INDEX & Cie

Trade Ideas

July 2020

Considerations on the Aviation Industry

Summary

The aviation industry is probably the most damaged global economic sector in the first half of 2020, together with energy, financials and leisure. The strong shock to demand is only comparable to the one observed right after the events of September 2001 in the US, from which recovery followed swiftly in a matter of 2 business quarters.

Expectedly, these black swan-type of shocks test heavily the solidity of the whole industry. They are often credited with flushing away dead, moribund or otherwise unsustainable – read over-levered – branches of stable industries. Since this is a demand shock, the airline segment suffered the most with its more than 50% year-on-year drop in revenues. We choose to focus our considerations on airlines and original equipment manufacturers (OEMs), as the rest of sub-sectors depends in a binary way on airlines' annual sales – as opposed to depending on 25-year long maintenance & service contracts.

Prior to the COVID-19 emergency, the steady-state metrics of both airlines and OEMs show how they were never the most attractive choices in the firmament of industries. The table below paints a picture of over-indebted operators – due to their dependence on capital intensive assets – with low profitability and low earnings growth.

Economic performance and balance sheet solidity, quarterly

Metric	Return on Tangible Capital	Revenues	Cumulated EBIT		Net Debt			Interest Expense	
Description	Sales-weighted sum	YoY growth	YoY growth	Margin	Net debt/ revenues	Net debt/EBIT	Cash over gross debt	EBIT/Int Exp	Debt cost
Major Airlines*									
Sept-2019	4.74%	-18.32%	9.95%	11.08%	134.14%	12.11x	23.25%	6.82x	0.93%
Dec-2019	3.31%	-19.18%	9.25%	7.42%	125.39%	16.90x	25.77%	4.86x	0.90%
Mar-2020	-2.77%	-51.75%	5.56%	-13.67%	185.65%	-13.58x	30.07%	-7.90x	0.65%
Since 1999	*2.25%*	*10.48%*	*18.91%*	*6.24%*	*76.64%*	*15.48x*	*40.15%*	*3.22x*	*1.59%*
Major OEMs**									
Sept-2019	6.99%	-6.96%	8.53%	11.15%	71.86%	6.44x	46.09%	10.55x	0.79%
Dec-2019	1.06%	-7.73%	5.06%	-0.96%	42.20%	-43.83x	59.80%	-0.89x	1.03%
Mar-2020	4.75%	-9.32%	3.84%	4.06%	76.28%	18.77x	51.53%	2.89x	0.89%
Since 1999	*6.01%*	*5.63%*	*18.39%*	*7.47%*	*19.61%*	*2.49x*	*81.35%*	*7.50x*	*1.74%*

* American Airlines Group, Delta Air Lines, United Airlines Holdings, Singapore Airlines, Southwest Airlines, Lufthansa, China Southern Airlines, Ryanair, Air China, Air Canada, Easyjet, Korean Air Lines, Swire Pacific, Japan Airlines, Cathay Pacific, Qantas Airways, Air France-KLM.

** Airbus, Boeing, Lockheed Martin, Northrop Grumman, Rolls Royce Holdings, Safran. Source: Bloomberg, companies' statements

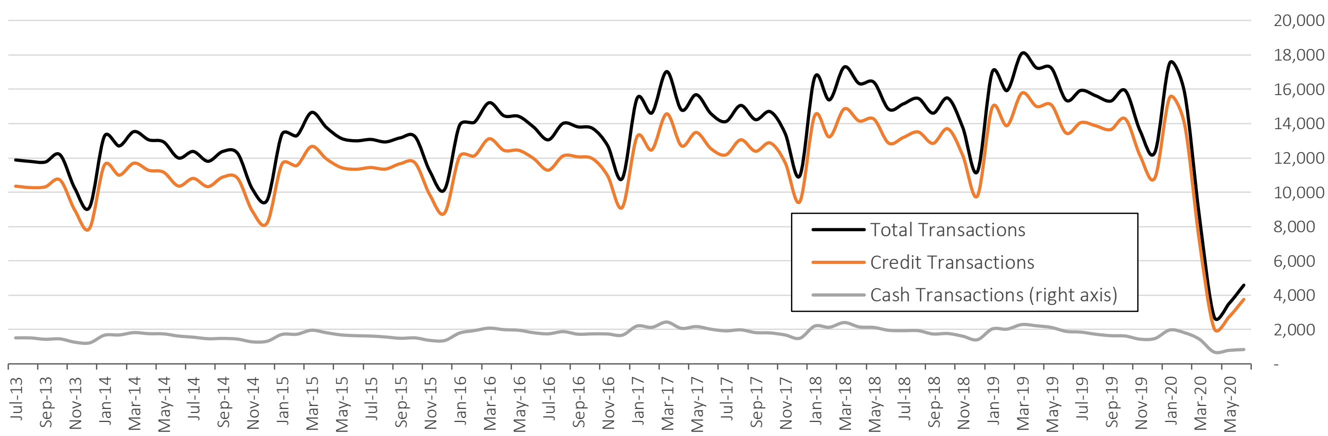
Considering these metrics, the aviation industry might not seem a worthy target of any capital allocation in the long term. However, as it often happens, a sudden mix of cards can offer rare investment opportunities in those few solid participants that are destined to maintain their competitive advantage, even through a test of this magnitude. These companies are destined to revert to their steady state – a mean reversion play, in other words.

Signs of improvement in the market paint an encouraging picture of passenger traffic bottoming out and airline fleets gradually being put to work. As the global air traffic situation begins to normalize, we want to stay away from over-levered airlines as more will flirt with bankruptcy, nationalization or consolidation, and in general will never offer a satisfactory return on capital – even Buffett reached the same conclusion. Instead, our preference goes to specific OEMs that display the reassuring combination of sustainable debt levels, entrenched positions in the market, 20 to 25-year long service contracts and a strong discount to their long-term fair value.

Appetite for Travel

Purchases of flight tickets seem to have bottomed out globally. This is a result of people's willingness to go back to freedom of movement, despite the continued news headlines of more COVID-19 cases out of the US and many other countries. On the positive side, this week we acknowledge that the Serum Institute of India (SII, the largest vaccine maker in the world) will begin trials of Oxford University's and Astra Zeneca's COVID-19 joint vaccine candidate by end of August, with a view to make it available between Q1 and Q2 of 2021 if all goes well. The plan is to produce 100m doses by December, with a monthly production capability of 15m. It is likely that once the SII comes out of phase 3 successfully, the vaccine will be produced globally at larger volumes that 15m per month. From there, it will probably take another year for a meaningful share of population to receive the cure. With this view on a solution, people have already started traveling.

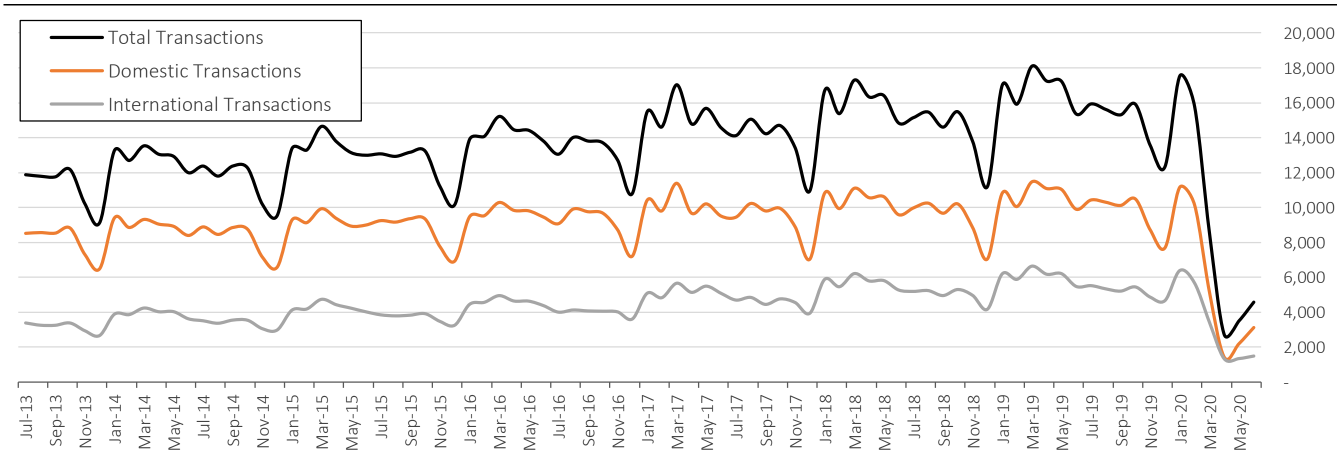
Global flight ticket transactions – Cash and credit purchases, thousands



Source: Bloomberg

The graph below also shows that the largest share of global air traffic, i.e. domestic traveling, has already started picking up, and more so than international traveling. This is easy to understand, a the US, Europe and China allow nationals to circulate within the region/country.

Domestic and international flight ticket transactions – thousands



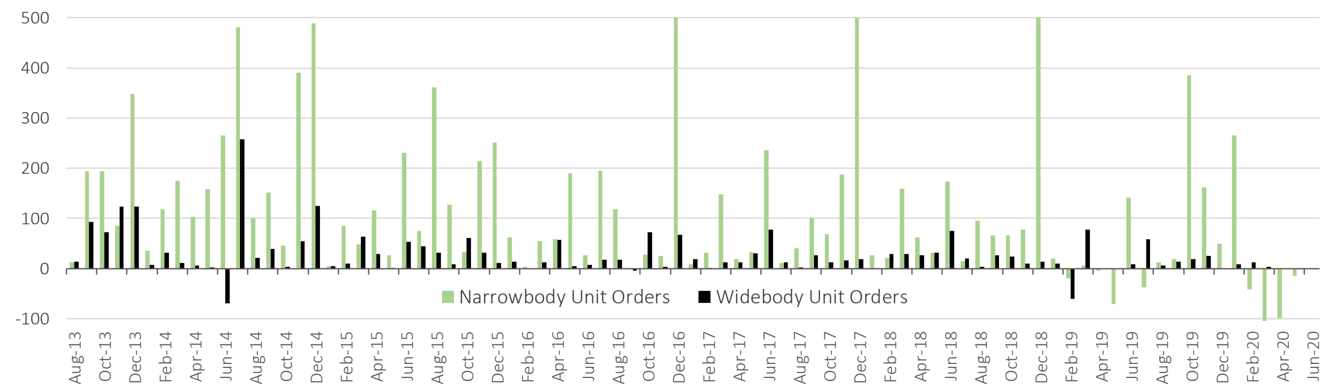
Source: Bloomberg

While caution is always advised in a fluid situation such as the current one, it seems we are witnessing a bottoming out of domestic and international travel trends. It is hard to compare the present situation with what happened in September 2001 following the New York terror attacks, but further investigations on the aviation industry's profitability suggest that it only took two quarters – for OEMs – to go back to normal, which is encouraging.

Current Market Situation

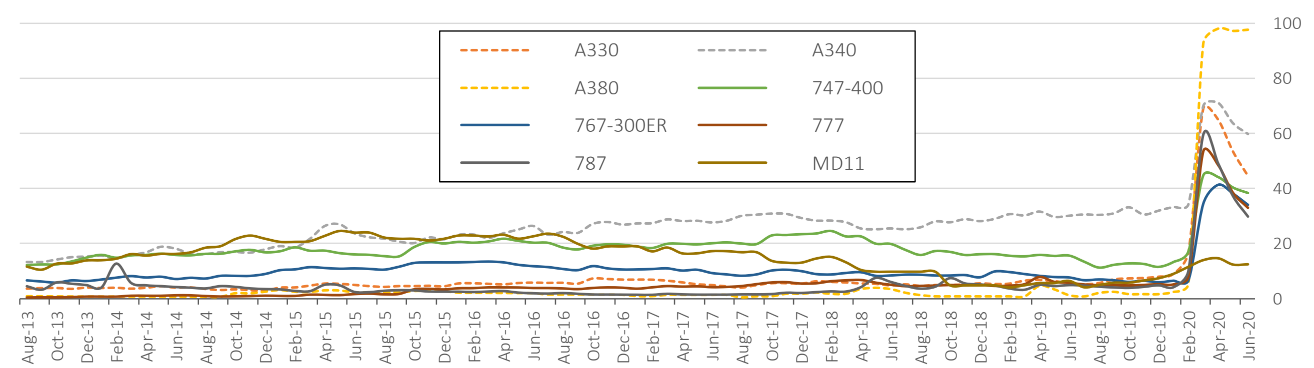
Judging from the number of wide versus narrow body orders, it seems that the latter dominate the aviation industry. The bet on extra-large wide bodies – Airbus' A380 – has shown the limit to expansion in an industry ruled by short-haul distances, where narrow bodies are more cost- and energy-efficient, and where more technologic innovation is concentrated too. During the present global crisis, wide body orders have almost zeroed.

Global monthly aircraft orders – Wide and narrow bodies, units ordered



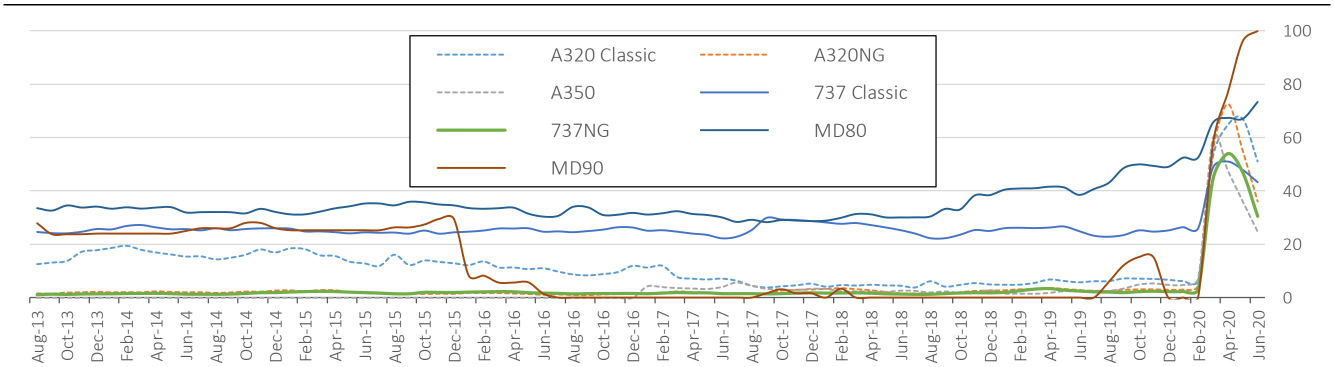
Further on wide bodies, the almost totality of A380s are in the hands of Emirates Airline, which holds 112 of them and is using very little of them – probably 4. The second largest owner is Singapore Airlines with 17. The good news is that the rest of wide bodies are being put back to use, showing a strong sign of inflection.

Total wide body fleet stored – By manufacturer, in percentage



The inverse is happening on narrow bodies, following the technical difficulties Boeing is having with the 737Max. Here, Airbus machines are being put back to use faster than Boeing's, with an overall faster trend than the one see in wide bodies. This is because Airbus machines are used in domestic Europe, which reopened, unlike the US.

Total narrow body fleet stored – By manufacturer, in percentage



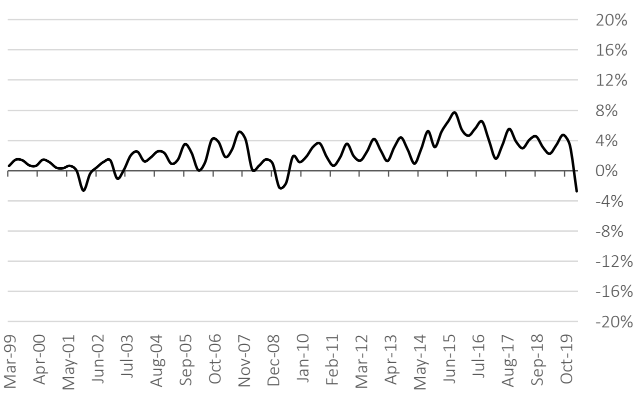
Source: Bloomberg

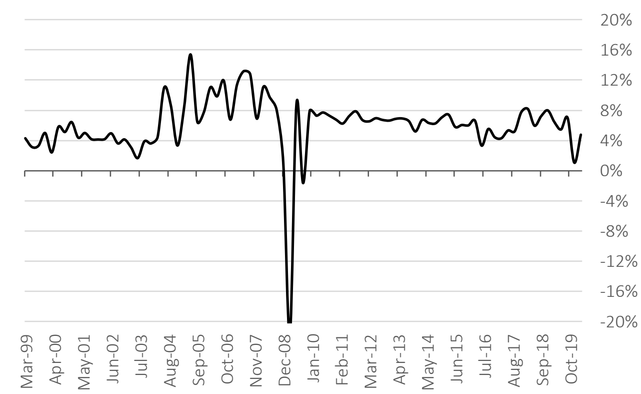
Airlines vs OEMs

A comparison of returns, revenues and earnings growth show that indeed these two segments are near in performance, but that the impact on airlines has been much worse than that on OEMs in all respects.

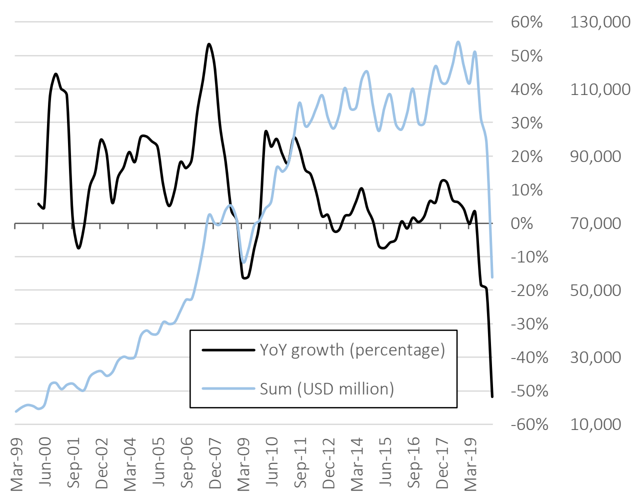
Airlines	OEMs

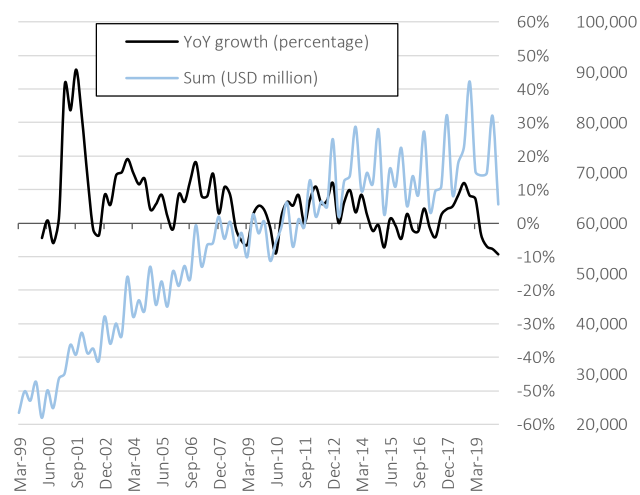
Return on tangible capital



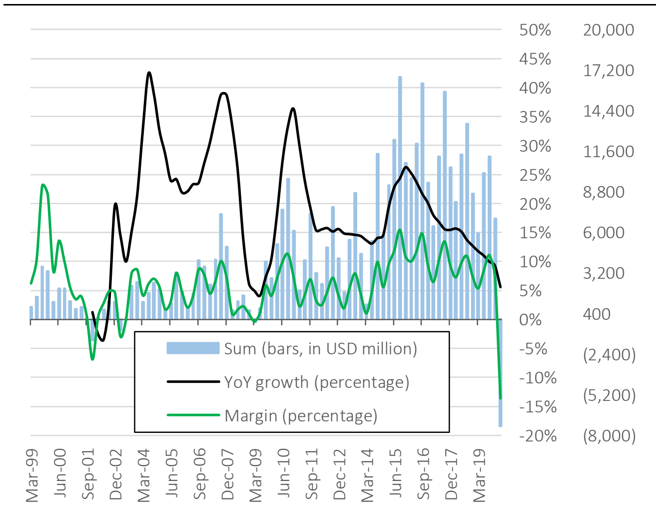


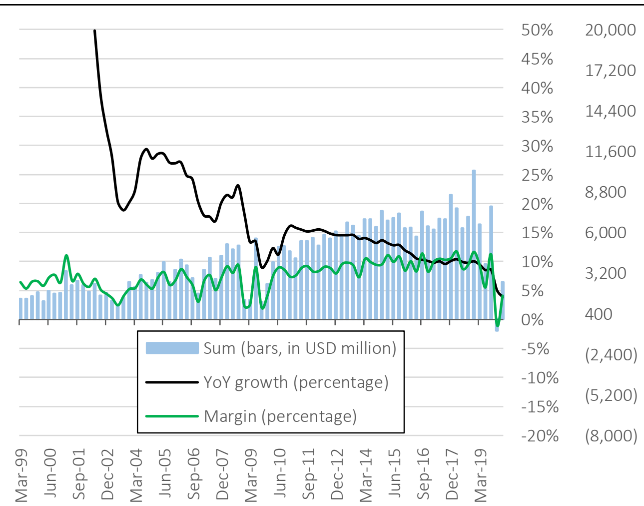
Revenues





EBIT (earnings before interest and taxes)



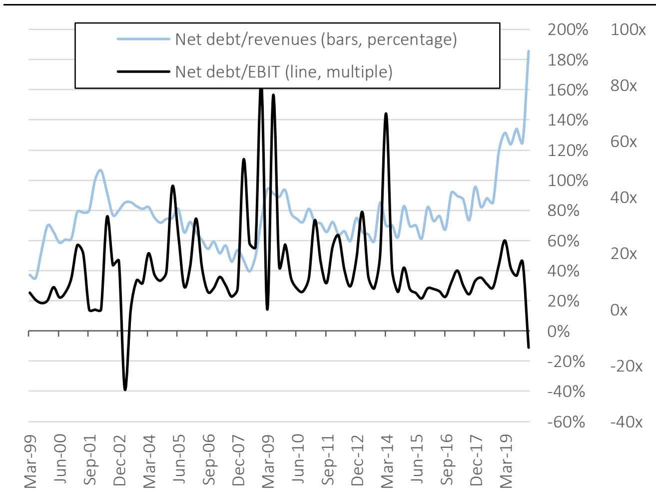


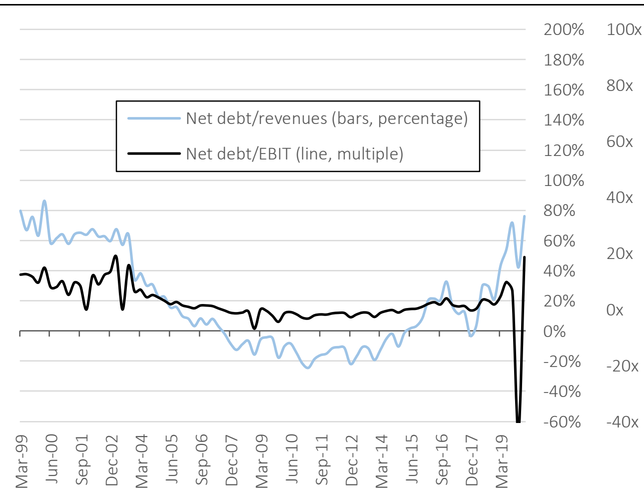
The considerable hit the airline segment got during the first half of 2020 should not come as a surprise. Likewise, it is not a surprise that the OEM segment held up so well from an earnings point of view, since the nature of this business is long-term by definition. The way OEMs make money is not through the sale of engines, which actually produces a loss. Earnings for these operators come in the shape of maintenance and overhaul service contracts. Usually, large operators like General Electric Aviation, Pratt & Whitney and Rolls Royce partner on engine and other component projects with smaller operators like Safran, MTU Aero Engines, GKN Aerospace, Avio Aero and Japanese Aero Engines Corporation. This market structure ensures that each project's revenues is shared by a few players only. In addition, these revenues spread over the course of about 25 years, which is the average life of an engine, each of which is usually serviced twice a year or after a certain amount of hours run (similar to the way road vehicles are serviced). Therefore, the earnings structure of OEMs is naturally more stable and longer in time than that of airlines, which provides room for both visibility and certainty in future earnings.

The debt structure of both segments also presents interesting differences, by which the OEMs look more stable and less reliant on debt – which makes the existing debt levels more easily serviceable.

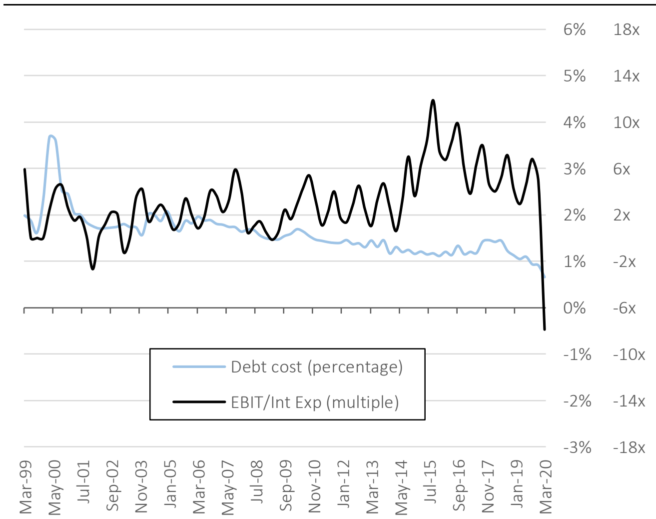
Airlines	OEMs

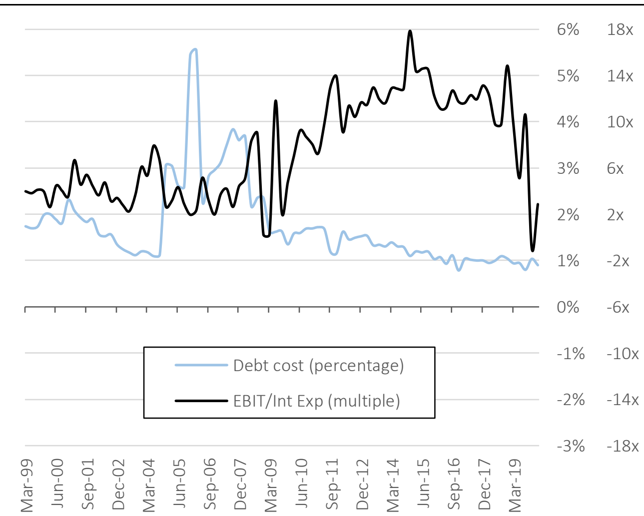
Net debt





Interest expense (debt burden)





With a similar cost of debt, OEMs emerge healthier than airlines in terms of ability to cover their annual interest expense and less vulnerable on their revenue stream.

How to Play the Theme

Considering the respective historical evolutions of these two segments, it appears that existing OEMs are more protected against an extended depression in global demand for flights.

Our top picks for this theme are **Safran** and **MTU Aero Engines**. These two companies exhibit stable market positions in the existing engine programs, which also happen to be on the most stable and most widely used narrow body in the US and Europe. The magnitude or installed basis, coupled with the number of years of revenues ahead, make these two companies rather stable in their future streams. Furthermore, their debt burden does not represent a serious threat to sustainability.

The market valuation of both is still depressed by a measure of 41% for Safran and 47% for MTU. These discounts are an expression of the fear that markets have of a permanent loss of revenues for both business. There is little evidence that up to 40% of machines will be discarded as a consequence of permanently diminished flight demand. In fact, quite the opposite seems to be happening, as (1) global domestic and international transactions appear to have bottomed out and are on their way up, and (2) both wide and narrow body fleets are gradually being put back to use.

In terms of visibility on a vaccine, it appears a solution will be viable not earlier than June 2021, if not later. At the same time, it seems unlikely that the population of especially Western countries will remain idle for longer than another 6 months, as both governments and society are willing to go back to work, although gradually. In light of these considerations, it seems prudent to think that a normalization to a steady state for OEMs will happen towards the end of 2021. At current prices, Safran and MTU offers a potential upside of about 85% each from their peaks, which compares favourably with a downside of about 30% - back to March’s bottom.

For further details, please contact:

INDEX & Cie Limited
Index Tower, 20th Floor, East Entrance
Dubai International Financial Center
PO Box 507069, Dubai, UAE
www.indexcie.com

Tommaso Leodari
Chief Investment Officer
Email: tl@indexcie.com

CIO Team
Email: CIOteam@indexcie.com

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