The Ins and Outs of German Unemployment

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Abstract

This paper analyzes the driving forces behind the German unemployment rate. For instance, an increase in the unemployment rate may be due to an increase in job separation (inflows), a decline in job finding (outflows), or both. In addition, labor force participation choices can affect the unemployment rate via changes in the labor force.

We quantify the relative importance of these channels using the modified factor analysis developed by Smith (2011). Accordingly, changes in the current unemployment rate are first decomposed into changes in the steady-state unemployment rate and past changes in the actual unemployment rate. Second, changes in the steady-state unemployment rate are decomposed into changes in inflows and outflows. This method explicitly accounts for (i) sluggish adjustment dynamics caused by low labor market transition rates and (ii) transitions between employment, unemployment, and inactivity.

We use German SOEP (2011) calendar data from 1983-2009 based on annual retrospective interviews. This dataset provides detailed information on each individual’s labor market status at monthly frequency. Our sample is restricted to West-German residents aged 16 to 65. The data treatment procedure controls for recall error/seam bias (as suggested by Jürges 2007) and margin error effects (Fujita & Ramey 2009).

Our model explains more than 80% of all changes in the unemployment rate, of which 60% are due to changes in the inflow rate and 40% are due to changes in the outflow rate. At business cycle frequencies, the positive comovement between the unemployment rate and the inflow rate is clearly stronger than the negative comovement with the outflow rate. Furthermore, we find that about 75% of the changes in the unemployment rate are caused by direct flows between employment and unemployment, while 25% are caused by indirect flows via inactivity. These indirect flows via inactivity seem particularly relevant for females and foreigners.

JEL Classifications: E24, E32, J63, J64

Keywords: unemployment dynamics, job finding rate, job separation rate, GSOEP worker flows

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