# Impact of global pandemic COVID-19 on Air Transport in Slovakia in the Period from March to June 2020

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Abstract— The COVID-19 pandemic outbreak has affected all sectors worldwide including aviation industry and it will take years to return to pre-crisis levels. Thousands of jobs have been lost due to the shutdown. The traffic reduction has far exceeded the level observed in events such as terror attacks of 11. September 2001 and SARS. In the course of June after months of grounded planes and thousands of cancelled flights, several European airlines are restarting their routes. However, the recovery is proceeding at a slower pace. According to ACI Europe a full recovery in passenger traffic to 2019 is now expected for 2024.

## I. INTRODUCTION

The travel industry has been one of the hardest hit industries in the early days of the COVID-19 pandemic. By the end of February 2020 a surge of positive cases of COVID-19 occurred in several States. The International passenger capacity has been reduced by 8%, mainly related to traffic from and to States experiencing an early outbreak. On March 11, 2020 the World Health Organization declared COVID-19 a worldwide pandemic, which means the disease went global. This led to 33% reduction in worldwide scale of International passenger capacity.

Governments around the world have announced strict travel restrictions to try to slow down the spread of the Corona virus that has a huge impact on air sector. Due to the restrictions airlines were forced to cancel most flights, ground the entire fleet of aircraft and temporarily reduce staff. Most of global airlines will face bankrupt without government bailouts. The International Air Transport Association published analysis of the economic impact on aviation industry. The passenger revenue loss is expected between \$88 billion - \$116 billion [1].

# II. DEVELOPMENT OF COVID-19 IN SLOVAKIA

The quick reaction of the Slovak government led to low infection numbers and in coping with the COVID-19 Slovakia has earned the reputation as one of the best countries. However, after releasing some of the measures the latest analysis has shown that 51,1 % of the registered coronavirus infections were imported from abroad. Regional Public Health Authority epidemiologists Mária Avdičová and Jana Námešná lists the Czech Republic as the country from where people imported the highest number of positive COVID-19 cases [2]. Following Ukraine and Great Britain. On July 20. according to the

data from the National Health Information Centre the total number of positive cases increased to 2 021. Altogether 28 people have died, while 1 538 have recovered from the COVID-19 disease. As we can see below, the biggest increase of confirmed positive cases were during March and April [3].

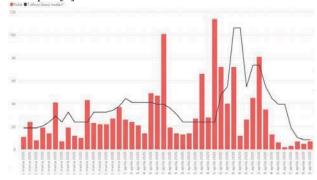


Figure 1. Development of confirmed cases - March-April 2020

Since mid - April the cases has been decreasing and even hit zero in late May.

In these days, Slovakia is preparing for a possible second wave of the pandemic and the Central Crisis Staff discussed the country's pandemic plan. Slovak government is not planning to close the borders for now.

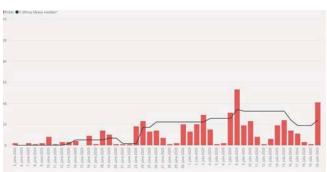


Figure 2. Development of confirmed cases – Jun-July 2020

#### III. SITUATION AT SLOVAK AIRPORTS SINCE MARCH 12, 2020

The Government of the Slovak Republic have declared an emergency situation for the risk of spreading COVID-19 since 12 March 2020. The Ministry of Foreign and European Affairs of the Slovak Republic recommended citizens of the Slovak Republic not to travel to any country in the world and the crisis staff has also adopted measures to stop COVID-19 from spreading. All airports, schools, bars, shopping centers were closed and everybody who returned from abroad had to remain in quarantine for 14 days. Only humanitarian and cargo flights were allowed. At M.R. Štefánik Airport on 27.3. a Boeing 767- 300 aircraft landed with 279 Slovak citizens from Washington, USA. It was the third repatriation arrival to Bratislava after two arrivals from London and repatriation flight to Oslo and Stockholm was on schedule. In the period from March 13 – March 26, 2020 the airport handled 243 flights in total. These include private flights, rescue flights, cargo, repatriation flights, state flights or technical flights. The number of passengers decreased by 72 %, however, the number of air cargo increased by up to 44 % to 2,580 tons

In comparation with March, 2019 when the number of passengers was the second highest in history - 140 405 passengers, this March 39 353 passengers went through the Bratislava airport gates.

During the corona crisis Bratislava airport found a new source of finance and has begun to offer parking and maintenance to grounded planes.

According to the CEO and Chairman of the Board of Directors of M.R. Štefánik Airport Jozef Pojedinec during the first half of the year, the airport handled exactly 292,839 passengers, last year it was 944,752 passengers which presents a 69 % decrease. In Jun 2020 only 2176 passengers were handled which is a huge decrease in comparation with Jun 2019 – 236 051 handled passengers

The situation at Košice Internatioal Airport wasn't better at all. Since March 12- March 27 cancelled flights concern flights with Czech Airlines to Prague (16 arrivals and 16 departures), with Austrian Airlines to Vienna (22 arrivals and 22 departures), with LOT Polish Airlines to Warsaw (18 arrivals and 18 departures), with Eurowings to Duesseldorf (8 arrivals and 8 departures) and with Wizzair to London-Luton (11 arrivals and 11 departures). The airport didn't handle any cargo or repatration flight during the flight ban. In total the airport has lost approximately 1015 flights (75 flights per week) and about 100 000 passengers. COVID-19 crisis strongly impacts traffic and earnings development. It hits airport operations with full force in April 2020: 100 % decline in the number of passengers. According to Flughafen Wien Group statistics in Q1/2020 the Kosice International Airport handled 49,887 passengers, down 40,6 % from previous year [6].

## Kosice Airport (KSC, consolidated at equity)

|                             | 04/2020 | Diff. % | 01-04/2020 | Diff. % |
|-----------------------------|---------|---------|------------|---------|
| Passengers arr+dep+transit  | 0       | -100.0  | 49,887     | -57.3   |
| Local passengers arr+dep    | 0       | -100.0  | 49,887     | -57.2   |
| Transfer passengers arr+dep | 0       | n.a.    | 0          | n.a.    |
| Flight movements arr+dep    | 0       | -100.0  | 773        | -49.1   |
| Cargo arr+dep (in tonnes)   | 0       | -100.0  | 4          | -72.9   |
| MTOW (in tonnes)            | 0       | -100.0  | 14,972     | -54.6   |

Figure 3. Traffic results - April 2020 (Q1- 2020)

#### Kosice Airport (KSC, consolidated at equity)

|                             | 04/2019 | Δ%    | 01-04/2019 | Δ%    |
|-----------------------------|---------|-------|------------|-------|
| Passengers arr+dep+transit  | 32,974  | -6.3  | 116,916    | -7.8  |
| Local passengers arr+dep    | 32,974  | -3.7  | 116,659    | -4.0  |
| Transfer passengers arr+dep | 0       | n.a.  | 0          | n.a.  |
| Flight movements arr+dep    | 408     | -14.1 | 1,520      | -13.6 |
| Cargo arr+dep (in tonnes)   | 1       | -81.6 | 14         | -31.5 |
| MTOW (in tonnes)            | 9,182   | -10.8 | 33,011     | -13.6 |

Figure 4. Traffic results - April 2019 (Q1 - 2019)

## GRADUAL EASING OF LOCKDOWN MEASURES

In April 20 The Prime Minister Igor Matovič and the team of epidemiologists have presented a four phase plan of lifting the measures adopted to stop the coronavirus from spreading. During these phases shopping centers, night clubs, children's corners, churches, schools reopened. The return of children to kindergartens and schools remained voluntary.

From June 10 Slovakia has open borders for the citizens of 16 countries including Slovenia, Germany, Liechtenstein, Switzerland, Greece, Cyprus, Malta, Latvia, Lithuania, Estonia, Croatia, Bulgaria, Finland, Denmark, Norway and Iceland. The list of countries may be updated every two weeks. Starting on June 10. at 7:00 several measures has The quarantine measures from obliged quarantine changed to voluntary basis as well as wearing masks outside. As of June 15, several other requirements were cancelled.

Due to recommendation of the Public Health Office of the Slovak Republic, the Slovak government has updated the list of countries considered as safe [7].



Figure 5. Map of low - risk countries

Persons entering Slovakia through an international border from a country that is considered a low-risk one from the point of view of the epidemiological situation don't have to stay isolated at home. However, persons returning from the country that is not considered low-risk from the point of view of the development of the epidemiological situation, must stay isolated at home until a negative RT-PCR test for COVID-19 is obtained. During the period of domestic isolation according to the previous sentence, this is also ordered for persons living with her in the same household.

After a three month closure the M.R. Štefanik airport in Bratislava and the Košice International Airport started dispatching the first regular flights as of mid- June. Due to measures from the Ministry of Transport and Construction of the Slovak Republic and the recommendations of the EASA and European Centre for Disease Prevention and Control (ECDC) the airports has to follow strict safety and hygiene rules. The main goal is to create a safe environment for both departing and arriving passengers, as well as for employees of the airports. Passengers have to disinfect their hands before entering the building and wear a mask the whole time at the airport and onboard the plane. They also have to maintain a 2- meter distance at check in and the security control. Entering the security check and after arrival the body temperature will be measured and the airport staff with direct contact with the passengers will be equipped with personal protective equipment.

## FIRST FLIGHTS AFTER LOCKDOWN AT SLOVAK AIRPORTS

The first flight from Bratislava airport was operated by Wizz Air on June 15 to Sofia. Departures are on regular basis three times a week and flights to Greece will be operated on a once a week basis. Smartwings has regular seasonal flights scheduled from the second half of June. In July Ryanair will resume flights to Thessaloniki and Corfu as well and to Athens in the second half of 2020. Regular flights to Cyprus were scheduled from July 4 and flights to Malta are planned from the end of October. According to the official announcement, Cyprus Airways will not operate flights from Bratislava to Larnaca and Greek islands of Rhodos and Corfu. Other charter flights will be restored during summer [8].

The first post – lockdown flight in Košice was operated by Czech Airlines to Prague on June 15. The plane carried 31 passengers from Prague to Košice and 17 passengers back to Prague. Flights to Prague will take off three times a week and 8 times from July 31. The first flight to Vienna by Austrian Airlines was scheduled on June 22 and the initial frequency is set for 4 flights weekly. The original schedule with 13 flights weekly is expected in autumn 2020. Restart of the flights operated by LOT Polish Airlines is subject to a decision of airlines and also of the Slovak government. Eurowings is planning to renew flights from August 2, 2020. Hungarian low cost airline Wizz air operated flight to London – Luton on July 20. with 54 passengers on board and the same day Ryanair has a scheduled departure to London – Stansted with about 100 passengers. Originally, Ryanair was planning to fly to Stansted from Košice as of 2nd of April. However, the pandemic has moved this plan by more than 3 months. Michael Tmej, the CEO and chairman of the management board of Košice Airport said: "As of today, our flight schedule is a bit closer to look more like the one we had before the pandemic. We're glad that the Slovak community in UK will now have easier access home thanks to the services of our partners Wizz Air and Ryanair. Statistics confirm that the VFR segment (visiting friends and relatives) is recovering as the first one. Therefore we are pleased to be able to handle passengers flying to/from Great Britain again after the 4-months break and by this to be the part of the recovery of aviation industry" [9]. In relation to summer charter season 2020 it is expected that it will be possible to fly from Košice to holiday destinations in Bulgaria, Greece and Cyprus with flights operated by Smartwings and Bulgaria Air. Flights to destinations in other countries are subject to approval of

# VI. TRAFFIC RESULTS AT KOSICE INTERNATIONAL AIRPORT - JUN 2020

Renewing regularly scheduled flights by airlines led to a slight improvement of passenger volumes in June 2020. The total number of passengers handled in Košice fell by 99 % to 623 passengers and it's a significant decrease in comparation with the previous year. According to Flughafen Wien Group statistics we can see the details on the traffic results for June 2019 and June 2020 in the tables below [10, 11].

# Kosice Airport (KSC, consolidated at equity)

Slovak government.

|                             | 06/2019 | Δ%    | 01-06/2019 | Δ%    |
|-----------------------------|---------|-------|------------|-------|
| Passengers arr+dep+transit  | 61,931  | +17.7 | 218,052    | +2.5  |
| Local passengers arr+dep    | 61,931  | +20.4 | 217,795    | +6.0  |
| Transfer passengers arr+dep | 0       | n.a.  | 0          | n.a.  |
| Flight movements arr+dep    | 646     | +7.5  | 2,649      | -6.6  |
| Cargo arr+dep (in tonnes)   | 6       | +19.5 | 27         | -13.7 |
| MTOW (in tonnes)            | 18,334  | +18.0 | 62,868     | -1.2  |

Figure 6. Traffic results - JUNE 2019

# Kosice Airport (KSC, consolidated at equity)

|                             | 06/2020 | Diff.% | 01-06/2020 | Diff.% |
|-----------------------------|---------|--------|------------|--------|
| Passengers arr+dep+transit  | 623     | -99.0  | 50,510     | -76.8  |
| Local passengers arr+dep    | 623     | -99.0  | 50,510     | -76.8  |
| Transfer passengers arr+dep | 0       | n.a.   | 0          | n.a.   |
| Flight movements arr+dep    | 24      | -9.3   | 797        | -69.9  |
| Cargo arr+dep (in tonnes)   | 0       | -10.0  | 4          | -85.3  |
| MTOW (in tonnes)            | 307     | -98.3  | 15,279     | -75.7  |

Figure 7. Traffic results - JUNE 2020

# VII. MEASURES TO SUPPORT AVIATION IN EU

European airports are predicting a loss of 67 million passengers in the first quarter of 2020. As part of a worldwide campaign, IATA is appealing to governments in Europe to consider an urgent government intervention

for survival due to collapse in air travel. IATA also estimates that the global emergency aid will require up to \$200 billion. IATA proposal for governments include:

- Direct financial support to passenger and cargo carriers to compensate for reduced revenues and liquidity attributable to travel restrictions imposed as a result of COVID-19;
- Loans, loan guarantees and support for the corporate bond market by the Government or Central Banks. The corporate bond market is a vital source of finance, but the eligibility of corporate bonds for central bank support needs to be extended and guaranteed by governments to provide access for a wider range of companies.
- Tax relief: Rebates on payroll taxes paid to date in 2020 and/or an extension of payment terms for the rest of 2020, along with a temporary waiver of ticket taxes and other Government-imposed levies [12].

Some of the governments have already agreed to measures enabling airlines to stabilize their short term liquidity. In order to protect the air industry from the effects of COVID-19 Airports Council International published a European Aviation Relief Programme [13] calling for specific supportive airport measures which should be adopted by the European Commission and EU/EEA States and Switzerland. It includes for example, use it or lose it "rule which led the airlines flying an empty, ghost flights "to ensure not lose their airport slots was temporarily suspended by the European Commission. Similar steps were taken after 2002 terrorist attacks, the Iraq War and SARS outbreak in 2003, and the financial crisis in 2009.

## VIII. CONCLUSION

Air transport industry is an economic engine of local and regional economic growth. The coronavirus pandemic massively impacted the economic landscape and tourism worldwide and it will affect the Slovak economy and its development in the coming years as well. At the present it's not possible to predict how the whole situation will develop. Covid-19 has caused unprecedented disruption to the aviation industry and it will take some time until the sector of aviation will get back on track and reaches the level as it did before the crisis. Aviation creates jobs, generates economic growth and this pandemic has clearly shown us that the air transport is absolutely essential.

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