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THE RESEARCH OF THE TRENDS OF UKRAINE'S STOCK MARKET DEVELOPMENT

Victoria V. SOLOVYOVA

Candidate of Science in Economics, Associate Professor of the Department of Finance, Cherkasy Institute of Banking of the University of Banking of the National Bank of Ukraine (Kyiv)

Summary. In the article from data of index of the UX Ukrainian exchange research of nonlinear properties of crisis national stock market condition is

conducted. It is shown that nonlinear methods enable to interpret all spectrum of conduct of stock market.

Key words: *stock market, global financial crisis, nonlinear dynamics.*

Global financial crises influence the countries and depend on the openness of economy, and, accordingly, they depend on probability that financial instability will stipulate considerable external shocks for economy. In countries with the developed economy, the mechanisms of counteraction to these negative influencing are created, but the developing countries, which do not have such protective mechanisms, become their victims. Ukraine is one of those countries.

Obviously, the process of globalization takes place most dynamically in the financial sector, and the greatest dependence on the world conjuncture is experienced by the stock markets. The level of their development is one of the key factors for effective development of the country's economy as a whole. That is why it is necessary to devote more attention to the study of stock market development, to develop and implement new and enhanced mechanisms of its management.

The stock market is extremely sensitive to changes in economic trends, and stock indexes can be used for constructing indicators and the harbingers of possible crisis phenomena.

The aim of this paper is to research the stock market of Ukraine, namely the shares of enterprises and futures on the index of the Ukrainian Stock Exchange, using the nonlinear dynamics methods relative to possible crisis and pre-crisis scenarios.

Let's define indicators of pre-crisis states. We will conduct the research on the basis of shares' rows of Ukrainian companies that act as the instruments of trading on the Ukrainian stock market. The main instruments of trading are the futures (UX-C) on the UX index and shares of companies.

The index of Ukrainian Exchange (UX) is calcu-

lated according to the data of the index basket, which consists of companies' shares named "blue chips". Among them are the securities of the enterprises of several branches of economy, especially of the heavy industry, bank and energetic sectors.

The volatility is one of the most important financial indicators in the management of financial risks. It represents the level of risk of using the financial instrument for a certain period of time.

Mostly, the average volatility is calculated. The volatility is expressed either in absolute or in relative value from the original price and it acts as a statistical indicator characterizing the trend of the market price or revenue that varies with time.

Let's speak about the results of the Ukrainian stock market research using the data of UX index in the period from November 2009 till year 2013.

The volatility of stock prices' changes is a measure of how the market tends to fluctuations. The research showed that during the crisis the volatility increases considerably.

The indicator of the volatility has the propensity to increase during the crisis but not before it. Therefore, we can believe that the volatility is an indicator of crisis, but not its harbinger.

As an additional indicator of the market's state research we take the coefficient of Hurst (H). The coefficient of Hurst represents the degree of predictability (persistence) of the non-linear dynamic system. If for profitability its value exceeds the value of 0.5, then the time row is called persistent and more predictable. For the anti-persistent and reversible rows ($0 < H < 0.5$) the horizon of the prediction is significantly reduced.

For determination of the Hurst's coefficient we

will use the time row of Ukrainian UX index in the period starting from 23.04.2009 till 09.07.2013.

As we see, the coefficient of Hurst for Ukrainian Stock Exchange is about 0.7, and it means that the row is rather predictable and calmer.

The analysis of the Hurst's local coefficient can assist during the interpretation of significant changes in market's dynamics.

The Hurst's local coefficient is usually declining before the crisis, but during it, it falls drastically. Af-

ter the crisis it increases to the previous level.

Thus, the local Hurst's coefficient can be considered as a harbinger of the crisis. The analysis of the Hurst's local coefficient's dynamics will give us the opportunity to see the significant changes in economy.

The presented non-linear methods allow interpreting the entire spectrum of the stock market's behavior on the new and better level.

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