The Job Ladder: Inflation vs. Reallocation

Giuseppe Moscarini
Yale University and NBER

Fabien Postel-Vinay
UCL and IFS

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Introduction

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In this work, we revisit the determinants of the Marginal Cost $\widehat{mc}_t$

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In that world, outside job offers generate:

- Employer-to-employer (EE) **reallocation** if accepted.
- Rent extraction and **inflationary pressure** if matched by incumbent employer and declined.

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Both ratios are high when employed workers are poorly matched.

Two Parts of this Presentation

1. **Empirical evidence:** Measures of inflation comove with AC.
2. **New Keynesian DSGE model with On-the-Job Search**, featuring an endogenous balance between labor reallocation and rent extraction.
   - **Novel propagation mechanism**: average match quality in employment is a slow-moving state variable, which propagates aggregate shocks.
   - **Tractable treatment of search frictions & on-the-job search in the NK framework**.

Descriptive Evidence

EE Reallocation and Inflation

EE Reallocation: Orders of Magnitude

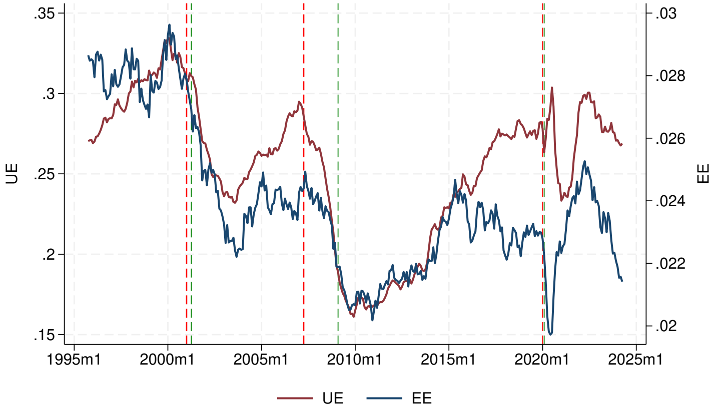
Monthly EE transition probability is about 2% of employment.

Monthly UE transition probability is about 30% of unemployment.

Employment (E) stock is 10-20 times the unemployment (U) stock.

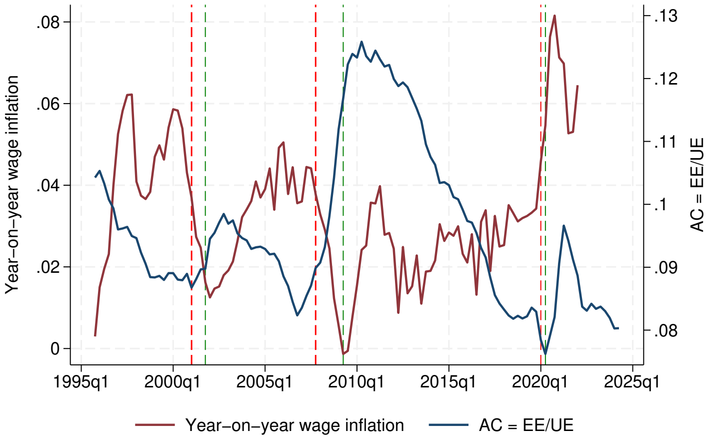
Conclusion: EE and UE flows are of similar magnitudes for employment reallocation.

Aggregate Time Series: UE and EE Rates



Source: CPS and Fujita, Moscarini and Postel-Vinay (2022)

Aggregate Time Series: AC and Inflation Rates



Correlation = −.52

Findings

Overall, the data show a robust **negative relationship between the AC $=$ EE/UE ratio and subsequent inflation**.

We conclude that our empirical "acceptance rate" is a (inverse) predictor of inflation.

We now propose a theoretical model that makes sense, qualitatively and quantitatively, of this evidence.

A New Keynesian DSGE Model with a Job Ladder

Flow Chart

New Keynesian block. Standard 3-equations model describes supply and demand in the Final goods market and monetary policy rule.

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Job Search block. Firms produce Service input using labor, that they hire in a decentralized (frictional) search market.

- Replaces neoclassical labor supply.
- Service output $\simeq$ "packaged labor".
- Service price $\omega_t \simeq$ "average nominal wage".

Labor Market: Sequential Auctions in G.E.

Workers and firms face search frictions in the Service sector.

Job ladder: Upon meeting in pairs, draw constant match productivity $y \sim \Gamma$.

When searching on the job, workers seek to reallocate to higher-y matches.

Recruiters compete in contracts for both unemployed and employed workers in Sequential Auctions à la Postel-Vinay and Robin (2002).

Implies that it is more costly to poach a worker out of a higher-quality (higher-y) match.

Job Creation

Job creation is governed by the **Free-Entry Condition**:

$$\underbrace{\text{Marginal Hiring Cost}}_{\substack{\textit{Increasing function} \\ \textit{of labor market tightness}}} =$$

$$\underbrace{\left(\text{Expected surplus from } \underline{\text{unemployed}} \text{ hire}\right)}_{\textbf{“Labor Wedge”: } \textit{Average sampled match quality minus MRS}}$$

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An **improvement in the employment allocation** (higher quality of existing matches) **leads to**:

- A fall in the Mismatch Wedge, hence on the profitability of (employed) hires;
- Falls in vacancies, hires, job ladder upgrading, the supply of Service;
- A **rise in the nominal Marginal Cost ω_t for Final good producers**.

Some Results

Quantitative Exploration

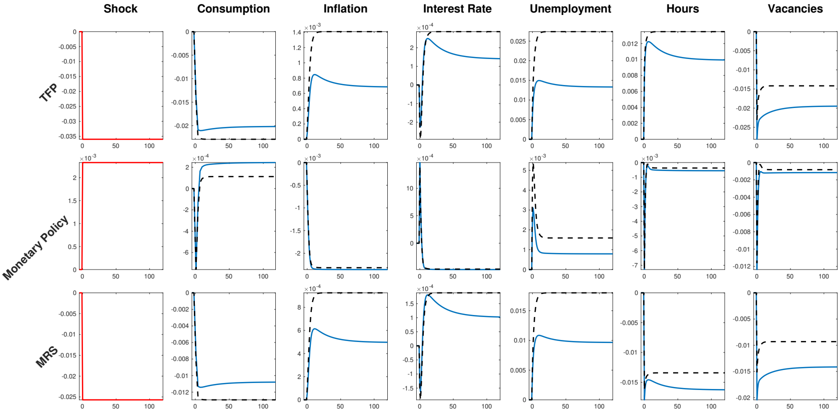
We linearize and simulate a version of the model featuring:

- a **Taylor rule** with nominal interest rate smoothing
- an **intensive margin of labor supply** (choice of hours) into the production of Service

We first estimate the Taylor rule directly by GMM, then calibrate the rest of the model to match steady-state moments.

Impulse Responses to 'Permanent' Shocks

(Contractionary shocks to TFP, Monetary Policy, Consumption/Leisure MRS)



Solid line: OJS, Dashed line: no OJS.

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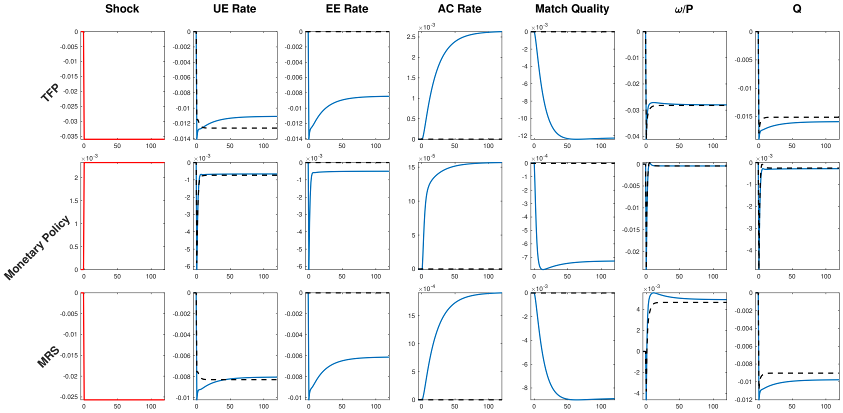

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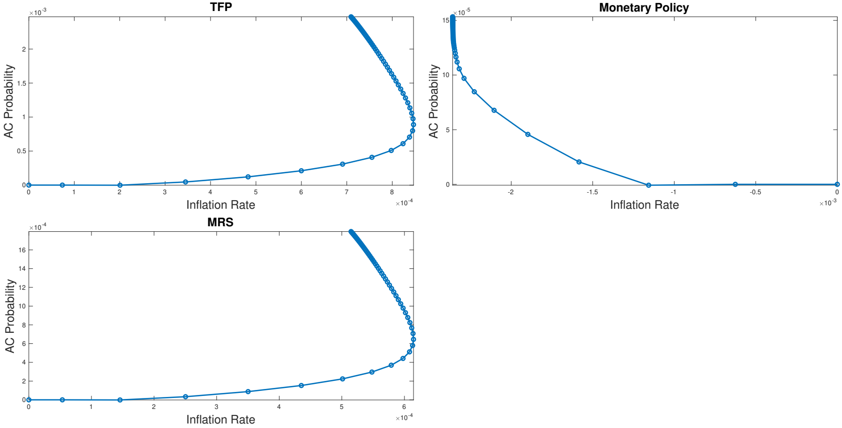

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1. **Empirical evidence**: AC = EE/UE probability ratio is countercyclical and negatively correlated with wage growth.

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1. **Empirical evidence**: AC $=$ EE/UE probability ratio is countercyclical and negatively correlated with wage growth.

   Also true conditional on the level of unemployment.

2. **Theory**: AC is a revealed-preference measure of misallocation.

3. **Conclusion**: **Quality, not just quantity, of employment matters**.
   - Non-employment is just the bottom rung of a very high ladder.
   - Central banks should watch AC.

Thank You!