Co-trending and the Dual Adjustment Approach: Reconsidering the Unemployment Dynamics

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Abstract

It is difficult to characterize the trends of most time series variables –such as unemployment rate– in isolation, particularly, in univariate analysis like unit root tests. Despite this problem, the hysteresis hypothesis is generally verified with unit root tests. While the presence of unit roots in the unemployment rate series is considered to be evidence in favour of the hysteresis hypothesis, its rejection –that is, the stationarity of unemployment rate– is taken as a validation of the unique natural unemployment rate. Broadly speaking, the empirical evidence is mixed. Many recent studies emphasized that standard unit root tests may have low power, e.g. due to possible structural breaks and small sample size; however, they did not take into account the possibility that unemployment rate may share a common trend with other variables, e.g. in goods market. Considering the fact that there is a crucial interdependence between the labor market and goods market, the dual adjustment approach and the related concept of co-trending with popular filters may allow us to link apparent trends to the underlying phenomena. Thus, this paper attempts to apply the dual adjustment approach –particularly, the concept of co-trending– to the analysis of unemployment dynamics in several countries. Our preliminary results indicate that unemployment rate could be better characterized to have a history-dependent moving equilibrium rather than having a unit root. In other words, unemployment rate has common (or related) permanent components with the key goods market variables.

Keywords: Dual adjustment approach; Unemployment rate; Co-trending.

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