2020 Aviation Industry Outlook:
The End of the Innocence?

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Introduction

As the aviation industry sits poised at the start of a new decade, a sense of change is in the air. Familiar challenges continue to demand attention – oil prices, legacy vs low cost business models, yield management, economic cycles, regional conflict and instability, over-capacity. But increasingly, new risk factors are impinging on our thinking – OEM dependability and product reliability, the rise of nationalism and protectionism, China’s expanding global influence, sustainability and the environment.

Whilst still comfortably profitable, 2019 was a bumpy year in many respects, raising existential challenges on a scale rarely encountered in the aviation industry, from the 737 Max grounding to flight shaming. Is the “Golden Age” of aviation about to lose its lustre? What’s in store for the coming 12 months … will this year’s Fearless Forecasts be as accurate as the last ones?
and more than 1,000 large turboprops, with the annual delivery financing requirement more than doubling, although falling shy of Boeing’s predicted $143bn in 2019, for obvious reasons.

Over the past decade, airlines have earned a cumulative net profit of $220 billion and, uniquely, the industry was profitable in every one of those ten years. Interestingly, although the spot price of crude oil, a key component of airline profitability, fluctuated by over 400% over the decade, the average price in 2019 was within 5% of its 2009 level.

Consequently, there is now 66% more capacity in the market – yet passenger load factor still hit a new all-time high in 2019. Over the decade, the OEMs have delivered 14,000 commercial jets and more than 1,000 large turboprops.
The operating environment in 2019 continued to feel pretty good for many industry participants, although IATA reported slower passenger traffic growth of 4.2% for the year, well below the rates experienced over the preceding 6 years. Furthermore, the cargo recovery failed to materialise as global economic activity and trade flows were impacted by trade wars, sanctions and other unhelpful foreign policies playing out around the world. However, although the rate of RPK growth slowed in all regions by between 25% and 50%, according to IATA, this was matched by similar or greater reductions in capacity growth, which was cut to 3.5% overall. The close correlation between supply and demand growth strongly implies that traffic has been constrained by the grounding of the MAX fleet and is not per se signalling a market downturn. Indeed, it is likely that long-term passenger demand will continue to match capacity growth, which the OEMs are still intent on driving above historic levels.

Worldwide passenger numbers are set to pass 4.7 billion this year and are increasing by 200 million
every year. However, almost all of the growth is coming at the low end of the market, with little overall increase in premium traffic. Consequently, the new traffic flows are highly price sensitive, with passengers attracted by, and dependent on, access to affordable seats provided by low cost carriers, which on a global basis now account for over a third of the market – and much more in some parts of the world. This helps to explain why 2019 saw a further reduction in average passenger yield.

Although the airline industry made a very respectable US$26 billion net profit last year, according to IATA, success remains unevenly distributed, with 65% of the total now generated in North America. Despite its reputation for dynamic growth and demand, the Asia-Pacific region accounted for less than 20% of global profitability, and three regions – Middle East, Africa and Latin America – continue to lose money. The unevenness of airline performance was punctuated by the failure of several more high-profile operators during 2019, including Thomas Cook, Wow Air and Jet Airways, with several others on life support.

In the short term, the MAX grounding has a silver lining, as not all of the capacity taken out of the market has been replaced. It has given customer airlines with stretched finances and perhaps over-ambitious backlogs an opportunity to reshape their capacity growth plans and reduce their cash outlay to preserve a larger war-chest as they head into more challenging times. However, there is a risk that a flood of excess capacity will be released as the backlog of 400-odd built but undelivered aircraft deliver to airlines that have put contingency capacity in place that they can’t immediately divest. The resulting excess capacity may trigger more fare wars until fleets can get back to the profiles originally intended. This process is likely to extend beyond 2020 and will come to pass as the market environment is deteriorating.
Boeing’s MAX issues have obviated the traditional year-end OEM contest to secure the most deliveries. Airbus easily won that race of course, with a total of 863, compared to 380 commercial aircraft delivered by Boeing. Despite their own production challenges on several models, but most prominently on the A321neo, Airbus surpassed 2018’s total by 8% and set another industry record.

Airbus also secured 768 net orders, a small increase over 2018. This included 476 A321neos, which accounted for well over 70% of all A320neo family orders, up from a 25% split in 2018. This will have sent another shiver down Boeing’s spine as more of the middle-market ground fell to the competition.

Whilst the traditional book-to-bill metric is meaningless for Boeing, Airbus achieved a creditable 0.89, despite over 360 order cancellations. Boeing’s own order book increased very modestly, with 246 gross orders offset by 192 contractual cancellations. The level of cancellations in both camps hit an all-time high last year, by some margin, partly as a result of airline failures, but also as airlines trimmed some of their over-exuberant backlogs.

Embraer maintained their E-Jet delivery rate close to 90 last year, as they continued the transition from E1 to E2, but net orders slowed, barely cresting 50 compared to more than 200 in 2018. They might have done better had their JV with Boeing concluded its competition approvals process, but the completion of this deal has run on into 2020, following which an expanded sales resource and a range of other synergies are expected to deliver results. It is to be hoped that the project does not become a victim of Boeing’s challenges and a resulting lack of focus on leveraging the true and considerable value of the Embraer partnership.

The global backlog of more than 13 thousand aircraft still represents 7.5 years of production, with the most popular product lines sold out well into the next decade. Nevertheless, it is to be hoped that the recent trend of orders and cancellations combined with less bullish economic indicators and multiple sources of market uncertainty should persuade the OEMs not to push ahead with plans for any further rate increases.
Boeing’s year-end decision to freeze 737 production supports what several analysts had already calculated, namely that the cash reserve from 737 MAX PDPs received by Boeing is all but depleted, leaving them with little choice other than to put a hold on further cash outlay to the supply chain. This will hurt many of their suppliers around the world that are heavily reliant on their Boeing contracts and some may be forced out of business, creating another challenge for Boeing when the program is re-started. Furloughs will surely follow in short order, not only within Boeing but far beyond, on a scale which could send ripples through US economic and employment data.

At this stage it is all but certain that the MAX grounding will be more than a year in duration, as US airline customers continue to defer deployment into their networks, now reaching into the summer season. Furthermore, Ryanair has stated that they now expect to see only a few of their MAX8-200 variants delivered in 2020, with unspecified design changes reported to be required for that variant.

The departure of Boeing CEO Dennis Muilenberg was inevitable, as Boeing’s leadership team had failed to restore confidence in the brand. Realistically, a renewed focus on traditional Boeing values and culture, centred on engineering excellence and closer linkages between the company’s HQ and the commercial airplane business in Seattle will be required for lasting recovery to be achieved. This recovery is unlikely to be a quick process and will be further hampered by the parallel need to manage MAX service re-entry and the delivery of some 400 completed aircraft to customers whose priorities and requirements will likely have changed over the intervening months.
Of course, Boeing is not the only one facing challenges here. The whole set of relationships between OEMs and regulators is under intense scrutiny. The core value of safety is central to the routine operation of airlines and the continued health of the industry. Complacency must never be allowed to develop.

Air travel remains by far the safest means of mass transportation, yet for the first time in perhaps 40 years there is a widespread narrative...
around the inherent safety of aircraft. Passengers must have absolute confidence in the aircraft that they will fly in and implicitly must also trust the manufacturers and the regulators to keep safety paramount. This is now being called into question, with relationships existing between OEMs and regulators by allowing self-certification and the extension of grandfathered design changes.

With respect to the FAA, it would appear that a significant contributory factor has been a shortfall in resources and funding over a period of time. Following the grounding decision, the FAA moved quickly to take control over the MAX review and re-authorisation process. More broadly, however, the approach that regulators take to approvals and oversight, to their relationships with the OEMs, and indeed with each other, warrants a detailed review. Regulators must maintain or re-establish a clearly visible professional distance from the manufacturers and stop the delegation of key parts of the approval process to the OEMs. Self-certification by the OEMs, at least in safety-critical areas, must be eliminated.

The necessary changes will inevitably impact new aircraft development, including products already in development and flight testing, and will arguably lead to longer lead times for service entry and, potentially, to fewer new aircraft types being brought to market in the future. Equally, jurisdictions around the world will be less comfortable basing their approvals on an FAA or EASA sign-off alone and will feel the need to undertake their own independent assessment of new aircraft.

If launched, Boeing’s NMA will be at the forefront of this change in process, while the next generation of single-aisle aircraft will almost certainly now have to be developed from scratch rather than via further evolutions of existing models. It remains to be seen to what extent the service entry of the new generation 777s will be impacted.

When the dust settles, a complete re-evaluation of the product development process will likely be required from all the OEMs and their supply chain partners, in close consultation with the regulators.

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The other conversation dominating the media in 2019 was climate change and the environment. It is not going away and, given aviation’s core reliance on fossil fuels for the foreseeable future, the climate change movement has huge potential to score a direct hit on the industry. The rapid development of “Flight Shame” and its spread from Scandinavia into other parts of Europe, has already had an effect on demand for short-haul travel. Swedish airports saw passenger flows decline by 4% in 2019, with domestic air travel 9% lower.

KLM has gone so far as to invite its customers to consider whether taking short-haul flights is the right thing to do, suggesting that where rail travel is an option, it should be used more, and recommending an increase in the use of video conferencing for its business travellers.

Carbon emissions per passenger have declined by more than 50% since 1990
This from an industry that has done more than any other to reduce harmful emissions and fuel consumption since the dawn of the jet-age, with enormous financial investment by the OEMs over decades to develop and optimise new technologies. According to IATA, carbon emissions per passenger have declined by more than 50% since 1990 and, over the past ten years, fuel efficiency has been improving by an average of 2.3% per annum, delivering a cumulative improvement almost 60% ahead of target.

Today, largely thanks to these steady and significant improvements, aviation accounts for less than 2.5% of man-made CO₂ emissions. However, sustained growth in demand will outpace further efficiency improvements, whilst other industries are making great strides to improve their own carbon footprints. Inevitably, aviation’s share of harmful emissions will rise and the weight of public opinion will increasingly encourage governments to ban, limit or tax airline operations.

The aviation industry must keep control of the narrative and speak up for what it has been doing and is continuing to do to improve its impact on the planet. Unfortunately, continuing to rely on past performance is no longer enough to convince the court of public opinion or government policy-makers that further intervention is not required. Despite evidence that passenger taxes do little to reduce emissions, governments continue to view airlines as soft targets and use taxation as a blunt tool to respond to popular demand with little heed to the wider economic damage caused by restricting air services.

The aviation sector is committed to reducing net CO₂ emissions to 50% of 2005 levels by 2050. Achieving this goal will require continued investment in new technologies. However, the challenge is not inconsiderable - current industry growth rate forecasts will push aviation’s share to 10%, with the potential to go as high as 24% by 2050 if the pace of technological change remains the same. Of course, the industry must continue to explore and invest in new technologies to ensure that it is sustainable over the long-term. But additional measures will clearly also be needed.

Although research into bio-fuels and blended fuel products has started to yield practical results and more airlines are committing to take a proportion of their fuel uplift from sustainable sources, total biofuel production is currently less than 0.1% of industry consumption and is unlikely to exceed 10% by 2050 given the considerable technical and commercial barriers to mass-production.

Initiatives to mitigate aviation’s carbon footprint include CORSIA, ICAO’s new industry-wide carbon offset program which aims to stabilise CO₂ emissions from international aviation at 2020 levels, offsetting around 2.5 billion
tonnes of CO₂. Individual airlines can go further. EasyJet is to be applauded for its commitment to offset 100% of its carbon footprint, but many others will also need to step up – the voluntary offset schemes offered to passengers still have a take up rate of only 1%.

ESG (Environmental, Social and Governance) factors are becoming increasingly relevant in the corporate world, with a new emphasis on the “E” piece. More companies, capital providers and investors in Europe and, increasingly, in North America are now mindful of their environmental credentials, and those of their counterparties, as they make business decisions. The impact of ESG will become increasingly relevant in the coming years as businesses direct their relationships to the strongest ESG performers. Developing a positive ESG narrative should therefore be at the top of every airline CEO’s to do list, as the entire industry risks being tarred with the same negative environmental brush if decisive steps are not taken to become differentiated. IATA’s Chief Economist recently stated, “Climate change is not just an issue for protesters or scientists…This is on the top of the agenda for mainstream investors now.”
Summary

Whilst all eyes in 2020 will be on Boeing and the restoration of the 737 Max program, Airbus and the industry’s lessors and investors will be fervently hoping that the story has a happy ending and Boeing is not compelled to fast-track an all-new single aisle replacement. A truncated economic life profile for the NEO and MAX would be hugely disruptive for the industry’s financiers and also for the engine makers, which depend on high utilisations and multiple shop visits to deliver their economic returns.

As growth capacity starts to flow into the system again, passenger growth should tick up in line with seats, however yields will likely maintain their inverted relationship, making it harder for airlines to make money. The recovery of the air cargo market is overdue but remains contingent on an easing of trade flows and punitive tariffs.

Climate change and the environment will stay in the headlines, but the start of the CORSIA program could take some of the heat off aviation for a while, although any significant dissent on the part of member countries or airlines would be a major setback. As more airlines commit to their own independent stance on carbon neutrality, a pattern of differentiation will begin to emerge as ESG ratings become a requirement for investment and fund-raising.

On balance, despite the many economic, political and financial uncertainties, 2020 should see another strong performance from the industry – although, as politicians on both sides of the Atlantic will have found, wishing it so does not make it so.

Fearless forecasts

Six out of my seven predictions made at the start of 2019 came to pass – the expected launch of NMA was overtaken by events! Here are my offerings for 2020.

- The 737 MAX will return to service in Q2, but unevenly around the world and less than half of the undelivered backlog will have been cleared by year-end
- New orders will remain below recent peaks, with an aggregate book-to-bill below 1:1
- Turboprop sales will get a boost from climate change concerns, with regional airlines increasingly replacing older jet fleets with environmentally friendlier propeller-driven alternatives.
- The EU will open discussions on further ways to cap, and ultimately reduce, aviation emissions
- Climate change concerns will put more pressure on European domestic and regional growth prospects. Most other parts of the world will remain only marginally affected.
Dick Forsberg has over 48 years' aviation industry experience, working with airlines, operating lessors, arrangers and capital providers in a variety of roles spanning business strategy, industry analysis and forecasting, asset valuation, portfolio risk management and airline credit assessment. He retired from leading aircraft lessor Avolon in March 2019 and now provides advisory and consultancy support to the industry. He is currently supporting PwC’s Aviation Finance Advisory Services team as an external Senior Consultant.

As a founding executive and Head of Strategy at Avolon, Dick’s responsibilities included developing and promoting the company’s business strategy with investors, lenders and stakeholders, defining the trading cycle of the business, providing the primary interface with the aircraft appraisal and valuation community, industry analysis and forecasting, driving thought leadership initiatives, setting portfolio risk management criteria and determining capital allocation targets.

Prior to Avolon, Dick was a founding executive at RBS Aviation Capital and previously worked with IAMG, GECAS and GPA following a 20-year career in the UK airline industry.

Dick has published a number of White Papers on key industry issues and is a regular speaker, moderator and panellist at industry conferences and aviation schools. His New Year industry outlook papers are issued annually and this year’s insights are published in this document.

Dick has a Diploma in Business Studies and in Marketing from the UK Institute of Marketing and is a member of the Royal Aeronautical Society. He is a past Board Member and Vice-President of ISTAT (The International Society of Transport Aircraft Trading) and currently serves on the board of ISTAT’s International Appraisers’ Program.