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ECONOMIC SENSE OF NON-LIFE INSURANCE AND SPECIFIC RISKS[1]

Abstract: *The insurance is one of the most important parts of the financial market with respect to trading risks. Although the life insurance is better understood in the public, the non-life insurance plays at least as an important role in society as life insurance. Every company as well as insurance companies need to understand how to respond to current trends and globalisation. The knowledge of these trends by identifying the most important risks helps them to stand up to the competition and be successful in the insurance market. The emergence of these risks will have serious consequences for the insurance industry. And what is more, there are still new and new risks which are more interconnected.*

Keywords: *insurance market, insurance risks, functions of insurance, non-life insurance, sense of insurance, trends in non-life insurance*

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Introduction

From the outset, insurance appears simultaneously with the appearance of human society. People, companies and other entities are a accompanied by various risks during their whole life. Risks are a threat to their health, property, interests and also cause unexpected losses. Because it is not possible to avert from risk at every time there is the insurance as a tool of transferring risk to insurance company. Insurance is perhaps the best way to reduce these potential problems. Although life insurance is better understood in the public, the non-life insurance plays at least as an important a role in society as life insurance. Despite many of the experts in the insurance still remain unaware of the functions and benefits of insurance and insurance industry.

Our main aim in this research is bring the comprehensive perspective of non-life insurance through the economic sense, role in society and numerous functions in the economy. Non-life insurance cannot be identified without the knowledge of the most important risks. Aim is also related to identification of the most important risks and new risks which endanger the insurance industry.

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1 Theory of the Non-life Insurance

The insurance is one of the most important parts of the financial market with respect to trading risks. In the specified period of time, the results of loss events (risks) that occur for the insured are covered by an insurance company and an insured also pays an amount of money to the insurer, which is called premium [5]. The main division line in insurance lies between life and the non-life insurance. While definitions of life insurance from various authors are quite similar, it is not easy to define non-life insurance and also in literature we cannot find unified definition of this term. Every author makes his own definition of non-life insurance by using list of all risks covered by this kind of insurance. Ducháčková in her publication *Principy pojištění a pojišťovnictví* (in English "Insurance Principles and Insurance Industry") ([6], p. 119) defines non-life insurance as the insurance covering a whole range of non-life risks. And these specific risks:

- Endanger people's health and life (i.e. injury, illness, disablement, etc.);
- Cause direct material damages (i.e. natural hazard, theft, vandalism, machine risks, etc.);
- Cause financial losses (i.e. suspension of operation, credit risks, financial losses risks, liability risks, etc.).

In the by publication *Poisťovníctvo* (in English "Insurance") by Majtánová et al ([15], p. 163) is similar definition of non-life insurance and add that insurance products in non-life insurance we can divide into four categories as products related to:

- People's health;
- Property risks and consequent formation of financial losses;
- Liability; and
- Business interests.

Bjørn Sundt in his publication *An introduction to non-life insurance mathematics* ([17], p. 7) uses the following classification criteria to define non-life insurance: character of what is insured (person, property, interest), cause of the claim event (fire, windstorm, hail, earthquake, shipwreck, theft, burglary, water damage, sickness, accident, and fraud), type of insured object in property insurance (ship, goods, equipment in marine insurance; car; building, contents in comprehensive insurance; crops, livestock in agricultural insurance; luggage in travel insurance, and photo equipment) and conditions under which the claim event occurs (i.e. travel insurance). Another view to non-life insurance definition is in *Glossary of insurance policy terms* ([10], p. 39), where non-life insurance is defined as any form of insurance not defined as life insurance and includes insurance to cover:

- Property losses (i.e. damage to or destruction of homes, automobiles, businesses, aircrafts, ships, etc.);
- Liability losses (i.e. payments due to professional negligence, product defects, negligent automobile operation, etc.); and in some countries
- Worker's compensations (and health insurance) payments.

Authors also add that this branch of insurance is often referred to as property/ casualty insurance, property and liability insurance or general insurance.

More insurance theories were elaborated in specialized literature in conditions of market economy. Most common theories are:

- Theory of insurance compensation;
- Theory of insurance demand;
- Business insurance theory;
- Risk insurance theories.

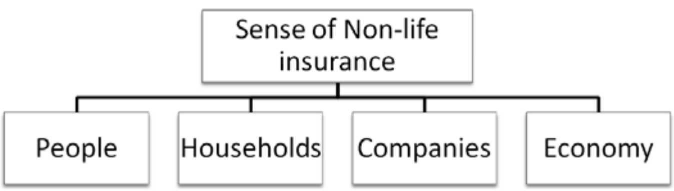
We discuss the theory of insurance compensation as one sense of the insurance industry in this article.

2 Sense of the Insurance

Unquestionably, the role of insurance in domestic and foreign economics is huge. While life insurance is concentrated in two main risks- death and reaching a specified age, the non-life insurance covers more risks. Non-life insurance is important not just for people and their households but also for companies and economy. Influence of the non-life insurance is reflected in Figure 1.

Figure 1

Sense of the Non-life Insurance



Source: Author's own construction.

Non-life insurance has the impact on the people, companies and whole economy. Linkage between these subjects means that they are related and mutually connected with each other. Also there are important information flows and cash flows among individual subjects. Insurance represents an irreplaceable source of resources used to recover the financial losses of whole society. Then people can stabilize their living conditions and companies can stabilize their economic situation. Afterwards it has impact on national economy by accumulation of independent means, stimulus employment rate also expansion of tertiary sector and influence of foreign countries.

Majority of the people in the developing countries remains unaware of the functions and benefits of insurance. And this is the reason why the insurance sector is still able to grow. Insurance has functions in every economy and do not matter if the economy is developed or advanced. We can divide these functions into three basic functions- primary, secondary and other functions of insurance. Main primary functions of the insurance are [15]:

- *Providing certainty*- where insurance is a device, which assists in changing uncertainty to certainty. Generally, insurance provides certainty of payments at the uncertainty of losses. It is possible to reduce the element of uncertainty by better planning and administration.
- *Providing protection*- as the elementary purpose of insurance is to allow security against future risk, accidents and uncertainty. Insurance cannot avert the risk from taking place, but surely can allow for the losses arising with the risk. Insurance is actually a protective cover against economic loss, by distributing the risk with others.
- *Providing compensation*- based on the Theory of insurance compensation, where insurance provides indemnity or compensation, in the event of an unanticipated loss or disaster.
- *Risk sharing*- risk is uncertain and therefore, the loss arising from the risk is also uncertain. Each business concern faces the problem of the risk and if the concern is big enough the handling of risk becomes a specialized function. Insurance, as a device is the outcome of the existence of various risks in day-to-day life. It spreads the whole losses over a large number of insured objects who are exposed to a particular risk.

Afterwards secondary functions of the insurance are:

- *Prevention of loss*- prevention is always better than remedy and it is the best possible solution to the problem of risk. Prevention is more effective and the cheapest method to avoid the occurrence of damage, although prevention is not always possible and effective.
- *Providing capital*- insurance industry provides the capital to the society. Insurance companies have to create technical reserves, which are the resources of the huge amount of capital. For development of country plan there is an enormous need for huge amount of capital. Insurance companies are representing the positive help in the development of trade, commerce and industry of the country.
- *Improvement of the efficiency*- achievement of insurance industry goals helps in efficiency of goals of other sectors in advance. The insurance eliminates worries and miseries of losses of property, health care or liability and save person concern. Then this person or company can devote its energies for better.
- *Ensuring the welfare of society*- insurance enables economic growth and social development and helps in economic process. Insurance provides an opportunity to develop to those larger industries, which have more risks in their setting up. Detailed research of this function is mentioned below.

And last but not least there are the other functions of insurance, function as *savings and investment tool* where insurance is one of the savings and investment options, restricting unnecessary expenses of the insured persons. Also in some countries[2] to take the benefit from income tax exemptions people take out insurance as a good

[2] This benefit stipulated in law was cancelled with effect from 1. 1. 2011 in Slovak Republic.

investment option. Other functions are *stabilization of financial market* and *motivation* as a stimulation of insured persons which, participate on protection of their property and health. Not less significant function of insurance is fact that it is a *part on labour market* where insurance industry gives an opportunity for labour force. Needless to say that we did not mention all the senses of insurance but we tried to discuss most important functions.

Insurance and Economic Growth

The insurance industry is one of the world economy's largest sectors. In 2010 after two years of falling premium volume, the global insurance returned to growth. Total insurance premiums amounted to about US$ 4 339 billion, which is equal to little less than 7 per cent of the global Gross domestic product [18]. This sizeable proportion reflects the industry's crucial role in assessing, transferring and managing insurable risks to human life, health and property.

Given the multiple potential benefits of a vibrant insurance sector, how much of a contribution does insurance make in practice? While still sparse, the research points to several relatively robust inferences [3]:

1. Insurance Contributes Positively to Economic Growth;
2. Strong Complementarity between Insurance and Banking.

Ad 1. It is fact that continual deepening of insurance markets makes a positive contribution to economic growth. "While life insurance is causally linked to growth only in higher income economies, non-life insurance makes a positive contribution in both developing and higher income economies".([1] p. 3) Some research suggests [11] that the positive contribution of life insurance to growth is primarily through the channel of financial intermediation and long term investments. However, it is important to note that these studies do not address the important contributions to individual and social welfare from risk management.

Ad 2. Insurance and banking system deepening appear to play complementary roles in the growth process. Although insurance and banking separately each make positive contributions to growth, their individual contributions are greater when both are present. There is some contrary evidence on this point. Thus, for instance, Adams et al (2005) find that banking sector growth but not insurance market growth preceded growth in Sweden. While in some specifications life and non-life insurance do not appear to be significant contributors to growth in the presence of an interaction term with banking. Subsequent research such as Ian P. Webb, Martin F. Grace, and Harold D. Skipper [19], suggests the independent contribution of insurance is robust to the inclusion of banking sector variables, and higher levels of insurance and banking penetration jointly produce a greater effect on growth than their individual contributions combined. According to Gregorio Impavido, Alberto R. Musalem and Therry Tressel [13] there is also some evidence that the development of insurance markets contributes to the health of securities markets.

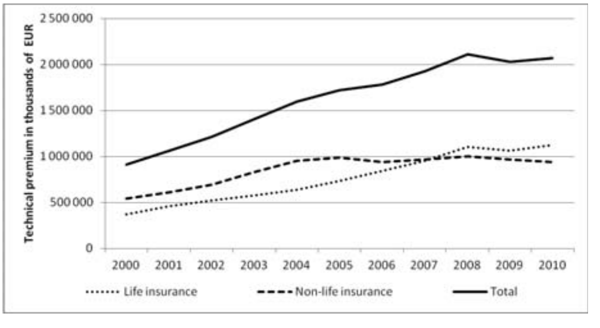
As suggested above, there are many reasons why this complementary relationship might hold, including the likelihood that the presence of property casualty insurance avoids inefficiently high levels of bankruptcy and helps to facilitate credit transactions for houses, consumer durables, and small- and medium-sized businesses that banks typically finance. Separate evidence that a growing presence of life insurance providers and pension funds is associated with more efficient banks suggests that they promote some capital market discipline on the investment side that is also complementary [14].

Relation Between Life and Non-life Insurance

Relation among developing and higher income economies is also measurable by the proportion of life and non-life insurance. Generally accepted fact is that proportion of life insurance is higher in advanced economies and on the other hand, superiority of non-life insurance is considerable in developing economies. Monitoring of development in the Slovak insurance market is possible by premium in the following Chart 1.

Chart 1

Development of Technical Premium in Slovak Insurance Market (2000 – 2010)



Source: Author's own construction by [20].

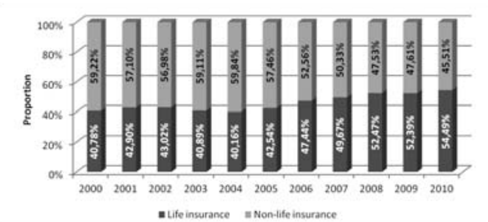
Chart 1 above describes development of the technical premium separately for the life and non-life insurance but also in total for the whole insurance industry from 2000 to 2010. We can see that premium in the life as well as non-life insurance was increasing slowly until 2005. In 2005, both insurance classes had inverse progress. Volume of non-life premium started to decrease slowly while life insurance continued in increasing trend. Year 2008 was important for the Slovak insurance industry because the amount of premium in life insurance exceeded the amount of non-life insurance for the first time. The Slovak insurance market thus joined to group of advanced economies where the premium in life insurance exceeds non-life insurance. Total technical premium was increasing during the whole period with exception of the year 2009 when premium decreased as impact of financial crisis. After that in 2010 premium started rising again.

In 2011, "Seeking top-line growth in the non-life market may prove problematic for insurers in a sluggish and uncertain economic environment. Business concerns about the strength of a recovery may hinder their desire for increased insurance coverage, e. g., reduced purchasing power lowers the need for additional motor and property coverage. Fraud also tends to increase when economic conditions remain stagnant. These challenges may impair non-life insurance profitability" ([7], p. 6).

Another way to research a relation between life and non-life insurance is monitoring of proportion.

Chart 2

Proportion of Life and Non-life Insurance in Slovak Insurance Market



Source: Author's own construction by [20].

As can be seen from Chart 2 above, the dominance position of non-life insurance was replaced by life insurance over the years. While in 2000 was a proportion of non-life insurance on total premium almost 60 % in 2010 proportion fell to more than 45 %. Dominant position in the Slovak insurance market has had the life insurance from 2008. Slovak market copies situation typical for advanced economies. It is possible that the difference between proportion of life and non-life insurance will deepen.

3 The Most Important Risks and New Risks in Insurance

Every company including insurance companies need to understand how to respond to current trends and globalization. Knowledge of these trends helps them to stand up to the competition and be successful in the insurance market. Thus it is paramount for insurance companies to manage risk, optimize performance and increase operational effectiveness.

Company Ernst & Young (E&Y) in collaboration with Oxford Analytic published in 2008 study named Strategic Business Risk Insurance [16]. According to this study ([16], p. 2) Strategic Risk is defined as a risk that could cause severe financial loss or fundamentally undermine the competitive position of a company. During research, they worked with more than 70 experts including specialists in over 20 subjects with crucial impact on business performance. Analysts were asked to list, rate and comment on the ten most significant trends or uncertainties and five most significant strategic business risks. Risks were rated by the loss and by competitive impact and finally identified as Top 10 risks for the insurance industry as in Chart 3 below.

Chart 3

Top 10 Strategic Risks in Insurance Industry

Top 10 Strategic Risks

1. Climate Change
2. Demographic Shifts in Core Markets
3. Catastrophic Events
4. Emerging Markets
5. Regulatory Intervention
6. Channel Distribution
7. Integration of Technology with Operations and Strategy
8. Securities Markets
9. Legal Risk
10. Geopolitical or Macroeconomic Shocks

Source: [7].

The top strategic risk in the insurance industry in 2008 was Climate Change. It is a long-term risk with broad-reaching implications. Importance of this risk lies in fact that this threat can affect pricing structures, reserving policies and solvency. Demographic Shifts in Core Markets are mainly related with life insurance as the need of new products for changing financial and retirement needs. Catastrophic Events, like changing weather patterns, terrorism and pandemics cause rising costs and increase potential impact on insurers' earnings and capital. The fourth threat as well as an opportunity for insurers is Emerging Markets and success in these markets is by no means assured. Regulatory intervention as the fifth threat could result in changes in operations and underwriting practices. Naturally politically-driven intervention could enhance risks and also compliance costs are mostly unpredictable. New technology changed the way how insurance services are sold which is connected with Channel, Distribution. Traditional agent based distribution models are under pressure from technologies that allow companies to sell products to clients directly. Next risk is Integration of technology with operation and strategy. Risks related with this threat are for example cyber-terrorism and over-dependence on outsourcing partners. The eighth position is Securities markets. Pressure from securities markets needs to be monitored in depth because of the new players entering the market and the financial innovations. Another threat is Legal risk because legal uncertainties could threaten a company's standing or result in financial loss. Geopolitical or macroeconomic shocks are last threats. These global economic threats are much discussed nowadays. They are related with fuel prices, terrorist activity and also with financial derivatives and hedge funds.

Considering the fact that the insurance industry was affected by financial crisis in 2009 E&Y published news release *Impact of financial crisis poses greatest threat to insurance industry* [12]. News release was published with significant changes in the risks since the last release. Chart of the previous risks was replaced. The new chart of Top 10 risks in insurance industry includes following risks:

1. *Financial market crisis* - the crisis has severely battered the financial services industry. Even if systemic risk abates, the consequences have been so profound that they are likely to shape the industry for the next decade.
2. *Model risk* - the failure to recognize the shortcomings of models and to adequately capture the nature of risk have left some companies unprepared for the depth of recent financial events.
3. *Regulatory intervention* - organizations must prepare for the sweeping changes around Solvency II, the convergence with IFRS accounting principles and the ongoing debate of federal and state regulation in the US.
4. *Managing the non-life underwriting cycle*- mismanaging the cycle is arguably the number one cause of insolvency in the non-life insurance industry and the number one contributor to losses in stakeholder value.
5. *Geopolitical shocks*- greater risk of geopolitical shocks is heightened by the economic slowdown, as falling incomes generate political pressures and collapsing tax revenues threaten governments' capacity to respond.
6. *Demographic shifts in core markets* - consumer focus on savings products increases the insurance industry's need to strategically manage capital risk, including exposure to equity markets.
7. *Emerging markets* - while providing to be an area of expansion for large diversified insurers, emerging markets are more susceptible to rapid and unexpected deterioration.
8. *Channel distribution* - even with current market conditions and an increasing focus on expense reduction, there are still significant opportunities and risks in investing in multi-distribution strategies.
9. *Legal risks* - unexpected changes in both the forms and sources of liability continue to be one of the greatest challenges facing non-life insurance companies.
10. *Climate change and catastrophic events* - extreme events are major strategic risks for the industry and have far-reaching implications for insurers paying the price for the escalating costs of rising catastrophic losses.

Mentioned study identified trends, uncertainties, assessed risks and their impact both on individuals and markets. It depends on an insurance company how it assumes a position to these significant risks. Companies need to make effective monitoring and control process of these risks.

Risk Interconnection Map

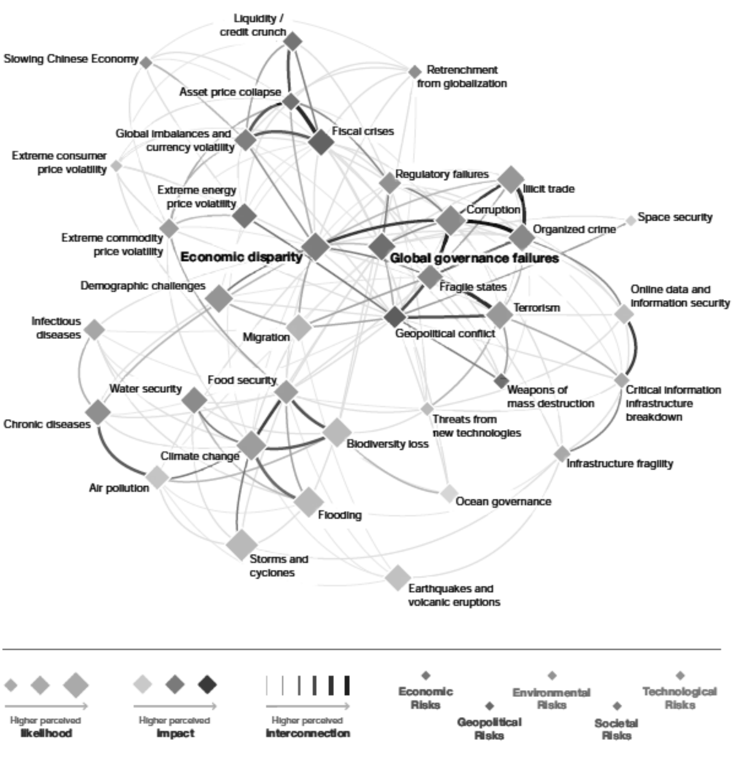
It is evident that many new risks are emerging as a result of various causes. Technological progress may have led to considerable benefits and profits for society but an inescapable side-effect has been that substantial health risks have arisen and that serious environmental pollution is threatening the global commons. By the latter, we refer to global warming and the depletion of the ozone layer. Some discuss that there is a direct causal link between human activities and climate change.

As a result of these well-known trends, which have been vastly described in the literature and many authors have argued that humanity is today increasingly exposed to a completely new type of risks. Sociologists such as Ulrich Beck [2] have studied this phenomenon closely and have even described our society as a "risk society". They argue that mankind is more and more exposed to risks and citizens evidently are no longer involved in decisions concerning the acceptance of those risks.

Undoubtedly, the emergence of these risks will have serious consequences for the insurance industry. And what is more these risks are mutually connected as can be see in Figure 2 below.

Figure 2

Risk Interconnection Map



Source: [9].

It is evident from Figure 2 that risks are not separated. It does not matter that risks have economic, geopolitical, environmental, societal or technological character. Risks are classified by size of likelihood, intensity of their impact and number of interconnections with other risks. Individual risks have strong linkage to other risks and it makes from them mentioned systematic risks. These risks have a bigger impact on the insurance industry. It is also an exacting task to monitoring and controlling these risks.

The question obviously arises as to how this affects insurability and, more generally, how the insurability of systemic risks can be defined. Attention will thus be given to the importance of the predictability of risks but also to the importance of sufficient capacity for insurance providers. The latter point is obviously important given the increasing scale and concentration of emerging systemic risks. This may have an important effect for the insurance and reinsurance industries [8].

Conclusion

Non-life insurance has an irreplaceable role in covering a whole range of risks. Also non-life insurance is important for every participant of insurance market. So it has the positive impact to people, households, companies (including insurance companies), economy and also foreign countries.

In our research, we described in details main functions of insurance as providing certainty, providing protection, providing compensation and risk sharing. Insurance also has important function in prevention of loss, providing capital, improvement of efficiency and ensuring the welfare of society. It is beyond doubt that insurance has impact on enabling economic growth and social development. Insurance contributes positively to economic growth, and we confirmed this assumption in this research. Also there is no gainsaying that in financial market is strong complementarity between insurance and banking.

The knowledge of new risks is necessary for every insurance company and helps them to respond to current trends and globalization. It is inevitable that new risks emerge that insurance companies have failed to predict or price accurately. These may be risks affecting human life or health (including new industrial diseases), pandemics, terrorism or, possibly, risks that will affect property insurance portfolios (i.e. new and unexpected forms of pollution damage).

In rating top risks for insurance industry, there is a tremendous variation in the selection and relative importance between period before crisis and after crisis. Significant changes are the result of economic conditions in the insurance market. The change of most important risks by financial crisis is enormous as Chart 4 reflects.

Chart 4

Top 10 Risks in Insurance Industry

Top 10 Risks in Insurance Industry	
Before crisis	**After crisis**
1. Climate change	1. Financial market crisis
2. Demographic shifts in core markets	2. Model risk
3. Catastrophic event	3. Regulatory intervention
4. Emerging market	4. Managing the non-life underwriting cycle
5. Channel distribution	5. Geopolitical shocks
6. Regulatory intervention	6. Demographic shifts in core markets
7. Integration of technology with operations and strategy	7. Emerging markets
8. Securities markets	8. Channel distribution
9. Legal risk	9. Legal risks
10. Geopolitical or macroeconomic shocks	10. Climate change and catastrophic events

Source: own figure.

The most significant risk facing the insurance industry is financial market crisis. In study, the model risks and regulatory intervention rank second and third among the top ten risks. The most noteworthy change is in the risk of climate change. This risk moved from number one as the most important risk to tenth position. This report illustrates a wide range of risks that companies need to understand and address over the next years.

While much of the downside risk may have already occurred, the current market disturbance still poses an immediate threat. In the insurance market, it is essential that insurance companies address product innovation, changing regulation, investment strategies and capital requirements to help retain earning power and maintain agency ratings. This will help to serve as a starting point for dialogues among leadership so that their near- and long-term business strategies take these issues into account. While insecurity still prevails, opportunities abound for those insurers that are able to rebuild and strengthen their businesses [12].

This article gives another opportunity to monitoring new risks and change of most important risks in the insurance industry in the future. As well as give an exposition on sense of life insurance and its functions.

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