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ECONOMIC IMPACT OF THE CORONAVIRUS PANDEMIC ON AIR TRAFFIC

Abstract

The coronavirus pandemic is an unprecedented event in modern history, not only of aviation, but also of humanity. The negative consequences of the pandemic are not only related to the suspension of flights and the inability to transport passengers, but also have a great impact on other industries, such as the production of aircraft, systems and engines, tourism, the food industry, etc. The suspension of flights has led to many times lower revenues than planned, the dismissal of a large number of employees in this industry, as well as the cancellation of new airplanes ordered. Also, the prescribed health care measures that airlines must apply will affect a smaller number of passengers on planes, which means that each flight will be less cost-effective. Faced with large losses, airlines must organize in order to achieve maximum efficiency and a partial return to the levels of flying and transportation of people and goods that were achieved during 2019. The paper analyses the state and importance of the global aviation industry, the impact of the pandemic on business results and solving the problems of airlines.

Key words: airlines, pandemic, employment, revenues, financial assistance

JEL classification: F66, H12, I15, L93, Z32

ЕКОНОМСКИ УТИЦАЈ ПАНДЕМИЈЕ КОРОНА ВИРУСА НА ВАЗДУШНИ САОБРАЋАЈ

Апстракт

Пандемија корона вируса је догађај без преседана у савременој историји, не само ваздухопловства, него и човечанства. Негативне последице пандемије не односе се само на обуставу летења и немогућност превоза путника, него имају велики утицај на остале индустрије, као што су производња авиона, система и мотора, туризам, прехранбена индустрија итд. Обустава летења довела је до вишеструко мањих прихода од планираних, отпуштања великог броја запослених у овој индустрији, као и отказивања наручених нових авиона. Такође, прописане

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мере здравствене заштите које авиокомпаније морају да примењују одразиће се на мањи број путника у авионима, што значи да ће сваки лет бити мање исплатив. Суочене са великим губицима, авиокомпаније морају да се организују у циљу остварења што веће ефикасности и делимичног повратка на ниво летења и превоза људи и роба који су остварени током 2019. године. У раду је анализирано стање и значај глобалне авиоиндустрије, утицај пандемије на пословне резултате и решавање проблема авиокомпанија.

Кључне речи: авиокомпаније, пандемија, запосленост, приходи, финансијска помоћ

Introduction

The economic history of humanity has always been greatly influenced by natural disasters, and scientific and economic progress and the strengthening of the role of the state over the past two or three centuries have increased its ability to cope with droughts, floods, volcanic eruptions, earthquakes, etc. However, humanity's success in dealing with global natural disasters, such as climate change and pandemics, has so far been modest. The modest results are largely due to the fact that the powers of humanity in many areas are still quite limited. The coronavirus pandemic has caused major health problems worldwide. Starting in China, the epidemic spread very quickly to other parts of the world, causing the infection of more than five million and the death of more than 300,000 people worldwide (WHO, 2020). In this regard, in mid-March, most countries introduced emergency measures, which included closing state borders, banning international traffic and restricting the movement of people, temporary cessation of work and complete cessation of production in factories, implementation of human health protection measures, etc. The pandemic has negatively affected all industries, regardless of whether they are manufacturing or service, and among the most affected are certainly airlines and air transport. Almost overnight, airlines faced declining interest in travel, a flight ban and the landing of aircraft fleets. After more than two months of suspension, losses in air traffic, along with aircraft manufacturers, airports, air traffic control agencies, travel agencies and hoteliers, are estimated at hundreds of billions of dollars. In that regard, the largest number of airlines laid off thousands of employees. A large number of smaller airlines are on the verge of bankruptcy, and the forecasts for further business are very devastating. Some analysts predict that the situation will not improve by the end of 2020, and even more pessimistic, that during 2021, the decline in income and return to the level of 2019 will be aggravated and accompanied by great challenges. However, no matter how much the airlines are in the focus of public interest, they are not affected more than other modes of transport, such as bus, rail, ship or tourism, catering, services, and a number of other industries.

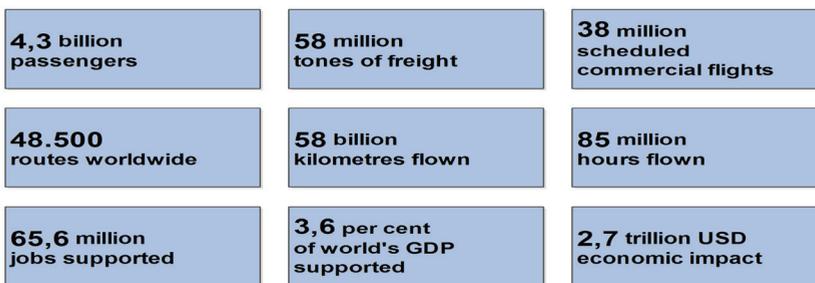
The state of global air traffic

With over 1,400 airlines that have 31,717 aircraft and serve 3,900 airports thanks to the support of 173 air traffic control service providers, the civil aviation sector has established

an impressive global network at the service of passengers and businesses from all over the world. Airplanes are the safest and fastest means of transportation to cross oceans and borders to connect people and foster sustainable economic growth (ICAO, 2020). The contribution of aviation to the global economy is approximately equivalent to the total GDP of the United Kingdom (IHLG, 2019).

During 2018, airlines worldwide transported about 4.3 billion passengers and 58 million tons of cargo (Figure 1). Every day, more than 100,000 flights carried nearly 12 million passengers and goods worth about \$ 18 billion. Historically, air traffic has doubled every fifteen years and is growing faster than most other industries (Palmer, 2016). According to the estimates of the Air Transport Action Group (ATAG, 2019), the total economic contribution of global air traffic in 2016 amounted to 2.7 trillion dollars, which is 3.6% of world GDP. Air traffic also supports a total of 65.5 million jobs worldwide and provides 10.2 million direct jobs. Airlines, airports and air traffic control and navigation service providers directly employ about 3.5 million people. The civil aviation sector (aircraft, systems and engines) employs 1.2 million people. A further 5.6 million people are employed in other positions at airports, and 55.3 million jobs are supported indirectly, induced in tourism as well (ATAG, 2019).

Figure 1. The contribution of the global aviation industry



Source: ABBB, 2018

Measured by per capita income, aviation is a very productive industry (averaging \$ 69,000 per worker per year), surpassing most other sectors. It is understood that highly qualified, trained and experienced staff is employed in air transport (ATAG, 2019).

Indirect impacts of the aviation industry include employment and economic activities generated by its suppliers: aircraft fuel suppliers, construction companies that build and maintain airport facilities, subcomponent suppliers, manufacturers of goods sold in retail facilities at airports, and a wide range of business services activities. such as call centers, information technology and accounting. Nearly 11 million indirect jobs are supported globally through the purchase of goods and the provision of services by companies in the aviation industry. These indirect trades accounted for approximately \$ 638 billion in global economic activity in 2016 (ATAG, 2019).

Consumption by employees directly or indirectly in the aviation sector supports additional jobs in other sectors, such as retail, consumer goods manufacturing, and across service industries (e.g., restaurants, banks, and telecommunications providers). Nearly eight million induced jobs are supported globally, and the contribution to global economic activity is estimated at \$ 454 billion (ATAG, 2019).

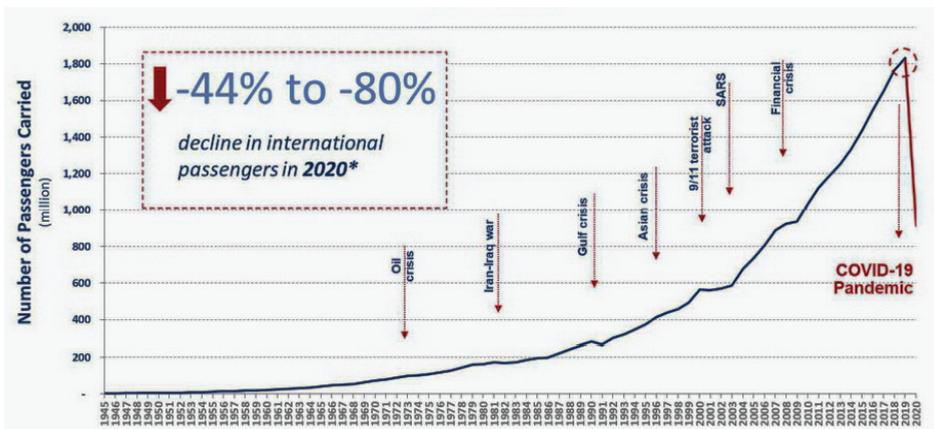
In order to fully participate in the world economy, countries need connectivity because it influences higher productivity, investment and innovation. The connectivity provided by air transport is at the heart of tourism development, as it provides significant economic benefits to all involved in the tourism value chain. Over half of the 1.4 billion tourists a year (57%) arrived at their destinations using a plane (WTO, 2019). In 2018, tourism supported 319 million direct, indirect and induced jobs worldwide and participated in global GDP with 8.8 trillion dollars (which is 10.4%). Over the next decade, tourism-related GDP is expected to grow at a rate of 3.7% per year (WTTC, 2019). Through a synergistic relationship, air transport supports nearly 37 million jobs, in tourism, contributing with approximately \$ 897 billion in global GDP (ATAG, 2019).

Coronavirus pandemic and suspension of passenger air traffic

The coronavirus pandemic has caused the isolation of cities and areas, from China to North and South America. The period of isolation lasted differently, from country to country. In addition to isolating people, all activities at airports (buying and checking tickets, receiving and issuing luggage), on runways (aircraft maintenance, maintenance and repair of navigation and signaling systems and devices), in hangars, flight controls, as well as and numerous commercial spaces (consumer goods and press stores, pharmacies, restaurants, banks, parking lots).

With the declaration of the pandemic, all those advantages ceased to be relevant, and the problems related to air traffic and airline operations came to the fore. Having in mind similar problems from the past, which had an impact on the business of airlines in the world, it can be concluded that the pandemic caused an unprecedented earthquake, which is similar in effect to the Great Depression of 1929-1933. years (Figure 2). In just two months in 2020, with the suspension of flights and restriction of movement, and the introduction of isolation measures, the transport of passengers and cargo has been reduced to a minimum, practically non-existent.

Figure 2. Evolution of international passenger air traffic (1945-2020)

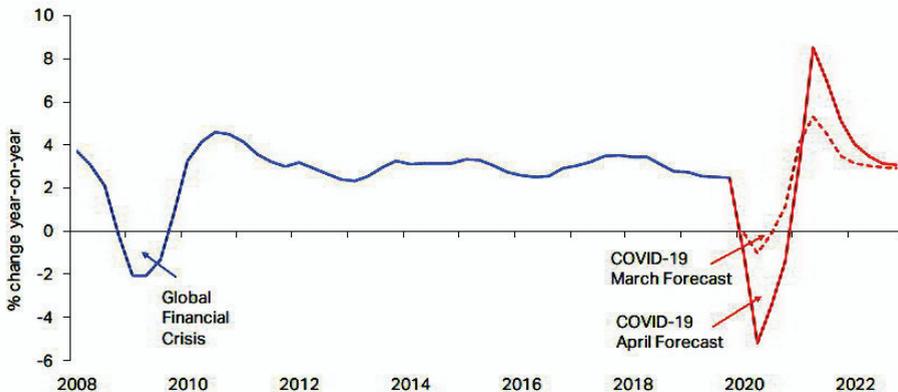


Source: Aviation Benefits Report, 2019.

During the pandemic, thousands of evacuation flights were performed and hundreds of thousands of people were transported. In the United States alone, 70,000 citizens were returned on more than 700 flights from 126 destinations. The Lufthansa group evacuated almost 90,000 people in 437 flights from 159 destinations. Air France evacuated 240,000 people. The airlines, in addition, performed thousands of cargo flights to which they delivered medical and other equipment. Evacuation flights were also performed by companies based in the region: Air Serbia, Croatia Airlines, FlyBosnia, Wizz Air, and Trade Air and Amelia. At the same time, it is clear that the countries that own their companies, Serbia, Croatia and Montenegro, had a huge advantage. They mobilized the planes of their companies and used them to the maximum, literally immediately, and to the extent necessary for evacuation and cargo flights.

Since air transport accounts for about 3.6% of global GDP, any disruption in its functioning has far-reaching global consequences. This is due to the fact that restricting the transport of people and goods inevitably leads to a drop in income, disruption of supply chains, as well as problems in the economies as a whole. In this regard, the usual practice of airlines and other actors is the dismissal of employees (temporarily or permanently), the inability to meet obligations to creditors, payment for aircraft stationing at airports, the inability to meet the needs of pilots and other staff, etc. (Berti, 2020, Busvine et al., 2020). Of course, the share of air transport in global GDP is also decreasing. As can be seen in Figure 3, global GDP growth is subject to great turbulence in times of crisis or, as in this case, pandemics of unprecedented proportions. If during the economic crisis of 2008-2009, year the decline in global GDP was about 2%, it is now obvious that in just two months the decline in global GDP is much larger, and according to estimates for March and April 2020 (and did not fly during May), is about 6%, so three times higher (IATA, 2020, Global Data, 2020).

Figure 3. Global GDP growth



Source: IATA, 2020

As the restrictive measures related to the pandemic are gradually lifted, the airlines are rapidly preparing for the application of security procedures and the introduction of the traffic regime according to the new situation. Consolidation of passenger transport is not a process that will take place in already well-established ways. An example is the situation after the attack on the World Trade Center in 2001. The security measures introduced then, which

remained in force for many years, were much more important than the number of transported passengers, several months of falling revenues, layoffs of a large number of employees and consequent strikes of employees in airlines and beyond. Thus, the resumption of air traffic is directly related to the decline in the intensity of the pandemic, health checks, as well as the current interest of passengers. It is undeniable that the interest of passengers, at least during the holidays and the third quarter of the current year, will be higher than in January and February.

State assistance to airlines

Civil aviation is a strategic industry that drives all other branches and segments of life, primarily tourism, trade, business cooperation, labor migration, scientific and educational exchange, sports, diplomacy, politics and the diaspora. That is why the basic preoccupation of many countries is saving airlines, both the largest and the smaller ones. Pandemics could be even worse in the future, so states will continue to strive to maintain control over national airlines as a strategically important resource in crisis situations (Garcia, 2020a, Garcia, 2020b).

A number of airlines around the world received various forms of financial assistance during the pandemic – from direct subsidies, low-interest loans with a grace period of one year or more, and a repayment period of 10 years or more, to government loan guarantees, tax and interest write-offs, reimbursement of salary costs, recapitalization, etc. Thus, for example, Singapore Airlines received state aid of 13 billion dollars, and the government refunds 75% of salaries to employees (Ash, 2020, Daga, Freed, 2020). American airlines received \$ 29 billion in aid and loans in March and April this year – American Airlines (5.8 billion), Delta Airlines \$ 5.4 billion, and United Airlines \$ 5.0 billion. The world's largest low-cost airline, Southwest Airlines, received \$ 3.2 billion, while Alaska Airlines received just under \$ 1 billion (Slotnick, 2020).

Air France-KLM has secured a loan of 7 billion EUR from France, and a similar move by the Netherlands is expected, but in the amount of 2 to 4 billion EUR (Frost, Deutsch, 2020). The Lufthansa group stated that it needs at least 10 billion EUR in aid from Germany, Switzerland, Austria and Belgium, because it is losing one million euros per hour due to the flight ban. Lufthansa asked the Belgian government for a loan of 290 million EUR, in order to avoid the bankruptcy of the grounded Brussels Airlines (Schuetze, Lauer, Uhlig, 2020). The company has taken a number of measures such as reducing salaries, “shutting down” low-cost Germanwings, decommissioning dozens of the oldest aircraft, and terminating long-term leasing contracts with all partners.

Italy has “pumped” a new 500 million EUR into Alitalia, so since 2017, the total assistance to the national airline amounts to 2 billion EUR in loans, which will turn into an “investment” in the renationalization process (Piovaccari, Landini, 2020). On the other hand, the United Kingdom has stated that it will not grant grants to any company that does not find the means to overcome the consequences of the pandemic - e.g. non-payment of dividends for 2019, investments of owners and new investors, loans, savings, sale of property, etc. (Pickard, 2020).

While American and Asian companies are again in a huge advantage due to the prompt “pumping” of state money, European companies have the problem of “legality of subsidies”

in the conditions of a liberal economy. There are two problems here. American and Asian companies are in a much better situation than European ones. Their position on the market will be even better, because so far they have been in the first places in terms of the number of passengers and planes in the world, so they will be even further away from Europe. Another problem is that this approach will destroy small European companies, which will not be able to return the money in the coming years, so they will go bankrupt, and their market will be taken over by large ones.

As for the airport, they are certainly in a much better position. The Council of International Airports (ACI) stated that airports will lose \$ 76 billion due to the coronavirus (Caswell, 2020), which is four times less than the \$ 314 billion estimated by IATA (Harper, 2020). Airports are very profitable because they generate huge money, much bigger than airlines. Finally, they have lower costs of cold propulsion, cargo transport, deliveries of medical equipment, evacuation flights went through them during the crisis, they charge for the stationing of grounded planes. Airports are incomparably more adaptable than airlines, which are which are burdened by leasing, huge orders for expensive aircraft, global systems, contracts (joint ventures, alliances). Finally, airports have extended investments in new terminals, equipment and logistics, and redirected planned funds to cover costs due to the corona crisis. Therefore, the airports will survive without the help of the state, and with the prolongation of growth and development (and investments) of several years, without many consequences, they will continue to work as before the crisis.

Conclusion

One of the messages that can be drawn from the current pandemic is that from an economic and social point of view it is much more rational to invest in research and development of vaccines and drugs than to wait for an epidemic to be suppressed by non-pharmaceutical means, such as isolation of citizens. and cessation of economic activities. The specificity of the current pandemic in relation to other major epidemics in the past is that most of the decline in economic activity is due to administrative constraints. Of course, if the states had not applied strict administrative measures, the percentage of sick and dead people would have been many times higher. In general, the willingness to sacrifice income and jobs to protect health and lives is a sign of civilizational progress. However, such a strategy has a great price, because its consequence is a drop in income, an increase in unemployment and poverty, and probably an increase in morbidity and mortality from other diseases. Moreover, such a strategy is sustainable only for a period of several months, because its extension would lead to economic collapse and mass poverty.

An important question is what the national and world economy and society will look like after the pandemic and the economic crisis caused by it. Based on the experiences from previous natural disasters, it can be estimated that after the end of the pandemic, there will be no major and sudden changes in the economy and society or in international relations. However, such events in history have often represented a kind of turning point, after which countries or the whole world have moved in different ways than those they have followed so far. In practice, the term associated with the pandemic has already been coined, “new normality”, which should mean changes at many levels, in society, the economy, among people and countries.

Return after the pandemic will be a gradual process, not one determined by the government announcing the date and declaring it “open for business.” The stages of this process will vary depending on the sector. There are four areas that companies will focus on the most: resuming business activities, recovering (or stabilizing) revenue, reviewing the organization, and accelerating the adoption of digital solutions. In any case, the speed of the process will be important, but it will still be step by step.

The importance of air transport in the global economy is immeasurable, because in addition to employing a large number of people, it enables the smooth flow of people, goods, capital and information, contributes to the development of ties between countries, progress of tourism and related industries (food, services, etc.). In addition to the suspension of flights, landing of planes and evident losses, the dismissal of a large number of workers in airlines and all activities related to air traffic is a basic problem caused by the pandemic. Consolidation of airlines at all levels will not happen all at once, nor will laid-off workers be returned to work in the same number in which they were laid off. The application of hygienic and restrictive measures in terms of “social distance” will have, at least initially, a reflection on the profitability of each summer. Also, airlines will look to reduce costs and generate revenue that will ensure recovery and introduction to the “new normality”. This refers, first of all, to a smaller number of flights and destinations, as well as a smaller number of passengers on planes. Like other industries, air transport faces problems that can become chronic (depending on the occurrence of future epidemics), so airlines must be restructured financially, organizationally and market-wise. And it is, by all accounts, a long-term process that will not be completed by the end of the current year or tourist season.

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