The Beveridge Curve: A Survey

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1. Context: The Beveridge Curve

- The **Beveridge curve** describes the empirical **negative relationship** between the unemployment rate u and the vacancy rate v.
- It is a central concept in **search-and-matching (DMP)** models, capturing how workers and jobs are matched in equilibrium.
- Helps measure **labor market tightness** and **matching efficiency**.
- In macroeconomics, it distinguishes **cyclical movements along the curve** (business-cycle shocks) from **structural shifts of the curve** (long-run efficiency changes).
- This paper surveys how theory and data explain these dynamics for the U.S. and Europe.

2. Research Question

- **Main question:** What does the empirical Beveridge curve reveal about the cyclical and structural dynamics of the labor market?
- How should we interpret **movements along** the curve versus **outward shifts** over time?
- Can the **DMP model** account for both, and where does it fail quantitatively?
- How do U.S. and European experiences differ in explaining **changes in matching efficiency**?

3. Answer: Main Findings

- **Qualitative success:**
  The DMP model explains the negative comovement of u and v over the cycle.
  Productivity $\downarrow \Rightarrow$ vacancy creation $\downarrow$, unemployment $\uparrow$.
- **Quantitative gaps:**
  1. **Amplitude:** Model produces too-small vacancy fluctuations.
  2. **Comovement:** Requires sticky wages or low surplus to fit data.
  3. **Persistence:** Model recovers too fast; lacks internal propagation.
- **Shifts:**
  1970s–80s U.S./Europe shifts due to higher **inflows** into unemployment;
  Post-2008 U.S. shift persists: **decline in matching efficiency**.

4. Illustration (1): U.S. Beveridge Curve

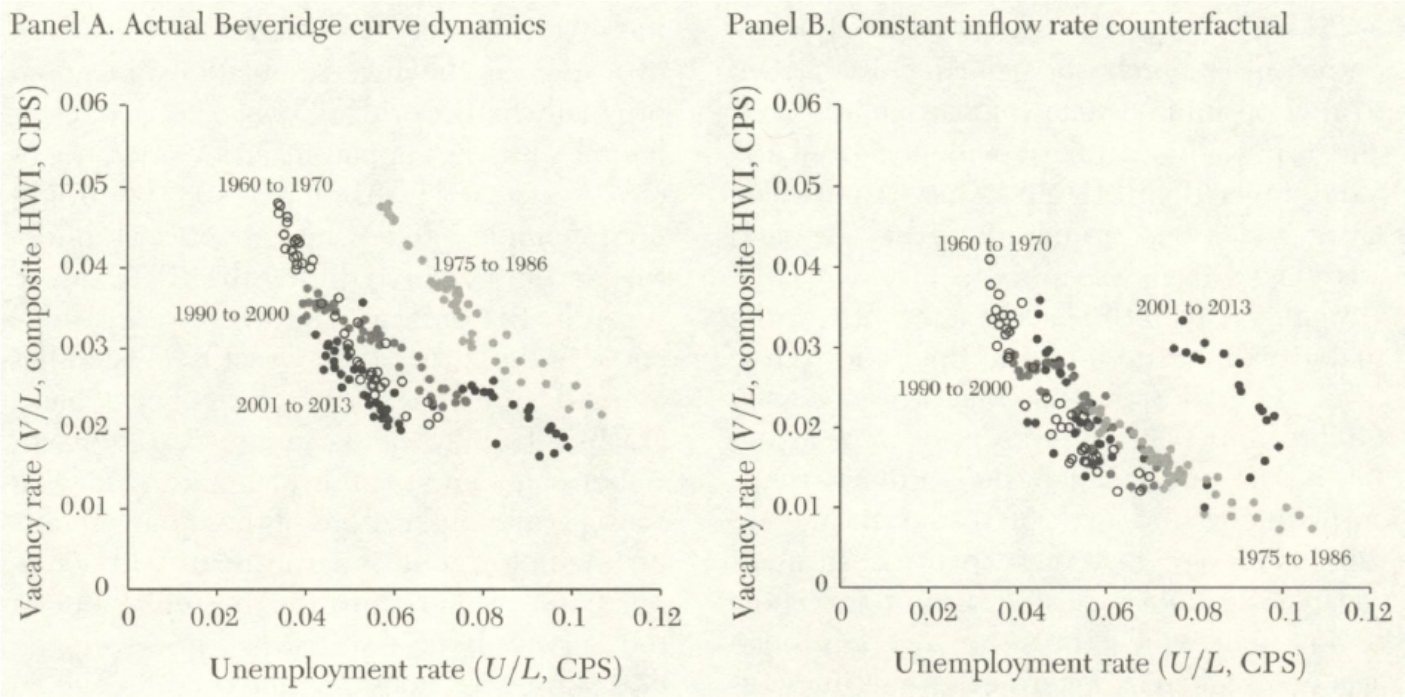

Figure 1. Actual and Counterfactual Beveridge Curve Dynamics in Selected Eras

Source: Elsby, Michaels, and Ratner (2015), Figure 1.

- **Panel A (Actual):** Negative slope between unemployment and vacancies; outward shifts in 1970s–80s and after 2008.
- **Panel B (Counterfactual):** Keeping unemployment inflows constant removes the 1970s–80s shift but not the post-2008 shift.
- **Interpretation:** The post-2008 outward shift implies a **decline in matching efficiency**, beyond cyclical factors.

4. Illustration (2): Europe Beveridge Curves

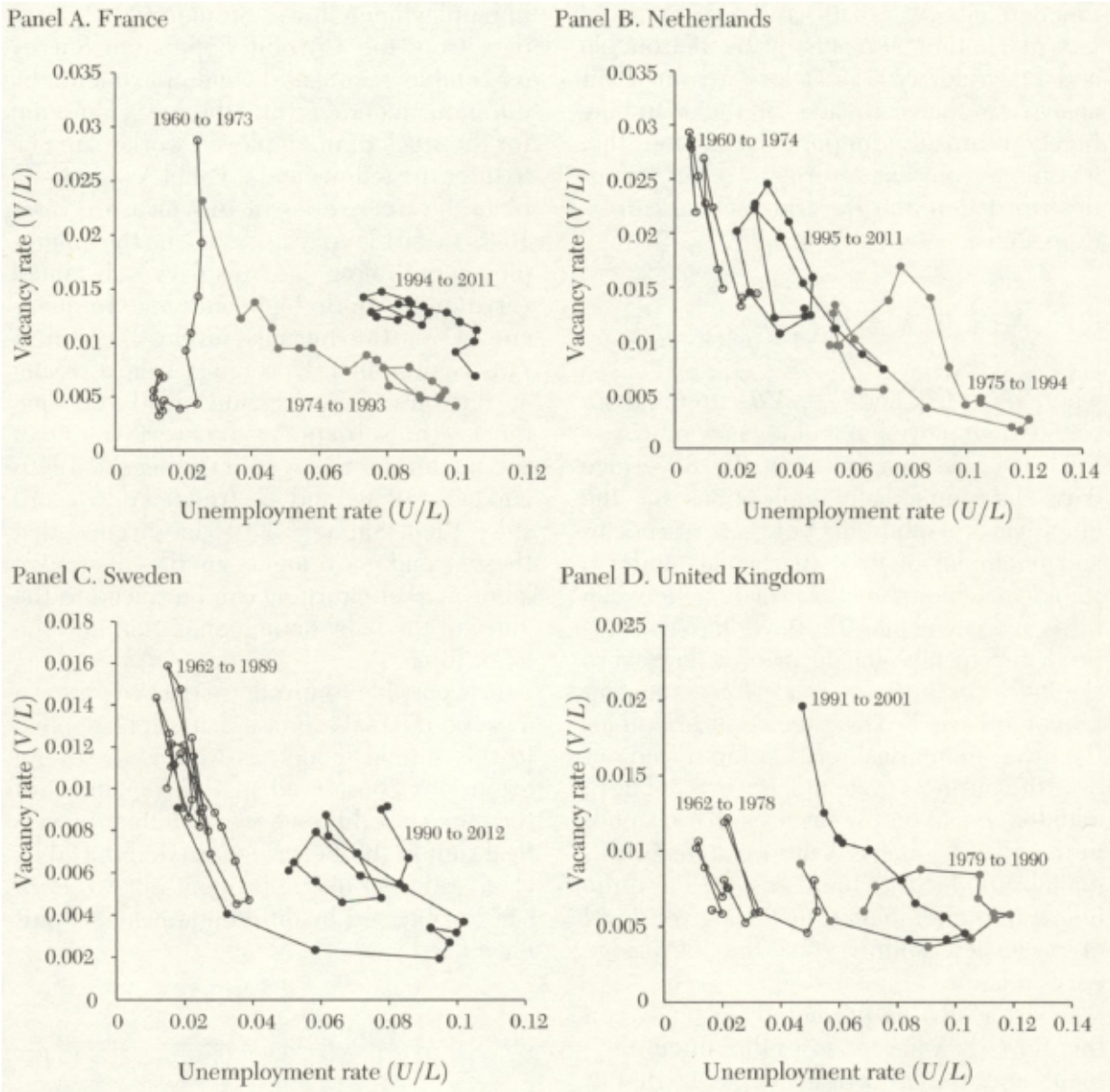

Figure 2. Beveridge Curves in Selected Countries

5. Positioning: Contribution to the Literature

- **Theoretical roots:** Diamond (1982); Mortensen & Pissarides (1994) — search and matching.
- **Empirical foundation:** Vacancy data from HWI → JOLTS (US); EU vacancy surveys.
- **Contribution:** Synthesizes theory and data for U.S. and Europe, identifying where the DMP model works and where it fails.

6. Conclusion: Limitations & Takeaway

Limitations

- Measurement of vacancies (coverage and definitions).
- The canonical DMP model fails on **amplitude**, **comovement**, **persistence**, and explaining shifts.

Improvements

- **Wage stickiness** → generates larger fluctuations.
- **Vacancy entry costs** → slower adjustment, more persistence.
- **Realistic features:** on-the-job search, participation, mismatch, long-term unemployment.

Takeaway

- Beveridge curve is a **diagnostic dashboard** for labor markets.
- **Along-curve** movements ⇒ cyclical shocks.
- **Outward shifts** ⇒ structural inefficiencies.