T2RL®

T2RL'S INDUSTRY OUTLOOK

JANUARY 2024

Living in Interesting Times

THE POST COVID WORLD HAS MANY CHALLENGES

Trusted. Impartial. Expert

TABLE OF CONTENTS

INTRODUCTION

During the Covid-19 Pandemic T2RL tracked its impact and the steps to recovery. As 2023 ends it appears that the impact of the pandemic on the airline industry is almost fully dissipated. Passenger numbers are back to where they were in 2019 – although not where they would have been had there been no pandemic. Other considerations have moved up the priority list for airline executives. We plan to continue with this yearly report with a broader scope, to take in the issues of political unrest, economic challenges and the drive towards sustainability that will be exercising the minds of airline executives during 2024 and beyond.

T2RL'S SUMMARY

Covid-19 is no longer the dominant issue facing the world's airlines but its impact continues to be felt. Traffic is almost back at pre-pandemic levels and airline profitability has returned.

> **However four years of growth has been lost and both airlines and their technology providers are still adapting to that setback.**

The climate emergency is growing more acute and airlines are impacted by both the severe weather events it brings and the measures that are being slowly implemented to offset it. Over the next decade this will become the most significant external factor impacting the development of the industry.

Geopolitical tensions will also play a part in shaping the industry of the future. The Russian invasion of Ukraine is almost two years old and has had a devastating effect on the airline industry in the directly involved countries. It has also had impacts on the wider industry that will probably continue for the foreseeable future. The current conflict in Israel and Palestine has had little direct impact on airline operations but there is no room for complacency.

T2RL will continue to track the industry recovery from the pandemic and further developments in traffic at www.t2rl.net/airline/covid19traffic.

COVID-19

On May 6 2023 the World Health Organisation declared that the Covid-19 pandemic was no longer an International Public Health Emergency. The world's airlines have more or less returned to 2019 levels of passenger volume and some at least have returned to profitability.

> **T2RL's projections for 2023[1] show a recovery to 95% of 2019 passenger numbers by the end of this year.**

China in particular has bounced back strongly from the depths of 2022 when a late resurgence of the virus met a firm "zero Covid" government policy to depress demand by 43% compared to the previous year. Following the lifting of that policy at the start of last year passenger numbers grew by almost 150% to reach 93% of 2019 levels.

In its half year assessment in June, IATA forecast an industry-wide net profit of $9.8Bn which equates to a net margin of 1.2%.[2] During the writing of this report the trade body revised its estimate upwards to $23.3 Bn with a net margin of 2.6%.[3] While this is welcome news after the enormous losses in 2020 and 2021 it only goes a small part of the way towards restoring airline balance sheets. Many airlines survived the crisis caused by Covid-19 by a combination of government support and borrowing at very low interest rates. Both those lifelines have now diminished and the post-Covid period may yet prove to be more financially hazardous than the depths of the downturn in 2020.

In January of 2023 the UK Government announced that the relaxation of slot use rules that was brought in to help airlines manage a period of unprecedented depression in demand would end ahead of the summer season. This was characterised in the official release as a return to business as usual. The furlough scheme that helped businesses retain staff during the pandemic ended in September 2021. Similar measures by governments around the world have also been sunset. At the same time the availability of very cheap money has also dried up. Central banks in major markets have raised interest rates to around 5% after an extended period in which they were close to zero. China is the biggest exception to this trend of higher rates, reflecting its later emergence from the most stringent of the Covid restrictions.

> **In short, the return to profit is not just welcome, it is essential. Airlines need an extended period of profitability before they can truly be said to have recovered from Covid-19.**

[1] Global Passenger Volumes Projections 2023, available to subscribers at https://www.t2rl.net/insight/display?ID=752

[2] IATA Global Outlook for Air Transport June 2023

[3] Global Outlook for Air Transport December 2023

MILITARY CONFLICT

The war in Ukraine continued throughout the whole of 2023 with little movement in the military front lines or the political stances of the protagonists. The much-anticipated counter offensive by Ukraine achieved some incremental gains but not the dramatic results that might have led to an early end to the fighting.

As the war looks likely to continue for many more months, or even years, the economic sanctions on Russia and its small number of allies will probably continue. Various press reports suggest that the sanctions are having a severe impact on Russian airlines with spare parts for western types being in very short supply. Some suggest that as much as 50% of the western fleet in Russia is currently inoperable. However it is important to stress than none of these reports come from official sources and they should be treated with a measure of caution.

> **What is not in doubt is that western PSS providers have had to withdraw services from Russian and Belarussian airlines.**

This has had a significant impact on their revenue which was analysed in T2RL's report "Impact of the Ukraine War on Travel Technology Vendors" published in December.[4]

Russian airspace remains closed to most western airlines which has led to problems for carriers flying to and from Asia Pacific. Most of these difficulties have been addressed by exploiting the improved range performance of modern aircraft but they continue to add operating costs.

Ukraine is far from the only site of armed conflict in the world. The International Red Cross continues to track more than 100 armed conflicts.[5] Ukraine dominates western news coverage because it is located in Europe and involves a major power. In Africa there are several active conflicts including civil wars in Ethiopia, Somalia and the Democratic Republic of Congo[6]. Conflict in Yemen is continuing and tension remains high in the Korean peninsula. In terms of news coverage all of these have been dwarfed by the upsurge in violence between Israel and Palestine which has dominated the airwaves and the internet since the Hamas attacks on October 7th and Israel's subsequent retribution.

Every military conflict sets problems for the airline industry. Some lead to closure of airports and airspace while others drastically reduce demand for flights into the affected areas. Set against the real human suffering caused by war these are definitely "first world problems" but they are problems nonetheless and airline management must deal with them.

[4] T2RL Impact of Ukraine War on Travel Technology Vendors
[5] https://www.icrc.org/en/document/humanitarian-crises-world-cant-ignore-2023
[6] https://www.bbc.co.uk/news/world-africa-63384278

THE DRIVE FOR SUSTAINABILITY

After decades of controversy there is now an established consensus that the climate crisis is real and that its effects will be severe, widespread and long-lasting. Airlines are both contributing to the crisis and victims of it.

The most immediate effect of the crisis is a rapid increase in the number of severe weather events across the world. This pattern was noted in 2022 and has continued to accelerate in 2023. The World Meteorological Organisation issued a release at the end of November[7] confirming that 2023 is the hottest year on record with average temperatures 1.4 degrees above pre-industrial levels. The full report is available for download from the WMO website. Extreme weather events driven by the rising temperatures posed severe operational challenges for airlines in most regions of the world. These included major floods, tropical cyclones, extreme heat and drought, and associated wildfires. At the time of writing the COP28 climate conference is taking place in Dubai. Apart from the irony of holding the event in one of the biggest fossil fuel producing countries on Earth[8], the participants are engaged in a tug of war between those trying desperately to limit global heating to 1.5 degrees and the thousands of oil company delegates[9] trying to limit the impact on their business.

For airline managers and technology suppliers the message now is similar to that of last year. Extreme weather is inherently disruptive.

Even at the cost of slightly reduced profitability airlines need to improve the robustness of their networks with more reserves and better ability to replan at short notice. This means keeping systems such as flight planning and crew allocation fit for purpose in a changing world. Modern developments in AI and machine learning will be critically important in this and in the business of reaccommodation of passengers following disruption events.

In the longer term there will be even more impact on the airline industry from its role as a contributor to climate change. COP28 probably will not introduce explicit restrictions on aviation. Regardless of that it is clear that such restrictions will come whether or not they are imposed externally.

[7] 2023 shatters climate records, with major impacts -WMO 30 November

[8] Although, to be fair, Dubai is not a major oil producer. Abu Dhabi next door, on the other hand, is.

[9] The Independent: More than 2,400 fossil fuel-linked delegates at Cop28

IATA airlines have committed to net-zero emissions by 2050 but this target is likely to prove simultaneously inadequate and far enough away that meaningful action will be avoided for a while longer.

Short-haul flying may be amenable to conversion to electric aircraft but on the scale of a couple of decades there is no real alternative to liquid combustible fuel for larger and longer-distance aircraft. This means that the drive for sustainable aviation fuel (SAF) is critical to the future of the industry.

On 28 November a Virgin Atlantic Boeing 787 flew from London to New York using 100% SAF made from waste products. This landmark achievement is undoubtedly important but the task to scale up the availability of SAF to meet the 2050 target is an enormous one. For reference, IATA says that SAF production doubled between 2022 and 2023 but that this still represented only 0.5% of global demand.[10]

The changes that are needed for the wider use of SAF – once it is available - will predominantly come on the operational side of the business. They will affect systems such as MRO – engine technology will necessarily change at least a little. Fleet planning, flight planning and ground operations will all be impacted. Commercial systems such as pricing and distribution will need to adapt to new requirements, especially if governments impose differential tax regimes on sustainable versus fossil fuel. Aviation fuel has traditionally avoided most of the tax burden placed on other petroleum products but there is no guarantee this will continue. As with many of the macro trends that will impact the industry the watchwords must be flexibility and adaptability.

[10] SAF Volumes Growing but Still Missing Opportunities - IATA 6 December 2023

ADDITIONAL CONSIDERATIONS

As well as the major issues explored above there are many other externalities that could impact the airline industry over the coming years.

Fuel Price

Even before the widespread uptake of SAF the cost of aviation fuel accounts for between 19% and 40% of an airline's total operating costs. US airlines are at the lower end of the scale and Asian carriers are at the higher end. The differences are due to factors such as the business model of the airline and the cost of labour in its markets. The price of fuel has been rather volatile in the last four years. The dramatic fall in demand due to Covid-19 pushed the price down to below $20 per barrel in 2020. The Russian invasion of Ukraine prompted a rapid increase in 2022 when the price spiked to over $180 per barrel in May. Since then it has gradually reduced to around $115 at the end of 2023. Notably the "crack spread" between the price of crude oil and the price of refined aviation fuel increased dramatically at the beginning of 2022 and it has remained at historically high levels ever since. At the time of writing a barrel of aviation fuel costs around $30 more than a barrel of crude.[11]

Fuel is by far the biggest variable cost involved in operating a flight. The balance between fuel cost and revenue is absolutely critical in determining flight profitability. Airlines that have not already done so need to invest in analytics tools to enable them to model the impact of volatile markets.

Demand for Travel

Demand for travel remains very strong. In the immediate aftermath of the pandemic the recovery was led by leisure and VFR travel. These sectors continue to lead although the immediate post pandemic spike in demand for VFR has now worked through. Corporate travel is returning but more slowly. As a result of the strong demand airlines have been able to maintain high fare levels through 2023. This is projected to change next year. According to American Express GBT, a major travel management company serving the corporate sector, business fares are expected to hold steady in 2024 while economy fares will reduce.[12]

Economic Impacts

The pulse of inflation that affected most developed markets in the wake of Covid-19 has largely passed its peak - at the cost of substantially higher interest rates. The impact on airlines will be felt in increased employee costs as contracts come due for renegotiation, as well as higher costs of capital.

Pandemics and Epidemics

The Covid-19 pandemic may be in its endgame but it will not be the last to impact the world. This time last year IATA and the WHO were in discussion about introduction of a "Travel Health Code".[13] Those discussions do not seem to have progressed very far and sadly it is likely that the next pandemic will be as much of a surprise as Covid-19 was.

Data Protection

Data protection and customer confidentiality remain hot issues for regulators, especially those in the European Union. As airlines make their plans for the transition to Offer/Order based systems it is essential that these issues are central to the specifications of the new systems.

[11] IATA Fuel Price Monitor

[12] Amex GBT Projects 2024 Global Airfares to Stabilize

[13] https://www.bangkokpost.com/business/2461732/iata-calls-for-adoption-of-travel-health-code

RECOMMENDATIONS FOR AIRLINE IT AND DISTRIBUTION

T2RL's recommendations have not changed significantly over the course of the last year although the rapid take-up of NDC distribution and the commitment to the move to Offer/Order based systems have affected some of the emphases.

The market continues to be volatile. IT solutions adopted by airlines must be designed to support their business across the range of scenarios that can be reasonably forecast and have the flexibility to adapt to challenges that cannot.

> **Flexibility and robustness are the watchwords both in the actual technology deployed and in the contractual terms governing their deployment.**

Features that are common to all deployed systems include scalability, connectivity, interoperability, use of large data sets and machine learning. In the era of cloud deployment systems should scale linearly. Contract terms that allow vendors to lock in airlines with onerous charges for connection to other systems should be resisted strongly.

> **No airline should be contracting for PSS and other commercial systems without a commitment from the vendor of how it will support the move to Offer/Order.**

The increased use of cloud-deployed technology means that capabilities developed by and for top-tier airlines are more widely available across the board. Having said that, cloud-based services must be managed as diligently as any other. Badly managed cloud deployments can easily become more costly than conventional data centres.

Interoperability is an important goal as the industry attempts to move to a modular architecture around Offer-Order-Settle-Deliver. In principle this may be achieved by multiple vendor systems operating in the cloud but it will not occur by magic. IT architecture is already a key skill and is likely to become even more so with accomplished practitioners in high demand in both airlines and technology companies.

> **2023 has been the year when NDC finally became a significant component in airline distribution.**

Historically it has been led by a few very large airlines, but we now see a wide range of airlines from all over the world embracing NDC, such as Emirates, Air Canada, Hawaiian, Copa, Finnair, SAS, Avianca and LATAM amongst others.

> **The pace is being forced to the extent that ignoring it in the hope that it will go away is no longer an option.**

The remaining resistance to NDC comes largely from the TMCs serving corporate travel which are enormously invested in the status quo. Some of the reluctance to change may be due to conservatism or the commercial relationships these TMCs have with GDSs, but much of it is based on the real practical challenges of adapting whole suites of technology. TMCs also need a range of other providers to be NDC-ready, especially corporate booking tools. In many cases the airlines deploying NDC have only the sketchiest understanding of its impact on travel sellers, particularly in the area of servicing. We see those that value distribution via this channel putting more emphasis on understanding and accommodating the needs of TMCs. If GDS NDC volumes start to pick up pace in 2024, as has been suggested by Luis Maroto, CEO of Amadeus, this may be the catalyst for broader adoption beyond the OTA channels which have been the biggest users of NDC so far.

T2RL Travel Technology Research Ltd is an independent sourcing and research company that specializes in airline technology and distribution. Based on data since the year 2000 it has tracked industry trends for airlines as well as their IT providers, distribution partners, and customers. All parties use its research to make informed business decisions to meet current and future needs. For further information, visit our website at **www.t2rl.com.**