

COVID-19: GLOBAL SHOCK AND NEW SCENARIOS FOR THE INSURANCE INDUSTRY

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Abstract

In the history of mankind, the great epidemics have always been characterized not only by a dramatic number of victims, but also by devastating impacts on the economy and social development.

It is probably still too early to draw up an accurate balance sheet of the actual weight that the pandemic will have on the economic system and, in particular, on the world of insurance. However, even today, at the height of the emergency, some aspects are well defined: we can undoubtedly state that, in the insurance sector, we are witnessing a global, total and radical shock.

The negative impact of "Business Interruption" or "Cyber Risk" is also strong for specialized sectors such as insurance; for the latter, for example, the great use of smart working from home implies a significant increase in the risk of claims resulting from the loss of sensitive data or caused by criminal intrusions, events facilitated by less robust and more easily permeable home security protocols compared to corporate firewalls and Information Technology structures normally operating in offices.

To understand how widespread the shock due to Covid-19 is in the insurance industry, it is sufficient to analyze what is happening in a particular sector such as Aerospace.

The work presented intends to investigate and deepen these aspects, as well as the response in terms of insurance policies that the market is offering.

Keywords: Covid-19, Insurance, Economic scenario, Risk Management

1. INTRODUCTION

The great epidemics have always been characterized by devastating impacts on the economy and social development, as well as a dramatic number of victims. Suffice it to think, for example, of the "Spanish flu" of 1918 that in the space of two years infected 500 million people around the world causing 50 million deaths.

One of the first pandemic events of which there is historical evidence was the "Plague Antonina" that, between 165 and 180 AD, from Asia spread throughout the provinces of the Roman Empire, a spread that was favored by the efficient and extensive imperial system of roads and sea connections. At the same time as the high number of victims, estimated at between 10% and 25% of a population that at the time amounted to about 80 million individuals, the plague also struck the solid and powerful imperial economic system with heavy repercussions both on the flow of grain and other raw materials that regularly arrived from the provinces to Rome, and on the distribution of wages for the legions deployed in the vast territory administered by Rome; a heavy impact that, according to many historians, helped lay the foundations for the future crisis and the final fall of the Empire. During this Plague, therefore, the Romans tried to avert the spread of the disease by offering gifts and sacrifices to the Gods.

Today, after almost two thousand years (and numerous other episodes of pandemic) the spread of Covid-19 seems to follow, with due differences, a pattern unfortunately already known: originating in Asia, the new virus has been able to deploy with great rapidity its lethal effects thanks to a world increasingly

connected and interconnected, infecting millions of people and putting in crisis the economy of many states.

2. THE ECONOMIC IMPACT OF THE PANDEMIC ON THE INSURANCE MARKET

Governments around the world have responded at different times and in different ways to the pandemic. Some have given priority to the economic aspect, thus allowing the circulation of the virus with serious impacts on the health of the population. Others, on the other hand, have given priority to health management by introducing measures of social distancing, quarantine, closure of certain activities and borders (Mastrapasqua P. 2020).

In general, all countries have had to adopt extraordinary fiscal measures and monetary policies in order to face the crisis and sustain an economic recovery. The latest projection of the International Monetary Fund is a decrease in world GDP of 4.9 points in 2020, while it expects a growth of 5.4 in 2021.

(real GDP, annual percent change)	PROJECTIONS		
	2019	2020	2021
World Output	2.9	-4.9	5.4
Advanced Economies	1.7	-8.0	4.8
United States	2.3	-8.0	4.5
Euro Area	1.3	-10.2	6.0
Germany	0.6	-7.8	5.4
France	1.5	-12.5	7.3
Italy	0.3	-12.8	6.3
Spain	2.0	-12.8	6.3
Japan	0.7	-5.8	2.4
United Kingdom	1.4	-10.2	6.3
Canada	1.7	-8.4	4.9
Other Advanced Economies	1.7	-4.8	4.2
Emerging Markets and Developing Economies	3.7	-3.0	5.9
Emerging and Developing Asia	5.5	-0.8	7.4
China	6.1	1.0	8.2
India	4.2	-4.5	6.0
ASEAN-5	4.9	-2.0	6.2
Emerging and Developing Europe	2.1	-5.8	4.3
Russia	1.3	-6.6	4.1
Latin America and the Caribbean	0.1	-9.4	3.7
Brazil	1.1	-9.1	3.6
Mexico	-0.3	-10.5	3.3
Middle East and Central Asia	1.0	-4.7	3.3
Saudi Arabia	0.3	-6.8	3.1
Sub-Saharan Africa	3.1	-3.2	3.4
Nigeria	2.2	-5.4	2.6
South Africa	0.2	-8.0	3.5
Low-Income Developing Countries	5.2	-1.0	5.2

Fig. 1. World Economic Outlook

Source: International Monetary Fund (Report, June 2020)

In its "Global macro outlook" for the first quarter of 2020, the Insurance Information Institute predicted that "the impact of COVID-19 on global growth and the insurance industry is likely to be deeper and more extensive than initially anticipated and could persist beyond the third quarter." The most recent estimates from the Monetary Fund predict a fall in global GDP that is far worse than that experienced following the 2008-2009 financial crisis (Donald et Al., 2020).

Certainly possible to say that today we have the scientific competences and technical skills to manage the pandemic in the best possible way, containing its spread and preparing the necessary vaccines; Insurance companies - which play an important social role as well as an economic one - will be able to play their part, reacting to the strong shock they have suffered and facing the new scenarios that are emerging in our future in a timely and decisive manner; in this way they will be able to continue to offer that level of protection for individuals, companies and the community that has always been their main social and economic function.

It is probably still too early to draw up an accurate balance sheet of the effective weight that the pandemic will have on the economic system and, in particular, on the world of insurance. However, already today, in the midst of the emergency, some aspects are well defined: we can undoubtedly state that, in the insurance sector, we are witnessing a global, total and radical shock.

A global shock because literally every company and industry on the globe is dealing with the effects of the Coronavirus and one of the cornerstones of insurance strategies, the geographical differentiation of its financial exposures, is proving ineffective at this juncture. This is true both for direct insurance companies, which operate in geographically distant markets, and for large reinsurance groups which, precisely from a global portfolio balanced by distinct geographical areas, manage to obtain the necessary balance between premiums and claims in normal times.

John Neal, CEO of Lloyd's of London, said in an interview at the end of April that the coronavirus pandemic is likely to be the most expensive event in the history of the insurance industry: costs in the tens if not hundreds of billions of dollars are speculated, sums much higher than those paid in total by insurers at the time of Hurricane Katrina in 2005 (about 116 bn dollars or Hurricane Harvey in 2017, which cost 92 bn dollars), an event that, until now, constituted the biggest disaster to hit insurers and reinsurers worldwide.

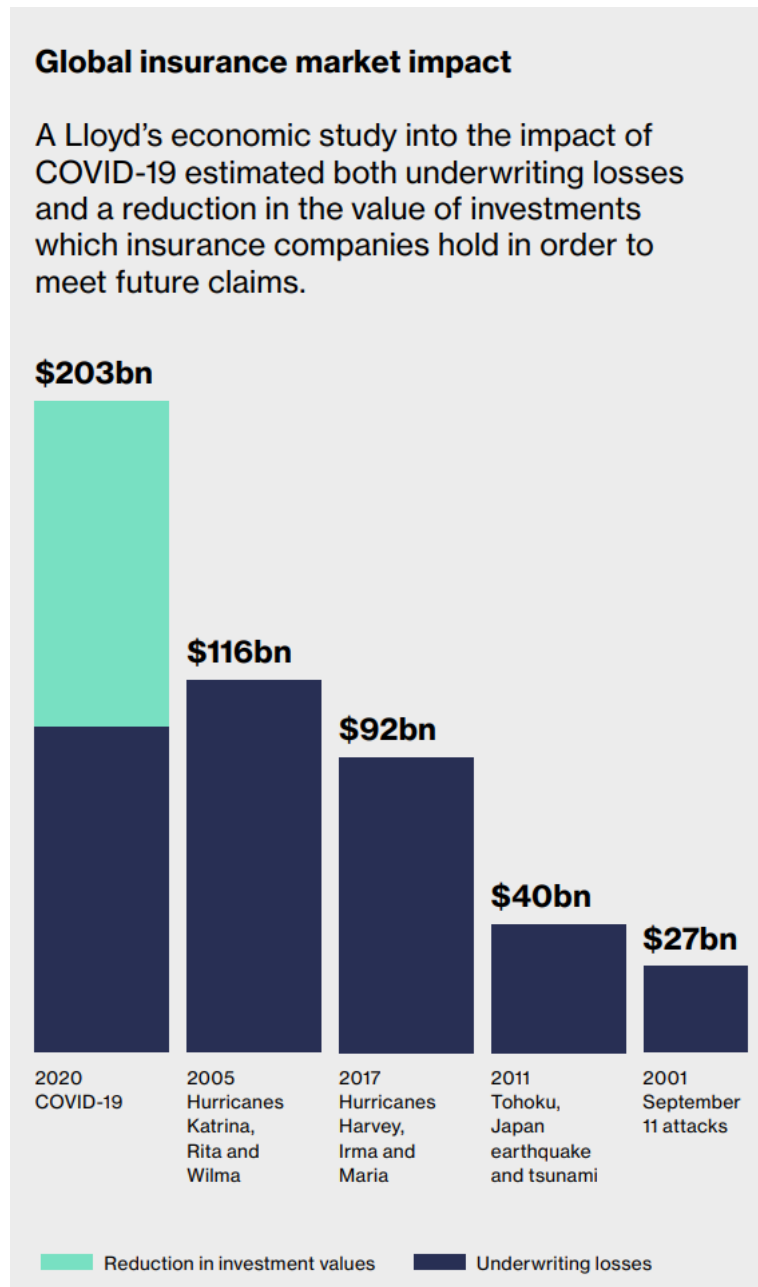


Fig. 2. Global insurance market impact

Source: Supporting global recovery and resilience for customers and economies, Lloyd's Report (2020), Lloyd's of London

A total impact because practically every line of insurance is strongly affected by the pandemic with a shock resulting from an exponential growth in claims within a dramatic economic situation. For example, companies that offer life insurance products, those that are active in health insurance or in the coverage of third party liability of doctors and hospital companies, will have to face both a surge in mortality and health liability lawsuits (Coviello A., D'Antonio C., 2019), and a context of falling stock markets and financial returns: honoring the payment of claims will be a huge commitment even for the most solid insurance companies and, consequently, for reinsurers to whom part of the direct exposures have been retroceded.

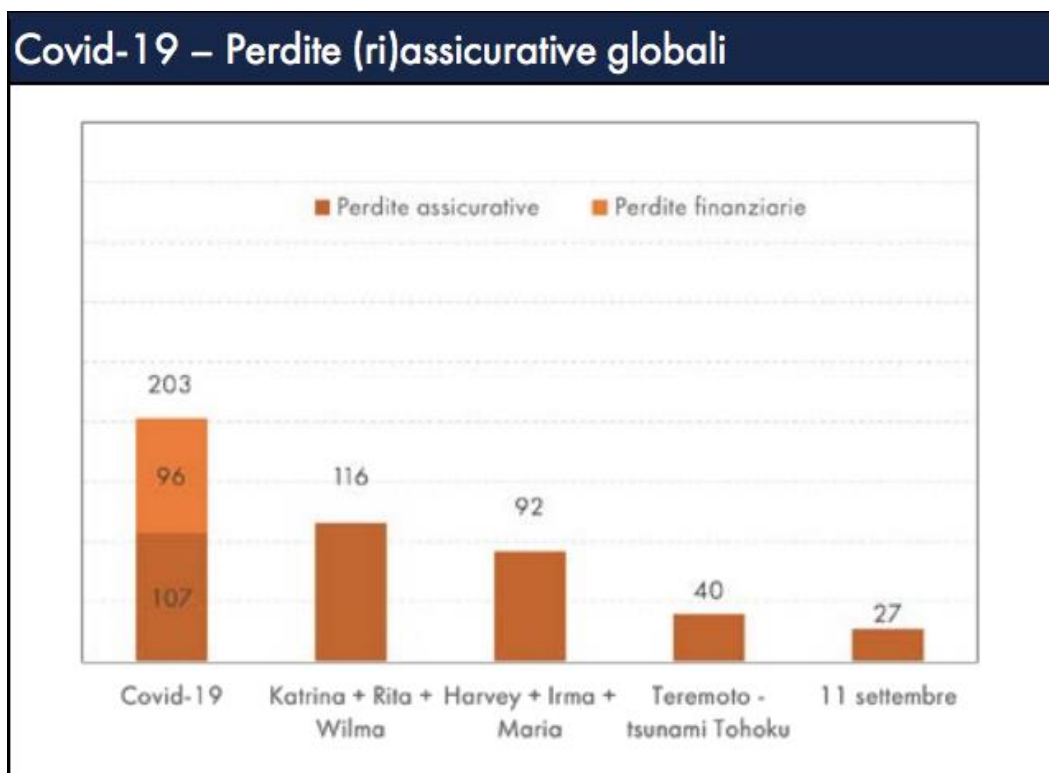


Fig. 3. Global insurance and financial losses

Source: Supporting global recovery and resilience for customers and economies

Lloyd's Report (2020), Lloyd's of London

However, this is already expected to be the biggest loss ever in the global insurance market, as it is estimated that 107 billion dollars in claims will be paid and there will be a simultaneous loss of insurance company assets equivalent to 96 billion dollars (Source: Supporting global recovery and resilience for customers and economies - Lloyd's Report, 2020).

3. RISK POSITIONING AND THE INSURANCE INDUSTRY'S RESPONSE IN THE POST-COVID-19 ERA

If, until last year, among the sources of concern (particularly in Italy) were low interest rates (life insurance), non-life underinsurance and cyber risk, today the same problems are aggravated and in addition there are many others: uncertainty (how and when will the pandemic end?), digitalization (a strong push to a process that was already underway), distribution risk (telematic companies are looking for "warm" contact and traditional companies are developing the digitalization of agencies as well), protection gap (the structural under-insurance of non-life insurance, especially in the Italian system, has shown all its negative effects when new and greater risks have emerged), health risk (the Covid-19 has, on the one hand, slowed down many spending decisions, including insurance decisions, and, on the other hand, it has focused attention and put in the foreground the issue of health and the fragility of public health structures), interest rate risk (interest rate risk, already indicated as "low-for-long", risks appearing as "low-for-ever"), cyber risk (cybersecurity has had an explosion in the post-Covid era due to the massive use of telecommunications and smart-working solutions). (Cesari, 2020)

The negative impact of "Business Interruption" or Cyber Risk is also strong for specialized sectors such as insurance; for the latter, the large use of smart working from home implies a significant increase in the risk of claims resulting from the loss of sensitive data or caused by criminal intrusions, events

facilitated by less robust and more easily permeable home security protocols compared to corporate firewalls and Information Technology structures normally operating in offices.

At the moment, unprecedented situations are emerging for particular insurances such as Legal Protection: private companies are calling on public administrations; entire states, such as Missouri, are promoting class actions against the Chinese government. Certainly these actions will also result in significant costs for insurance companies specializing in legal expense coverage.

One of the insurance sectors most closely linked to the state of lockdown now widespread in many countries is that of "Event Cancellation". The costs to be borne by insurers for the postponement of the Tokyo 2020 Olympics or for the cancellation of the Wimbledon tournament, scheduled for the end of June this year, have made headlines. In the latter case, the insurance coverage included a specific extension in case of cancellation of the event as a result of epidemic, an extension purchased by the All England Club, organizer of the tournament, since 2003 in the face of fears arising at the time from the spread of Sars. English insurers will therefore pay a claim amounting to 100 million pounds (about 120 million euros) as per the contract.

To understand how widespread the shock due to COVID19 is in the insurance industry, it is sufficient to analyze what is happening in a particular sector such as Aerospace.

The aerospace industry has been forced to drastically reconsider the scenarios that, until a few months ago, foresaw a trend of continuous growth with at least 40,000 new aircraft to be produced over the next 20 years for an estimated value of over 7 trillion dollars. Now, however, the cancellation of almost all short term orders by airlines affects not only the two big names in aerospace, Boeing and Airbus, but also thousands of small and medium sized high-tech companies all over the world.

Today more than 60% of all commercial aircrafts are forced to ground, almost 90% of flights in Europe are cancelled; during Easter week in Europe only 278 daily flights were operated on average, compared to about 3,600 during the same period last year, with a reduction in flights equal to 92%. This dramatic situation heavily affects the airlines forced to make refunds for hundreds of millions of euros at a time when receipts from ticketing and ancillary flight services are practically zero.

But the impact of the pandemic is going beyond the borders of the skies: even the activities of launching new satellites into space are suspended or postponed due to the difficulty of finding high-tech components, whose production is currently at a standstill and due to the objective logistical difficulties deriving from the restrictions on the movement of personnel.

In this scenario, aerospace risk insurers, already hit by major catastrophic claims at the beginning of the year, are suffering an unprecedented halt to the normal flow of premiums to cover risks, as a consequence of the cancellation or suspension of insurance programs due to the grounding of aircraft and the postponement of scheduled space launches.

We have said that for the insurance industry, the shock caused by COVID-19 is not only global and total, but certainly also radical.

Not only have we all been forced to radically change our personal and social habits, but we have also been forced to redefine our perception of risk and our consequent attention to necessary precautions. Just as for individuals, companies have also found themselves having to react by defining new strategies to face unprecedented scenarios and be able to survive them.

4. SCENARIOS AND INITIATIVES/INSURANCE COVERAGE BY THE INSURANCE MARKET

The euro area's near-term growth outlook remains relatively underwhelming. A renewed rise in COVID-19 case counts has led to the reimposition of social distancing measures in key European economies even as vaccine concerns place a brake on rollout efforts.

The European Commission's guidelines on fiscal rules are dovish at the margin and imply that its temporary suspension on deficit limits could be extended through mid-2022. That said, European fiscal

stimulus programs, while sizable, pale in comparison with those in the United States and the United Kingdom. Upcoming general elections in Germany and France (September 2021 and April/May 2022, respectively) are also areas of concern (Donald F. et Al. 2021).

In Triple-I's analysis, increases in line-specific claims will likely be significant enough to impact overall industry trends, though not on the scale of claims from natural disasters in 2017. While profitability may decrease in 2020, premium increases in 2020 and beyond will compensate for any short-term decreases in liquidity. The industry remains well capitalized and concerns over solvency are low (Leonard M. 2020).

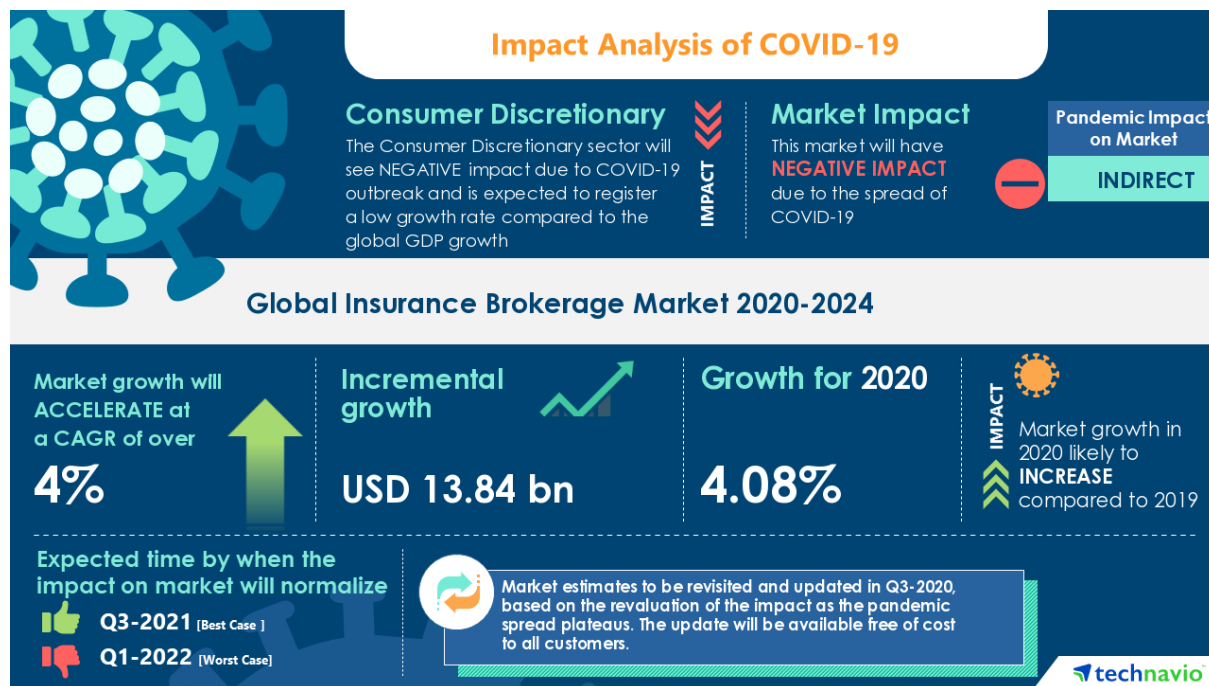


Fig. 4. Impact Analysis of Covid-19 in Global Insurance Brokerage Market 2020-2024

Source: Technavio (September 2020)

According to the Insurance Information Institute (Triple-I) and his Report “Global Macro and Insurance Outlook” (Q1-2020), below is Triple-I’s preliminary assessment of how the virus may affect different insurance lines, “based on the median global growth scenario of 2.9% discussed above:

1) Higher Impact

a) Health: The largest and direct impact will be on health insurers due to increases in hospitalization and scarcity pricing for services, equipment and drugs (example: Italy). Impact will depend on each country’s healthcare system and relative participation of government and private insurers. Carriers that provide supplemental health coverage on top of government-provided healthcare will experience less stress, while those providing primary coverage, especially with large exposure to the elderly, will experience more stress.

b) Workers compensation: The largest impact will be on insurers providing workers compensation coverage to first responders (hospitals, police, fire, EMT) and workers in high-risk sectors (entertainment, manufacturing, transportation and retail). This will be mitigated by the relative share of public-private sector participation. The extent of government actions such as quarantines, shutting down at-risk activities, or the use of public safety employees as first responders would reduce the scale of increases in claims.

2) Moderate Impact

- a) Life: The primary impact will be on life insurers focused on mortality risk. Insurer-specific exposure will depend on how Covid-19's overall death rate affects demographics subsets and each insurer's exposure to those groups. So far, COVID-19's infection and death rate has been highest amongst the elderly and those with pre-existing conditions but there is no certainty that this pattern will continue. One should note that life insurers tend to use significant reinsurance, reducing exposure by transferring it to very well capitalized global reinsurers.
- b) General liability: Insurers providing general liability and directors and officers coverage, not only for the pharmaceutical and healthcare sectors but also those with large workforce in at-risk operations, such as entertainment, manufacturing, transportation and retail, are likely to experience the bulk of increases in claims. The extent of any increases will be shaped by how favorable a country's legal system is to litigation and class actions, with U.S. insurers having higher exposures than their international counterparts. To reduce liability exposure and ensure policy compliance, insurers might consider adjusting WHO or CDC guidelines to their own risk profile, for example type of business, employee travel and commuting.

3) Lower Impact

- a) Supply chain: Insurers providing supply chain coverage such as business interruption, political risk, and trade finance are likely to experience increase in event frequency but the extent to which this will translate in higher claims is uncertain. For the first two, policies generally have significant waiting periods and deductibles so that coverage would typically kick-in only under worst-case pandemic scenarios. As for trade finance, premiums are normally based on preset coverage capacity, regardless of the underlying extent of utilization linked to economic activity, and as such unlikely to be affected in 2020, while any surge in claims would likely be mitigated by flexible repayment schedules in underlying transactions.
- b) Auto: Insurers providing auto coverage, both commercial and for consumers and across vehicle types are likely to see fewer claims due to the reduction in transport associated with lower economic activity" (Leonard M. 2020, "Global Macro and Insurance Outlook", Insurance Information Institute/Triple-I).

Faced with these risks, countries and the international insurance market have responded with a series of global initiatives, which can be summarized as follows: In Europe, in response to the European Commission's public consultation last April on its renewed sustainable finance strategy, FERMA (European Federation of Risk Management Associations) stated that the EU should help create a pan-European transfer solution for systemic risks, considering the current national Insurance Pools insufficient, particularly for business interruption losses. In the United Kingdom, the UK's top insurance industry leaders have formed a steering group with the intention of working with Pool Re, the government-backed terrorism reinsurer. The group's primary goal is to find a solution so that the insurance industry can strengthen its response to future pandemics. In USA, The proposal would establish a pandemic risk reinsurance program to provide coverage for business interruption losses resulting from future pandemics or public health emergencies. Support from the federal government would serve as back-up to provide sufficient insurance capacity to maintain market stability and share the burden with private industry (Mastrapasqua P. 2020).

5. CONCLUSIONS

COVID-19 has shown us that there is a very important gap in the insurance protection of business interruption risks arising from non-asset damage and that "resilience" is a key point for the survival of companies (Mastrapasqua P., 2020).

Despite market awareness, risk transfer solutions will require a period of maturation that is not short. For Insurance Companies, it is already necessary to move from the phase of pure reaction to the crisis, with actions taken in response to the emergency, to a subsequent phase of crisis management, navigating

in a new context and defining a new strategy for the future that will concern the management of customers and investments (Coviello A., Di Trapani G., 2018), the evaluation and implementation of new mechanisms for the transfer of risks; rethinking the differentiation and parceling out of financial exposures both at the level of geographical areas and of classes and types of risk; favoring and reinforcing the sharing of large catastrophic risks (Coviello A., Di Trapani G., 2014), with greater recourse to reinsurance; promoting and supporting the creation of pools that provide for interventions also mixed State-insurers, as already happens in some countries for the management of catastrophic risks such as the earthquake.

Already today, it is evident that where the level of welfare is higher, the economic system is more solid in withstanding the impact of the pandemic and in finding effective responses to emerge from the crisis. Perhaps the trauma that the world is undergoing will allow us to reconsider our approach to other challenges that are no less important for our future, such as climate change and the consequent exponential growth of damage resulting from catastrophic events associated with climate change.

REFERENCES

1. BTG Legal 2020, "The impact Covid-19 on the insurance sector", *Batini Traverso Grasso & Associati*, May
2. Cesari R. 2020, "The insurance market in the current economic situation: risks and opportunities", *IVASS* document, October
3. Coviello A. 2021, "Digital branding and the role of social in the creation of brand value in insurance companies", *Rivista Assicurazioni*, n.1, Giappichelli Editore
4. Coviello A., D'Antonio C. 2019, "Health Risk Management: risk management and insurance coverage in the Italian welfare system", *Journal of advanced health care-JAHC*, n. 1 Issue 2 10.36017/jahc1909-001
5. Coviello A., Di Trapani G. 2018, "The insurance industry's mission in the welfare policies", *EPEI Conference- Economic Policies For Economic Imbalances: Institutions, Actors And Emerging Issues*, Naples, 28-29 September
6. Coviello A., Di Trapani G. 2014, "Insurance coverage against the risk of natural disasters", *Economy & Business*, n.8, Info Invest, Bulgaria
7. De Natale G., Coviello A. et Al. 2020, "The evolution of COVID-19 in Italy after the spring of 2020: an unpredicted summer respite followed by a second wave", *International journal of environmental research and public health*, MDPI 10.3390/ijerph17238708
8. Donald F. et Al. 2021, "Global Macro Outlook. A period of divergence", *Manulife Investment Management*
9. IMF-International Monetary Fund 2020, "World Economic Outlook", June
10. Korinman M. 2020, "World-Virus. History and geopolitics of Covid-19", *Mondo Nuovo*, Tagete Edizioni
11. Leonard M. 2020, "Global Macro and Insurance Outlook", *Insurance Information Institute (Triple-I)*
12. Lloyd's Report 2020, "Supporting global recovery and resilience for customers and economies", *Lloyd's of London*
13. Mastrapasqua P. 2020, "Covid-19: future perspectives in the global insurance market", *Assiteca*
14. Technavio 2020, "Global Insurance Brokerage Market 2020-2024", *Report Technavio*, September