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Dissertation abstract

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Testing of the Twin Deficit Hypothesis in European Union countries

In the 1980s, the United States experienced significant increases in the current account deficit and budget deficit. Many economists attributed a significant portion of the current account deficit to record budget deficits, which later became known as the twin deficit hypothesis.

The aim of this doctoral dissertation is to verify the occurrence of this phenomenon in the European Union countries between 2000 and 2019, as well as to examine whether there is a threshold effect at which it begins to occur. As the Twin Deficit Hypothesis is linked to the Feldstein-Horioka puzzle and Ricardo's theorem, the occurrence of these will also be verified in this study.

Chapter one presents the economic assumptions and historical background of the twin deficit hypothesis, Ricardo's theorem, and the Feldstein-Horioka puzzle. The last subsection provides an overview of the empirical results of testing twin deficit hypothesis from the past thirty years.

Chapter two provides a broad description of the methods used in this study. First, the methods used for testing integration and cointegration are described. The basic concepts associated with this approach are presented, followed by discussions of individual and panel unit root and stationarity tests, as well as procedures for testing panel cointegration and panel threshold cointegration. The next section describes the procedure for testing linear Granger causality and the final subsection presents the testing procedure used in chapter four.

Chapter three presents a statistical analysis of data, including time series of budget deficit, current account balance, private consumption, public debt, and saving and investment rates. To illustrate the phenomena described in this study descriptive statistics are presented for

each characteristic and relationships between relevant pairs of stochastic processes are discussed.

Chapter four presents the results of authors own research aimed at verifying the hypotheses presented in this study. The first part presents the results of the verification of the integration level of the analysed processes. The subsequent parts present, with usage of panel cointegration and panel linear regression analysis, the results of verifying the occurrence of Ricardo's theorem, the Feldstein-Horioka puzzle, and the twin deficit hypothesis for three panels of European Union countries:

- UE-14 consists of: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and United Kingdom;
- UE-13: Bulgaria, Cyprus, Croatia, Czech Republic, Estonia, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, and Hungary;
- UE-27, which includes all countries in the European Union.

United Kingdom was not removed from the sample despite leaving the European Union after January 1st 2020. However, Luxembourg was removed due to its very complex financial system, which makes the results of national accounts for current account balance or investment unreliable, and therefore it is usually excluded from international research.

The occurrence of a threshold for the twin deficit hypothesis was verified using the panel threshold cointegration method. The final part of chapter provides a summary of all studies conducted in the dissertation.

In the conclusion, the author presents the results of the hypothesis verification presented in the study and describes the achievement of the study's goals. The author also presented recommendations for actions that could serve as guidance for European institutions or governments of individual countries („policy makers”) in the event of the occurrence of the analysed events.

Keywords: twin deficit hypothesis, Feldstein-Horioka puzzle, Ricardo's theorem, cointegration, threshold cointegration, Granger causality, European Union countries.