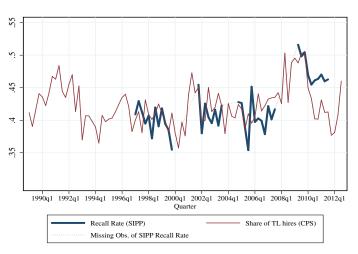
Cobb-Douglas specification

$$\ln\left(\frac{UE_t - recalls_t}{u_t}\right) = \mu + \alpha \ln\left(\frac{v_t}{u_t}\right) + \varepsilon_t$$

- Share  $recalls_t/UE_t$  countercyclical, negatively correlated with job market tightness
- ullet Estimates of elasticity lpha and matching efficiency  $arepsilon_t$  biased in standard procedure

#### Time Series Variations of Recall Share

Figure : Share of Recalls in UE flow



#### **Estimation Results**

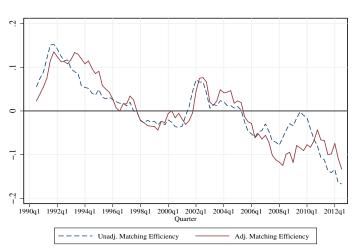
Table: Estimation Results With and Without Recall Adjustment

Estimated Equation	Adjusted Eqn	Standard Eqn	Adjusted Eqn	Standard Eqn
Elasticity	0.47	0.40	0.54	0.42
	(0.019)	(0.018)	(0.018)	(0.014)
Constant	-5.25	-4.29	-5.77	-4.43
	(0.146)	(0.139)	(0.136)	(0.104)
Adj- $R^2$	0.86	0.84	0.93	0.93
Sample Size	95	95	42	42
Measure of $s_t$	CPS TL hires	n.a.	SIPP recall	n.a.

 Significant downward bias in the elasticity of the standard matching function estimation

## Matching Efficiency

Figure : Implied Matching Efficiency Series



## Brief Summary of the Model

- Extension of the Mortensen-Pissarides model with endogenous separation
- Idiosyncratic productivity evolves stochastically even after separation (the worker is attached to a certain employer)
  - Changes in idiosyncratic and aggregate conditions generate recalls
- Recalls do not go through the matching function
- Workers waiting for a recall can look for a job elsewhere; new hire is mediated by the matching function
- Once the worker is hired by a different firm, the recall option is lost

### Key Results

- Negative duration dependence for recalled workers through selection
- New-hire job finding rate (New Hires/U) is procyclical as in the standard model
- Recall probability (Recalls/U) is nearly acyclical. In a recession:
  - Firm's demand for recalling worker drops; BUT
  - ② Larger separation flows ⇒ larger pool of "recallable" workers
  - Workers are more likely to be available for recall
- Share of recalls out of all hires is countercyclical as in the data

#### Conclusion

- A large portion of observed hiring flows does not involve labor reallocation
  - Countercyclicality of of recall share ⇒ "mismatch" in the labor market may be more severe in a downturn (e.g., GR)
- Future work: implications for the relative importance of firm- and occupation-specific human capital, loss of "recall capital" due to plant closings, etc.