



US AIRLINE REPORT

PREPARE FOR AN EMERGENCY LANDING

Since late 2019, markets began to slowly decline as the novel coronavirus began to spread across the world. In March, the market crashed almost 34% over the course of 3 weeks. Yet – no companies have been hit harder than US airlines. As international travel bans emerged almost exactly in the middle of a time Americans call “Spring Break”, US airlines realized that their revenues would fall to almost nothing over the coming months. While it is obvious that many companies will face zero profits and consistent fixed costs, what drivers will be affected in the long-run and continue to hurt carriers even after travel bans are lifted? Better yet, which companies will even survive to get to that point? How will government bailouts play a role in keeping some of the largest corporations in America alive, and why will this bailout be nothing like we have ever seen before? This report will attempt to answer all these questions while providing insight into how investors should evaluate US Airlines moving forward.

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Revenue Components

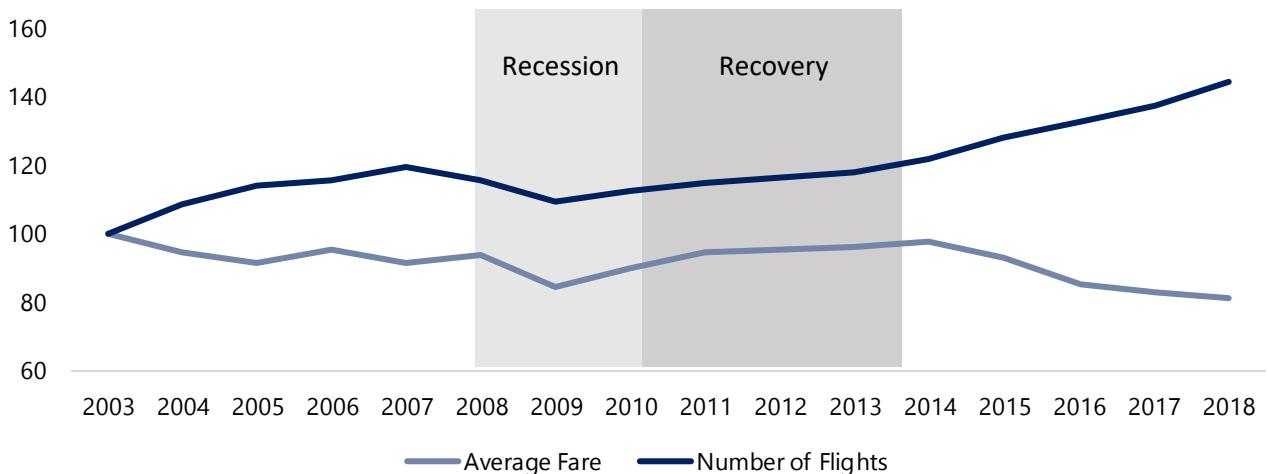
Volume

Demand fluctuates based on cyclical peak periods for leisure travel while business travel remains relatively consistent all year round. This innate volatility can be reflected by the Airline Industry's relatively high levered beta at around 1.44.¹ The problem that many airlines face is finding the perfect fleet size that can capitalize during on-peak demand while keeping overhead costs low enough during non-peak periods. If airlines maximize their fleet size for peak periods, there will not be enough demand to fill planes, thus incurring excessive costs during non-peak periods.

Price

In the short-run, supply and demand are determined quickly with proprietary data and analytics platforms based on the time a consumer books a flight, when the flight will be, and where their destination is. In the long-run, prices act against the laws of supply and demand. This is because a quantity increase along the demand curve allows planes to fill up easier, therefore spreading overhead costs effectively (incentivizing supply increases). With these improved margins, airlines can then decrease the price of flights. Ultimately, this results in a loop of higher demand and lower prices.

Price vs Demand 2003-2018



Source: United States Bureau of Transportation

Supply and Demand During Recessions

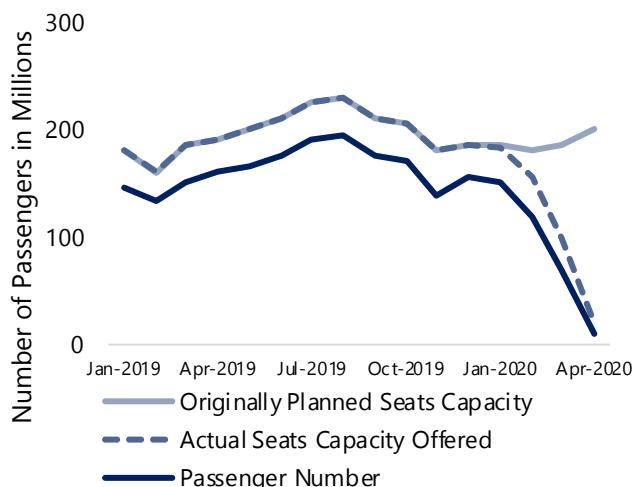
During the 2008 recession, demand decreased due to falling household income and wealth while airfare prices also dropped steeply. There are two reasons this happened:

- (1) This was a shift lessening the demand curve itself (and not just a shift along the curve). When this happens, demand determines price more than price can be used as a mechanism to control demand.
- (2) Airlines typically try to maximize profits during normal economic times. Unfortunately, airlines must maximize cash flows during a recession due to their slim margins. As such, airlines will price tickets as low as possible (and aim to break-even) so that they can pay off the fixed costs they still incur along with interest payments.

Decreasing Demand

Due to COVID-19, 85% of airlines have cut all flights due to low demand as governments restrict air travel. International Network Carriers have been impacted the most. American Airlines has reduced its number of flights by 80% and Delta has reduced flights by 85%.¹ Airlines that offer more localized flights (which are not as restricted), such as Southwest Airlines, have seen a 40% decrease in demand.¹

Comparison of International Passenger Numbers and Capacity



Source: Oliver Wyman

Long-term demand is dependent on cultural factors that will arise as a result of the COVID-19 pandemic – a topic that will be analyzed later in this report.

Potential Diversity in Revenue Streams

Airline companies are currently trying to find new revenue generation methods as the high costs and tight profit margins currently present in the airline industry make it extremely challenging to operate when in a low-demand environment. Many airlines are using passenger aircraft to move cargo to generate revenue, such as American Airlines who recently operated its first cargo-only flight since 1984. Cargo can only contribute towards a small portion of industry revenue even under normal economic conditions. In 2019 cargo comprised just 9.7% of the industry's total revenue. With limited revenue streams, airlines will try to preserve cash and cut capacity in their fleets to lower costs and survive widespread persistent flight restrictions.

The International Air Transport Association (IATA) have estimated that corona virus will cost the airline industry anywhere between 63 to 113 billion dollars in revenue this year alone. Long-term impacts have yet to be quantified.

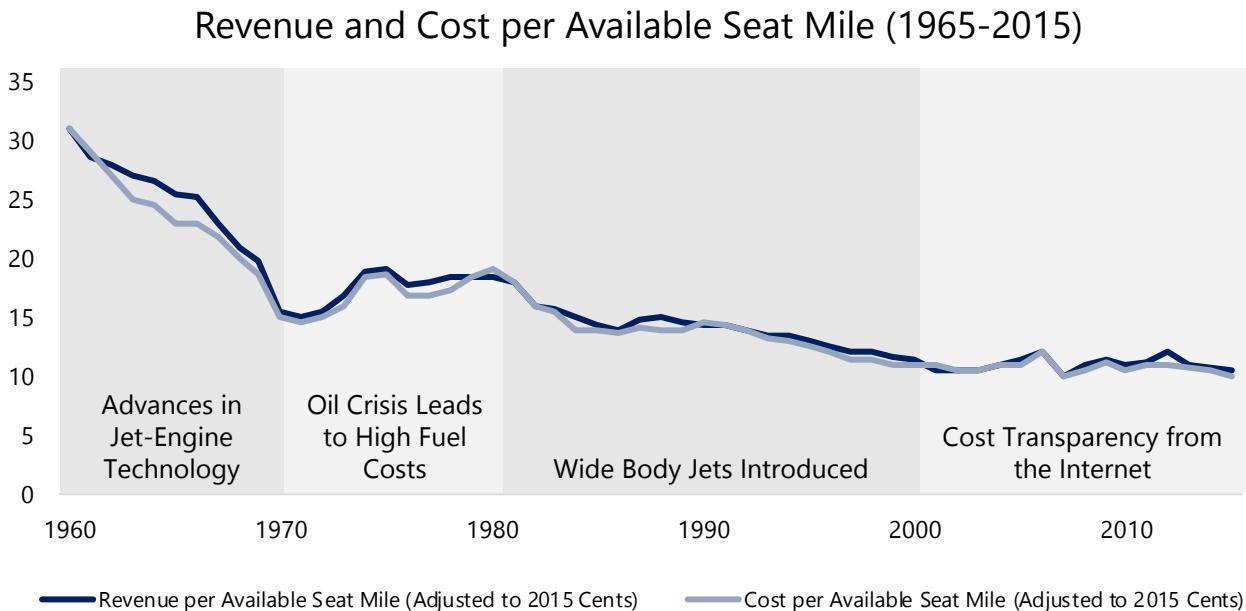
Pricing Strategies

If demand is low right now, shouldn't prices drop at least tangentially? Unfortunately not. Ticket prices have only dropped ~14% since March (compared to the 85% decrease in demand volume globally).² Any lower, and airlines would be losing money every time they fly a plane.

This is quite different from the 2008 recession which only affected demand slightly because of decreased affordability from disposable income reductions. With near-absolute restrictions on air travel, it is unclear what strategy airlines will take once the pandemic nears an end. Two potential pathways are as follows:

- (1) Keep prices constant or increase prices to adjust for low demand. With the number of planes in an airline's fleet remaining constant, airlines will see fewer people flying on each plane as they will struggle to remain profitable keeping load factor at 50%. Price increases will be necessary to stay afloat in this case.
- (2) Decrease prices or form partnerships with governments to subsidize flight costs. Decreasing prices will help increase demand. Decreasing prices could also be subsidized by tourist-dependent economies. According to CNN, Sicily has already pledged €50 million to subsidize incoming airline fees to reinvigorate tourism in the area as a result of COVID-19.³

Cost Components



Why Do Prices Follow Decreasing Costs?

The airline industry is characterized by low margins. Revenue increases are followed by cost increases, likewise, cost decreases are matched by revenue decreases. The reason for this relationship is twofold: fixed costs are high within the airline industry, and most of the revenues collected from ticket sales are used to cover operating costs. In addition, transparency resulting from the internet has made it difficult for any one airline increase their margins by decreasing costs without others following. Consequently, airlines are forced to compete on price, which leaves little room for profits.

The graph above further communicates the prevalence of competition within the airline industry, even as costs decrease. For example, when significant advances in jet-engine technology were implemented and resulted in lower operating costs, airlines experienced a decrease in revenues. This decrease was a consequence of lower fare prices.

In the 1970s, industry deregulation warranted lower costs, and thus, lower prices. Fares declined by 35% as airlines continued to compete on the basis of price. Now, it is important to consider the impact of increasing industry regulation because of the ongoing pandemic. Ultimately, if regulation were to increase, costs across the industry would increase as well. This would force airlines to increase their ticket prices to continue making a profit. However, another scenario exists: Instead of increasing fares, airlines would decrease fares both on the basis of competition, and to encourage hesitant consumers to travel. This would result in short-term losses but may result in profits in the long-term for carriers who have the liquidity to handle reduced margins over a more extended period.

Cost Drivers

In addition to low margins, the airline industry is also characterized by high costs, both variable and fixed. Three major costs include fuel, labour, and lease or loan repayments as a component of ownership costs.

- **Operating Costs:** US major airline operating costs consist of aircraft operating expenses, servicing expenses, reservations and sales expenses, and overhead expenses. The largest of the four expenses is the aircraft operating expense, accounting for ~44% of total airline operating costs.¹ This category includes fuel, direct maintenance, depreciation, as well as aircraft staff wages and benefits. It is important to note that the majority of these costs will not be incurred if the aircraft is not flying.
- **Labour:** Labour represents the largest cost category for the US airline industry across all carrier groups, including network carriers, value carrier, and ULCC groups. Labour costs can be both fixed and variable. For example, the majority of pilots are protected by the Air Line Pilots Association, International. This is the largest pilot union in the world and represents more than 63,000 pilots from 35 U.S and Canadian airlines.¹ Since these pilots are protected by a union, their salaries are fixed. They will continue getting paid regardless of exogenous events affecting demand for travel. Other workers who may be paid on a variable basis may suffer as a result of exogenous events, such as the ongoing pandemic.
- **Other:** While fuel and labour represent a large portion of fixed costs, fixed costs also include maintenance fees, aircraft rent, sales expenses, along with lease and loan repayments as a component of ownership expenses. It is important to note that lease and loan repayments are a fixed cost that is incurred despite the ongoing pandemic.

A Note on Changing Oil Prices

Globally, many airlines have hedge positions, such as swap contracts, to protect themselves from rising oil prices. As a result of these financial instruments, they can't take full advantage of low oil prices. Most North American airlines have little exposure to hedges and will not incur significant additional costs from oil's freefall. Conversely, carriers like Southwest who hedge 59% of their oil consumption are now finding themselves on the wrong side of the equation.²

Debt Financing

With margins so slim, it comes as no surprise that airlines must take on heavy loads of debt to finance their fixed costs during non-peak seasons. As a result, high levels of debt can yield airlines from being innovative. For example, American Airlines has cited its indebtedness as the primary reason for their poor ROIC as compared to their peers.

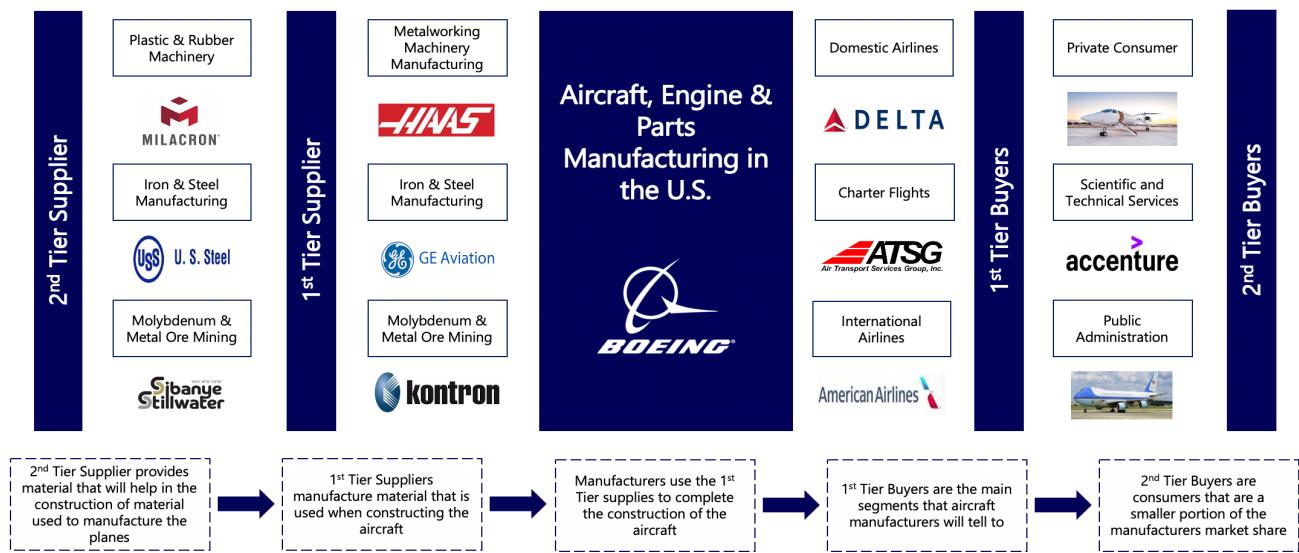
Associated Risks

During the coronavirus pandemic, debt levels are increasing as airlines receive loans from the government and try to obtain more through private credit facilities. All this money will be put towards covering the fixed costs outlined above. Therefore, the industry can expect a decrease in innovative investments. The result will be a decreasing ROIC and halt in long-term growth for almost all airlines as their working capital investments are not used efficiently (no demand) and airlines cannot consider long-term investments as a priority.

Supplier Overview

Supply Chain and Timeline

Aircraft manufacturing is complex and time-consuming, and for manufacturers, the process consists of the initial design, assembling, and intensive training before it is delivered to their clients. As a result, we see manufacturers such as Boeing produce approximately 20 aircraft per month.¹ The supply chain for aircraft includes a vast array of suppliers as displayed by the diagram below. With the variety and volume of companies involved, the challenges of COVID-19 will cause a massive disruption and significantly reduce output. This will especially impact the design team involved with the interior manufacturing, as COVID-19 may result in aircraft needing to change interior design to meet health protocols.



Retiring Fleets

Airlines have relied on old aircraft to save money, but as a result, airlines have over 2,500 aircraft in the U.S. with over 20 years of usage.² These older aircrafts tend to consume more oil, which when prices rise, increases expenses substantially, and causes the firm to take on additional risks regarding safety. Airlines have been forced to redeploy some of their retired fleets to meet demand in recent years. Also, the implication with the Boeing 737 Max has caused airlines to rely on other aged fleets prior to COVID-19.³ With COVID-19 grounding the majority of aircraft, airlines have an opportunity now to retire their fleet and slowly integrate the newer aircraft to meet the high demand they anticipate by 2021.

Backlog Caused by COVID-19

Airlines have placed orders to make up for the aircraft retirement, adding to the backlog. With COVID-19, manufacturing has been pushed back, and some airlines are anticipating demand to return to previous levels by 2021, which is putting pressure on manufacturers to speed up their process.⁴ The pre-COVID-19 backlog was anticipated to be more than 13,500 units, and with production at the time, it would take more than 10 years to meet.⁵ With manufacturing on halt, and a new order being processed, airlines have seen their backlog grow. The only thing that has reduced the backlog is cancellations from airlines that will want to remain liquid. These would be smaller airlines or even private buyers.

Expectation on Supplier Contracts

Most contracts between manufacturers and airlines have been deferred. According to the CEO of Boeing, the impact of COVID-19 has created an interesting environment that has allowed airlines to retire fleets which they could not retire since demand for flights was so high pre-COVID-19.¹ This environment has given Boeing's customer base the ability to accelerate fleet rationalization, ultimately to help increase operating efficiency. The anticipation is: now that production is being put on a momentary halt, manufacturers will need to be more flexible with their contracts once manufacturing resumes at a normal pace as demand will remain steady.

Issues for Boeing

Prior to COVID-19, Boeing was under scrutiny over its issues regarding the 737 Max. This was in light of the 2 major crashes that had occurred due to design flaws and thus resulted in a halt in production and demand. The 737 Max is a large plane that could help airlines increase capacity. Due to COVID-19, the demand for these larger planes is low. With the 737 Max issues, some airlines are hesitant to use Boeing as its supplier. Boeing has received 500 cancellations in 2020 alone, with 108 cancellations happening in April.² On top of the cancellations and lost revenue, COVID-19 caused Boeing to cancel the acquisition of Embraer, as the capital was needed to ensure liquidity.

Impact of Oil

Oil prices were aforementioned as a significant expense, and thus the demand on the supply side was to manufacture newer aircraft that are 25-40% more fuel-efficient.³ Historically low oil prices throughout COVID-19 have reduced the demand for these efficient planes in the short-run, and the current state of oil will also support the diminished urgency for airlines to phase out inefficient older aircraft.

U.S. Airline Fuel Cost



Source: Statista

Overall Impact to Airlines

With the impact of COVID-19, an opportunity arises for airlines to retire their older fleets and begin ordering more fuel-efficient and technologically advanced aircraft.⁴ The problem will be manufacturing the newer planes since supply chains have been severely disrupted. It is predicted that output will not return to pre-COVID-19 standards until 2021. Notably, airlines must strive to find a balance between maintaining a healthy liquidity position today, and positioning themselves long-term to acquire adequate fleet capacity as this will be a vital competitive advantage moving into the future of this industry. When analyzing this dichotomy, airlines must consider the planes they will begin buying as well as the adaptation that may be required as a result of COVID-19. In the future, manufacturers can anticipate a redesign to take place with how planes are structured internally. Typically, airlines focused on increasing passenger capacity by limiting individual space, however, with this health crisis, airlines must prioritize providing more space and can possibly anticipate removing middle seats. Increased personal space is classically a selling point for customers to upgrade to first class, but now it will be a necessity.⁵ Concepts have shown that with the middle seat eliminated, overall aircraft size of new models will likely begin to increase in order to meet this new requirement.

The Economics of a Government Bailout

Aid Rationale

Companies are bailed out when they provide a vital service for society's general welfare. If the ramifications of a company projected to fail cause social distress, it also signals the need for government intervention. Such companies are deemed vital for the national economy.

Airlines transport people and goods, and cannot go bust due to the immediate and acute impacts on our globalized economy.

History

Bailouts have extended into five areas, which consist of Government-Sponsored Enterprises, Insurance Companies, Banks/Financial Services, Mortgage Servicers, Automobile Companies.

| Name | Type | Disbursement | Profit/(Net Outstanding) |
|------------|-----------------------------------|-------------------|--------------------------|
| Fannie Mac | Government - Sponsored Enterprise | \$119.836 billion | \$68.831 billion |
| AIG | Insurance Company | \$67.835 billion | \$5.025 billion |
| GM | Auto Company | \$50.745 billion | (\$11.308 billion) |
| Chrysler | Auto Company | \$10.75 billion | (\$1.213 billion) |

The largest bailouts resulting in a loss were two auto companies with similar principles to the current airline relief premise. Bailouts of GM and Chrysler together saved 1.5 million U.S jobs – government aid in airline stimulus funds are meant to benefit the employees. Along with loans, they bought stock ownership in both companies and sold their shares at discount, ending the bailout in December 2014.

Resulting in significant taxpayer loss, the actions were necessary to prevent a recession due to the prospective spike in unemployment from the collapse of these two companies.

COVID-19 Relief

- Nearly \$4 trillion has been deployed to keep the economy afloat; \$2 trillion stabilization package is largest of its kind
- Commitment of \$500 billion in loans to hard-hit companies, particularly travel-related companies like commercial airlines

A \$50 billion aid package was authorized by Congress for airlines, including a \$25 billion loan at a lower interest rate than otherwise available to be paid within 10 years. The US Treasury will also receive warrants worth at least 10% of the loan to buy shares in return at a predetermined discount price.

The second pot of \$25 billion is intended for staff payroll support through September – composed of 70% in grants and the remaining 30% as 1% interest rate loan.

5 Major US Airlines Have Accepted the Government's Terms for a Bailout Offer:

| Name | Loan | Payroll Support | Warrants |
|----------------------|-----------------|-----------------|--------------------|
| Southwest Airlines | \$1 billion | \$2.3 billion | 2.6 million shares |
| JetBlue Airways | \$250.7 million | \$685 million | Limited amount |
| Delta Air Lines Inc. | \$1.6 billion | \$3.8 billion | 1% @ \$24.39– 5y |
| American Airlines | \$1.71 billion | \$4.1 billion | 13.7m @ \$12.51 |
| United Airlines | \$1.5 billion | \$3.5 billion | 4.6 million shares |

Conditions: airlines must keep at least 90% of workers through September, suspend stock buybacks/dividends, and limit executive pay. All domestic cities must be served and only one airport per city is required to be used.

Carriers will be able to apply for separate loan packages in the coming months.

Overview of the Big Three Network Carriers

While there is usually a multitude of factors that go into a firm's competitive and financial advantages, the harsh reality in today's terms is there are two overly important metrics: liquidity and leverage. American, United, and Delta are all expecting FY20 passenger revenue to be near net zero forcing them to collectively burn through hundreds of millions in cash every day. This compounds on top of the competitiveness and capital intensity that has historically led investors to look down upon the airline business model. Airlines have been pushed to the brink of bankruptcy with the possibility of one of them going under being a likely event.

American Airlines is currently in the toughest position of any other US airline. Their substantial debt load (11.4x) means that without the government bailout, their liquidity would run to zero by July. Their daily cash burn is highest of its peers at \$70mm with management expecting Q2 capacity to drop by 70%-80%. Investors were already disappointed with AAL's laggard results pre-COVID; now, investors must beware of high bankruptcy risk.

Delta Airlines is currently positioned best to weather the storm. With industry-leading margins, strong cash flows, and leverage of only about 2.2x, Delta has somewhat of a financial cushion shielding them. Another important thing to note is their liquidity is much stronger than that of AAL. With current liquidity of ~\$6bn, expected inflows (Q2) of ~\$7.5bn, and expected cash burn (Q2) of ~\$5.5bn, that leaves them with ~\$8bn of liquidity by June.

United Airlines is holding up the middle ground between Delta and AAL with reasonably strong liquidity and a daily cash burn of \$50mm per day (a low among the legacy airlines). However, they are still levered at a concerning 3.3x and only 7.3x interest coverage. Furthermore, their low ROE of 10.8% and ROA of 1.9% place little room for earnings volatility. All in all, they likely will still have sufficient financial strength to emerge from this downturn, but people should not turn a blind eye.

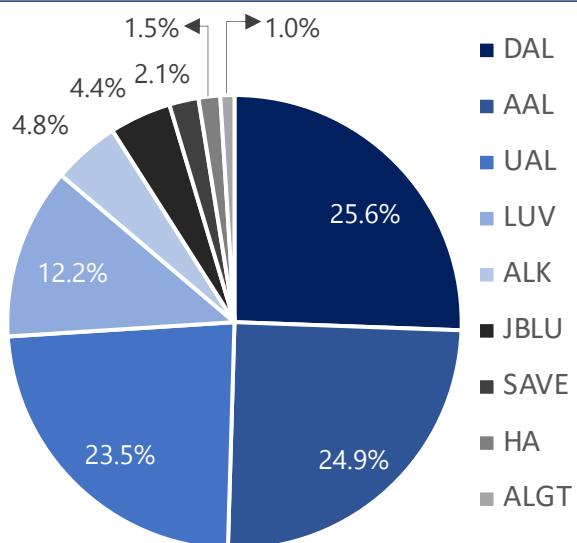
Can Only Two Prevail?

The bottom line is that the government bailout will provide significant support to all airlines including AAL. That being said, even with reduced bankruptcy risk, AAL is still poised to be a significant industry laggard into this decade.

It is still necessary however to look at the possibility of AAL going under, leaving Delta and United as the only two International Network Carriers out of the US. AAL accounts for ~26% of industry revenue so if that were to be lost, Delta and United must make significant increases in capacity to fulfill demand.

However, the loss of a competitor in an incredibly competitive industry may ease the stress on some of these airlines leading them to accommodate the new demand quite seamlessly. The loss of a competitor could see Delta race to a greater rebound out of this trough as they are in the strongest financial position to add capacity to their fleet in order to fill newfound demand. Given that AAL still services a significant amount of domestic travel, companies like Southwest and Alaska could also be poised to leap on the excess demand.

% of FY19 Industry Revenue



Value Airlines' Changing Strategies

It comes as no surprise that value airlines have been able to maintain margins better than international airlines over the past few months. They have consistently looked for options to keep costs low and so the impact of COVID-19 has had a lesser effect on them. For example, Allegiant Travel Co. maintains less expensive partnership agreements (overnight holding prices) because they agree to have a less than ideal flight schedule and simply have a smaller fleet in comparison to the larger airlines.

Value Airlines and Their Challenges

Spirit Airways

Spirit's financials often contradict each other. While the airline seems to have some of the best liquidity in the market, it also has the lowest valuation. The reason for this is that investors are concerned about upcoming lease obligations (which Airbus has persisted on maintaining) and the overall small size of the company. Yet, as the lowest costing major airline in the industry, it is possible that Spirit may attract new consumers if the economy does not rebound after the pandemic. In conclusion, Spirit Airways is a risky buy. If the pandemic persists to yield flights, Spirit may be the first to go (despite its liquidity). However, if Spirit makes it out alive, the airline will be ready to operate with new aircraft and an appeal to new customers.

Southwest Airlines

With a daily cash burn of just \$30bn and capacity expected to drop ~60% (relatively stronger than competition) Southwest is in a

But while keeping costs low is a major portion of getting through COVID-19, simply maintaining liquidity is the overall objective. Some low-cost airlines were hit harder than others, such as JetBlue Airways, because they recently took on more debt to finance restructuring projects. They invested in new fleets to increase load factor (clustering passengers tighter together) and to decrease fuel costs. Investments like this don't seem to matter when there are no customers to fly using an airline's fuel-efficient aircraft.

stronger position than many other airline. This can be attributed to the fact that domestic travel has not been completely cut off like international travel. With strong margins and conservative debt levels (1.4x), you can expect Southwest to survive the current circumstances better than other airlines.

Alaska Air

Alaska may be best suited to face this crisis in this comparable universe. With a daily cash burn of just \$6.5bn and management targeting a neutral cash balance on for FY20. Although Alaska's margins and return metrics are slight laggards to the industry, their low leverage of just 0.4x puts less stress on management's cash deployment. Furthermore, their focus on domestic travel leads to stronger revenue prospects than their international competitors.

Bottom Line

With bankruptcy risk and performance issues plaguing many airlines, it comes as no surprise that their stocks have performed so poorly. The following presents the Investa Insights Team's opinions on which stocks have the most opportunity to thrive after the pandemic and which companies will suffer consequences for a more extended period of time.

Bullish

DAL, ALK, LUV

Neutral

UAL, JBLU, SAVE

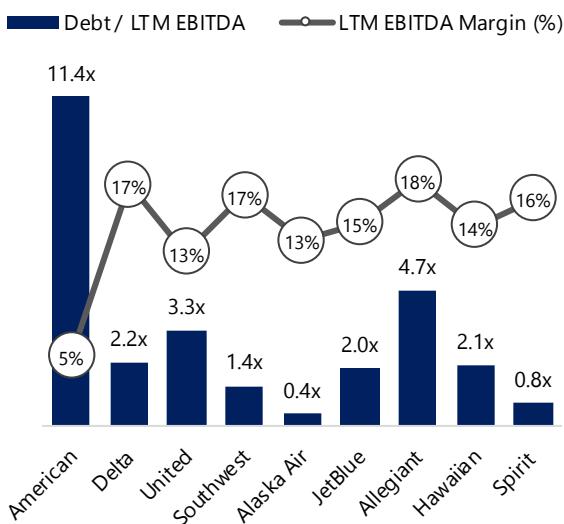
Bearish

AAL, HA, ALGT

The Impact of Leverage

American Airlines has the highest debt/EBITDA multiple of 11.4x, which shows they're rather overextended in leverage to cover it with pre-tax and depreciation earnings. This is not a good sign as they already have the greatest amount of debt for any major airline, almost doubling that of United. They're also taking the greatest loan from the U.S government within their stimulus package, totalling \$1.71 billion. Earnings will need to make significant rebounds in the coming years to help cover their high debt levels. Southwest Airlines, JetBlue Airways, Delta Air Lines, and United Airlines fall within the range of 1.4-3.5x in order of smallest to largest, respectively. They're each not alarmingly over-leveraged but still cannot easily cover their debt with their current earning prospects. Alaska and Spirit Airlines have the healthiest ratios of 0.7x and 0.8x, respectively. Today, they can cover their debt with pre-tax earnings therefore are in the most optimal position entering stimulus package acceptances.

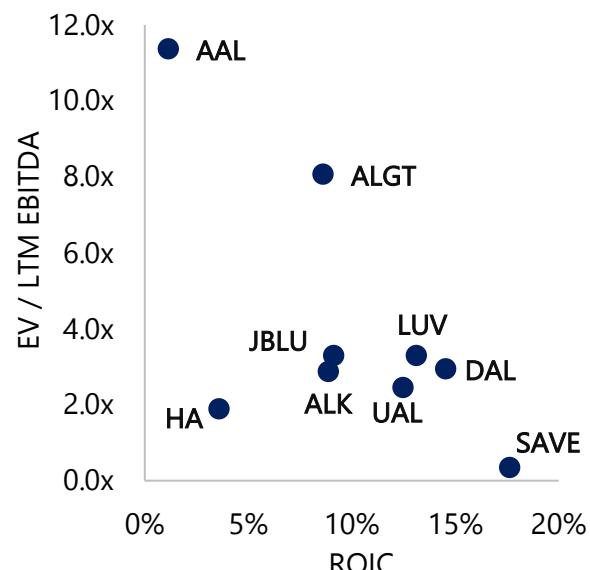
Industry Leverage vs. EBITDA Margins



Additional Factors the Market is Pricing In

- Loyalty Programs:** after the pandemic, there will be a race for airlines to get back on their feet. Loyalty programs will enhance the probability that a minimum number of passengers will start flying on an airline, helping it reach break-even sooner. Right now, loyalty programs are being used as collateral which will allow airlines to collect needed cash flows.
- Airport Contracts:** controlling price will be even more difficult if the economy falls into a great recession. Having market power over prices will decrease the chance that airlines will have to run at a loss to compete for cash flows from passengers.
- Labour Size:** the largest piece of leverage airlines have is how many people they employ. As the government attempts to stop the estimated 25% unemployment rate from growing even more than it has, airlines can use employment as leverage to receive more funding if needed.
- Airline Size:** unfortunately for some well-run and efficient low-cost carriers, larger network carriers may reduce prices sharply as consumers may not be as price inelastic as they previously were. Smaller airlines may not have the margins to compete for a long period of time.

ROIC vs. EV/EBITDA



A Cultural Shift

Consumer Concerns

It will take years before consumers feel comfortable getting back on a plane. Not only will they be cautious of international travel, but they will be wary of the potential danger of staying in an enclosed space sitting next to a stranger that could be carrying any sort of virus or germs.

When Consumers will Feel Comfortable Flying



Source: Ernst & Young

It is pivotal that airlines react by shortening the time it will take for consumers to feel comfortable getting back on a plane. The window of opportunity lies with consumers that are expected to start going back on a plane within months of the end of the pandemic. At 55% of all consumers surveyed, this is the market that can make or break airlines that are running low on cash flow (i.e. all of them) even after they can begin operating.

Airlines simply need to react to consumer concerns about safety. Gone are the days when consumers will be comfortable practically sitting on top of a stranger's lap. Gone are the days when consumers feel comfortable eating airplane food (if they ever did). To combat consumer concerns, airlines may have to reduce their load factor and therefore cut a major revenue driver.

Changing Travel Plans

Based on the statistics presented on the left, it is safe to say that leisure travel may not come back right away. Instead, it is possible that leisure travel will rise in a phased-in approach between regions. Firstly, consumers will want to stay closer to home before they begin travelling internationally. This will first represent an opportunity for domestic airlines to become profitable and regain their liquidity much quicker than the Big Three international airlines.

Domestic flights, however, may not cover every state in the US. Hawaii has raised additional concerns regarding travel from mainland US to the island state since they consider themselves to be safely isolated.¹ If Hawaii chooses to enact policy continuing to limit travel to and from the island, Hawaiian Airlines will most definitely take a hit. Moreover, the company is already taking a hit with its international consumers on the east coast. Australia and New Zealand have plans to create a "bubble" allowing travel to continue between the two nations.¹ As these consumers become more comfortable staying within this bubble, they will be less likely to fly to Hawaii (a once-popular destination for them) even if the state opened its borders internationally.

This raises another concern for leisure travel. The "Travel Bubble" concept has become a popular action plan for countries such as Australia, New Zealand, Estonia, Latvia, and Lithuania. Essentially, nations open their borders to one or two other nations that have also managed to control the spread of COVID-19. But the bubble may not be an option for US Airlines. Travel Bubbles conflict with the US Constitution's principles for Equal Treatment. Countries that do not have such principles laid out in their constitution will allow their respective domestic airlines to capitalize off the bubble while the Big 3 US-International airlines will be losing out on revenues.

Load Factor

Immediate Concerns

Cautious consumers will want to physical distance. Currently, domestic airlines that have been flying (a very limited amount of) flights, have had to keep empty seats between passengers on planes.¹ This is a trend that may continue even after physical distancing laws are permitted. To obtain market share from the 55% that are still wary about getting on a plane, airlines may have to continue keeping their passenger counts below capacity. Revenues are therefore cut by more than half. With a lower load factor, there will be fewer passengers to spread overhead costs for. Gas, rent, and maintenance all must be paid no matter how many passengers there will be.

This may impact low-cost providers more than others. JetBlue, for example, just invested in planes with tighter seating.² Now, consumers will want the opposite. Seats that alternate in direction may be the investment that obtains market share from the 55%

Additional Factors to Consider

Regulation

In August 2001, airport security was privatized and unregulated. After terrorism attacks one month later, the Transportation Security Administration was introduced to ensure the safety of passengers. Aircraft were regulated to increase safety precautions onboard (e.g. bullet-proof glass at the entrance of the cockpit). All airports had to invest in training and capital to support a newly regulated screening check for passengers to get on a plane. What regulations will change once international air travel resurges? Will airports have to invest in new testing facilities? Or maybe they won't even take the chance, and passengers will have to be sterilized before they get on a plane. After looking back at the massive cultural shift that 9/11 created, it is not too far off to think that similar investments will become policy for airports and airlines to function. These investments will likely increase overnight rent costs and may even require direct investment of their own to keep passengers safe and therefore revenues coming in.

Road Trips

As the economy falls and international travel remains restricted, it comes as no surprise that road trips may make a comeback soon. The New York Times predicts that interstate travel will become popular as consumers try to take demand of their lives and have a vacation – even if that means travelling to Texas instead of France to see Paris.³ So what does this mean for airlines? Nothing in the long-term. It does signal that domestic airlines may see an influx of demand as soon as people feel comfortable getting on a plane even when international travel is still banned. As for international network carriers, this also signals that the lust for taking charge and getting back to vacation-mode is persisting and demand for leisure travel may go right back to normal once restrictions are lifted.

Longer-Term Impact

It will be harder to fill flights with the low amount of consumers that are comfortable travelling without physical distancing (even the law permits it). Load factor will remain low in the short-term unless airlines revamp their scheduling. A decrease in flight times is expected to occur over the next year. Gone are the days of 5 flights leaving Toronto to go to New York all within the span of 1 hour. This is especially true due to an expected decrease in business travel. The CEO of Spirit Airlines estimated that 5-10% of all business travel will be lost permanently now that businesses have grown more comfortable with virtual meetings.

Conclusions

COVID-19 has a more detrimental impact on the airline industry than others because of its fixed cost nature, its inability to obtain supplies, its overreliance on debt, and the long-term societal changes that are expected to come as a result of the pandemic.

1. Financial Distress

With demand for airlines close to zero, costs such as insurance, interest, rent, and labour are still being incurred. Government bailouts aside, US airlines have too much debt due within the next year with not enough assets to syndicate. DSO is expected to increase even as bailouts help cover expenses. As airlines struggle to pay off their own debts, may receivable accounts will close as customers face their own financial distresses. The overall result is poor liquidity metrics for all companies in the industry, especially those that have recently sunk money into investments that cannot be realized until the pandemic is over.

2. Investments and Supply of Aircraft

COVID-19 comes at the end of many aircrafts' life cycles. For companies that decided to turn over their fleets before the pandemic face further liquidity troubles than the rest. Those that have not turned over their fleets will now face challenges to get new aircraft from suppliers who cannot return to 2019 manufacturing levels for another 2-3 years after the pandemic.

3. Long-Term Consumer Demand

Even after the pandemic, consumer demand will not return to 2019 levels. Airlines are most likely going to be the last industry to return to see consumers' demand return to normal. As domestic business may return near the end of the pandemic, airline consumers will still be wary of travelling until new health and safety regulations are implemented (which will also most likely yield more costs for airlines as well). Consumers will stay domestic for the next 1-2 years after the pandemic. Most airlines do not have the liquidity to last that long until demand returns.

Are Any Airlines a Good Investment?

Warren Buffet famously sold off all his stakes in Delta, Southwest, United, and American Airlines this month. The decision, however, contradicts his long-term value investing principles. Why would Buffet sell-off airline shares during a pandemic when their stocks are suffering short-term shocks? The major concern is whether airlines will make it out alive. There is too much uncertainty around which airlines will prevail as operations and liquidity suffer. For those that would like to invest in the risky airline business, there are two qualities investors should look for in airlines before they place an order.

1. Economic Moats

Of course, the most fundamental of investment principles is to look for a strong economic moat. Some moats will be more important than others as the industry reacts to COVID-19. Cost advantage will be the only moat that will allow airlines to survive. Intangibles on the other hand such as airport contracts, on the other hand, create market power and therefore control of yields as consumers will now be looking for price competitive options.

2. Strong Liquidity

As has been mentioned countless times before, liquidity is the greatest concern for all airlines. In tangent, bailouts must be concerned with the financial ratios presented on page 11. For example, American Airlines has some of the worst operating metrics across all airlines measured, however their bailout is the largest meaning they will most likely stay afloat. Another consideration for liquidity will be size. For example, Spirit Airlines has strong operating metrics, but its cash may run out sooner than those with poorer metrics due to pure normative economics.

Furthermore, consider whether the Big Three may reduce to the Big Two and which company may have to die for the others to survive. At a domestic level, consider how much market power domestic firms may be able to obtain if smaller airlines go bankrupt.