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HODRICK-PRESCOTT FILTER IN THE ANALYSIS OF STRUCTURAL UNEMPLOYMENT AND BUSINESS CYCLE ON THE LABOR MARKET IN THE COUNTRIES OF THE VISEGRAD GROUP

Abstract:

The Natural rate of unemployment indicates such a level of unemployment at which the inflation rate is constant (Estrada, Hernando a Lopez-Salido, 2000). This concept is called Non-Accelerating Inflation Rate of Unemployment (NAIRU). NAIRU is an unobservable variable (Boone, 2000). Richardson, Boone, Giorno, Meacci, Rae a Turner (2000) in their papers classified the methods to the following groups: structural methods, purely statistical methods and so called reduced form approach. In our analysis we used only Hodrick-Prescott filter. Lamda value was set at standardly recommended value for quaterly data, which is 1600 and we real values completed by oursÂ´ own predictions. In case of the Czech Republic the values of estimated NAIRU were between 2 % and 8,8 %. Real rate of unemployment was below the NAIRU in 2Q 1995-3Q 1998, 2Q 2001-2Q 2003 and in period from 4Q 2006 till 3Q 2008. In Slovakia the HP filter estimated the NAIRU in the interval between 9,4 % and 18,3 %. From 2Q 2006 till 2Q 2008 the real rate of unemployment decreased below the NAIRU. In 3Q 2008 the real rate of unemployment exceeded the NAIRU. The NAIRU in Hungary was estimated between 5,9% and 10,8 %. From 1Q 2005 starts the recession phase, from 2Q 2007 comes the phase of soft boom. In 3Q 2008 the negativ gap signaled shift into recession phase caused by global financial and economic crisis. In case of Poland the HP filter estimated NAIRU in the interval between 7,5 % and 18,8 %. From 1Q 2001 till 1Q 2007 the real rate of unemployment was exceeding the NAIRU. In the last part of the examined period the economy was in the boom phase with peak in 4Q 2007. The negativ gap in 3Q 2008 was only about 0,29 pp.

Keywords:

Phyllips curve, NAIRU, Hodrick-Prescott filter, Kalman filter, Stochastic trend

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