

THE IMPACT OF THE COVID-19 PANDEMIC AND THE EUROPEAN GREEN DEAL ON THE AIR TRAFFIC INDUSTRY COMPETITIVITY AND ON MOLDAVIAN CERTIFIED AIR CARRIERS

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Abstract: *The unprecedented contraction of the airflight transport sector caused by the COVID-19 pandemic, European Commission’s regulations aiming for carbon neutrality by 2050, as well as the industry’s slow recovery rate and high demand for capital for the implementation of costly carbon neutral air traffic solutions, are the main challenges that will shape the way the competitive forces will affect global, regional, and Moldovan air transport industry. The competitiveness of airflight companies pivots on the competitiveness of the entire air traffic mobility chain. To succeed Moldovan air carriers must rely on suppliers, partners and stakeholders who can solve the paradox of a lower carbon footprint while decreasing the overall cost of mobility, and all this in a very uncertain business environment. Integrated intermodal mobility solutions around Chisinau airport and ensuring a carbon efficient value chain are essential in resisting the regional competitive pressure and loss of traffic.*

Key words: *competitiveness, air transport, COVID-19, strategy*

JEL CLASSIFICATION: M3

1. INTRODUCTION

On December 11, 2019, the president of the European Commission, [Ursula von der Leyen](#), presented the “European Green Deal”. This strategic planning document becomes the European main policy for the next 30 years. Acknowledging that 25% of all Europe’s greenhouse emissions are generated by the transport sector, the “European Green Deal” sets the ambitious target of reducing by 90% the transport emissions by 2050 ([The European Green Deal n.d.](#)). The document stresses the importance of boosting the multimodal transportation as a means of increasing the efficiency of the transport system. According to the European Union Aviation Safety Agency’s (EASA) European Aviation Environmental Report for 2019, the number of flights is expected to grow by 40% from 2017 by 2040. The technological improvements and fleet renewal were able to balance only partially the impact of the growth, without being able to alleviate EU28 greenhouse gas emissions. Therefore, by 2040 the CO₂ and NO_x emissions are expected to increase by at least 21% and 16% respectively ([European Aviation Environmental Report 2019 n.d.](#)). The European Commission envisages to review the airplane fuel exemptions and raise its standards concerning air pollution, noise and CO₂ emissions by aeroplanes and airport operations ([The European Green Deal n.d.](#)). Airflight carriers will have to improve their fleet technology designs, their air traffic management operations prioritizing sustainable aviation fuels, while airports will be required to participate in the Airport Carbon Accreditation programs and join the 37 European airports that reached their carbon neutrality status ([European Aviation Environmental Report 2019](#)). The slowly aging European fleet raise concerns over the industry’s ability to meet the carbon neutrality by 2050, leaving the industry highly dependant on the zero-emission large aircraft that must be market ready by 2035, according to the European Commission’s Sustainable and Smart Mobility Strategy ([Sustainable and Smart Mobility Strategy](#)). The same planning document provides that

airports should become multimodal mobility hubs, linking all relevant transport modes. Therefore, we should expect the concentration of the industry around airports that meet the multimodal mobility criteria.

2. THE IMPACT OF THE COVID-19 ON THE AIRLINE INDUSTRY

While lowering the carbon footprint on the short run, the Covid-19 pandemic raised increased concerns over the future of the global air traffic industry. On December the 9th, 2020, since the beginning of the year, the flight numbers were down 55% compared to the same period of 2019 ([Eurocontrol Comprehensive Assessment for Thursday](#), 10 December 2020). The shrinking in half of the air traffic is a global phenomenon. The air traffic between Europe and south Africa saw the smallest decrease in 2020, of only 40%, compared to 2019.

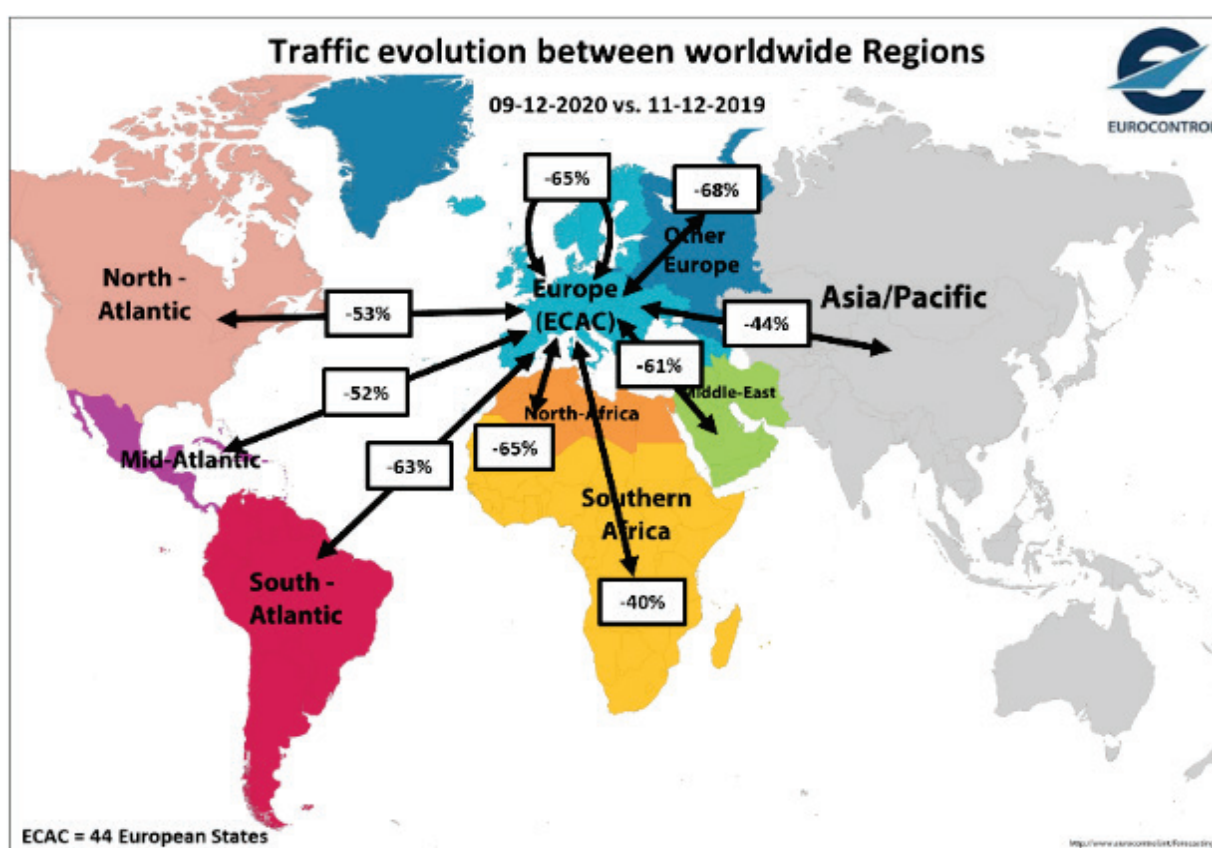


Figure 1. Traffic evolution between world regions 09.12.2020 vs 11.12.2019
Source: Eurocontrol Comprehensive Assessment for Thursday, 10 December 2020

The most impacted air traffic at the beginning of December 2020 remains Eastern Europe with a negative dynamic of 68%. On the 9th of December 2020 Moldova's air traffic was minus 68% compared to 2019. Despite the Eurocontrol scenarios the actual trend of the European air traffic is 10% below the projected -54%. Eurocontrol's 5 years forecast shows that with a vaccine effective in 2021, the 2019 number of flights will be attained only towards 2024 (COVID-19 impact on the European air traffic network n.d.).

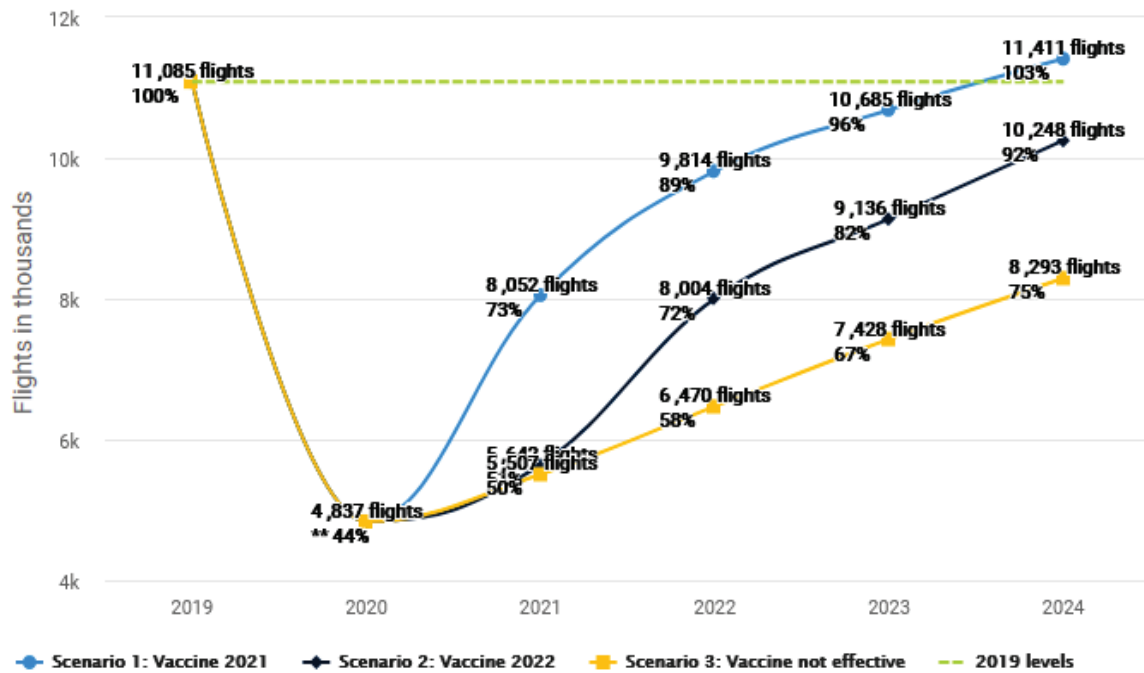


Figure 2. Eurocontrol's forecast of the ECAC member states traffic for 2020-2024, percentage change compared to the 2019 level

Source: COVID-19 impact on the European air traffic network

With continuously deteriorating revenues in the air transport business Europe is forecasted to become the worst-hit global region in 2021, with losses of 11.9 billion and EBIT margin of -9.5% (European Air Transport COVID-19 Impacts and Recovery to be Worse than other Regions n.d.). With a revenue passenger km (RPK) that is estimated to have fallen 70% in 2020 compared to 2019, the air traffic providers are expected to face serious financial problems (European Air Transport COVID-19 Impacts and Recovery to be Worse than other Regions n.d.). The negative operating margin creates an unprecedented pressure on the industry with a potential eliminatory effect for many important players on the market; therefore, leading to the concentration of the air traffic services around a few big players. It is expected that hardest hit will be companies that have lower economic leverage. We hear more often now leaders calling for a sustainable recovery of the transportation sector. Therefore, the Covid-19 pandemic is regarded as an opportunity for realizing the shift towards a greener, safer and a more integrated mobility; however, the financially drained out air transport industry lacks the necessary resources for leapfrogging to a fully electric fleet.

Not only air transportation companies, but also the air traffic infrastructure providers will face, in the upcoming years, an unforeseen regulatory, ecologic, and financial pressure. The importance of small local airports will decrease drastically. The "Green Deal" dictates the need to concentrate the air traffic in bigger and therefore more interconnected multimodal, and more efficient hubs. This approach is in line with Porter's Cluster Theory (Porter 1990) and Sheffi's logistics cluster theory (Sheffi, 2012). Therefore, encouraging the geographical concentration of companies and their suppliers serving the same industry will most likely lead to the synergetic effect perpetuated through the industry. Applying this strategy small airports might lose traffic in favour of railways or waterways companies that will interconnect with intermodal transportation hubs. This approach will lead to the decreasing role of smaller operating centres that due to their small commercial gravity and limited regional impact have less potential to become a hub and therefore reach their carbon neutrality as well as meet their financial targets.

The drastic decrease in the atomicity of the air traffic offer will most likely follow. Maintaining a negative operating margin for yet an undetermined time is a very challenging task. Therefore, we should expect tectonic sector shifts. Air traffic companies will need time to recover from the consequences of the COVID-19 pandemic. Taking in consideration that the air traffic volume is expected to recover only by 2024, air carriers must rethink their business model and deliver on affordable, safe, and high passenger mobility while aiming for carbon neutrality by 2050. With zero emission large aircrafts available for the market by 2035, the survived companies might have to struggle for capital to make the shift to new technology.

3. THE CHALLENGES OF LOCAL COMPANIES TO BECOME COMPETITIVE

New forces shaping the air transport market augment the pressure on Moldovan airflight companies questioning their feasibility medium and long term. Signing the single European Common Aviation Area agreement, (ECAA) the Republic of Moldova embarked on a mission to liberalise the air transport industry by allowing any ECAA member state to provide domestic flights. The liberalization of the market brought low-cost companies to Moldova building up competition and menacing the local incorporated carriers. In 2019 local and foreign air carriers transported almost 3 million passengers to and from Moldova and only 52.4% were transported by national air companies (Brief analysis regarding passengers' traffic for period in 2019 n.d.). Three out of ten Moldavian certified air companies perform regular passenger transportations from the Chisinau International Airport: the limited liability companies "Air Moldova", "Fly One", and „Aerotranscargó" (Brief analysis regarding passengers' traffic for period in 2019 n.d.). From 2014 until 2019 the passenger load factor was oscillating between 74 in 2016 and 80 in 2014. In 2019 the load factor for scheduled air traffic was 76% (Brief analysis regarding passengers' traffic for period in 2019 n.d.). Therefore, after creating demand for new destinations supporting the high cost of scheduled flights with a low load factor, the ECAA members states carriers where accused of mirroring the local companies offer while applying dumping price policies (Bezniuc, 2011). With new market shaping forces: the COVID-19 pandemic, carbon neutrality and concentration of the offer around mobility hubs; Moldovan air traffic companies become highly vulnerable. The only country's airport in Chisinau does not provide an integrated mobility solution; while the obsolete railway infrastructure is not able to contribute to lowering the carbon emission per passenger km from remote locations. The Chisinau airport remains one of the most expensive ones in the region raising the attractivity of other regional airports such as the Iasi airport in Romania; therefore, representing a threat for local airflight companies.

With most competitive forces acting against Moldavian air carriers the main feasible competitive strategy remains lowering the costs. The lower price of kerosine during the pandemic ([IATA Jet Fuel Price Monitor n.d.](#)) helped the airflight carriers maintain some of the scheduled flights despite the lower loading rate. However, with the price of Jet fuel in September 2021 of more then double compared to September 2020 and the passenger actual traffic of 71% compared to 2019 the entire industry is deemed to experience a very slow recovery. Therefore, high operational costs will drag back the airflight industry capacity to stay profitable and remain financially sound for attracting capital necessary for the acquisition of new, carbon efficient aircrafts. Consequently, at least from a medium-term perspective, the maintaining of low operational costs and a competitive price for the customers could remain the main competitive strategy for Moldovan airflight companies.

4. CONCLUSION

In a post pandemic environment, the threat of new entry remains low; however, the probability of concentration of the airflight offer around the world and regional industry leaders is very probable. Due to the limited potential in generating integrated mobility and minimizing the industry's environmental impact, Moldavian airflight carriers face a real threat of substitution by other regional air traffic mobility providers, mainly from Romania. With fewer customers and a contraction of the industry by more than 60% in 2020, the buyer power will increase significantly. With almost half of Moldova's regular flights operated by international carriers with a higher access to the capital and a comparative advantage at the industry level, domestic carriers might face serious challenges. These competitive forces will play a downward pressure on prices, while the Europe's Green deal will significantly increase the bill of the entire industry. Understanding the challenges of the new after-pandemic competitive environment, represents the first step in tailoring a response strategy that will help domestic air transportation industry survive on the short run, while specializing and niching on the medium to long term.

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