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**PROBABILISTIC APPROACH IN ROMANIAN FOREIGN TRADE  
STRUCTURE PREDICTION**

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**Abstract.** This paper is a trial to test the advantages but also the limits of the Markov Chains used to predict the foreign trade structure of a certain group of products. Because of the relative lack of power of the chi-square test regarding the common way of testing the time stationarity of the transition probability matrix, we propose the use of the similarity coefficients, adapted for this specific situation. For applying the proposed methodology we use the foreign trade flows between Romania and other EU countries, detailed by product categories, from the Eurostat database, COMEXT. Because the algorithm is computingly intensive, a VBA program has been developed as a user friendly add-in for Excel.

**JEL Classification:** C53

**Keywords:** transition matrix, time homogeneity, forecasting error

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