

Chapter 19

Testing the Unemployment Hysteresis for G-20 Countries

Veli Yilanci

Sakarya University, Turkey

Mahmut Unsal Sasmaz

Usak University, Turkey

ABSTRACT

In this chapter, the authors analyze the validity of unemployment hysteresis for G-20 countries, namely Australia, Brazil, Canada, France, Germany, Indonesia, Italy, Japan, Korea, Mexico, Russia, South Africa, Turkey, United Kingdom, and USA for the 1960–2014 period. For this purpose, they examine the stationarity of the unemployment rates by using ADF unit root test and Fourier ADF (FADF) unit root tests. FADF unit root test is a recently introduced test whose power is not affected by the number, location, and form of the breaks. The results of the tests show that the unemployment hysteresis is valid for some of the countries.

INTRODUCTION

Unemployment has always been a significant common problem for all countries in the world. This problem has been among the issues that must be solved in a priority for all societies. Therefore, a rapid increase has occurred in the studies on unemployment. Natural rate hypothesis (NAIRU) by Friedman (1967) and Phelps (1967, 1968) has been suggested for the first time about unemployment. According to this hypothesis, the fluctuating unemployment rate following an economic shock tends to return to the previous level after the effect of the shock. In other words, the unemployment rate in long term tends to return to the balance value called as natural rate. As long as the unemployment rate is stable econometrically, this hypothesis is valid. However, it was argued by Blanchard and Summers (1986) later that natural rate hypothesis was not valid. Blanchard and Summers (1986) claimed that the increasing unemployment rate following the shocks in economy could not return to the previous level again. If this happens, it is called as unemployment hysteresis hypothesis. If the unemployment rate is not stable econometrically, the result is that unemployment hysteresis hypothesis is valid.

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The first reason for the unemployment hysteresis hypothesis is insider – outsider theory claimed by Blanchard and Summers (1986). Insiders in this theory means the employees and outsiders means unemployed. Experiencing a negative macroeconomic shock would cause some employees to become unemployed and an increase in negotiating power of the employees. Correspondingly, since the insiders would just think their own interests, they would sign contracts by demanding high salaries. As a result, since the outsiders would not manage the salaries move downward, they would remain unemployed and the effect of the shock would become stable. Second one is a theory that the duration of unemployment affects the human capital negatively. According to this theory, during the unemployment period the unemployed people would lose their specific experience, motivation and skills. Therefore, unqualified labor force would not be demanded by the employers or it would decrease. In addition, unemployment will increase and become stable since there will be an increase in tendency for benefiting the advantages such as unemployment insurance. Besides the mentioned effects for the unemployment hysteresis hypothesis to occur, some reasons such as lay out costs, undercapitalisation and lack of coordination are also indicated. (Christopoulos and León-Ledesma, 2007: 81, Ari et al., 2013: 108).

In this context, the validity of unemployment hysteresis hypothesis has been analyzed in this study in G-20 countries whose importance has been rapidly increasing recently. From this point of view, the stability of unemployment series was tested with unit root test allowing structural breaks by building time series data set consisting of annual unemployment rates covering 1960-2014 period in G-20 countries. Therefore, it was identified whether natural unemployment rate hypothesis or unemployment hysteresis hypothesis is valid in these countries.

The study consists of four parts. In second part following the introduction part there is literature review part. Third part is reserved for the definition of unit root tests used in the study. In fourth part data and empirical analysis used in the study are presented. Fifth part is the conclusion part and the findings from the study are interpreted.

LITERATURE REVIEW

Blanchard and Summers, (1986) tested the validity of unemployment hysteresis hypothesis in France, Germany, United Kingdom and United States in 1953-1984 period by using Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) unit root tests. As a result of the study they identified that the unemployment hysteresis hypothesis was valid in all countries apart from the United States.

Røed, (2002) (2002) tested the validity of unemployment hysteresis hypothesis in 10 OECD countries (Austria, Belgium, Canada, Germany, Japan, New Zealand, Norway, Sweden, United Kingdom, United States) in 1960-1995 period by using Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) unit root tests. As a result of his study he identified that the unemployment hysteresis hypothesis was valid in all countries apart from the United States.

Camarero and Tamarit, (2004) tested the validity of unemployment hysteresis hypothesis in 10 OECD countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, New Zealand, Spain, Sweden, Switzerland, United Kingdom and United States) in 1956-2001 period by using Individual ADF, MADF (Sarno and Taylor (1998)), SURADF (Breuer et al. (1999)) multivariate SURE unit root tests. As a result of their study they identified that the unemployment hysteresis hypothesis was valid in 7 countries (Austria, Germany, Italy, Japan, Norway, New Zealand and Switzerland).

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