



JSW SCHOOL OF PUBLIC POLICY

# POLICY BRIEF

No. 2020.1

June 2020

## Airlines Sector: Grounded But Hope Prevails

Akshay Verma, Kartik Mittal, Sucharita Saha



Indian Institute of Management Ahmedabad Vastrapur, Ahmedabad,  
Gujarat, India – 380 015



[www.iima.ac.in/jsw-spp/](http://www.iima.ac.in/jsw-spp/)

## Civil aviation: Down to earth

Covid-19 pandemic has affected almost every country in the world, with over 10 million confirmed cases and over 0.5 million deaths till June 7<sup>i</sup>. The corresponding impact has plummeted the GDP growth rate for almost all the countries with sectors like tourism and civil aviation bearing the brunt of economic decline.

The Covid-19 outbreak has halted operations of the airline industry globally, and India too has been no exception to it. To stop the spread of Covid-19, the restrictions in India began with suspension of international operations for all carriers' March 23 onwards. DGCA further suspended domestic air service from the midnight of March 25 which was eventually lifted on May 25 when domestic flights were allowed on only select routes with restrictions on seating capacity. As a result, the majority of the 680 plus passenger planes fleet in India has been grounded since March 26, 2020<sup>ii</sup>.

The Indian aviation industry had nearly 4 lakh passengers travelling daily with ~Rs. 155 cr daily revenue. As a result of the suspension of operations, commercial carriers in India have already incurred revenue loss of thousands of crores. Indian aviation industry, which employs over 60,000 personnel, has already started seeing pay cuts and job losses.

Aviation is a low margin business. Its major costs are fuel (~40%), lease from the manufacturers (~20%), O&M costs (~20%), employee costs (~10%) and other miscellaneous costs<sup>iii</sup>.

### Executive Summary

The Covid-19 outbreak has impacted the operations of the entire airline industry. ATF forms the highest component of overall costs (~40%), and thus, the financial situation of the sector is exacerbated by the recent rise (>50%) in ATF prices. Despite the government nod to increase the number of seats and an upper and lower cap on ticket prices, a sectoral financial crisis may be on the cards.

### Recommendations

#### Financial measures

- **Reducing ticket prices:** Lower prices are crucial to ultimately leading to higher count of passengers; 3.13% reduction in ticket price would translate into a 10% increase in the demand and about 6.6% increase in revenue for the commercial carriers
- **Optimizing fuel tax:** This measure is expected to hit the exchequer by mere INR 840cr (12 months) which will be less than 1% of the overall stimulus package announced by the government
- **Improving freighter options:** Converting passenger planes into freighter planes will bring in additional sources of revenue

#### Non-financial measures

- Practicing **social distancing**; adequately communicating newer safety norms
- Efforts to **minimize touchpoints in the value chain** by opting for digital options
- Push for **hospitality & tourism** will generate derived demand for air traffic

Even though carriers did not have to incur the fuel costs, fixed costs in the form of lease charges have been borne. Also, O&M costs are of a fixed nature because such activities are required even on grounded planes (DGCA guidelines).

In addition to an extreme slump in demand, the financial situation is exacerbated by the recent rise in ATF prices. The ATF prices increased by ~50% on June 1, 2020; and ~16% on June 16 and further by 7.5% on July 1, 2020<sup>iv</sup>. The health pandemic and ATF shock have been accompanied by the exhaustion of monetary controls and corporate over-leveraging, which further makes the recovery of the sector difficult.

Even though the government has given the nod to increase the capacity of domestic flights from 33% to 45%.<sup>v</sup> The demand is expected to be low in the coming months. Thus, extreme underutilization of capacity leads to high ticket prices which further depresses demand.

A high percentage of fixed costs along with the sudden demand shock quickly consumed the liquidity cushion, which has led to enormous cash flow pressure on commercial aircraft carriers in India. With players abroad like Flybe declaring bankruptcy, it becomes imperative for the Indian government to take all possible measures to assist the industry. Without adequate government support, we may see a sectoral financial crisis being piled on top of the public health emergency.

## Research and Analysis Section

### Air Traffic Projections

IATA had earlier estimated the air traffic to grow at CAGR of 6.6% over the next 20 years to reach over 570 million by 2037<sup>vi</sup>. However, with the health pandemic and uncertainty, the domestic air traffic is expected to reduce by ~40% in the next financial year (Figure 1).

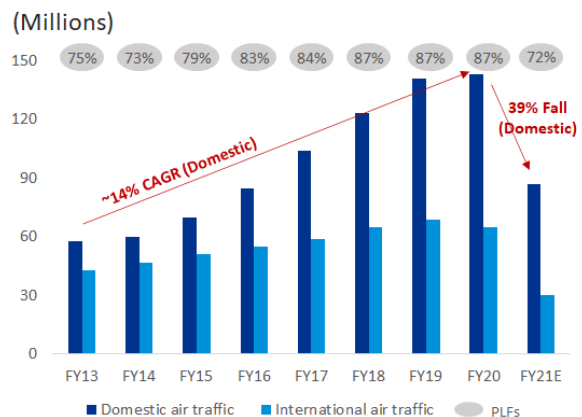
Apart from the immediate impact of COVID-19, various structural demand and growth drivers could impact long term demand in both business and leisure air travel segments. Business air travel could have a permanent negative impact from new ways of working, such as work from home.

International vs domestic mix could change because of a shift towards local supply chains. Fear of travel and government restrictions to contain the spread of infections could permanently change leisure travel behaviours.

Similarly, economic shock leading to the destruction of wealth for the middle class may lead to lesser expenditure on leisure air travel. Given the close correlation between passengers and GDP growth, a decline in the GDP growth rate would negatively impact air traffic growth rate.

Finally, climate change concerns and increased awareness for sustainability targets could hamper air travel growth rate in the long term.

**Figure 1: Passengers Air Traffic is Expected to Register a Big Fall**



Source: DGCA, AAI, Crisil

### Evaluating options for improvement

#### Non-Financial Measures

Due to unprecedented limitations on human mobility movement, passengers have, in general, developed a sense of fear related to travel. In this grip of fear, air travel needs to have the safety of passengers at the primary focus to improve passenger demand in the industry.

#### Social distancing

Commercial carriers need to follow the norms of social distancing strictly to make the passengers feel confident about their safety. Adequate markers on floors are needed from the first entry point. Similarly, the markers need to be present outside the stores, and a limit should be put on the number of people gathering at any single place. Disinfectant channels and sanitisers should be installed at multiple locations inside airports. Passengers should be arranged in accordance with seat numbers while boarding a flight.

#### Digitalising value chain

Efforts should be made to minimise the touchpoints in the value chain. Moving to digital options or having additional safety precautions would help build a stronger case for demand recovery. Plexi-screens on counters, online boarding pass at no extra charge, and optimised bar code readers can also help in reducing the pandemic spread.

As for the food outlets, menu options should be displayed on the screen, and both the order and payment should be switched entirely to mobile apps. For the other stores as well, the payment should be accepted only through mobile apps.

**Adequate communication**

Signage should be placed at locations to communicate the safety guidelines to passengers. Similarly, digital notifications should be pushed to mobiles of passengers which clearly highlights the safety guidelines.

In parallel to safety guidelines, commercial carriers should also publicise their efforts in ensuring the safety of passengers. This could be communicated in the form of images or videos directly to mobile apps. These images or videos could show the sanitisation of aircraft or the safety arrangements made at the airports.

Finally, in the cases of flight cancellations, commercial carriers should be transparent in dealing with the customers in terms of refunds or future booking vouchers.

Hence the non-financial measures should be aimed at **building customer confidence** and ensuring the passengers are aware of the new measures in the industry.

**Financial Measures**

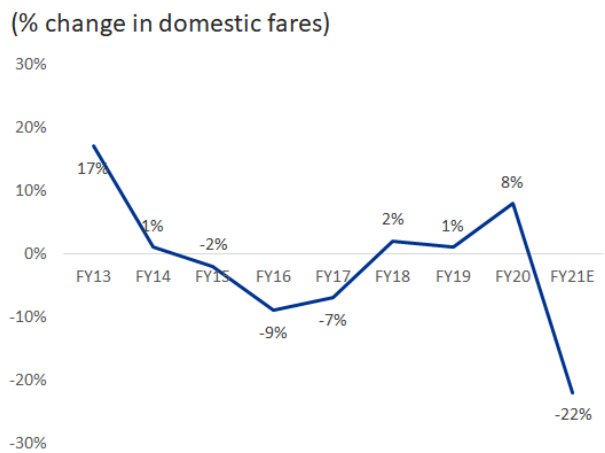
Apart from the safety measures which are critical to implement in the short-term, there are various financial options which can be evaluated to improve the well-being of the airline industry.

**Increase revenues**

Airline revenues are a function of the ticket price and passengers. In the last seven years, we have observed little changes in ticket prices (Figure 2), while capacity improvement (Figure 1) has emerged as the most significant source of the increase in profits. However, in the current times of pandemic, it is difficult to expect air traffic to

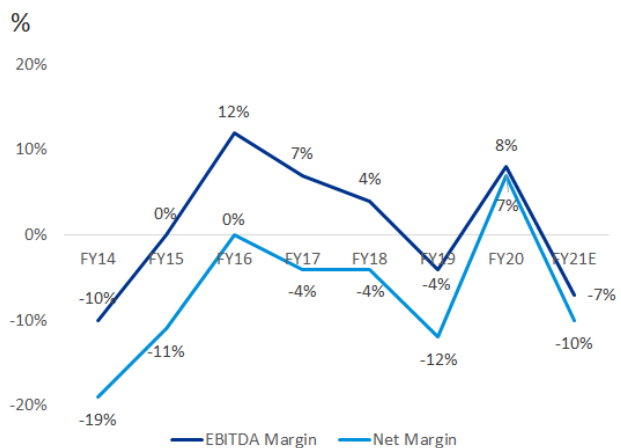
increase on its own at a fast pace. Hence, it is crucial to achieve a lower ticket price which can ultimately lead to a higher count of passengers given the safety precautions in place. A lower ticket price can be achieved with either lower costs or profit margins. Given that the profit margins of major airlines in India are already low (figure 3), let us look at the costs.

**Figure 2: No Significant Change in Domestic Air Fares in Last 7 Years in India**



Source: Company Reports, Crisil

**Figure 3: Steep Fall in Profitability Margins in Indian Airline Industry**



Source: Company Reports, Crisil

**Reduce Costs**

Majority of the costs (~70%) facing airlines are variable with ATF (~40%) taking the maximum cut from the revenues, followed by lease rentals (~20%), Landing & take-off fees (~15%), Employee costs (~10%), and a few others<sup>vii</sup>. We see minimal scope of cost optimisation in the



fixed category because majority of the leases in this industry are taken from the top 2 global players (Boeing and Airbus)<sup>viii</sup>, making the negotiations difficult for the airline players from a specific country.

Also, since the Indian banks are not involved in financing passenger airplanes, the government stimulus and moratorium are not providing the much-needed relief to the airline companies.

However, a deferment in the payment of lease rentals may help in maintaining liquidity during the crisis. Since all major airlines have already announced cuts in employee salaries (Figure 4), we do not see any scope of further optimisation in the employee costs.

**Figure 4: Cut in Employee Costs as Announced by All Indian Airlines**

	5-25% cut for all senior employees from May to end of fiscal. Leave without pay for June, July, August
	Payment to only those crew members who are operating cargo flights. 10-30% salary cuts for all employees during Covid-19
	Leave without pay during lockdown period
	Leave without pay for senior staff during parts of lockdown period
	Salary cut of senior employees by 20%
	Salary cut of all employees by 10%

Source: Company websites, News articles

With little luck in optimising fixed costs, let us look at variable costs where ATF is the biggest constraint and can bring significant cost savings to the companies. On June 26, 2020, India's ATF cost was ~38% higher as compared to other big economies primarily because of higher jet fuel taxes (figure 5).

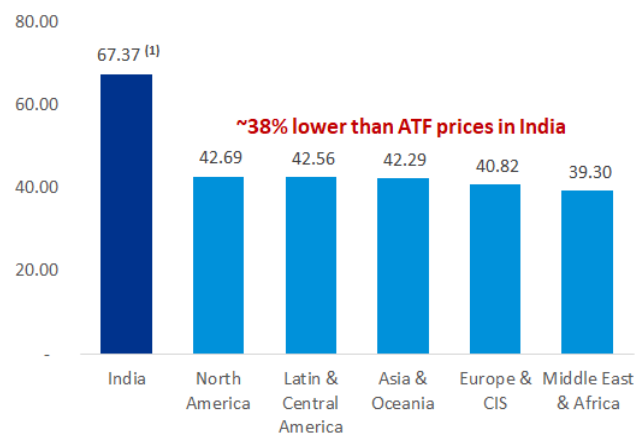
Currently, the central government charges 11% excise duty on the ATF, and it is compounded by 20-30% sales tax/VAT is levied by different states<sup>ix</sup>. A little tax reduction in ATF can provide

meaningful relief to the airline companies by maintaining their margins. Reduction in other significant variable costs such as landing/take-off charges and parking fees can also provide little relief to the airline companies.

However, it is highly unlikely to happen because private players operate major airports under fixed terms, and any relief from the government can create a need for such interventions in other industries.

**Figure 5: Jet Fuel (ATF) Prices are Significantly Higher in India**

US\$ / bbl as on June 26, 2020



Source: IATA.org and Hindustan Petroleum as on July 03, 2020  
<sup>1</sup> Average of domestic ATF prices in Chennai, Kolkata, Mumbai & Delhi

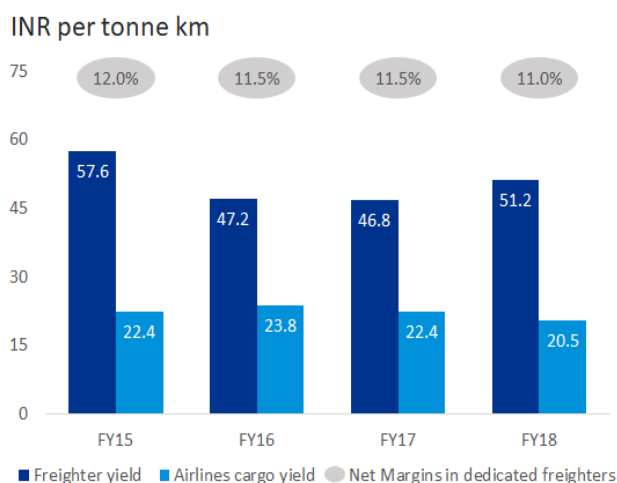
**Modify business plan – Improving freighter operations**

Airlines consider cargo (in passenger airplanes) as an additional source of revenue, but it results in undercut pricing because such airplanes have capacity issues and cannot accommodate the freight of odd dimensions. Therefore, a few airlines such as Spicejet (in India) started dedicated freighter operations in FY19<sup>x</sup> which brought additional earnings for the company.

With domestic air freight traffic expected at 500,000 tonnes in FY21<sup>xi</sup>, high freight yield and net margins as compared with airline cargo (figure 6), airline companies should start

venturing in this underpenetrated market<sup>xii</sup>. The most common way could be by permanently removing the seats from passenger planes and converting them into freighter planes.

**Figure 6: Dedicated Freighters Command Higher Freight Yields Over Airlines Cargo**



Source: DGCA, Crisil

## How much impact lowering ATF taxes will create?

ATF, which makes up around 40% of the total costs, is the only major variable cost head which could be directly controlled by government policy measures.

As summarised in figure 7, ATF tax (incl. central and state taxes) is ~41% of the total ATF production value. In other words, the ATF tax constitutes about 11.63% of the total cost of running a flight for commercial carriers.

Decreasing this ATF tax to 30% would reduce the cost of operation of flights by 3.13%. As per the price-demand sensitivity analysis for top 5 players in India - Indigo, SpiceJet, Air India, Jet Airways and Go Air - the industry demand is highly elastic with a PED coefficient of 3.2.

Thus, assuming the commercial carriers pass on the entire cost reduction to passengers, the 3.13% reduction in ticket price would translate into a 10% increase in the demand. This would correspondingly lead to revenue increase by

about 6.6% for the commercial carriers. This passenger demand increase is over and above the expected post-COVID-19 recovery.

**Figure 7: Analyzing The Impact of ATF Tax Cut on Demand**

Sensitivity of demand w.r.t. fall in ticket price (INR)

	Current case	Proposed Case
Unit Cost	100	96.87
ATF (incl tax)	40 <sup>(1)</sup>	36.87
ATF tax	41% <sup>(2)</sup>	30%
ATF tax as % of unit cost	11.63%	8.78%
PED coeff.	3.22	
Demand (units)	1	1.1
Revenue (units)	100	106.61

Source: Self analysis

<sup>1</sup> ATF cost as % of revenue is ~40% in the industry (Company reports)

<sup>2</sup> 11% of central excise duty and 30% of state sales tax

As per the proposed reduction, the loss in tax to the government comes to around Rs 2.7/ltr. However, with increased consumption of ATF seen from an increase in air traffic by 10%, the total tax loss to the government would be only Rs. 70cr per month even if we assume ATF consumption levels at 50% that of last year i.e. 300 metric tonnes per month<sup>xiii</sup> (Figure 8).

**Figure 8: Analyzing The Impact of ATF Tax Cut on Government of India Treasury**

	Current case	Proposed Case
Fuel tax (as %)	41%	30%
ATF (excl. tax) INR/litre	24.32 [34.35 <sup>(1)</sup> / (1+41%)]	24.32
Fuel tax (INR)	9.97	7.29
ATF consumption (per month):	Tax contribution from ATF per month (INR crore)	
110 metric tonne <sup>(2)</sup>	INR 132 crore	INR 106 crore
300 metric tonne <sup>(3)</sup>	INR 360 crore	INR 289 crore
600 metric tonne <sup>(4)</sup>	INR 719 crore	INR 579 crore

Source: Self analysis

<sup>1</sup> Average of ATF cost as on July 3, 2020 in Delhi, Chennai, Kolkata, Mumbai was INR 34.35 per litre

<sup>2</sup> Consumption in May 2020

<sup>3</sup> ~50% of consumption in last 12 months before covid-19 lockdown

<sup>4</sup> Consumption in last 12 months before covid-19 lockdown

## Exposition on the Current State & Central Policies

Interesting, in an unexpected move, the government imposed a **three-month cap on airline fares**.

Domestic flights are to have an upper bound as well as a lower bound on flight ticket prices to cushion the financial shock faced by the major players in the sector in light of the recent pandemic.

The upper bound shall mitigate the rise in prices owing to pent-up demand. However, airlines will have to make available 40% of total seats in an aircraft at less than the midpoint price between the highest and lowest fares. While the move is in place for three months, some stakeholders fear that the move might see an unexpected extension going forward.

Flights between cities that are under 40 minutes have been classified under section one, while those under 40-60 minutes are under section two. Section three consists of destinations 60-90 minutes apart by flight; section four comprises cities 90-120 minutes apart; section five consists of cities 120-150 minutes apart. Destinations between 150-180 minutes and 180-210 minutes have been classified under sections 6 and 7, respectively.<sup>xiv</sup>

Considering the COVID-19 situation, **different state governments have laid out their respective protocols for passengers arriving at their airports<sup>xv</sup>**.

Moreover, different airline has laid out different norms and guidelines keeping in mind the current climate:

- As per office memorandum received from the Ministry of Civil Aviation dated April 16 2020, full refunds will be allowed without levying any cancellation charges for all bookings made and payment received during the lockdown period from March 25, 2020, to May 3, 2020, for travel during the same period.<sup>xvi</sup>

- Waiver for date and route change due to Coronavirus is permitted.

## Recommendations: Reduction in Fuel Tax - A way to go

- Safety measures including optimised SOPs for safe operations at airports, installation of signages for communication, and digitised value chain are a few critical measures which must be adopted in the near term,
- We observe that a **reduction in fuel tax can achieve a positive impact on the airline industry**. As reflected in the analysis, this measure can improve the demand for airline services and help airlines maintain higher profit margins as compared to current expectations (Figure 3). This measure is expected to hit the exchequer by mere Rs 840cr (12 months - Figure 8) which will be less than 1% of the overall stimulus package of Rs 13 lakh cr<sup>xvii</sup> (only fiscal component) which the government has already announced to bring the economy back on track.
- Also, as highlighted in the analysis, a move towards dedicated freighter operations, due to higher yields, can prove beneficial in the long term.
- Furthermore, we believe that a push for hospitality and tourism and overall economic growth will help improve the air traffic requirements of passengers and ultimately bring back economic prosperity to the cash-laden airlines.

## Authors



**Akshay Verma**  
Akshay is a second-year PGP student at IIM Ahmedabad. He has a bachelor's in commerce (Honours) from Shri Ram

College of Commerce (SRCC) and is a CFA Level 3. He has more than 3 years of work experience in the field of finance with organisations such as BlackRock and KPMG.

Email:[p19akshayv@iima.ac.in](mailto:p19akshayv@iima.ac.in)

LinkedIn:<https://www.linkedin.com/in/akshayvermaa>



**Kartik Mittal**  
Kartik is a second-year PGP student at IIM Ahmedabad. He has completed B.Tech in electrical engineering from IIT Kanpur . He has a year of work experience in the field

of finance.

Email:[p19kartikm@iima.ac.in](mailto:p19kartikm@iima.ac.in)

LinkedIn:<https://www.linkedin.com/in/kartik-mittal-8a44b6b8>



**Sucharita Saha**

Sucharita is a second-year PGP student at IIM Ahmedabad. She pursued M.A. Economics from Delhi School of Economics. She has close to three years of work experience in the field of consulting and analytics.

Email:[p19sucharita@iima.ac.in](mailto:p19sucharita@iima.ac.in)

LinkedIn:<https://www.linkedin.com/in/sucharita-saha-1a046062/>

---

## References

<https://www.worldometers.info/coronavirus/>

<sup>ii</sup> EMIS, BW Business World Magazine

<sup>iii</sup> CARE Ratings, COVID-19 IMPACT

<sup>iv</sup> The Economic Times

<sup>v</sup> The Hindubusinessline (June 2020)

<sup>vi</sup> IATA Press Release Oct 2016

<https://www.iata.org/en/pressroom/pr/2016-10-18-02/>

<sup>vii</sup> Company Reports (Interglobe Aviation), Crisil

<sup>viii</sup> CNBC (January 2019)

<sup>ix</sup> The Economic Times (Oct 2018)

<sup>x</sup> Business Standard (September 2018)

<sup>xi</sup> Crisil

<sup>xii</sup> Crisil

<sup>xiii</sup> Petroleum Planning and analysis cell

<sup>xiv</sup> The LiveMint

<sup>xv</sup> GoIndigo website

<sup>xvi</sup> Air India website

<sup>xvii</sup> The Economic Times 2020