

# Aviation insurance industry in the global economic crisis

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**Abstract:** For five years now, the world economy has been affected by various crisis phenomena, which are currently forming as a consequence of the pandemic crisis, followed by the energy crisis, and the military conflict between Russia and Ukraine. Inevitably, this economic cataclysm has some influence on the global aviation insurance market. The recovery process of the global airline industry can be considered /seen as a beneficial factor in this context. At the same time, it is necessary to take into account the existing risk factors in this field of economic activity. Among the most important areas of adjustment in the aviation insurance market are the consequences of the pandemic crisis, cyber risks and the impact of the military conflict between Russia and Ukraine.

**Key Words:** aviation insurance, aviation insurance market, global economic and financial crisis

## 1. INTRODUCERE

Right now, the global economy is being affected by an unprecedented cataclysm, which many experts have called the global economic and financial crisis.

Authors Ivan Luchian and Angela Filip have outlined the general pattern of the post-pandemic economic and financial crisis (Figure 1).

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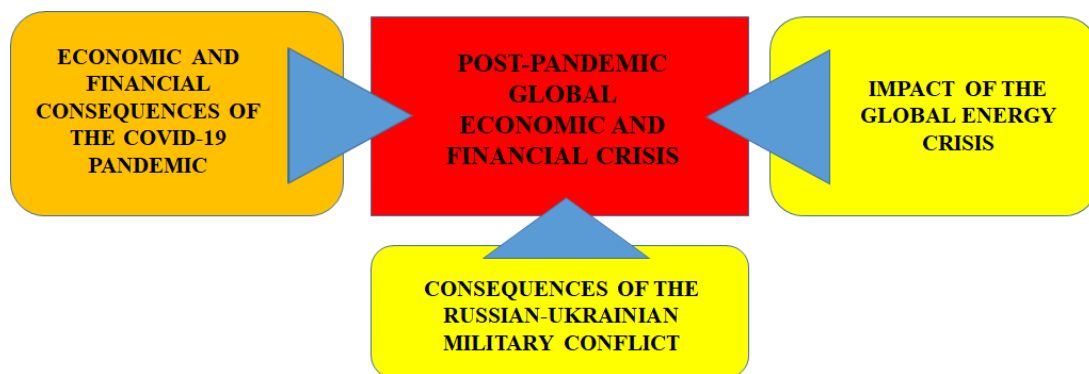


Figure 1. The pattern of the current global economic and financial crisis  
Source: [10]

This model states the unfolding of the current global economic and financial crisis based on three groups of factors:

- Manifestation of the consequences of the global pandemic crisis triggered in 2020;
- Supporting Sustaining the influence of the energy crisis, which began to manifest itself in 2021;
- Spread of the consequences of the war between Russia and Ukraine as of/from February 24, 2022.

According to UNCTAD data, the growth of world production is estimated at around 3.0% in 2022, and for 2023 and 2024 this indicator is forecast at 1.9% and 2.7%, respectively [6].

OECD experts have estimated that the growth of the global economy in 2022 will be 3.1%, well below the pre-war forecast. A slowdown to 2.2% is expected in 2023 and a moderate recovery to 2.7% in 2024 [3].

In October 2022, IMF experts estimated a decline in global economic growth from 6.0% in 2021 to 3.2% in 2022 and 2.7% in 2023 [14].

Under the circumstances described, the situation in aviation insurance is unclear, and the purpose of this article is to present the main problems of this specific branch of insurance.

## 2. THE RECOVERY OF THE AVIATION INDUSTRY AS A BENEFICIAL FACTOR OF AVIATION INSURANCE

At the moment, a recovery process is taking place in the global aviation industry.

In the field of air passenger transport, the following changes took place:

- Air passenger traffic expressed in revenue passenger kilometers (RPK), based on the level of 2019, has seen a rebound from 41.7% in 2021 to 68.5% in 2022 [2].
- The estimated number of scheduled passengers carried by the global airline industry was just over 2.2 billion in 2021, representing a 50% loss in global air passenger traffic compared to 2019 [12]. According to some estimates, global air passenger traffic will increase to 2.6 billion people by 2026 [5].
- The International Air Transport Association states that global air cargo demand in 2022 measured in freight tonne-kilometres decreased by 8.0% compared to 2021, and 1.6% from 2019 [1].

The capacity measured in tonne-kilometers of freight available in 2022 was 3.0% higher than in 2021, and 8.2% lower than in 2019 [1].

Hana Kulhová estimated that more than 11 thousand additional aircraft are expected to

join the active fleet worldwide, raising the demand for pilots to 264 thousand in the next ten years. Likewise, this expert noted that, annually, about 3.8% of commercial pilots will leave the profession for various reasons, leading to a demand for 126 thousand of new commercial pilots over the next ten years [11].

Global airline revenue is expected to reach \$114 billion in 2026, up from \$110 billion in 2021 [5]

According to Stewarts experts, the aviation industry is exposed to a complex of risks in 2023 [13]:

- *Exposure of the consequences of the Covid-19 pandemic crisis.* During the pandemic crisis, the global airline industry recorded net losses of 220 billion dollars. Once flight restrictions and a certain shortage of qualified personnel remain in some geographic areas, the possibilities for recovery of the global aviation industry remain limited.
- *Geopolitical instability.* The military conflict between Ukraine and Russia that erupted in February 2022 and the subsequent sanctions and air restrictions have aggravated the consequences of the global pandemic on the aviation sector.
- *Supply chain issues.* The issues outlined above have led to a supply chain crisis in all sectors. The aviation industry is dependent on natural resources, skilled labor and functioning global trade routes for key components and spare parts. The squeeze from each of these areas has a domino effect of contract breaches in the supply chain.
- *The impact of the global energy crisis.* The energy crisis is the result of a complex of factors, such as the rapid economic recovery following the global pandemic, climate change, delayed maintenance work as a result of the pandemic and decisions by oil and gas companies, reduced investment in oil exporting countries, sanctions on Russian oil and gas. All this has led to rising costs in the aviation industry due to higher fuel and electricity prices.
- *Promotion of the ESG (Environmental, social and governance) by airlines leads to the following:*
  - Promoting investments in green infrastructure, new technologies, sustainable fuel and carbon offsets;
  - Imposition by governments of environmental taxes and regulations;
  - Investors' focus on companies' environmental, social and governance scores.

### **3. THE IMPACT OF THE PANDEMIC CRISIS AND OTHER PROBLEMS ON AVIATION INSURANCE**

Many have noted the multidimensional impact of the pandemic crisis [8], [9]:

- Reduction of global passenger traffic;
- Decrease in airport revenues in connection with the decrease in passenger traffic;
- Decrease in the volume of air freight transport;
- Decrease in tourism revenues worldwide;
- Decrease in the volume of global trade in goods;
- Contraction of the world economy.

A large number of experts are of the opinion that the consequences of the COVID-19 pandemic crisis have had an impact on the activity of aviation insurers.

During the pandemic crisis, the circumstances for selling aviation insurance policies have changed. First, changes were made in the use of insured aircraft. As most commercial and private flights were cancelled, cargo flights continued to fly regularly, and some airlines

adapted their commercial aircraft to operate cargo flights. Thus, the revenue losses caused by the measures taken during the pandemic were reduced [4]

The pandemic crisis has changed the risk profile of airlines. A large number of commercial and private flights have been cancelled. Most of the insured aircraft were grounded. This has created a complex of problems (and incurred related costs) such as lack of parking, ongoing maintenance, preparations for storage, protection of aircraft from terrorist threats, wildlife hazards, and climate is as the aviation industry's dependence on information technologies has deepened.

With the advent of the information age, the activity of the aeronautical industry has become more efficient through the massive application of information technologies. But, on the other hand, this part generated a complex of related problems.

At the moment, the cyber insurance market has become a complicated place for airlines and aerospace entities to explore due to significant losses and concerns about legacy systems used in the industry and the handling of a large volume of third-party information [11].

Given tight post-pandemic budgets and investments geared toward streamlining air travel, few major changes are happening to ensure cyber security. It is very important for companies to understand cyber risks and assess the extent to which some of them can be transferred to the insurance market.

Expert Hana Kulhová is of the opinion that natural disasters continue to be a serious problem for aviation insurance. In particular, it is mentioned that in 2020 there were 29 tropical or subtropical cyclones, 12 hurricanes, and five major hurricanes worldwide. And about 40 percent of aviation ground losses due to weather hazards are caused by tornadoes, while nearly 50 percent are caused by hail or flooding, and the rest by hurricanes [11].

#### **4. THE IMPACT OF THE MILITARY CONFLICT BETWEEN RUSSIA AND UKRAINE ON AVIATION INSURANCE**

As mentioned earlier, the war between Russia and Ukraine has become an important factor in the multidimensional crisis.

In this context, Adam Hemingway noted the following core issues for the global aviation insurance industry [7].

An immediate effect of the nominated military conflict was the declaration of the region above Ukraine as a no-fly zone. As a result, many planes were stuck on the ground.

Equally important, approximately 400 leased aircraft with an estimated value of over \$10 billion have been seized by the Russian government.

All this has an immediate influence on the risk estimation models at the insurer, considering the large payouts of the damages that follow, as well as the large size of the leasing receivables.

The second group of problems is related to the fact that the military conflict forced insurers to reassess their positions and total exposure, which required some of them to temporarily stop their underwriting activity and others to withdraw from some parts of the market. The squeeze on market capacity has pushed up insurance policy prices, with the prospect of higher costs in the future.

As a chain reaction, the stated problems have created important uncertainties in the reinsurance field.

The fourth set of problems that the airline insurance market faced was the imposition of sanctions against Russia by the EU, UK, and US governments during the crisis. It is worth

noting that the reaction of insurers from different countries to the implementation of sanctions was not uniform.

Some insurers have had to interpret them according to their corporate profile and the location of their headquarters.

To some extent, this fractured the market, with some insurers able to offer certain elements of insurance that others were forced to refuse.

Some insurers were unable to provide cover to airlines flying to and from Russia, while others were banned from providing cover for these overflights after their renewal.

## 5. CONCLUSIONS

The conducted study demonstrates that there is now a post-pandemic economic and financial crisis. This economic cataclysm is taking place under the influence of the consequences of the pandemic crisis, the energy crisis and the multitude of problems created by the war between Russia and Ukraine.

Inevitably, this crisis left its mark on the aviation industry and aviation insurance, generating complex groups of specific risks. Resulting from the objective situation of the world crisis, the increase in the prices of aviation insurance products and a certain reduction of capacity in the airline sector are predictable. All this will most likely affect the financial status of aviation insurers. All this requires undertaking measures to be taken to adjust the business models of aviation insurance companies.

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