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## INFLUENCE OF ECONOMIC GROWTH INTO INSURANCE MARKET DEVELOPMENT OF LITHUANIA AND UKRAINE

*Метою даної статті є оцінка кореляції між економічним зростанням і розвитком литовського та українського ринків страхування. Автори оцінюють, які чинники економічного розвитку країн впливають на розвиток страхового ринку Литви та України. Також розраховано кореляцію між цими факторами, і надано прогнози для майбутнього розвитку обох ринків.*

*Ключові слова: ринок страхування, розвиток, економічне зростання, кореляція, показники непрямого страхування.*

*Целью данной статьи является оценка взаимосвязи между экономическим ростом и развитием литовского и украинского рынков страхования. Авторы оценивают, какие факторы экономического развития стран оказывают влияние на развитие страхового рынка Литвы и Украины. Также рассчитывается корреляция между этими факторами, и даются прогнозы на будущее развитие обоих рынков.*

*Ключевые слова: рынок страхования, развитие, экономический рост, корреляция, показатели непрямого страхования.*

*The aim of the article is to evaluate the correlation between economic growth and development of Lithuanian and Ukrainian insurance markets. The authors tend to make an assessment which factors of countries economic development has an influence to insurance market development of Lithuania and Ukraine. Also it is calculated the correlation between these factors, and are given the prognosis for the future development of both markets.*

*Keywords: insurance market, development, economic growth, correlation, non-direct insurance indicators.*

In the market economy insurance is an effective tool for protection against possible risks, which insures socio-economic stability in the community. Insurance companies are dominated investors on the world financial market. Insurance markets of Ukraine and Lithuania are still in their primary development. It is interesting to evaluate Ukrainian and Lithuanian insurance markets and compare their level of development as both of these countries start their development after the downfall of Soviet Union. It is meaningfully to evaluate main macroeconomic indexes both of these countries and find a relationship how these indexes influence for the development of insurance market and which factors has the biggest effect.

The research based on combination of systematic and analytical approach. Method: using secondary data and correlation analysis. The correlation analysis made between development of insurance markets and economic development to show the relations between them and to give the prognosis for the future development of this markets. Fulfilling the task of research authors used main macroeconomic indexes in Lithuania and Ukraine in 2000-2010 and direct and non-direct indicators of evaluation insurance market the same period.

There were some difficulties with statistical data. The period of research was chosen 2000-2010 as before data the statistical report was in other accounting base and is available only in Lithuania.

### Evaluations of indicators of Lithuanian and Ukrainian insurance market

Insurance market activity may contribute to economic growth, both as financial intermediary and provider of risk transfer and indemnification, by allowing different risks to be managed more efficiently and by mobilizing domestic savings [1, p. 2]. During the last decade, there has been faster growth in insurance market activity, particularly in emerging markets given the process of liberalization and financial integration, which raises questions about its impact on economic growth.

The insurance activity, both as a provider of risk transfer and indemnification and as an institutional investor may contribute to economic growth in the following ways:

- \* promoting financial stability;
- \* facilitating trade and commerce (the most ancient insurance activity);
- \* risk transfer (bearing risk for other economic agents which might stabilize their income streams, dampen volatility and enhance economic activity) [2],

- \* substitute savings (broadening the investment range might make intermediation more efficient and thus aid in economic growth),

- \* allowing different risks to be managed more efficiently encouraging the accumulation of new capital;

- \* investment (e.g. increasing over-all investment volumes and deepening capital markets), institutional spheres of influence (e.g. bancassurance) and possible sources of contagion and repercussions to the economy.

- \* fostering more efficient allocation of domestic capital [3].

In addition, there are likely to be different effects on economic growth from life and non-life insurance (property / liability) given that these two type of insurance protect the households and corporations from different kind of risks that affect the economic activity in different ways and also because life insurance companies facilitate long-term investments rather than short-term investments as it is the case of non-life insurance companies.

If to show the mechanism of dependency between economic growth and insurance market it can be shown:

Growth of GDP → Growth income → Increase of average wages →

Increase purchasing power → Increase insurance premiums.

National insurance markets have evolved to suit each country's particular environment. The interaction of supply and demand forces determines market structures. Price and innumerable economic, social and cultural factors influence the demand for insurance. Insurance supply is molded by price and, to a great degree, by a market's risk-bearing capacity and government regulation. Some influences are logically predictable. For example, we would expect comparatively lower demand for insurance in the least developed countries, with the demand increasing with economic development. Similarly, we would expect developed market-economy countries, which rely more on private sector operations, to exhibit a correspondingly higher demand for private insurance [4, p. 26].

For all necessary calculations of correlations needed for the aim of research we cover the main macroeconomic indexes and insurance indicators, which can be dividing into direct and indirect. Macroeconomic indicators also called as gross indicators and they are: GDP, inflation rate, unemployment level, middle salary, migration. There are a lot of direct indicators used in insurance practice for estimation insurance markets, all this indicators is shown in balance of insurance activity. To maintain a correlations we

estimate such direct insurance indicators as the number of participant of insurance market; written premiums as it really shows the a reflection of the demand for insurance services and reflection of social need for them, on the one hand, and on the other hand it is the reward the insurance companies receive, taking on responsibility for risks; claims paid is equally important factor, which reflect the activities of insurers; number of insurance contract show the current activity of insurance company or amount of future premiums if this contract is negotiated for a future period; and the share of life and non-life insurance in the market.

Another three indicators those are used worldwide for evaluation of insurance market and belong to category non-direct indicators are insurance density, insurance penetration and insurance exploration. Even these indicators are so called indirect – shows us correlation between insurance activity and country's economic growth more precisely, so we look at its in detail here.

The analysis of the data in the Figure 1 shows, both countries indicator were growing in the researched period. But it is necessary to point out that growth of this indicator in Lithuania is much bigger than in Ukraine.

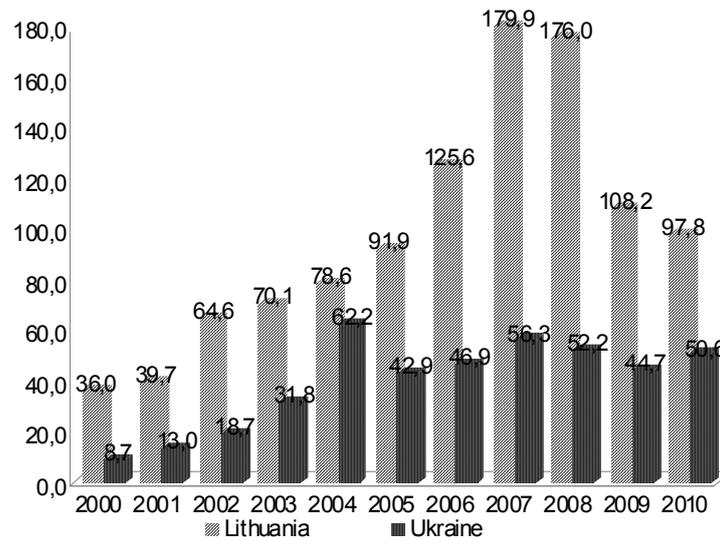


Fig.1. Density of insurance market in Lithuania and Ukraine, euros

Source: compose by authors, Insurance in Lithuania, annual overview 2000 – 2010, www.dpk.lt, State Commission on Regulation of Financial Services of Ukraine <http://www.dfp.gov.ua>, Department of statistic in Lithuania and Ukraine <http://db1.stat.gov.lt>, <http://ukrstat.gov.ua>

During all years the amount of money per capita spent into insurance services was growth in both countries. It proves a constant development of insurance market. But still the density index in Ukraine is comparatively low, in was three times smaller than in Lithuania in 2007 and is 56,3 euros rather in Lithuania it is 179,9 euros per one inhabitant. The situation in post-crisis years (2009-2010) changed dramatically these indicators and as we can see, mostly for Lithuanian insurance market – it decreased till

97,8 euros, also the gap between Ukraine and Lithuanian indicators shortened, but still remained double – 50,6 euros in Ukraine.

Another important index is insurance exploration that shows the number of insurance contracts per capita. This index was very low for both countries at the beginning of the period. Only in 2003 in Lithuania was 1,04 contract per capita. In Ukraine this index till 2010 is small and is only 0,58 contracts per capita.

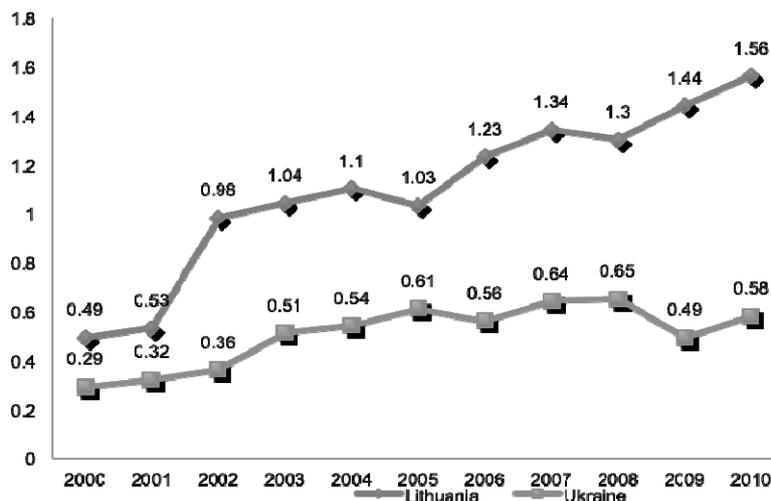


Fig.2. Insurance exploration of insurance market in Lithuania and Ukraine, contracts

Source: compose by authors, Insurance in Lithuania, annual overview 2000 – 2010, www.dpk.lt, State Commission on Regulation of Financial Services of Ukraine <http://www.dfp.gov.ua>, Department of Statistics in Lithuania and Ukraine <http://db1.stat.gov.lt>, <http://ukrstat.gov.ua>

It means that the market is not developed as in developed country this index is minimum three contracts per one inhabitant. It means that all population is slight involved into the process of insurance.

Another important index is insurance penetration, which shows proportion of gross direct premiums and main mac-

roeconomic index of country. It is shown in the Figure 3. During period this index also is growing, but in both countries it is low, in Ukraine the situation is a little bit better, but not so much.

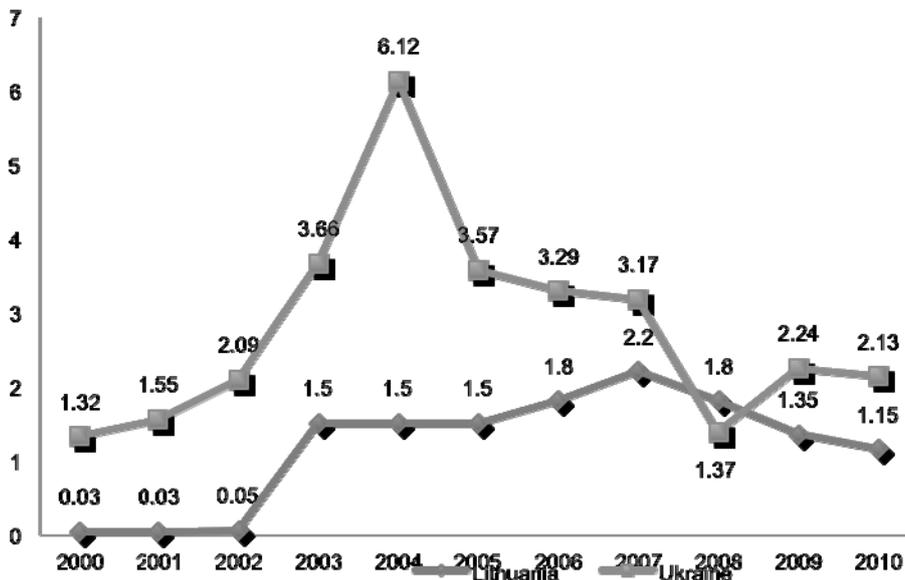


Fig.3. Penetration of insurance market in Lithuania and Ukraine, %

Source: compose by authors, Insurance in Lithuania, annual overview 2000 – 2007, www.dpk.lt, State Commission on Regulation of Financial Services of Ukraine <http://www.dfp.gov.ua>, Department of statistics in Lithuania and Ukraine <http://db1.stat.gov.lt>, <http://ukrstat.gov.ua>

Since the 2000, the share of insurance premiums in the country's GDP was not considerable, in Lithuania it was 0,03%, in Ukraine 1,32% what shows that sphere of insurance services was in the very low stage of development. In 2002 in Ukraine this index begin rise, because of sharply growth of insurance premiums. In Lithuania this index was stable during three years (2003-2005), after 2005 begins to growth, but from 2007 was decreasing constantly and became lower than in 2003. If to analyze the insurance penetration by the types of insurance it is also the same as previous index. It means that the share of life insurance premiums in both markets, Ukrainian and Lithuania is too small. Insurance penetration of Ukrainian insurance market has a little bit higher meaning, than in Lithuania, but in comparison with other European country or middle European average – 7-8%, this index is very low. For example, before crisis years, in France in 2005 it was 7,04% for life insurance and 10,18% for the whole types of insurance, in Belgium 8,49% for life insurance and 11,28% for the whole types of insurance [9, p. 13]. In comparison with Lithuania and Ukraine this index for life insurance in 2005 was 0,6% and 0,83%. Still both markets have a big potential, because in spite of the banking sector insurance sector is not so developed, that's why it is a greater possibility to develop it.

**Correlation between insurance market activity and economic growth**

It is simple approximate mechanism of bidirectional relation between countries economic growth and its insurance market. If country has a stable development and main countries macroeconomic indicators have a tendency to growth especially GDP and GDP per capita, the highest level of this indexes means the highest prosperity, it's

cause the growth of income which cause increase of average wages. This increase gives people possibility to choose how they want to invest money, or save it, or buy insurance services. The growth of demand of insurance causes the growth of insurance premiums, which develop insurance market. Also there are some other factors that influence for people's behavior; if interest rate is high they will put money into deposit account. But if to think for a future insurance is a good mechanism for accumulating money, especially life insurance. If to take a case of entrepreneurs, the increase of their income causes the increase of their investment, which is insured from financial risk. All this mechanism can be used to Lithuania and Ukraine. The strength or the dependence between two or more variables shows the coefficient of correlation.

If to evaluate the effect of insurance variables on economic growth within the context of the statistical coefficient of correlation the results is shown in the table 2.7. It is shown the correlation between GDP per capita and insurance density (insurance premiums per capita), also correlation between density and average wages.

**Table 1. The coefficients of correlation between economic growth and development of insurance market in Lithuania and Ukraine**

Lithuania		
Meaning	GDP per capita	Average Wages
Insurance Density	0,89	0,85
Insurance Density life insurance market	0,76	0,99
Insurance Density non-life insurance market	0,80	0,98
Ukraine		
Meaning	GDP per capita	Average Wages
Insurance Density	0,72	0,63
Insurance Density life insurance market	0,76	0,97
Insurance Density non-life insurance market	0,71	0,72

Source: compose by authors, Department of Statistic in Lithuania and Ukraine <http://db1.stat.gov.lt/>, <http://ukrstat.gov.ua>

The coefficient of correlation has high meaning in Lithuania and in Ukraine. It means that it is high dependence between economic growth and development of insurance market. And this dependence is bilateral. The economic growth, growth of main country's macroeconomic indicators gives impulse to developing insurance market. In the other side, the development of insurance market gives new possibility to country's growth. But still it is some differences between these indexes.

The correlation between insurance density and GDP per capita in Lithuania is 0,89. For Ukraine this coefficient is 0,72. It is a little bit, smaller than Lithuania but still mean a high relation between sizes of main macroeconomic index and premiums per capita. If to compare the correlation between GDP per capita and premiums per capita of life insurance is the same in Lithuania and Ukraine and is 0,74. The same meaning correlation but for non-life insurance is very high and for Lithuania is 0,80 and in Ukraine is smaller and is 0,72.

The correlation between insurance premiums per capita and averages wages in Lithuania is 0,85 and in Ukraine 0,63. If to compare the correlation between life and non-life insurance density and average wages, than we can see that in Ukraine it is bigger correlation between life insurance density and average wages. It means that the higher level of average income gives possibility to buy extra services for example insurance. So, the coefficient of correlation, between GDP per capita that shows countries development and insurance premium per capita which explain the main tendency of insurance market, is very high. That means that between countries development and development of insurance market is a relation. Macroeconomic growth cause the development of the integral part of whole economy – insurance market, and the development of the insurance market for it's part also cause the future economic growth.

### Conclusions

The bigger effect for insurance market development in Lithuania has average wages. It means that the growth of average wages for 1% cause growth of insurance premiums for 2,69%. This explained that the growth of average wages, gives for people more possibility to spent money for another than first necessity goods. If to take into consideration that fact that the level of average wages in Lithuania growth yearly for 12%, it means that it cause the 32% of growth of insurance premiums. Other factors of economic

development have very low influence for insurance market development.

For Ukraine the situation is similar to Lithuania, two main factors have a biggest effect: GDP per capita and also average wages. The biggest influence to insurance premiums growth in Ukraine has GDP per capita. The growth of this measurement for 1% leads to growth of insurance premiums for 5, 3%. If to take into consideration that average yearly changes of GDP per capita growth is 6%, we can say that it cause the growth of insurance premiums for 31,8%. This can be explained by the chain of changes, growth of GDP means that the economy has tendency to development, that countries welfare is growing and this cause growth purchasing power. Average wages has also big influence to the development of insurance market. The coefficient is 4,755 what means that the increasing of average wages for 1% cause the growth of insurance premiums for 4,755%. Other coefficients have very low meaning that shows that it is very low relationship between impacts of these factors into dependent variable Y (insurance premiums).

So, we can come to conclusion that country's economic development has direct impact to the development of insurance market. As in both countries in Lithuania and Ukraine average wages have a biggest impact for insurance premiums it means that there is a direct relationship between countries welfare and development of it integral part – Insurance market. First of all it is necessary to have good economic conditions where it is satisfied first time needs and after when purchasing power of populations increase with average wages they will buy insurance services.

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