



THE IMPACT OF COVID-19 ON THE BUSINESS OF INSURERS AND REINSURERS

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Abstract: According to the impact, infectious diseases are a critical risk for 2020 and the following years in the Global Risk Report. The realization of the Covid-19 virus set the pandemic as a crucial global risk for humans, the economy, and society. The main idea of this paper is to give insight into the global socio-economic consequences of the actual Covid-19 pandemic, with a specific view of the business of insurance and reinsurance companies, who are responding to the widening of the COVID-19 pandemic on multiple fronts—as claims payers, employers, and investment managers. Considering that both individuals and businesses face high costs and losses regarding disruption of travel, business interruption, and supply chains, many expect insurers to reimburse some of these costs and losses. Insurance companies are also significant investors in financial markets and will face losses due to equity and fixed income market losses regarding decreasing interest rates as an attempt of central banks worldwide to support their economies. The current crisis can also be considered the possibility of improving the insurance coverage related to pandemics by establishing (re)insurance schemes and pooling arrangements for other catastrophic risks and developing public-private partnerships to support the insurability of pandemic risk.

Keywords: covid-19, impact, insurance, pandemic, reinsurance, risk

JEL classification: G22, H12

1. Introduction

Risk is defined as the chance that something terrible will happen, which should be avoided (Crocker, 2003). Risk is a situation with the possibility of an unfavourable deviation from the desired outcome that we expect or hope for (Vaughan & Vaughan, 2008). Some definitions distinguish between risk and chance. Risk is defined as the possibility that an event will occur and negatively affect the achievement of goals. At the same time, chance represents the possibility that an event will occur and positively impact achieving set goals (COSO, 2004). Risk occurs due to inadequate or failed internal processes, people, and systems or due to external events. A key risk component is a lack of knowledge about events that may affect managers and their ability to manage those components (Anđelković et al., 2014).

The latest World Economic Forum Global Risk Report (2020) emphasizes a good knowledge of the risks that potentially endanger everyone and the worldwide business, especially insurance and reinsurance, and adequate, holistic risk management to ensure business sustainability. The Global Risk Report classifies risks into economic, environmental, geopolitical, social, and technological risks. Environmental risks and technological risks are the most critical risks to pay attention to in 2020, according to the probability of their realization: 1) extreme weather, 2) climate action failure, 3) natural disasters, 4) biodiversity loss, 5) human-made environmental disasters, 6) data fraud or theft, 7) cyber-attacks, 8) water crises, 9) global governance failure, 10) asset bubbles. According to the impact, the risks for 2020 are classified into 1) climate action failure, 2) weapons of mass destruction, 3) biodiversity loss, 4) extreme weather, 5) water crises, 6) information infrastructure breakdown, 7) natural disasters, 8) cyber-attacks, 9) human-made environmental disasters, 10) infectious diseases. The Global Risk Report shows that infectious diseases are a critical risk for 2020 and the coming years. However, the realization of the COVID-19 virus denied the importance of risk and put the virus, i.e. the pandemic, in the foreground, as a critical global risk for humans and consequently, for the economy and society as a whole.

2. The risk of pandemic and its global consequences

The word pandemic etymologically originates from the Greek word *pandemos*, which is derived from the words *pan* - "all" and *demos* - "people". According to the World Health Organization (WHO), a pandemic relates to the global spread of a new disease. Historical data indicate that pandemics occur every 30 to 50 years. Their occurrence in some future period is inevitable, with an approximate degree of 3% probability, which further imposes the need to investigate this risk.

One of the most famous pandemics whose experiences can still be used today was the Spanish flu of 1918. A third of the world's population was infected, i.e., about 500 million people and the mortality rate was higher than 2.5%. Between 50

and 100 million people died, or about 6% of the world's population at that time. For comparison, 17 million people died in the First World War.

However, globalization and international air transport have transformed pandemics' spreading in today's world. With 4 billion worldwide flights a year, pandemics today can spread much faster than 100 years ago, confirmed by the rapid planetary spread of the Covid-19. According to a simulation by a professor from Humboldt University, the pandemic could spread to all continents today in just a few hours, thanks to a network of 4,000 airports and 25,000 flights. This change was already visible in the case of swine flu, which moved from Mexico to China and affected at least 20 countries in just three weeks.

The spread of N1H1 flu in 2009 has indicated the speed of global virus spread. The N1H1 virus manifested in April 2009 in North America, and already in June, thanks to globalization, it spread to 74 countries. According to the WHO, by the end of April 2010, the virus had infected 241 countries and killed 17,919 people worldwide.

At the beginning of December 2019, the first case of infection named SARS 2 virus, or COVID-19, was confirmed in Wuhan's metropolis in China. In February, it became clear that the virus quickly spread to other continents thanks to globalization, air traffic, and tourism.

The coronavirus, or officially Covid-19 or Sars 2 - Cov19, is a virus that paralyzed the world at the beginning of this year. On March 11, 2020, the WHO declared a global pandemic of the COVID-19 virus, which made the global impact of this virus official (Njegomir, 2020a). The WHO director pointed out that it was a health crisis and stressed that the pandemic would affect every industry. Supply chain disruptions and lockdown of many countries worldwide led to a reduced number of employees and financial losses of companies. Because these losses are primarily uninsured, there is a need for government financial support (Deloitte, 2020).

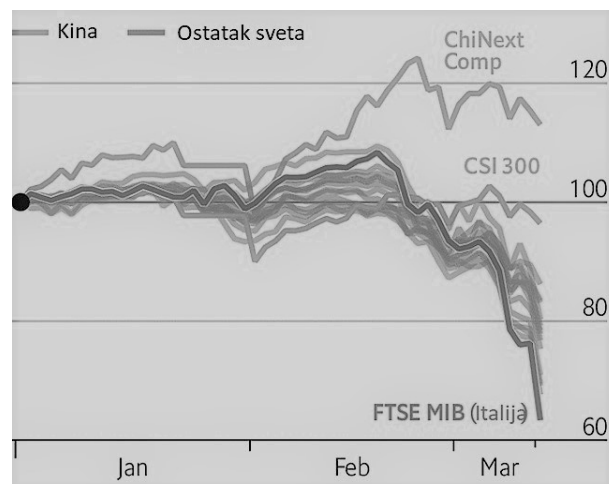
This virus had a dominant influence in Europe during March and April, primarily in Italy and Spain, and then the pandemic crossed the Atlantic (Njegomir, 2020a). Current WHO data (WHO, 2020) indicate that the total number of people infected with the coronavirus is approximately 27 million, and 881,000 deaths have been confirmed. The virus has spread to over 190 countries. The highest mortality and the highest number of infected is in the USA (approximately 6.2 million infected persons, of which 187.5 thousand deaths). Also, a large number of persons are infected in Brazil (4.1 million are infected and 126 thousand died), Russia (approximately 1 million persons were infected and 17,000 persons died). In Europe, Italy and Spain were hit the worst. One of the reasons is the untimely reaction of the Italian and Spanish authorities.

2.1 The global economic consequences of Covid-19 pandemic

The first indicator of the coronavirus's impact on economic activity was the fall of the Dow Jones industrial average (DJIA) Index, which fell by 9.99% in just one day, on March 12. This index has had the biggest fall since "Black Monday" in 1987, by 22%. The Standard & Poor's index fell 9.5%, and this is also the biggest fall since 1987, and the Nasdaq composite index fell 9.4%. On March 4, the International Monetary Fund (IMF) indicated that projections for the global economic growth of 2.9% would not realize. However, the IMF cannot determine the decline in projected economic growth with certainty. The coronavirus mainly affects the fall of income from tourism but affects the financial markets, trade, production, distribution, and other economic activities. There were interruptions in supply chains, shopping malls were closed, and borders are blocked. Large companies like Apple have searched for alternative supply markets, but stabilization in that area can be expected thanks to China's recovery.

If we look at the effects of the global financial crisis, we can see that the crisis affected the reduction of stock exchange indices by 56.8% compared to the pre-crisis period. In 2020, thanks to the COVID-19 in the US, there was a fall of 20% in just 21 days (as we pointed out, in just one day by 10%). The production fall in China has affected the global economy. This is quite understandable if we know that a third of world production is located in China. Besides, China represents a vast market for the automotive industry, tourism, and other sectors, whose results will fail because of China and the spread of coronavirus in Europe and the US. In just one quarter, the interruption of production in China led the world into a recession.

Graph 1: Trend of stock exchange indices of China and the rest of the world, with a base period of January 1, 2020



Source: The Economist

Graph 1 indicates the growth of stock market indices in China compared to the decline of indices in the rest of the world.

The US FED (Federal Reserve) has launched a \$ 700 billion quantitative easing (QE) as a form of unconventional monetary policy to increase the money supply and boost lending and investment in the period of decreasing interest rates (from 0% to 0.25%). The Bank of England also reduced interest rates to 0.1%. The European Central Bank has decided to increase the money supply through investments in property and debt financial instruments in the Eurozone for €750 billion. These measures have been implemented to combat the global financial crisis. Unlike the crisis of 2007-2008, the population is significantly more indebted both in the US and Europe, which will make a recovery more complex. On the other hand, thanks to the stabilization of the virus and production recovery, China records the best financial market performance. For example, only ChiNext, an index of high-tech companies that counterparts to the US Nasdaq index and part of the Shenzhen Stock Exchange, has increased by 10% since the beginning of the year.

3. The influence of Covid-19 on insurance and reinsurance industry

The impact of the pandemic on insurers and reinsurers must be viewed from two perspectives. On the one hand, insurers and reinsurers, as employers, are exposed to a flu pandemic risk like any other business. Namely, they face the problems of ensuring business continuity while worse general economic conditions decrease return on investments. Also, the insurers' impact will be in risk acceptance and risk management accepted by the insured. It is also considered that the corona virus's realization might be the most harmful event for the insurance business (OECD, 2020). In these circumstances, insurance companies' claims management will be decisive for current and future insureds, especially in social media. There are possible some time-lag for insurance claims to be notified to insurers, assessed, and paid, but marketing effort. However, marketing efforts might be neutralized if insurance companies fail to pay claims timely, as the most transparent activity of insurers from the insured's perspective is claims management. Therefore, insurance companies will be under the influence of the so-called "perfect storm," considering that some types of insurance will have damages based on the insurance business. At the same time, most will be affected by a decrease in return on investment of insurers' funds, e. At the same time, due to the actual economic crisis. The insurance industry is generally well prepared for significant loss events, including pandemics. However, the scope of financial losses and time needed for covering depends on each insurer's specificity or reinsurer.

Insurers respond to the widening COVID-19 outbreak on multiple fronts—as claims payers, employers, and investment managers. Each has its distinct challenges, not just for the insurance industry but for the global economy and society at large (Deloitte, 2020). The total impact of COVID-19 on insurance and reinsurance

activities will depend on coronavirus's entire duration (Njegomir, 2020b). According to Willis Towers Watson, the effect of the coronavirus in the US on all types of insurance will be \$ 11 billion in an optimistic scenario. If social distancing would continue up to 12 months, the insurance business's damage could reach \$ 80 billion, and the total economic damage \$ 1.2 trillion. In the worst case, if the virus would spread again after the cessation of all measures, the real damage to the insurance and reinsurance business would reach \$140 billion (a case of infection of 5.9 billion people and 96 million deaths). Current data suggest that the insurance business's damage could exceed the total damage caused by the attack on the World Trade Center (2001). According to Swiss Re Group, insurance demand will be reduced in 2020 due to the pandemic, assuming that total life premiums will decrease by 6% and non-life by 0.1% after growing by 3.5% in 2019 (SwissRe, 2020).

The leading insurer and reinsurer Lloyd's in May 2020 expected payouts to its customers according to regions: US & Worldwide (58%), UK 15%, Rest of the world (10%), Europe (7%), Other (10%). In terms of classes of business, Lloyd's expected: event cancellation (31%), property covers (29%), credit lines (11%), and 15 other classes (29%).

At the pandemic's beginning, insurers have focused on customer and stakeholder needs as responses to COVID-19. Maintaining solvency, ensuring operational resilience, and engaging regulators and governments on a healthy restart of the global economy have been other priorities. Effective and transparent financial reporting combined with risk discipline and a controlled environment are critical to helping insurers to overcome the crisis (Ernst & Young, 2020). The COVID-19 pandemic generated the sharpest economic contraction since the 1930s, but it is not expected to be long-term. It will lead to reduced demand for insurance in 2020, primarily for life insurance products, with global premiums expected to decrease by 6%, then for non-life covers (-0.1%). The total premium amount will return to pre-crisis levels in 2021, expecting non-life premium volumes to be above pre-crisis levels and life below. The emerging economies, led by China, will recover the insurance market (SwissRe, 2020).

On March 17, the European Insurance and Occupational Pensions Authority (EIOPA) reported monitoring the pandemic. The global COVID-19 pandemic would have significant consequences for the global economy, including financial markets. According to EIOPA, it is expected that insurance companies will face dramatically worsened conditions both in terms of market conditions and ensuring business sustainability while considering the protection of employees and insureds.

Concerning business continuity, EIOPA emphasizes that it is particularly essential for insurance companies to provide their services to clients continuously. They have to be ready to apply the necessary measures to maintain business continuity. EIOPA emphasizes that the supervisory authorities and institutions should be flexible regarding the deadlines for supervisory reporting and public

disclosure of data related to the end of 2019. Also, EIOPA extended the deadline for a holistic assessment of the Solvency 2020 review by two months until June 1, 2020. According to EIOPA, insurance companies in Europe will not have problems in terms of solvent capital and minimum capital, as the Solvency II Directive defines capital requirements.

Considering the risks and capital of insurers that may be threatened by pandemics, regulators have foreseen the need for protection against pandemics. In the case of life insurance, Solvency II explicitly requires modeling for the case of a catastrophic pandemic risk within the so-called standard formulas. Since pandemics occur on average every 25 to 50 years, Solvency II starts from assuming that there are three pandemics a year, ie. each on every 33 years. However, there may be four or five pandemics in 100 years. The probability of pandemics can vary significantly, but they are considered as rare adverse events. However, recent stress tests have shown that the EU's insurance industry is well-capitalized and able to endure similar shocks.

Insurance Europe, the Alliance of Insurers and Reinsurers of Europe, pointed out that insurance companies and the Alliance itself, remain committed to ensuring that the European insurance market continues to serve its clients and supports European economic activities in the best way within the framework set by public authorities. Also, Insurance Europe pointed out that European insurers have developed business continuity plans that enable them to do business during this challenging period. Insurance Europe supports EIOPA's communications efforts on the COVID-19 virus, including explanations about the Solvency II regulatory framework to protect policyholders. The recent stress tests have shown that the insurance business is well-capitalized and withstand severe shocks. European insurance regulators have recognized the potential danger to the insurance industry and have taken steps to mitigate the risks posed by COVID-19. In April 2020, EIOPA proposed relaxations to Solvency II reporting, and it has been implemented in Germany, France, and Spain.

The insurance industry is very well capitalized to endure losses. The industry's capital position means it should handle the COVID-19 crisis. The upper end of the range of total property and casualty claims estimates by most external insurance analyses is USD 100 billion, similar in scale to losses caused by Hurricanes Harvey, Irma, and Maria in 2017, which the industry also absorbed (Insurance Europe, 2020).

3.1. The influence of Covid-19 on non-life insurance

Property and casualty insurance protects a country's GDP by covering assets and businesses, including liabilities and future unearned profits, against natural disasters and accidental damage (PwC, 2020).

Key types of insurance affected by the coronavirus include business interruption insurance, health insurance, life insurance, and to some extent, travel cancellation insurance, event cancellation insurance, supply chain insurance, travel health insurance. In essence, the most significant amounts of damages for insurance companies might be based on business interruptions and health insurance and life insurance. Also, return on investment will be endangered by the fall of stock exchange indices and interest rates to historic lows.

The payment of travel insurance claims was first aid to thousands of policyholders whose travel arrangements were cancelled due to the pandemics. Along with aviation insurance claims, travel insurance claims have enabled insureds to overcome the coronavirus's challenging times. In the UK, 400,000 travel insurance claims are expected, with a total payment of \$ 275 million.

Aviation insurance has also been hit hard. With the spread of the virus, travel restrictions have been introduced, and now the airlines are introducing strict control of passengers as well as distances in the planes. The International Air Transport Association (IATA) estimates that the global financial impact of COVID-19 on the aviation industry will amount to \$ 252 million, with an expected reduction in annual revenues of 44% compared to 2019.

Most of the insurers' loss was attributable to the postponement or cancellation of important events. The amount of loss disclosed for the Q2 of 2020 would decrease the insurers' net profit. The insurance of large events cancellation is usually co-insured and reinsured, so claims based on cancellation of events will be covered by insurance and reinsurance companies. So far, the competition of the rugby union "Six Nations" has been cancelled, "Grand National," "Wimbledon" and "The Champions League" have been suspended, "Europe League," the leading baseball London event as well as Formula One, have also been suspended. The Tokyo Summer Olympics have been postponed to 2021. Also, numerous cultural events and music festivals were cancelled. The economic damage from cancelling or postponing numerous events is enormous. Swiss Re estimates its exposure to the postponement of the Olympic Games at \$ 250 million. Also, Swiss Re is confident that COVID-19 event cancellations will account for about 15% of total event cancellation damages.

The payment of compensation claims will also be based on the insurance of injuries at work, considering that the companies will face the workers' claims whose contracts include the risk of pandemics. This will almost certainly be prevalent in healthcare. Also, the negative impact on insurance companies will have different types of liability insurance. Companies may also face demands regarding recruitment practices and their efforts to control the spreading of COVID-19 in the workplace. Also, insurers could meet the need to pay compensation claims for construction projects that will not be finished within the contracted deadlines.

Most of the published information relates to complaints regarding inadequate coverage of business interruption insurance (Njegomir, 2020b). Coverage for

business interruption losses is usually included in commercial property insurance policies and can also be acquired on a stand-alone basis (OECD, 2020). In some western countries, such as the USA, it is possible to contract business interruption insurance, also called business income coverage. It is secondary to the basic property insurance that contains the time element of coverage. In such circumstances, business interruption insurance may allow the payment of compensation for the business interruption caused by the COVID-19 pandemic.

In our conditions, that is not possible. Namely, business interruption insurance is related exclusively to primary insurance against fire and some other dangers. Payment based on business interruption insurance in our country can occur if the basic insurance is realized, i.e., if there is property damage covered by insurance. In addition, risks covered by business interruption insurance and some other dangers include the following: fire and lightning, explosion, storm, hail, the impact of own motor vehicle, own mobile working machines in the insured building, plane crash, and manifestations and demonstrations. If it is additionally contracted, the insurance protection is provided for numerous additional risks, which include: floods and torrents, water spills from water and sewage pipes, landslides, avalanches, leaks, self-ignition of stocks, and spills of the hot molten liquid mass. As it can be seen, the risk of a pandemic is not included in this type of insurance in Serbia. Insurers operating in Serbia should consider, after this crisis, whether the risk of a pandemic should be included in the risks covered by business interruption insurance.

The accumulation of risks can significantly affect economic entities and non-life insurers and reinsurers in a way that has not been considered so far. For insurers, the absence of staff is not the only problem. In addition to the direct impact on certain types of insurance and the negative impact on the liabilities of the balance sheet of insurers, the realization of COVID-19 could have an additional negative effect on investments and other assets of insurers. The economic recession could cause a significant drop in demand, especially for life insurance. Also, it is known that in the conditions of economic recession, the number of fraudulent claims is growing, as well as the claims of unfairly increased amounts for compensation.

3.2 The influence of Covid-19 on life insurance

Life insurers generally recognize the risk of pandemics, and Solvency II reminds them of that in the EU. The COVID-19 pandemic influences life insurers because of the increase in compensation claims caused by the realization of death's risk. Insurance savings products will be more affected in life insurance due to lower interest rates, while mortality-related covers will be more stable.

The impact of pandemics on life insurers is undeniable. However, for non-life insurers, pandemics' impact is not as easy to understand as for life insurers. Pandemics' result is challenging to model in the case of non-life insurers primarily because adequate data are lacking (Njegomir, 2020b). In the case of the Spanish flu's

realization today, the impact on insurers would be different than expected based on the simulation of the Spanish flu, primarily due to the accumulation of risks and correlations between the dangers of different types of insurance. The historical review of other pandemics indicates that in addition to human catastrophes, they also cause economic disasters. In the case of Ebola, it was not only a human catastrophe, but a large number of people lost their jobs, especially in construction, industry, and transport. Mining companies were significantly damaged, and some of the smaller ones went bankrupt.

The business of life insurers is more affected if there are economic shocks. In addition to the accumulated risk of death of a large number of insureds, the potential danger to insurers includes (Njegomir, 2020b):

- 1) Decrease in purchase power quickly due to the slowdown in economic activity and decreasing the number of employees at the local, regional, and global levels. Insurers provide the possibility of delayed premium payments in order to prevent mass cancellations of life insurance contracts.
- 2) Combined with the reduction of purchase power is the impact of market instability and general uncertainty regarding consumer confidence.
- 3) In addition to the expectations and falling number of new life insurance contracts, there is a significant decline in the market values of investments of life insurers and a decline in interest rates. In the case of some life insurers, this "perfect storm" has led to the need to consider various activities, including cost reduction.
- 4) High mortality does not necessarily affect large losses for life insurance providers. However, there is a risk that mortality may increase due to fear or seeking medical care.

If we consider the impact of coronavirus on the profitability of life insurance, it has to be noted that claims payments due to COVID-19 will probably have a limited effect. But at the same time, quarantine and lockdown in many countries will decrease the profit of life insurers.

3.3 The influence of Covid-19 on reinsurance

The realization of coronavirus forces non-life and life insurers to transfer risk to reinsurance to provide additional capital (Njegomir, 2020b). Reinsurance has always been a valuable tool in capital management, enabling insurance companies to reduce capital requirements, minimize volatility, improve liquidity, protect against harmful development, and would allow insurers to focus on growth (Njegomir, 2018). Also, the additional capital enables an increase in premiums based on new insurance contracts. The data show that, premiums on commercial insurance lines increased by 21% in the London market (the movement of the Marsh's global insurance claims index). Primary insurers are affected by the damage caused by the realization of the coronavirus, and similar effect on reinsurers' business has been expected (Njegomir,

2020b). Falling equity markets and interest rates could pressure reinsurers' balance sheets. Reinsurers whose portfolios are well-diversified in terms of risks will not be exposed to losses due to pandemics (Deloitte, 2020).

Although there is an increase in reinsurance premiums for those insurance types that are hit by the realization of the coronavirus, the rating agency Fitch gave a negative outlook in terms of reinsurers' exposure to credit risk. The increasing demand for reinsurance is expected, especially regarding cyber risk.

According to Fitch rating, a leading provider of credit ratings, the essential European reinsurers (Munich Re, Swiss Re, Hannover Re, and SCOR) are well-capitalized. The coronavirus and its consequences will not significantly affect their capital and solvency. However, the current impact varies. In the Q1 2020, SCOR had no exposure to the coronavirus pandemic, while Munich Re has an estimated € 800 million, Swiss Re € 428 million, and Hannover Re € 220 million. In summary, COVID-19 affected 14.3% of the combined ratio (ratio of total premiums to the sum of claims and costs) of the Munich Re, 5.3% of the Swiss Re, and 6.6% ratio of the combined ratio of the Hannover Re. The Q1 claims mainly were related to event cancellations, so a significant impact of COVID-19 on reinsurers can be expected in the following quarters.

3.4 Chances for insurance and reinsurance industry that comes from pandemic

The current crisis is already seen as the single largest global insurance event compared to years when three or more large cyclones occurred and the financial crisis of 2008 (PwC, 2020). Every crisis requires adequate adjustment measures, i.e., management of a specific type of risk. For example, in the 1970s, an oil crisis occurred because OPEC countries reduced oil exports and their reaction to Western countries' support to Israel in the short war of 1973. This has led to the search for new, alternative oil sources from more stable countries. Also, the global financial crisis of 2008, which was partly caused by complex financial products and excessive use of bank financial leverage, created increased financial risk, resulting in a greater focus of regulators on capital control of banks and insurance companies.

Having this in mind, the crisis caused by the coronavirus can lead to a focus on the "closure risk", i.e., a focus on business continuity risk (Njegomir, 2020b). It is almost certain that governments and insurance and reinsurance companies will focus more on the risk of pandemics, cybercrime, and systematic terrorist threats. The greatest chance will arise if governments create a framework within companies that allocate a certain amount of capital to manage "closure risk."

In that case, this risk will dominate in the corporate world. The possibilities are almost unbelievable. McKinsey predicts that by 2025, global corporate revenues will reach \$ 185 trillion and that the global non-life insurance premium will reach \$ 4

trillion by 2025. If only a small part of these projected revenues were used to hedge against "closure risks," this would mean a significant increase in insurers and reinsurers' roles. For example, an increase in company revenue of only 1% would be equivalent to the rise in global non-life insurance premiums by 50%.

Competition for the dispersion of this risk would be great. In the "game" would be insurers, reinsurers, captives, mechanisms for alternative transfer of insurance risk to the capital market, and asset managers. However, insurers and reinsurers have an advantage since they already manage this risk by doing their core business, primarily through business interruption insurance and cyber risk insurance.

This risk will be a chance for insurers and reinsurers even if regulators do not require companies to reserve capital for this "closure risk", i.e., the risk of business interruption. Companies will strive to timely and fully protect the business continuity and revenue that could be reduced or lost by a new global pandemic in the future.

Table 1: Estimation of the biggest COVID-19 loss and reserves of ten global insurers and insurers

Insurer/Reinsurer	COVID-19 loss and reserves estimate (\$ m)	Last updated
Lloyd's	3,650	14/05/2020
Swiss Re	2,500	22/07/2020
Munich Re	1,776	06/08/2020
AXA	1,470	06/08/2020
Allianz	1,415	05/08/2020
Chubb	1,370	06/07/2020
Zurich	750	13/08/2020
AIG	730	03/08/2020
Hannover Re	705	05/08/2020
QBE	600	22/07/2020

Source: <https://www.reinsurancene.ws/covid-19-insurer-reinsurer-loss-reports/>

In the table are shown ten global insurers and reinsurers which estimate the highest amount of COVID-19 loss and reserves. Estimation is related to the net of reinsurance recoveries. Some figures are overlapped. Disclosed COVID-19 losses of insurers might also be seen in the reinsurance company income statement due to protection agreements. The total COVID-19 loss and reserves estimated and reported by these ten and other insurers and reinsurers worldwide amount approximately \$22,1 bn.

There is significant international experience in establishing (re)insurance schemes and pooling arrangements for other catastrophic risks that should be leveraged in providing coverage for pandemic risk. The insurance coverage related to pandemics should be improved to provide coverage that individuals and businesses need. It is still unclear whether pandemic losses are insurable by the private (re)insurance market. Governments could also be included to provide public-private partnerships and the insurability of pandemic risk (OECD, 2020).

4. Conclusion

The health and economic crises due to a pandemic will raise risk awareness and demand for risk protection across many industries worldwide. It can be seen that the restructuring of global supply chains is needed to mitigate and control future business interruption risks. The stabilization of the global economy and future insurance and reinsurance activities, depending on the time required for overcoming the COVID-19 pandemic. The most significant world insurers expect global insurance premiums in 2021 will reach the pre-COVID-19 level.

The COVID-19 crisis will affect the profitability of the industry. It is necessary to prepare adequately and timely for the consequences and problems in insurance companies' business caused by this virus. Insurers and reinsurers are also aware that digital technologies will no longer be viewed as an ambitious target but rather a strategic goal. Future pandemics must also be considered in the context of risk and capital management to ensure business continuity and the survival of insurance and reinsurance companies.

It should be seen as a motive for insurers, policymakers, and governments to consider more public-private partnership solutions for pandemic risks in case of the future rising. If insurers focus only on the apocalyptic pandemic scenario, there is a possibility of fatalism. Suppose it is wrongly assumed that the risk of a pandemic is too small due to the low probability of realizing this risk. In that case, it can be concluded that there is no need to prepare for the manifestation of this risk adequately. On the other hand, justification can be wrongly found in the assumption that competing insurance companies would also go bankrupt in the event of a major pandemic.

However, it is necessary that insurance companies, including companies in Serbia and the region, prepare for pandemics that can occur once in fifty years by obtaining reinsurance coverage or by using alternative mechanisms for transferring insurance risk to the capital market. Otherwise, the influence of pandemics would lead to the insurers' bankruptcy. This scenario is not in the interest of insurance companies or the economy and society as a whole.

References

- Anđelković, A., Barac, N. & Milovanović, G. (2014). Upravljanje faktorima rizika: Mehanizam za povećanje otpornosti lanaca snabdevanja. *Ekonomске teme*, 52(1), 81-99.
- Crocker, K. J. (2003). Risk and Risk Management. In Meyer, Donald J. (eds.), *The Economics of Risk*. Kalamazoo (MI): W.E. Upjohn Institute for Employment Research.
- Committee of Sponsoring Organizations of the Treadway Commission - COSO, (2004). Enterprise Risk Management - Integrated Framework, Executive Summary.
- Deloitte, (2020). Understanding the sector impact of COVID-19 Insurance.
- Ernst & Young https://www.ey.com/en_gl/insurance/how-covid-19-impacts-financial-reporting-and-operations-for-insurers
- Fitch Rating Major European Reinsurers Resilient to Pandemic Review - 1Q20 Results Are Not Indicative for the Future, Special Report, Fitch, <https://www.fitchratings.com/research/insurance/major-european-reinsurers-resilient-to-pandemic-review-1q20-results-are-not-indicative-for-future-27-05-2020> (pristupljeno 05.06.2020.)
- Insurance Europe COVID-19 <https://www.insuranceeurope.eu/covid-19-coronavirus> (pristupljeno 10.05.2020.)
- Njegomir, V. (2018). *Upravljanje rizicima u osiguranju i reosiguranju*. Zagreb: Tectus.
- Njegomir, V. (2020a). Korona virus, *Svet osiguranja*, 4.
- Njegomir, V. (2020b). Uticaj COVID-19 na osiguranje. In: XXIII Međunarodni skup Naknada štete i osiguranje, Valjevo.
- OECD (2020). Initial assessment of insurance coverage and gaps for tackling COVID-19 impacts.
- PwC, (June 2020). COVID-19: Impact on the Indian insurance industry. <https://www.pwc.in/assets/pdfs/services/crisis-management/covid-19/covid-19-impact-on-the-indian-insurance-industry.pdf>
- <https://www.reinsurancene.ws/covid-19-insurer-reinsurer-loss-reports/>
- SwissRe Group (2020). World insurance: riding out the 2020 pandemic storm, Sigma 4/2020
- Vaughan, E. J. & Vaughan, T. M. (2008). *Fundamentals of Risk and Insurance*. Hoboken (NJ): John Willey & Sons, Inc.
- World Economic Forum, (2020). World Economic Outlook, <https://www.imf.org/en/Publications/WEO/Issues/2020/01/20/weo-update-january2020> (pristupljeno 05.03.2020.)
- WHO Coronavirus Disease (COVID-19) Dashboard, <https://covid19.who.int/> (pristupljeno 7.09.2020)

UTICAJ COVID-19 NA POSLOVANJE OSIGURAVAJUĆIH I REOSIGURAVAJUĆIH DRUŠTAVA

Rezime: U Globalnom izveštaju o riziku, zarazne bolesti su kritični rizik za 2020. i naredne godine sa aspekta njihovog uticaja. Ostvarenje virusa Covid-19 istaklo je pandemiju kao kritični globalni rizik za ljude, ekonomiju i društvo. Glavna ideja ovog rada je da se da uvid u globalne socijalno-ekonomske posledice aktuelne pandemije Covid-19, sa posebnim osvrtom na poslovanje društava za osiguranje i reosiguranje, koja odgovaraju na širenje pandemije COVID-19 na

više frontova - kao isplatioci štete, poslodavci i investitori na finansijskom tržištu. S obzirom na to da se i pojedinci i preduzeća suočavaju sa visokim troškovima i gubicima zbog prekida putovanja, prekida poslovanja i lanaca snabdevanja, mnogi očekuju da osiguravači nadoknade neke od tih troškova i gubitaka. Osiguravajuće kompanije su takođe značajni investitori na finansijskim tržištima i suočiće se sa gubicima zbog gubitaka na tržištima akcija i finansijskih instrumenata sa fiksnim prinosima i to zbog smanjenja kamatnih stopa kao pokušaja centralnih banaka širom sveta da podrže svoje ekonomije. Trenutna kriza se takođe može posmatrati kao mogućnost za unapređenje osiguravajućeg pokrića u uslovima pandemije kroz uspostavljanje (re)osiguranja i pulova katastrofalnih rizika, kao i razvojem javno-privatnih partnerstava za povećanje osigurljivosti pandemijskog rizika

Ključne reči: covid-19, uticaj, osiguranje, pandemija, reosiguranje, rizik

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