

# **Comments on “A new method to estimate time variation in the NAIRU”, by William Dickens**

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- A very good strategy.
- Suffers from a clear lack of time to implement it satisfactorily. (Comments on the thursday version, with apologies)

Comments will focus on two points:

- How can we use the P curve and the B. curve to estimate the natural rate, and the factors behind its movements.
- Can and do we learn something from this approach, applied to the United States? The answer is yes, and is somewhat surprising.

## 1. A quick review of the framework

Equation 1. Flow into unemployment equals flow out of unemployment.

$$s(1 - u) = m f(u, v)$$

So a downward sloping Beveridge curve relation. Inward shifts can come from:

- Lower  $s$ : Lower flows through unemployment (less reallocation, or more relative flows directly from employment or inactivity to employment; temp agencies as the recruitment pool)
- Higher  $m$ . Better efficiency of matching. Need less  $u$  given  $v$ . Monster.com.

## Equation 2. Wage determination.

The wage determined by zero profit condition must be equal to the wage implied by bargaining.

$$\bar{w} = w\left(\frac{v}{u}, z\right)$$

Labor market pressure measured by  $v/u$ . For a given  $\bar{w}, z$ , a linear positive relation between  $u$  and  $v$ .

Extension to P curve relation, to give a relation between wage inflation, price inflation,  $v/u$  and  $z$ .

A decrease in  $u$  given  $v$  can come from:

- A decrease in  $z$ : Decrease in the bargaining power of workers. Unexpected increase in productivity growth
- Some factors can affect  $m, s$  and  $z$ . Firing costs. Temp agencies.

## The determination of the natural rate

Using both equations:

$$u^* = u^*(s, m, z)$$

- Can we get the natural rate just from estimating the Beveridge curve?  
No.

Would miss  $z$ : Changes in the bargaining power of workers (globalization?) affect the P. curve but not the B. curve.

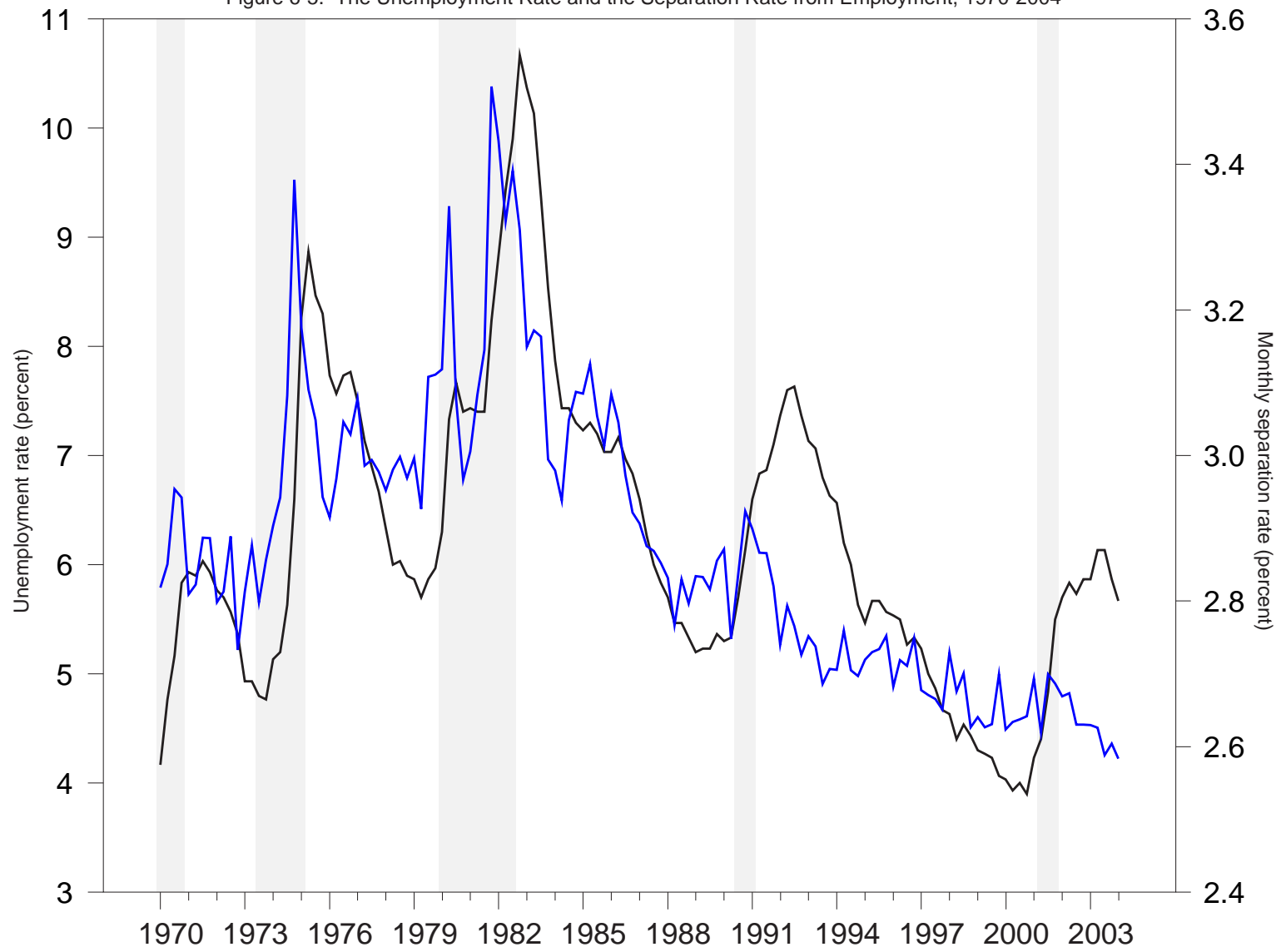
- But, estimating the P. curve (with  $v/u$  as the labor market variable) and the B. curve together can give us time series for  $z$ ,  $m$  and  $s$ , and better estimates of  $u^*$ .

This is why the strategy of the paper is potentially a good one.

## 2. Looking at the data

- The natural rate appears to have decreased since the early 1990s:  $s$ ,  $m$  or  $z$ ?
- The Beveridge curve appears to have shifted inwards since the early 1990s. This points to  $s$  or  $m$
- $s$  is however observable (and  $m$  can be estimated). Data strongly point to a decrease in  $s$ .

Figure 6-5. The Unemployment Rate and the Separation Rate from Employment, 1970-2004

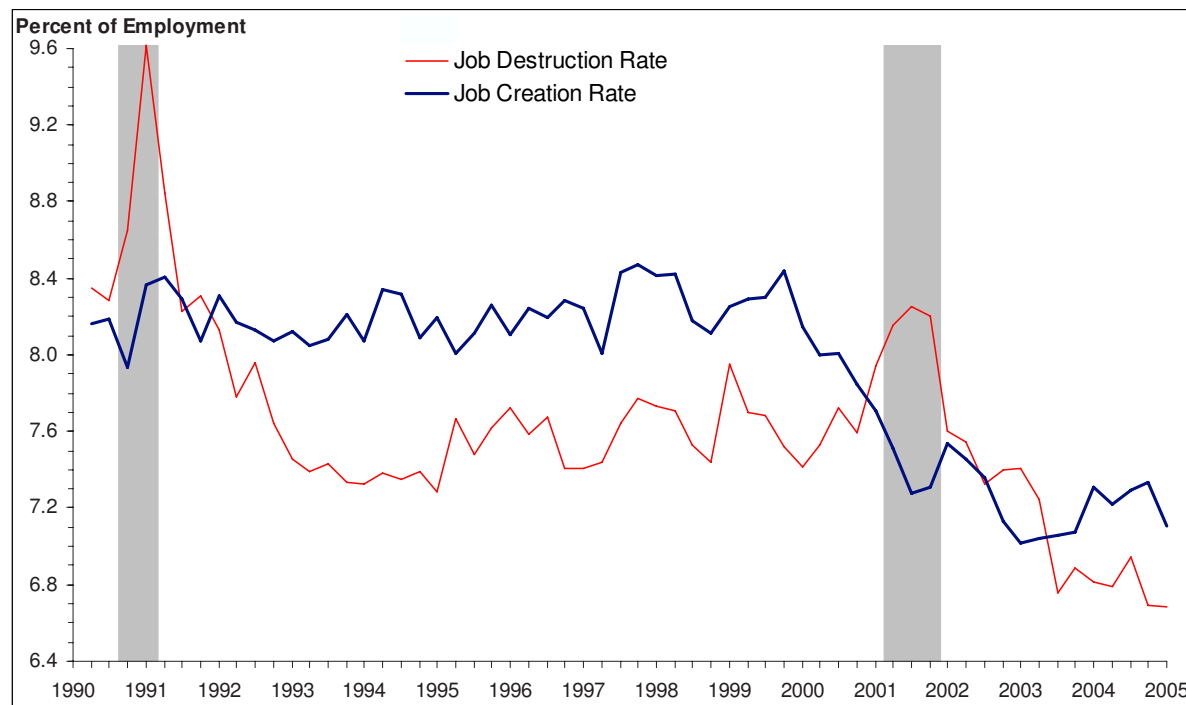


- Can the decrease in  $s$  explain the decrease in the natural rate?
- To a close approximation:

$$\frac{\Delta u^*}{u^*} = \frac{\Delta s}{s}$$

- $s$  from 3% (monthly) to about 2.5%: 15% decrease  
 $u^*$  from 6% to 5%: 15% decrease. looks good.
- Next step: Where does the decrease in  $s$  come from?
- Decrease in worker flows given job flows, or decrease in job flows? Some role for demographics, but mostly job flows.
- Less reallocation? Unlikely. More wage flexibility? Better inventory control? More integrated chains of production?

**Figure 2. Quarterly Job Flows in the Private Sector, 1990-2005**



Source: Faberman (2006); tabulated from BLS Business Employment Dynamics (BED) micro data. Shaded areas show NBER-dated recessions.

## Conclusions.

- A promising approach. Using more dimensions of the data to identify  $u^*$  and what lies behind its movements.
- Implementation delivers clear leads. Downplays decrease in bargaining of workers, more efficient matching. Points to lower worker flows, and in turn to lower job flows.
- But what is behind the decrease in job flows? Not quite nailed down.