Absolute cost advantage and sectoral competitiveness: Empirical evidence from NAFTA and the European Union

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In this research we seek to answer the following question: What are the factors explaining the real terms of trade between the countries belonging to both the North American Free Trade Agreement (NAFTA) and the European Union (EU-28)?
More specifically, based on Anwar ShaikhÂ´s theory of the absolute cost advantage, our aim is to verify the hypothesis that, during 2000-2014, the real exchange rates (REXR) of the German and the North American manufacturing sectors vis-Ã -vis their EU-28 and NAFTA partners, respectively, have been governed by the relative vertically integrated unit labor costs (RVIULC) and the intrasectoral gap of the rate of profit (R). Using panel cointegration techniques, we elaborated three econometric models. The first corresponds to the NAFTA countries, where the United States (US) is taken as the reference (national) country. The second corresponds to EU-28 with Germany as the national country. The third agglutinates NAFTA and EU-28, where we consider US as the national country.
We verify the existence of a unit root with Im, Pesaran and Shin (IPS), Maddala and Wu (MW), Choi, and Hadri tests. Secondly, we apply Pedroni, Kao and Fisher-Johansen tests to corroborate that our series are cointegrated. Subsequently, we obtain cointegration vectors through Dynamic OLS (DOLS) and Fully Modified OLS (FMOLS) estimators. Finally, we employ an error correction model vector (VECM) to analyze short-run and long-run causal relationships.
The data used to calculate our variables were collected from the national input-output tables (NTIOs) and from the social accounting matrices (SAMs) of The World Input-Output Database Release 2016 (WIOD). The novelty of the research, representing the original contribution to the field, has to do with its being the first empirical test (using the WIOD database) of the theory of absolute cost advantage for the two main economic areas of the world economy.