Summaries

Anna Czapkiewicz, Marta Stachowicz: **The long-run relationship between the stock market and main macroeconomic variables in Poland** ▪ Managerial Economics 2016, vol. 17, no. 1

JEL Classification: G01, G11, G15

Keywords: *long-run relationship, model VECM, stock market, macroeconomic data*

The investigation concerns the problem of whether some macroeconomic variables and the EUR/PLN exchange rate might affect the performance of the Warsaw Stock Exchange. The answer to this question can be obtained from a cointegration analysis. The advantage of testing for cointegration is the identification of a stable long-run relationship between the stock price index, some macroeconomic variables, and the EUR/PLN exchange rate, which can be implemented using various cointegration methodologies. Analysis of the response of one variable to an impulse of another variable is also performed to show the importance of a given variable in a system.

Henryk Gurgul, Łukasz Lach: **Comparative advantage of the EU in global value chains: How important and efficient are new EU members in transition?** ▪ Managerial Economics 2016, vol. 17, no. 1

JEL Classification: F1, C67, D57

Keywords: *value added, productivity, capital efficiency, CEE economies, international input--output matrices, transition*

We suggest original modifications and extensions of the recently presented methodological developments in ex-post accounting framework in global value chains in order to obtain empirical results both for the analyzed group of ten CEE economies as well as at a country-and-sector-specific level. The empirical results confirm that the role of the selected CEE economies in transition in creating value added with respect to the total value added in the European Union in the GVC framework was biggest in the cases of agriculture-, wood-products-, metal-production-, and travel-and-tourism-related sectors. We also found that, after two decades of transition, the measures of productivity in the examined economies in 2009 were still much lower as compared to the EU average for most of the sectors. Moreover, in the transition period, these indexes were increasing, especially after EU accession. In contrary, after two decades of transition, the measures of capital efficiency in the ten CEE economies in 2009 were comparable to the EU average for most of the sectors. Moreover, during this period, the growth rates of these indexes were, in general, positive. However, their growth rates dropped after EU accession.

Henryk Gurgul, Artur Machno: **The impact of asynchronous trading on Epps effect. Comparative study on Warsaw Stock Exchange and Vienna Stock Exchange** ▪ Managerial Economics 2016, vol. 17, no. 1

JEL Classification: F36, G15

Keywords: *VSE, WSE, market microstructure, Epps effect, asynchronous trading, correlation estimation, asynchronous time series*

The novelty/value added of this paper is the comparison of the Epps effect between developed and emerging stock markets from Central Europe by means of the correction formula derived by the authors. The main goal of the study is to test whether or not asynchrony in transaction times is a considerable source of the Epps effect in the case of the Warsaw and Vienna stock exchanges for the most-liquid assets from these markets. Among all analyzed stock pairs on the WSE, asynchrony turns out to be the main cause of the Epps effect. However, the corrected correlation estimator seems to be more volatile than the regular estimator of the correlation. In the case of the VSE, evidence of the Epps effect is not unique. For the most-liquid and most-correlated pair (namely, ANDR-EBS), the analysis delivers similar results as for Polish stocks. However, the Epps effect could not be detected for the remaining pairs on the VSE. The presented analysis can be reproduced for the same data or replicated for another dataset; all R codes used in the computation within this paper are available upon request.

Henryk Gurgul, Robert Syrek: **The logarithmic ACD model: the microstructure of the German and Polish stock markets** ▪ Managerial Economics 2016, vol. 17, no. 1

JEL Classification: G15, G19

Keywords: *intraday data, microstructure, duration, ACM models, Frankfurt Stock Exchange, Warsaw Stock Exchange*

The main goal of this paper is to compare the microstructure of selected stocks listed on the Frankfurt and Warsaw Stock Exchanges. We focus on the properties of duration on both markets and on fitting the appropriate ACD models. Because of the quite different levels of capitalization of stocks on these markets, we observe essential discrepancies between these stocks. While for most German companies on the DAX30, the Burr distribution fits better than generalized gamma distribution, the latter distribution is superior in the case of the largest Polish companies. Analyzing series by hazard function, we note the similarity of hazard functions for companies on both markets, which tend to have a U-shaped pattern.

Magdalena Kludacz-Alessandri: **Non-financial dimensions of measurement and assessment in the performance model for hospitals** ▪ Managerial Economics 2016, vol. 17, no. 1

JEL Classification: I18, M41

Keywords: *non-financial dimensions of measurement and assessment in the performance model for hospitals*

This paper presents one of the important stages of a research project carried out in Poland, the aim of which was to develop an integrated performance measurement and assessment system

designed for Polish public hospitals and for the stakeholders of different healthcare systems. The goal for the stage described in this article was to present a flexible and comprehensive tool (a performance model) for measuring hospital performance that could be used by hospital management, the founding bodies, and other stakeholders at the regional and central levels of healthcare systems, to improve the quality of medical services, the availability of healthcare resources, and the organization of the healthcare system in Poland. This article describes the non-financial dimensions that were identified in this model.

The research involves the construction of a model that consists of defined and selected dimensions (patients, internal processes, development, and finance) with key performance indicators for the analysis, measurement, and assessment of hospital performance. The model takes into account the following three levels of the Polish healthcare management system: the central level, represented by the Ministry of Health; the regional level, represented by the regional governor, the marshal's office, and the regional offices of the National Health Fund; and the local level, represented by hospitals and their funding bodies.

The performance model exceeds the scope of the financial dimension and enriches it with three non-financial dimensions: patients, internal processes, and development. It allows one to concentrate not only on the tasks of the hospital but also on the objectives of other stakeholders operating in the Polish healthcare system.

Milena Suliga: **The reaction of investors to analyst recommendations of stocks listed on the WIG20 index** ▪ Managerial Economics 2016, vol. 17, no. 1

Analyst recommendations are one of the types of information whose appearance on the market can have an influence on security prices. In this paper, I study the impact of analyst recommendations on stocks listed on the WIG20 Index, using event-study methodology and linear regression models. The dataset contains 576 absolute recommendations published from the 1st of January 2012 to the 1st of September 2015 by various analyst houses. The prefatory study researches price reaction to positive, neutral, and negative recommendations separately. Subsequently, to check if investor reaction depends on a change in the level of recommendation, corresponding research is repeated for events clustered in nine groups defined in terms of possible level changes. Linear regression models with categorical variables are used in search of additional factors affecting investor reactions. Changes in the level of recommendation, size of the company, and reputation of brokerage house represent explanatory variables. Preliminary results point out that the direction of investor reaction is generally consistent with the information contained in the recommendation, and that the reaction of the market seems to be stronger in the case of positive events than in the case of negative ones. The analysis of recommendation changes reflects more-detailed dependents. In particular, the interpretation of a neutral recommendation depends strongly on the level of the previous recommendation. If it represents growth from SELL or REDUCE, the reaction is positive, while in the case of a drop from ACCUMULATE or BUY, it leads to negative abnormal returns. This relationship is additionally confirmed by results from the linear regression models. The models show the size of the firm as a significant factor that has an influence on the reaction to a recommendation: the smaller the firm, the stronger the reaction.

Tomasz Wójtowicz: **Intraday patterns in time-varying correlations among Central European stock markets** ▪ Managerial Economics 2016, vol. 17, no. 1

In this paper we investigate intraday relationships between three Central European stock exchanges: those in Frankfurt, Vienna and Warsaw. They represent different types of stock markets: two of them are developed, while the last is an emerging market. Via DCC-GARCH models we analyze and compare time-varying conditional correlations of intraday returns of the main indices of the stock exchanges. We study the impact of important public information, US macroeconomic news announcements, on the strength of interrelationships between the markets. Additionally, we analyze diurnal patterns in time-varying correlations on different days of the week.