

Hubert Horan: What Will it Take to Save the Airlines?

Posted on [June 3, 2020](#) by [Yves Smith](#)

Yves here. Hubert lays out why the airlines need a deep restructuring, including a much greater focus on operational efficiency, to have any prospect of being self-supporting. Yet he deems the industry to be dead set against these changes and the US both unwilling to and incapable of imposing them. So we'll have the worst of all possible worlds: permanent corporate welfare queens that get to keep private sector executive pay and perks.

By Hubert Horan, who has 40 years of experience in the management and regulation of transportation companies (primarily airlines). Horan currently has no financial links with any airlines or other industry participants

Coronavirus has created the greatest challenge the airline industry has ever faced. For the large legacy carriers serving intercontinental markets, the threat is comparable to the meteor that caused massive climate change and drove dinosaurs into extinction. While the industry was clearly viable prior to coronavirus, it faced a number of serious competitive and financial issues that will impede efforts to deal with the impact of the coronavirus meteor.

The industry requires major, painful restructuring. Baring staggering increases in taxpayer subsidies (beyond the \$60 billion already pledged in the US), it is unclear how most (perhaps any) of these carriers survive under current ownership in anything like their current form. None of the changes needed to ensure the long-term efficiency and competitiveness of the airline industry are even being discussed at this point, and the processes needed to manage the needed restructuring do not currently exist.

The Financial Devastation Directly Caused by Coronavirus

Airline economics depend critically on extremely high capacity utilization. Small changes have huge profit leverage. US airlines filled 85% of their seats in 2019 (up from 58% when the industry was deregulated and 70% 20 years ago). Once an airline has committed to the costs of operating a given schedule, almost all of the lost revenue from a shortfall of passengers directly reduces the bottom line.

Coronavirus-driven traffic losses have been vastly larger than anyone could have ever imagined. Traffic through TSA checkpoints in US airports was down 96% versus the year before in mid April and 88% in mid-May. While the industry had faced demand shocks in the past (9/11 in the US, various wars, the original SARS outbreak in Asia), none were global in scope, and none were seen as driving permanent declines in demand. Never before has flying on an airplane required accepting serious medical risk. In a recent poll only 23% of US travelers thought flying on an airplane was safe. [FN1]

While no one knows what will happen, this analysis assumes that there is no widely available vaccine and no reliable way to prove individual immunity during 2020. Perhaps infection rates decline gradually

and economic activity gradually increases. Perhaps there are new outbreaks and efforts to reopen the economy are put on hold. Perhaps economic activity declines seriously as companies realize that recent losses are unsustainable, and major new waves of layoffs and bankruptcies occur. But the idea of a rapid, “V-shaped” recovery to the January status quo seems wildly improbable.

The revenue losses have been even worse than the drop in passenger counts. Airline profits depend heavily on business travelers paying higher fares. But the gradual increase in domestic traffic appears to be almost exclusively leisure demand, such as pent up desire to visit family members. Corporate travel remains close to zero, [FN2] and the massive short-term substitution of videoconferencing may reduce business travel for years to come.

The profitability of the large US legacy carriers (Delta, United, American) also depends heavily on intercontinental traffic, which has fallen even further than domestic traffic. Cross-border travel bans have been key to slowing the spread of the virus, and the point where the mass market is no longer concerned with the health risks is somewhere in the distant future.

Profitability requires very tightly aligning an airlines’ cost structure with its revenue base. Airlines lock-in to most of their costs (e.g. fleet, airport facilities, IT infrastructure, corporate debt) on lower-cost long-term arrangements because historically they have had very high certainty about future demand. Contracts with labor and suppliers are similarly inflexible, with major penalties if they are suddenly terminated.

In the short-term (3-9 months) airlines might be able to readily shed 10-20% of their costs. Over two years, cost reductions of 30-40% might be possible, depending on the timing of contracts. But revenue can vanish overnight, while cost efficiency plummets and cost per passenger skyrockets. The much smaller demand shocks of the past (the post-dotcom and 2008 financial collapses, fuel prices suddenly exceeding \$100/bbl) were highly traumatic, leading to years of major losses. The cost per passenger impact of the coronavirus “meteor striking Earth” magnitude shock is far worse, and (unlike previous crises) there is major risk that it may be many years before demand fully recovers.

In their first quarter investor conference calls Delta, United and American all said that by the end of the second quarter they hoped to reduce their daily cash drain to roughly \$50 from the \$70-100 million a day they had been hemorrhaging at the outset of the crisis. Southwest, a purely shorthaul, narrowbody operator with smaller hubs and less overhead and debt, predicted a cash drain of \$30-35 million day by the end of June. Whether this is explained by a staggering level of cognitive dissonance, or by Wall Street’s expectation that Washington will do whatever it takes to protect these equity values, it suggests that capital markets will be a major obstacle to the major restructuring the industry desperately needs.

Thus the big 4 US carriers (DL, UA, AA, WN) are hoping that their daily cash flow can improve to negative \$180 million per day, which would annualize to negative \$66 billion. Those estimates appear to include \$32 billion in payroll protection bailout money provided by Congress under the CARES act.[FN3] In 2019, those four carriers generated positive cash flow of \$23 billion from operating activities.

The day-to-day dynamics of cash flows in a crisis is obviously more complicated than can be discussed here. Carriers have been less than totally transparent as to how cash flow and other key metrics are being calculated during the crisis. But as a crude first approximation, the direct impact of coronavirus

was to reduce the annual cash generated from the operations of the big 4 by \$121 billion, an impact reduced to \$89 billion by the one-time receipt of the first tranche of federal bailout money. A financial impact that can be reasonably characterized along “meteor strikes Earth and drives dinosaurs extinct” lines, and that will require radically greater restructuring than the industry had ever contemplated before.

Detailed financial information about major carriers outside the US is less readily available. However, several airlines have already filed for bankruptcy protection (LATAM, Avianca, Virgin, Thai, South African) and many are negotiating with governments for major bailouts and even nationalization (Alitalia).

This industry financial crisis extends across the entire airline ecosystem. Airports, distribution providers (Expedia, Booking.com, Sabre, etc) and service contractors have all had revenues largely disappear, without having comparable access to multi-billion dollar taxpayer subsidies. Those contractors employ staff paid much less than airline employees. Since most have no access to payroll protection subsidies, they have implemented major layoffs. Current obligations to aircraft/engine manufacturers and lessors remain in place but are not sustainable.

What Would an Ideal Plan To Save the Commercial Airlines Include?

By facilitating commerce and tourism, an efficient airline industry creates huge benefits for the economy as a whole. If one is primarily concerned with overall economic welfare, and the public’s interest in maximizing those benefits, the required major restructuring of the airline industry should focus on three objectives:

Providing the greatest level of service and employment possible at each stage of demand recovery that can be justified by actual revenue (and subsidies)

Maximizing the competitiveness and productivity of the restructured industry that eventually emerges and

Ensuring that the (very significant) pain of the restructuring process is fairly distributed.

If the industry revenue base in the second half of 2020 is only 25-50% of what was expected before coronavirus, and 2021 revenue is likely to still be well below previous levels, then a huge chunk of total industry costs need to be permanently eliminated, and half (or more) of planned costs need to be deferred, cut or subsidized by taxpayers this year.

Operations and costs maintained because of unrealistic expectations that the pre-virus status quo can be magically restored will simply serve as a deadweight that will make the efficiency improvements that longer-term recovery requires much more difficult to achieve.

Those efficiency improvements will also require that the restructuring address problems that predate coronavirus, including the systematic reduction in industry competitiveness over the last 15 years. Domestically, this led to mergers of 6 Legacy carriers into just 3, and allowed Southwest to acquire Airtran, its most important competitor. [FN4]

Because the demand collapse will drive huge increases in cost per passenger, industry recovery will require major new offsetting efficiency/productivity gains. Robust competition is needed to maximize the pressure to find the new innovations and service improvements to drive those gains. An industry based on open collusion and protected by huge entry barriers will not produce those improvements.

The virus creates major risks that competition in many markets could quickly become horribly distorted, or vanish altogether. Approval of the domestic mergers and intercontinental alliances had been justified by the false claim that the current existence of three competitors is all that is required to indefinitely provide consumers with the full benefits of competition. The coronavirus crisis provides a painful demonstration why that was never true.

The three collusive intercontinental alliances need to be broken up immediately, as they cannot serve as the basis for competitive international markets in the future. [FN5] They had been justified by the false claim that the current existence of three competitors is all that was required to provide consumers with the full benefits of competition.

In fact, the collusive alliances never provided sustainably balanced 3-way competition. Instead each enjoyed major pockets of domination (as with the AA/BA alliance in the UK, and the UA/LH alliance in Germany, Switzerland, Austria, Belgium and Scandinavia) where the other alliances played a very secondary role.

With the collapse of international traffic, the alliance carriers will shrink (or abandon) secondary positions, and focus on increasing market power in the markets they dominate. Several key alliance members are especially vulnerable at the moment, and those problems could rapidly destabilize the entire alliance structure.

Within the US, the industry consolidation process distorted competition by giving Delta an artificial advantage among the legacy carriers, and American an artificial disadvantage. This is because in both the creation of the collusive intercontinental alliances and the domestic US mergers that followed, Delta went first, United went second, and American went last. This gave Delta years where it had a huge scale and network advantage, which it used to create a profit/cash flow advantage that was still strong in 2019.

American, with weaker cash flow and greater debt, is widely considered the airline most at risk of bankruptcy while Delta is widely considered to be the least at risk. But if the crisis is not dealt with on an industry-wide basis, but on isolated company-by-company basis, this would likely destroy any semblance of competitive balance between the three big legacy carriers, and could eventually collapse the legacy sector into a Delta-United duopoly.

Outside the US, many markets that were never large enough to support two reasonably sized airlines may collapse into an effective monopoly. Qantas has been aggressively fighting subsidy requests from Virgin Australia in the hope that it could emerge from the crisis with a permanent stranglehold on Australian aviation. Consumers in numerous other countries (Canada, Korea, Russia, much of South America) face similar competitive risks.

The airline bailout requests that led to the CARES Act clearly indicate that when the crisis began both the industry and Congress expected a fairly rapid “V-shaped” demand recovery that would protect the current owners of the major carriers. [FN6] The current revenue (and medical) reality demands an

immediate move to bankruptcy protection for most carriers and an industry-wide restructuring program. The industry's 2019 status quo cannot survive.

Bankruptcy is needed to protect assets that will be critical to the (much smaller) reorganized industry from short-term creditor claims, and to ensure that current owners and insiders cannot divert scarce cash into their own pockets. It will also help maximize the future viability of the reorganized operations, which will be critical to maximizing creditor recovery.

Given the critical importance of robust competition, and the major risks of competitive reductions and distortions, restructuring needs to be addressed on an industry-wide basis. One model for an industry-wide restructuring program is the U.S. Railway Association, a temporary Federal agency that successfully reorganized the bankrupt freight railroads in the Eastern US in the late 1970s. [FN7] At the time the Penn Central was the biggest bankruptcy in world history. Congress created USRA because it recognized that the railroad industry's deep-rooted problems far exceeded what the Bankruptcy Courts could possibly handle.

However organized, a bankruptcy restructuring of this magnitude and complexity cannot possibly succeed if it is dominated by one set of stakeholders determined to avoid costs and pain by pushing them onto the other stakeholders. Passengers will clearly pay higher fares in a downsized world, but cannot be gouged by airlines exploiting market power after competition has been eliminated. Huge numbers of staff will lose their jobs through no fault of their own, but should not face draconian wage cuts designed to save airlines the bother of better managing operational efficiency and customer service. The recovery of the overall economy depends on maximizing airline service, but capacity must be tailored to actual revenue demand, and not to arbitrary political or bureaucratic preferences.

An Economically Sensible Industry Restructuring Program Appears Impossible in Today's Political Environment

While it is easy to lay out the basic requirements and objective a successful airline industry restructuring program would require, it is even easier to point out the many political obstacles that will likely prevent the needed restructuring from happening.

All efforts by airlines and Washington to deal with the crisis appear to have been entirely focused on protecting the owners and the future equity value of the incumbent companies, which totally precludes any consideration of the major downsizing and industry-wide restructuring that is actually needed. This is consistent with Washington's overall emphasis on helping the owners of politically organized large corporations while providing only token support for suppliers, small business and workers. Airline employees did not receive payroll protection support because of the critical work they were doing but to ensure that the airline did not file for the bankruptcy that would wipe out equity.

Even if one argues that programs designed to protect the 2019 status quo for a couple months until a powerful "V-shaped" demand recovery occurred was a plausible position in March, it is now a delusional fantasy. Subsidies for the status quo will waste billions that could be used to allow the future industry to reorganize with more capacity and jobs. But the only people at the table discussing the future of the industry are executives totally dedicated to protecting their shareholders and Washington officials who see the interests of capital accumulators as superior to all other economic interests.

An eventual industry recovery will require dealing with both major problems that existed prior to March and the virus-driven revenue collapse. Washington's current programs appear heavily focused on bailing out company owners for failed pre-coronavirus investments, since those industries are the ones most aggressively lobbying for taxpayer money. Many other industries (retail, oil and gas, commercial real estate, tech bubble unicorns) made far more irresponsible investments than the airlines, but the airlines still need to deal with the tens of billions wasted on stock repurchases that could only be justified by the assumption that profits would rise indefinitely and the industry would never again face a recessionary-type downturn.

Between 2014 and 2019, the big 4 airlines used \$42.4 billion of the cash they had generated to repurchase stock. The combination of stock buybacks and increased leverage (between 2016 and 2019 debt increased from \$47 to \$75 billion) was designed to inflate short term stock prices. This was done at the direction of these four boards, who had incentivized the four CEOs with \$431 million in stock based compensation. Stock buybacks exceeded the free cash flow these airlines were generating, and increased even as key financial metrics began declining. [FN8] Because of the artificial problems created by the industry consolidation process mentioned earlier, American has had to do more to boost its stock price (and thus now has the weakest balance sheet) but all four carriers have pursued buybacks and debt aggressively.

By replacing this cash, the taxpayer bailout money allows the owners of these companies to avoid taking any responsibility for the extractive self-dealing that left them vulnerable to downturns far less serious than coronavirus.

It is not clear whether the current owners and senior executives would be capable of reorganizing these companies into the smaller but more competitive and efficient industry that the larger economy needs. Some of this myopia is understandable. Doug Parker's job is to do everything possible to avoid the bankruptcy that would wipe out American's shareholders, and it is Ed Bastian's job to exploit every possible way to increase Delta's competitive power on behalf of his shareholders. But this narrow shareholder focus will not serve the public's interest in eventually achieving a sustainably efficient and competitive industry.

More importantly, these people have focused almost exclusively on petitioning governments to eliminate competition, using increased artificial market power to raise prices and extract more favorable terms from unions and suppliers, and then enriching themselves. They are likely to fight tooth and nail to preserve the collusive alliances that drove consolidation and major increases in market power.

It is also not clear whether any Federal Government entity has the administrative competence or industry expertise to manage a major restructuring program, and it is even less likely that anyone in Washington would ensure that such efforts focused on maximizing long-run industry efficiency and competitiveness and overall economic welfare. The industry expertise and greater public interest perspective that allowed the USRA to successfully reorganize the railroad industry vanished long ago.

Similarly, while the US bankruptcy courts may have been able to reasonably address these issues 30 years ago, their dismal performance handling the airline bankruptcies after 2004 (when over two-thirds of US airline capacity was under Chapter 11 protection) demonstrates that they would probably make today's problems worse. By contrast, the numerous 20th century cases forced the bankrupt airlines to

replace management, make painful capacity cuts, and restructure fleets and networks, changes needed to maximize future viability and creditor payments.

As with Federal agencies such as DOT nominally responsible for industry oversight and protecting broader interests, the biggest airlines have successfully captured the bankruptcy process. Instead of protecting creditors and broader economic welfare it now focuses on serving the interests of incumbent managers and capital accumulators. In the United case, CEO Glen Tilton maintained exclusive control of the reorganization process for four years until he finally produced a minimally acceptable plan. Even though that plan left the company competitive crippled for several more years, the court allowed Tilton to pocket \$30 million.

In each recent case, the courts dumped pension obligations onto taxpayers and rubber stamped draconian labor cuts without the legally required evidence that the company could not have reorganized without cuts that extreme. The recent American case was the only time creditors were allowed to challenge management's reorganization plan, but the Court delayed American's emergence from bankruptcy by 18 months until creditors agreed to pay the American CEO who had written the rejected plan \$10 million. [FN9]

The ability to deal with major industry crises always depended on government agencies tasked with representing broader public interests and judicial processes tasked with upholding evidentiary standards. But they also depended on the ability of capital markets to allocate resources based on objective information about corporate efficiency. The economy's ability to deal with the airline industry crisis has not only been compromised by the capture of oversight and bankruptcy processes but by the conversion of capital markets into a political utility disconnected from the real economy. The staggering cognitive dissonance between airline equity values and the actual evidence about airline economics suggests a level of "market failure" that may make the desperately needed industry recovery impossible.

Commercial aviation is critical to the economy, and no one wants major parts of the industry to collapse as a result of coronavirus or other problems. To save as much of the industry as possible in the near and medium terms will require a difficult, painful restructuring process focused on maximizing future efficiency and competitiveness.

But if "saving the industry" is redefined as "saving investors from the consequence of incurring excessive debt while extracting massive value in order to enrich themselves" then the effort cannot succeed. If efforts to "save the industry" are arbitrarily limited to those that can be financed by private investors seeking quick, outsized returns based on artificial market power derived from even more drastic reductions in competition, then the value of airlines to the rest of the economy will be dramatically reduced, and the risk of a major industry collapse increases.

Since commercial aviation is critical to the economy, and traditional restructuring approaches may be totally inadequate, the best interim solution may be to convert the industry to a regulated public utility for several years. Under normal conditions, the industry is obviously able to function on a lightly regulated basis, but it may take 2-5 years for normal conditions to return. At the moment there is no evidence that capital markets and current political and judicial systems could drive a the restructuring that the American economy needs. But the obstacles to that approach appear totally insurmountable at the moment, and there is no evidence that approaches reliant on capital markets and current political and judicial systems could possibly drive the restructuring that the American economy needs.

[FN1] 74% said flying on an airplane was unsafe. Quinnipiac University Poll released 20 May 2020 <https://poll.qu.edu/national/release-detail?ReleaseID=3661>

[FN2] Comments from the 13th Annual Wolfe Research Global Transportation and Industrials Conference quoted in Holly Hegeman, *Plane Business*, 28 May 2020, p.7

[FN3] It does not appear that these cash drain estimates include any of the separate \$29 billion in loans available until September under the CARES act. Those loans will require collateral and giving the government stock warrants, although the value of most airline assets has collapsed, and the terms of the stock warrants have not yet been defined.

[FN4] The three collusive alliances are led by Lufthansa and United, by Delta and Air France-KLM and by American and British Airways(IAG). For a detailed explanation of how these alliance carriers and the US Department of Transportation succeeded in converting highly competitive intercontinental markets into an oligopoly/cartel see my four part series on airline industry consolidation at ProMarket including “The Airline Industry’s Post-2004 Consolidation Reversed 30 Years of Successful Pro-Consumer Policies” <https://promarket.org/category/reading-list/aviation/>

[FN5] Current alliance partners could retain codesharing links and frequent flyer reciprocity; the serious competitive issues arise when arms-length marketing links are converted to full economic joint ventures with full revenue and profit sharing. For a more detailed discussion of alliance competitive issues see “Double Marginalization and the Counter-Revolution Against Liberal Airline Competition”, *Transportation Law Journal*, v.37 n.1, Fall 2010.

[FN6]. The CARES Act required that every carrier maintain service to every airport it had previously served, and banned any effort to temporarily ration capacity to where it was most needed and could be most economically operated. This might have made some sense had traffic initially declined 40% and quickly began recovering to pre-virus levels, but created significant waste given the actual, ongoing 85-95% traffic loss. This not only reflects Washington’s reluctance to recognize the actual magnitude of the demand collapse, but their disinterest in considering industry-wide solutions.

[FN7] The author worked for USRA. The two best books about the magnitude of the Eastern railroad crisis and how it was addressed are Loving, Rush, *The Men Who Loved Trains*, *The Men Who Battled Greed to Save an Ailing Industry*, Indiana University Press 2006, and chapters 6-9 of Gallamore, Robert and Meyer, John, *American Railroads, Decline and Renaissance in the Twentieth Century*, Harvard University Press, 2014.

[FN8] The details of the airline stock buyback and the executive compensation tied to them are laid out at Hunt, Ben, *Do The Right Thing*, *Epsilon Theory*, March 19, 2020. “Free Cash Flow” is less than the numbers quoted earlier for cash generated by operating activities as it includes the debt incurred to boost stock prices and to help pay for the buybacks. Again, many companies are guilty of more extreme extractive self-dealing than these 4 airlines (Boeing for example) but any restructuring effort that ignores these issues will likely fail.

[FN9] The author worked on five US airline bankruptcy cases. See “How Alliances Carriers Established a Permanent Cartel” <https://promarket.org/2020/05/05/how-alliances-carriers-established-a-permanent-cartel/>

<https://www.nakedcapitalism.com/2020/07/hubert-horan-can-collateralizing-frequent-flyer-programs-help-save-the-us-airlines.html>

Hubert Horan: Can Collateralizing Frequent Flyer Programs Help Save the US Airlines?

Posted on [July 6, 2020](#) by [Yves Smith](#)

Yves here. Hubert does his usual detailed job of explaining what it would take to “save” the US airlines and why the approach the US is using instead, of saving their investors, is fundamentally at odds with taking the required operational measures. But the part I find staggering is that anyone with an operating brain cell would buy the airlines’ effort to depict their frequent flyer programs as an asset separable from the airline proper that can be pledged as collateral.

And on top of that, the value of those frequent flyer perks has diminished in the eyes of their main market, business travelers. [As the Financial Times pointed out:](#)

Frequent flyers grounded by the growing number of corporate travel bans are unable to collect the number of loyalty points they would expect from premium airfares and hotel stays — not to mention linked points deals on the credit cards used to pay for these.

Access to different “tiers” of membership depends on how much money is spent within a set period, leading some airlines to reassure customers that they will not lose their coveted perks as a result of coronavirus disruption....

However, other US, European and British carriers such as Delta, Lufthansa and British Airways are yet to follow suit, which has angered some business customers who fear their membership to elite flying clubs that offer free upgrades and lounge access will expire in 2020.

Note that no US carrier was mentioned as making accommodations.

By Hubert Horan, who has 40 years of experience in the management and regulation of transportation companies (primarily airlines). Horan currently has no financial links with any airlines or other industry participants

The biggest issue in the airline industry at the moment is how the largest carriers can survive the coronavirus-induced catastrophic collapse in demand. As discussed [in last month’s post](#)[1] there is no apparent way for airlines to shrink their cost structure fast enough to avoid ruinous cash flow drains. The

taxpayer subsidies provided in the US (\$50 billion to date, through the CARES Act) and certain other countries appeared to be based on the false assumption that the industry's liquidity problems were temporary and that revenue would largely recover by the year end.

All of the problems described in last month's post have gotten worse. It is now obvious that a V-shaped recovery is not in the cards. The large post-Memorial Day spike in coronavirus dashed previous hopes that international travel could restart, and that domestic traffic would begin a steady rebound. Coronavirus has obliterated most of the corporate business travel that is the most important driver of airline revenue, and a large chunk of this revenue loss may be permanent.[2] Mass layoffs are expected at US carriers once CARES no-layoff rules expire in October.[3] Airlines outside the US have either begun filing for bankruptcy in countries that did not provide CARES-magnitude bailout money (Aeromexico, LATAM, Avianca), propose draconian staffing and service cuts (Air Canada), or partially renationalize their carriers.

Due to various combinations of bad luck and bad management, some airlines are much more vulnerable to short-term liquidity problems than others. Coronavirus has especially hurt the carriers (Delta and United in the US) with the greatest focus on international markets, while Southwest, an almost exclusively domestic carrier with strong service in leisure markets is relatively better positioned. United and (especially) American entered the crisis with the greatest debt and the fewest assets that could be used to raise cash. In recent years the large US carriers (again, especially American) had irresponsibly spent \$50 billion on stock buybacks, leaving them vulnerable to recessions much smaller than the one they are currently facing.

What Are the Goals of Current Airline Bailout Efforts?

The moves required to rebalance longer-term capacity and revenue will be painful and enormously expensive. It is critical to understand the objectives of current efforts to "save" the industry, and how those efforts will distribute the pain and offsetting subsidies.

An enormous amount of economic activity depends on having the most economically sustainable airline service possible at the lowest possible prices. If Washington's objective was to maximize the economy-wide benefits while minimizing the pain and costs, the process would focus on accelerating the needed restructuring and providing direct financial support to affected workers and airports. The restructuring would need to only operate the capacity that the reduced revenue base could support, ensure that industry resources were quickly reallocated to their most efficient uses, and that unsustainable capacity and assets were quickly shed. It would also need to maximize the future the industry competitiveness needed to drive ongoing innovation and efficiency improvements.

Instead, all of the actions taken and proposed so far are designed to protect the interests of capital accumulators. A simple one-time bailout of current owners might have been justified if there had been actual evidence that a V-shaped revenue recovery was likely. Even though the evidence is overwhelming that this hope is not materializing and that major restructuring is needed, Washington remains exclusively focused on the needs of capital.

Successful past approaches (bankruptcy, federally supervised industry restructuring) are off the table because they would give voice to consumer and broader economic interests and require equity and holders of current financial obligations to take substantial losses. Policies and legislation are based on

the fantasy that the best way to solve this catastrophic demand collapse is to let “capital markets” act without restrictions or supervision. Capital markets have never solved an industry-wide crisis of this magnitude, and capital market participants have no incentive to maximize local service, employment levels or competition, or to share the pain of restructuring.

The short-term focus is on protecting current equity holders. If they can maintain control of these companies they could realize most (if not all) of the gains from an eventual profit recovery. But this requires misallocating tens of billions in taxpayer subsidies to funding prior debt obligations and aircraft commitments that are supporting unsustainable capacity. Washington has not made current owners make any of the major sacrifices that other governments imposed (at carriers including Lufthansa) in return for major bailout funding, or made them bear any of the costs of stock repurchases or any other recent management failures.

Despite these efforts, the crisis is likely to overwhelm some current equity holders and investments but there will still be a powerful political bias to favor capital over all other interests. Competition in the US industry has been massively reduced in the last 15 years and the especially lucrative international markets have been cartelized.[4] Airline profit improvements in the 21st Century have overwhelmingly come from reducing competition in order to increase artificial power over prices, suppliers and labor, and these will undoubtedly be the primary way airline owners respond to the current crisis.

If one (or more) carriers collapses, the current relative balance between the four large US carriers would also collapse, allowing an overwhelmingly dominant carrier to emerge. Washington might search for a way to restore the vague appearance of competition, but investors would have little incentive to prop up structurally weak airlines unless given even greater power to collude and to limit service levels and wages.

Carriers Announce Major New Initiatives to Raise Cash in June

In the past two weeks United and American, the two US carriers with the greatest liquidity challenges, announced plans for major new borrowings. United wants to secure its final \$4.5 billion CARES loan with aircraft, route rights, airport slots, while separately raising \$5.0 billion from capital markets using its Mileage Plus frequent flyer program as collateral. If completed, United would have raised \$20 billion in new funding since the crisis began, half via the federal CARES facilities. American announced plans for \$3.5 billion in private funding (\$2 billion in new shares and \$2 billion in junk bonds with an 11.75% coupon) and a \$4.7 billion CARES loan using its AAdvantage frequent flyer program as collateral.[5] American will have over \$40 billion in debt when these announced transactions are finalized. Without new taxpayer guarantees (or dramatic coronavirus case declines), American and United seem to be very close to the limit of the money they can raise to plug their financial hemorrhaging.

Right now, it appears that the markets and Washington will provide the desired funding. US airline stock prices doubled in the three weeks after May 15th and rose 50% in the first week of June alone, even though traffic was 88% below 2019 levels. One explanation is that this is just the latest of many examples that capital markets have lost all ability to evaluate risk or corporate profit potential. Another explanation is that capital markets believe that Washington will continue to provide whatever funding is required to protect current airline equity and debt holders.

Investors with an unusually strong appetite for risk might want to take a flyer on paper issued by American and United, even though bankruptcy filings could seriously impair (or totally wipe out) their investment. Perhaps a vaccine will suddenly be found, or perhaps new legislation will authorize unlimited taxpayer funding to protect current airline owners. But the idea that pledging frequent flyer programs as collateral would materially reduce investment risk makes absolutely no sense.

United claims a standalone value of \$21.9 billion (12X EBITDA) for Mileage Plus while American claims AAdvantage should be valued between \$18-30 billion. [6] These claims are economically meaningless. Both programs generate “value” as an integral part of the airline, but neither has any standalone value. More importantly, if the airlines fail to meet the covenants of these loans, attempts by lenders to seize total control of the collateral (or its cash flows) would accelerate the parent airline’s collapse. United has restructured Mileage Plus around what it claims would be a “bankruptcy-remote intellectual property special purpose vehicle” but it is hard to imagine how these protections could survive an actual bankruptcy filing.

These airlines understand the economics of frequent flyer programs. In 2017 American CEO Doug Parker publicly rejected the idea that the frequent flyer program might be worth \$30 billion or more as a standalone company. “...that’s greater than the value of the American Airlines in total as we sit here today...I find it odd that simply separating something that is inside the airline today and putting it into a separate entity with the exact same cash flows would somehow generate that much incremental value.”[7]

These airlines are only pledging their frequent flyer programs as collateral because they understand that they are facing an imminent existential threat. This desperation is also reflected in other recent moves such as the open acknowledgement that they will need to ignore health risks and fill every possible seat, their refusal to refund payments for cancelled flights, and new efforts to gut basic consumer protections.[8] If dumb investors perceive value that doesn’t really exist, these executives know they need to exploit those perceptions.

Frequent Flyer Credit Cards—More Valuable Than the Rest of the Airline Business?

Airline frequent flyer programs were one of the greatest marketing innovations of the 20th Century. Airline seats were a commodity product when the mileage programs began in 1981, but they gave airlines new ability to establish brand loyalty among frequent business travelers. They also made huge profit contributions since the award tickets issued in those days had close to zero cost. Given 65% load factors most award travel filled otherwise empty seats, and high-volume frequent fliers ignored competitive options and often paid higher fares.

The economics of frequent flyer programs were further transformed once the major credit-card issuing banks developed airline affinity cards. The banks suddenly discovered a wealthy, high-spending customer base that would not only ignore competing cards but would pay high annual fees. The banks had tried dozens of customer incentives, but frequent flyer miles were the only one that drove higher fees, higher spend rates and strong loyalty.

Cards that were already lucrative for the banks (thanks to Visa/Mastercard’s enormous market power) now became a license to print money. The airlines developed a massive new revenue stream from charging the banks for the miles accumulated through non-airline purchases.

The economic power of frequent flyer credit cards became so great that one can argue that the airline industry had become a secondary appendage to this portion of the banking industry. Margins from these deals (earned mostly by the banks) were not disclosed publicly but they appeared to dwarf the returns the airlines had traditionally earned from transporting passengers and cargo.

When 70% of US airline capacity fell into bankruptcy starting in 2004, the reorganization process was effectively controlled by the credit card issuing banks. Since the cards were so profitable, they happily provided all the debtor-in-possession financing needed to sustain operations. Had the Courts and the bankrupt carriers obeyed the bankruptcy laws, these contracts would have been cancelled so that competitive bidding between banks would have produced new, more airline friendly contracts that would have maximized creditor recovery. Instead, the incumbent airline executives (who had driven their companies bankrupt) worked to protect the credit card deals that strongly favored the banks. In return the banks fought to ensure that the incumbent managers maintained full control and would personally profit from the bankruptcy.

In United's case, JPMorgan Chase blocked all efforts by other creditors to challenge management's control of the reorganization process, even though they could not produce a credible plan after four years. This allowed United CEO Glen Tilton to personally pocket \$30 million. While in Chapter 11, American's management similarly blew off its legal obligation to provide its creditors with financial information about its Citibank arrangements.[9]

Frequent Flyer Cards Had Become Vulnerable Before Coronavirus

The airline credit card business had matured prior to coronavirus, and while still extremely profitable, appeared to have begun declining. The market of people who accumulated large numbers of airline miles every year and were willing to pay \$100 or more for a credit card that would allow them to earn award travel faster had been saturated years ago. Despite major effort, US banks have had little success expanding reward incentive cards beyond airlines and travel directly tied to airline trips (e.g. hotels).

More importantly, changes in ways that airlines managed revenue hugely reduced the value that frequent flyer credit cards originally offered. Airlines that could now fill 85-90% of their seats drastically reduced the seats available for award travel, especially to the destinations frequent flyers were most interested in such as Hawaii. That business class seat to Europe, which once required 50,000 miles, often now requires over 200,000 miles.

Airlines could devalue frequent flyer points at will; industry insiders sometimes compare these miles to Zimbabwean dollars. They could sell as many miles to the banks as they wanted, but they never had to provide comparable increases in award seat availability. Using standard industry rules-of-thumb for valuing miles, the (indirect) cost consumers pay for "free" award tickets is often higher than the price of buying a regular ticket, and "redemption fees" can make that tradeoff even worse.

Airlines also converted from straightforward mileage-based schemes to highly opaque systems based on ticket prices paid. This was entirely rational in terms of maximizing short-term airline revenue but it meant that holders of frequent flyer credit cards hoping to redeem miles for a trip had no way of knowing what it would take to collect the miles, or whether any seats would be available when they were ready to travel. Despite heavily promoting the value of their international frequent flyer partners, the actual availability of international partner award seats has been massively reduced.

Frequent flyer credit cards remain popular because the idea that frequent flyer miles are worth collecting has been ingrained into consumers for 40 years. They remained useful to the small percentage of “road warriors” who fly hundreds of thousands of miles year-in and year-out, but most casual travelers have been getting ripped-off for years.

Frequent Flyer Programs Do Not Have Any Independent Standalone Value

Somewhat perversely, the airlines worked strenuously to conceal evidence about their most profitable activity. The Wall Street analysts regularly demanded detailed data about the frequent flyer business, arguing it would convince investors to give airlines higher equity values. But until this month, the airlines treated this information as extraordinarily confidential, and there was no way to glean any useful insights from SEC filings. Some of this helped hide failures to negotiate better deals with the big banks. Some of the secrecy was demanded by the banks who wanted to limit public awareness of how incredibly lucrative these credit cards were.

To their credit, all of the US airlines and most airlines elsewhere understood that their frequent flyer programs were an integral part of their core business.[10] These programs provided critical customer data, were the most important driver of customer loyalty and were inseparable from their pricing and revenue management functions. These airlines understood that Wall Street’s demands for data was so they could pressure them to spin off frequent flyer programs into a separate company and capture big investment banking fees.

Air Canada succumbed to Wall Street demands to “unleash the shareholder value” in frequent flyer programs and raised \$250 million when it spun off its Aeroplan program in 2002. The independent company failed to expand the business, but Air Canada needed to pay \$450 million to buy it back in 2018 after realizing the folly of surrendering control of their most powerful marketing tool. Aeroplan’s actual 2018 valuation should also raise serious red flags about 2020 United and American valuation claims that are 45 to 65 times larger.

United’s 15 June “Mileage Plus Investor Presentation” [11] was the first major public disclosure of frequent flyer financial data and confirms both their historic strength and current vulnerability.

- Frequent flyers are only interested in travel rewards; 97% of United Mileage Plus mileage is redeemed on travel, and 80% is redeemed for travel on United
- Mileage Plus economics are largely artificial. United established an arbitrary internal transfer price that guarantees Mileage Plus a 20% margin on miles awarded directly by United.
- Price and the availability of rewards can be changed at will, thus historic Mileage Plus economics do not reflect the economics of a standalone business
- The big money (71% of all Mileage Plus revenue at a 50% margin) comes from the bank credit cards as the banks pay twice the rate United pays for mileage redemptions
- Mileage Plus (based on these arbitrary economics) accounts for 24% of United’s total EBITDAR however Mileage Plus EBITDAR has been flat since 2016

Coronavirus Will Likely Devastate Frequent Flyer Economics

Frequent Flyer economics depend on a small but powerful base of frequent business travelers, and the ability of banks to sell especially high-margin credit cards to travelers actively collecting miles.

Business travel has been decimated by the virus, especially the international travel where miles are most easily accumulated. Airlines have radically reduced the capacity and network scope that allowed customers to concentrate their travel on a single airline. Airline prices will inevitably increase (perhaps quite steeply) which will force even relatively price-insensitive business travelers to reduce total travel and to increasingly forego mileage collecting itineraries in favor of lower priced alternatives.

The greater risk is that these marketplace changes force the broader credit card market to finally recognize that high-fee frequent flyer cards are a terrible value for most people. Even if travel demand somehow completely recovers the broader perception that it is worthwhile for most people on the plane to pay high prices and fees in order to maximize mileage collection miles might totally burst.

Why Would Anyone Think That Frequent Flyer Collateralized Investments Make Sense?

If airlines like United and American somehow survive the current crisis without facing major bankruptcy risk, then no one will have to address the quality of the collateral backing these loans. But it is hard to imagine how these frequent flyer programs could provide much value to lenders if covenants are violated or the airlines find themselves on the verge of bankruptcy. The collateral should be irrelevant to investors gambling that current owners get unlimited future bailout money. While lenders may have the nominal right to seize control of these programs if airline finances collapse, they could not survive as an independent business, and there are no other loyalty marketing companies that would be interested in buying them.[12]

The weaknesses of this collateral reflect serious problems with the core business that the frequent flyer programs support. Overall airline economics depend enormously on the very high yields and margins of corporate business and international travel, which will remain badly depressed even if domestic leisure travel begins to recover. The industry needs to reduce capacity to what the depressed revenue base can support, but no one is doing this. These borrowings reflect the dire straits these airlines are facing, but investors don't seem to notice either the desperation, or how coronavirus has dramatically changed industry economics.

[1] Hubert Horan: [What Will it Take to Save the Airlines?](#) Naked Capitalism 3 June 2020.

[2] The small recent traffic increases are attributed entirely to pent-up demand from individuals. In 2015 United CEO Scott Kirby (then President of American) pointed out that 87% of all US airline passengers flew only once a year and the other 13% provided 50% of all airline revenue. Dennis Schaal, American Airlines President on the Problem of the Infrequent Flyer, Skift, 23 Oct 2015.

[3] Mary Schlangenstein, American Air Says It Will Have 20,000 More Employees Than Needed, Bloomberg 2 July 2020. American has ample incentive to be understating its excess capacity problem at this point.

[4] The industry consolidation process is described in detail in my recent four part series at ProMarket (including "The Airline Industry's Post-2004 Consolidation Reversed 30 Years of Successful Pro-Consumer Policies" and "How Alliances Carriers Established a Permanent Cartel" [promarkethttps://promarket.org/category/reading-list/aviation/](https://promarket.org/category/reading-list/aviation/)) and in "Double Marginalization

and the Counter-Revolution Against Liberal Airline Competition”, *Transportation Law Journal*, v.37 n.1, Fall 2010.

[5] Claire Bushey, US airlines raise \$10bn in a week, *Financial Times* 24 June 2020; Ben Goldstein, U.S. Carriers Seek \$10B In New Financing This Week, *Aviation Week*, 23 June 2020

[6] AAdvantage valuation claimed by American CFO Derek Kerr at the 13th Annual Wolfe Research Global Transportation and Industrials Conference, 19 May 2020. Mileage Plus valuation claimed by United in an 8-K filing on 12 June 2020.

[7] Will Horton, AAdvantage Miles Will Soon Be Government Collateral as American Airlines Pledges Frequent Flyer Program for Coronavirus Loan, *Forbes* 20 May 2020

[8] Matt Stoller, The Plan to Make Post-Pandemic Flying Miserable, *Big* 16 June 2020

[9] the author worked on behalf of creditors in four US airline bankruptcy cases, including United and American, and helped Northwest, Swissair and Sabena prepare for bankruptcy filings.

[10] Doug Parker: “I’ve never really considered as a particularly good idea to spin out...” [AAdvantage] “is part and parcel of the airline and part of running the airline and part of inventory management.” Horton supra note 7 United’s Mileage Plus presentation (cited below in note 11) correctly states in multiple places that “Mileage Plus is critical to its core business” and is critical to customer loyalty and revenue maximization

[11] United’s presentation is available at <https://ir.united.com/news-and-events/events-and-presentations>. American has not yet published comparable data supporting the use of its AAdvantage program as collateral for a CARES Act loan.

[12] Hypothetically, the current credit card banks (JPMorgan Chase at United, Citibank at American) could step in to purchase these programs in a distress scenario. But this would likely be requiring transferring even more of the frequent flyer cash generation from the airline (and its other creditors) to the bank(s).

Hubert Horan, The Airline Industry Collapse Part 3 – Recovery Expectations Were Always Dreadfully Wrong, Naked Capitalism, August 4, 2020

<https://www.nakedcapitalism.com/2020/08/hubert-horan-the-airline-industry-collapse-part-3-recovery-expectations-were-always-dreadfully-wrong.html>

Hubert Horan: The Airline Industry Collapse Part 3 – Recovery Expectations Were Always Dreadfully Wrong

Posted on [August 4, 2020](#) by [Yves Smith](#)

Yves here. Hubert Horan shows how the airline industry is in far more serious trouble than the business and financial press has begun to acknowledge.

Hubert is a bit too polite in talking about “the industry narrative”. The executives of the US majors are engaged in looting. They are peddling clearly bogus forecasts in order to hold off an inevitable and costly restructuring as long as possible. The motive is to preserve their pay packages and jobs, at the cost of employees and taxpayers and other innocent bystanders.

By Hubert Horan, who has 40 years of experience in the management and regulation of transportation companies (primarily airlines). Horan currently has no financial links with any airlines or other industry participants

More Awful Results for the Industry in July

In late July the big four US carriers announced 2nd quarter GAAP net losses of \$13.2 billion, or \$8.5 billion if adjusted for special items.

Any remaining hopes that the 2nd quarter would produce the beginnings of a traffic rebound were dashed by the huge post-Memorial Day spike in virus cases. July volumes through TSA checkpoints remains 75% below 2019 levels. But earnings reports highlighted that the revenue collapse is even worse. 2Q operating revenue at Southwest declined 83% year over year, while American, United and Delta declined 86-88%. This was slightly cushioned by smaller drops in cargo and ancillary revenue; Delta’s passenger revenue had declined 94%.

IATA, the worldwide industry trade association, reported that international traffic in June was down 97% year-over year, while purely domestic traffic was down “only” 68%. [1] Thus carriers with a heavy focus on international business travel (Delta, Lufthansa, Cathay Pacific) were facing much more severe problems than operators with historically strong positions in large domestic markets (Southwest, various Asian carriers).

Capacity cuts in Latin America, Africa and the Middle East are similar to those in North America, while 42% of Asian capacity is operating, thanks to large domestic markets in China and Japan. Despite virus impacts less awful than in the US, hopes for a steady rebound in intra-EU traffic have been dashed, as

countries continue to see bans on cross-border travel (such as the reinstated ban on UK-Spain travel) as a critical to efforts to prevent new outbreaks. [2]

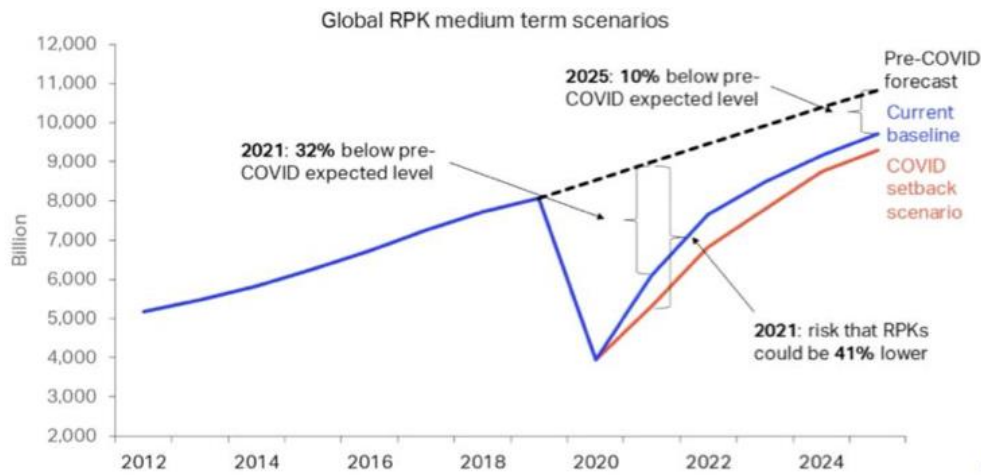
At this writing there is no evidence that Congress will extend the large taxpayer subsidies established in March under the CARES Act. Even the much more generous House Democratic proposals failed to provide any additional payroll protection for airline employees. Major layoffs and capacity cuts are widely expected in October when initial CARES provisions expire. Very few countries have followed the US approach of subsidizing existing airline owners. In those countries major carriers have either gone bankrupt or have been nationalized.

Everyone’s Recovery Forecasts Have Consistently Ignored Economic Evidence

The narrative that a strong V-shaped demand recovery would begin this summer has dominated industry discussions of the crisis. “Most experts in the air transport industry agree that recovery may take a year to 18 months to reach pre-crisis traffic levels and the industry may not record pre-Covid-19 traffic volumes again before the end of 2021,” [3] Under this narrative, taxpayer bailout money provided a critical stopgap until the traffic rebound was underway.

Other forecasts, such as the IATA forecast below, started with a similarly robust V-shaped summer demand rebound, but suggested that it would take a couple more years to fully restore 2019 market conditions.

Return to growth post-COVID but at a lower level Global RPKs forecast to be 32%-41% below expected levels in 2021

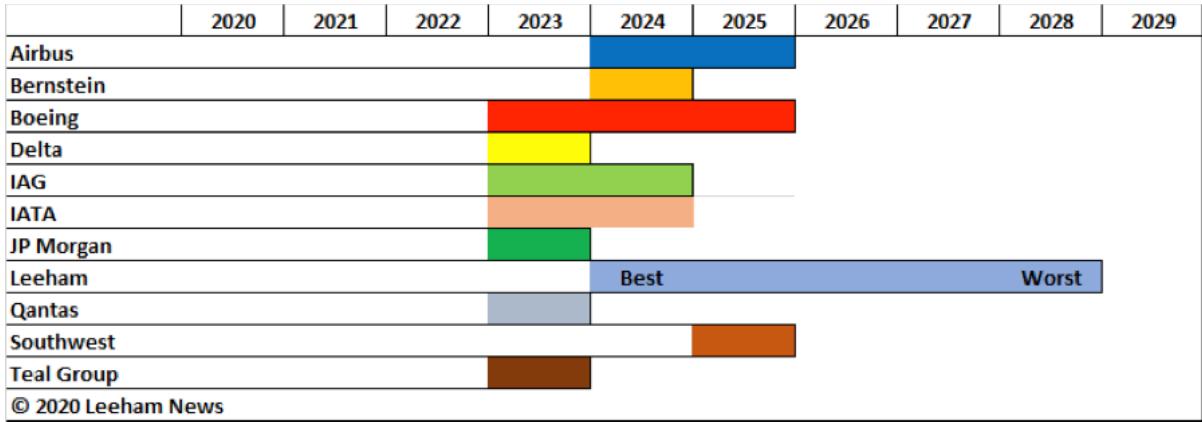


Source: IATA/Tourism Economics, Air Passenger Forecasts, April 2020



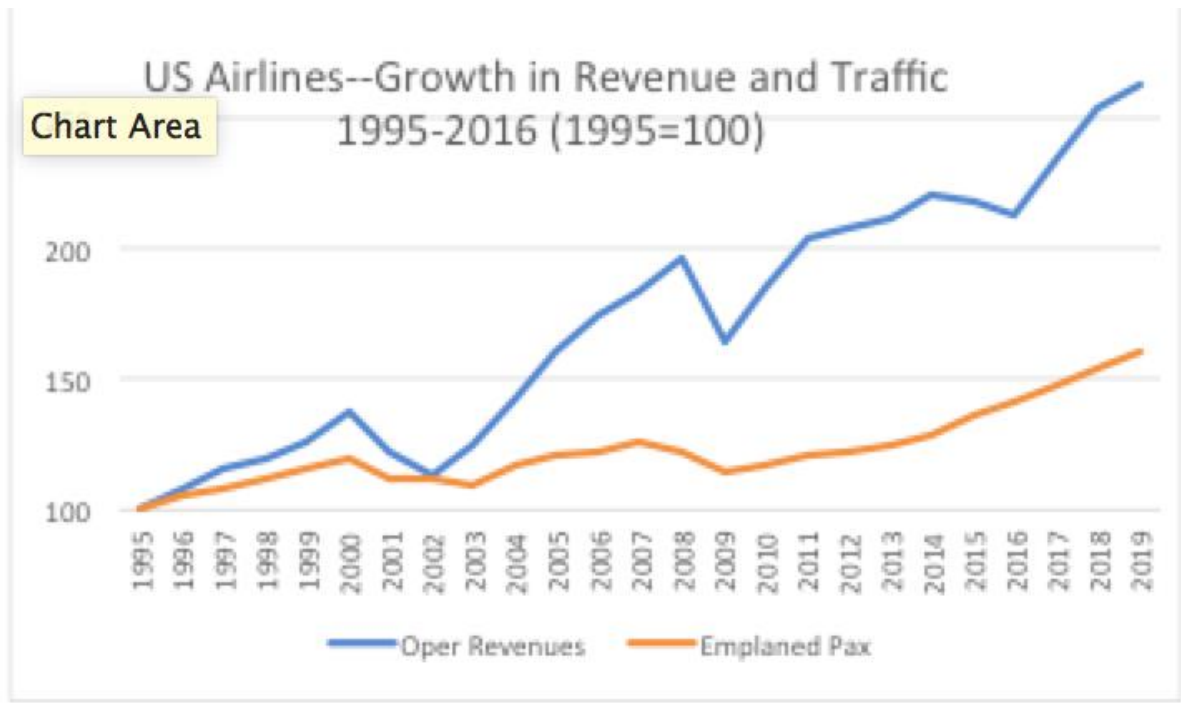
A somewhat more pessimistic view, from Leeham Group (an aircraft fleet consultancy) used the table below to illustrate that the only difference between forecasts by the vast majority of airlines, manufacturers and financial analysts was whether industry demand growth would fully recover to historical levels before 2024 or soon thereafter. [4] Everyone bought into the narrative that the critical drivers of airline travel would be functioning normally by the end of this year. Everyone accepted that there would be serious short-term financial pain but insisted that underlying fundamentals were

completely sound and airline viability is not an issue. The only question was how long the exogenous recessionary impacts of the initial economic disruption would delay the return of 100% normalcy.



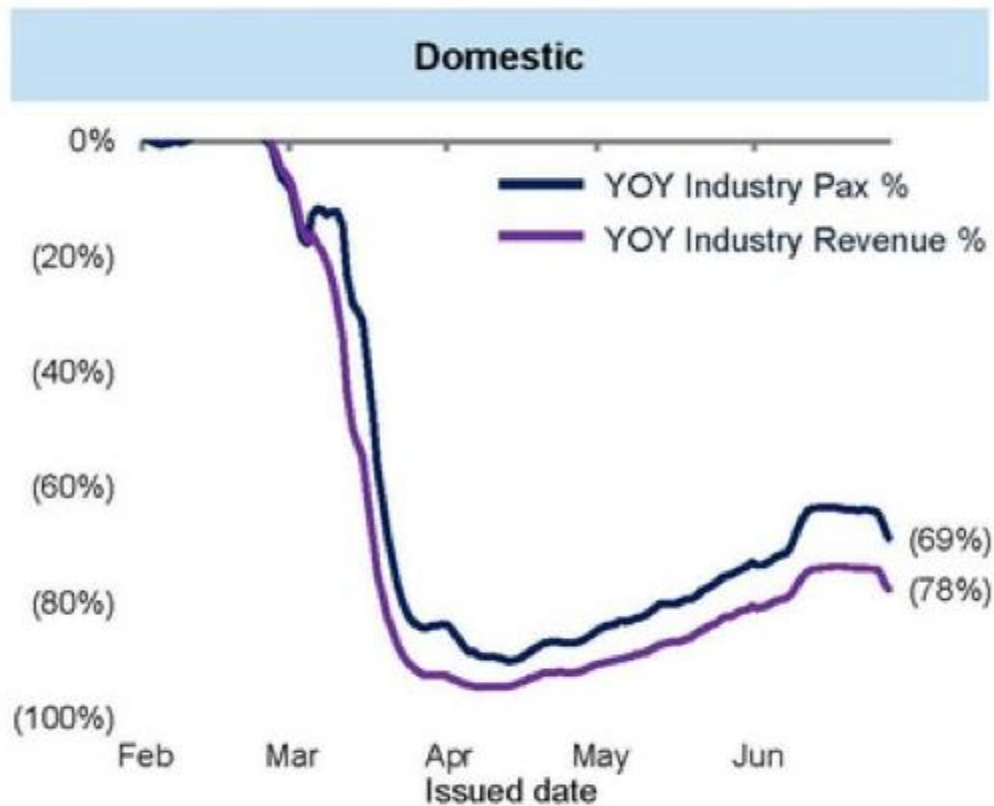
The Industry Narrative: Please Ignore the Iceberg We've Just Hit

But all of these forecasts ignore obvious evidence that virus' impact is fundamentally different and orders of magnitude greater than any previous aviation crisis. As shown in the graph below, total US airline traffic declined only 6% during the post-dot-com era recession and only 9% following the 2008 financial crisis. Revenue declined a bit more (19% and 17%) due to lower fares. [5]



Past demand declines look nothing like the current situation, as the graph United filed with the SEC clearly shows—a graph that would look even worse if international demand was included [6]

YOY Industry Demand % 7-day moving average



Source: DDS

Prepared by Revenue Strategy on July 2nd, 2020

UNITED  3

With the current demand collapse (roughly 75% traffic volume, 85% revenue) the industry has struck an iceberg and the damage may keep the ship from ever getting back to port in one piece. But the industry's narrative ludicrously claims that we are just seeing the same kind of engine room problems we saw in 2000 and 2008, that thus the coronavirus recovery will look just like the recovery from those single digit traffic drops. Iceberg strikes don't always sink ships, especially if action is quickly taken to limit structural damage. But the narrative asserts airlines haven't been anywhere near any icebergs, and thus there's no need to think about the possibility that this iceberg strike might threaten the integrity of the ship.

Because the industry storyline insists there is no need to ask whether airline fundamentals are still sound, forecasters appear to have actively ignored evidence showing the collapse of the key drivers of demand, especially international and corporate travel. In the 2000 and 2008 downturns the underlying willingness to take these trips was undiminished although the recessions kept companies from buying quite as many airplane tickets as they might have. In 2020, business people (along with Dr. Anthony Fauci) do not believe flying is safe, and cannot cross international borders (and have little desire to do so). They are embracing substitutes like videoconferencing. And worse for the airline industry, they have figured out that a lot of pre-pandemic travel may not have been worth the cost and hassle.

It was clear by the end of April that efforts to stop the spread of virus had failed, and thus any subsequent forecast based on a robust V-shaped summer rebound of corporate and international demand was delusional. [7] The underlying willingness to travel will not return until a vaccine has been proven to be highly effective, has been administered to tens of millions of people, and the risk of major new waves of infection has been eliminated, or alternatively, treatments can greatly reduce Covid-19 severity and damage become widely available. This will not happen anytime soon, and at that point airline demand recovery will likely face other huge obstacles, such as deeper, longer-lasting coronavirus driven declines in economic activity, much higher airline fares, and reductions in global trade.

The Airline Ship Is Taking on Huge Amount of Water

The 2000 post-dot-com era recession cut US airline traffic by 6% and revenue by 19%, but this forced airlines operating 75% of industry capacity into bankruptcy. [8] This makes the industry's efforts to convince people that a 75-85% collapse poses no threat to the viability of today's major airlines especially challenging.

A recent study that attempted to present apples-to-apples data calculated that the cash flow drain of the big four US airlines in the second quarter was \$168 million per day, or \$15.4 billion per quarter. [9] That cash drain is the water flooding into the hole of the industry's ship created by the iceberg.

It is structurally impossible for airlines to match these catastrophic revenue declines with comparable expense cuts, and there is no way that these airlines can suddenly improve cash flow by \$15.4 billion per quarter. Operating expenses — which do not include major cost items such aircraft lease payments or contractually committed CAPEX purchases — fell only 68% at United and 57% at Southwest. Airlines can avoid certain purely variable expenses (fuel, landing fees, sales commissions, credit card fees) but many critical expenses (fleet, IT, airport facilities, maintenance bases) are locked-in over the medium term, and must be paid even if most of the fleet is grounded.

These airlines understand the financial data and are pursuing increasingly desperate measures to reduce the hemorrhaging of cash. As described in last month's post, they have been trying to raise cash by claiming that the frequent flyer programs that are integral parts of their marketing and revenue management systems are actually independent business that could be spun off. [10] American (with Goldman Sachs) just secured a \$1.2 billion loan (@10.75%) collateralized by slots and by intellectual property, including its brand name and the "aa.com" domain name. [11]

Trapped by Its Desire to Protect Executives and Shareholders, the Industry Can Do Nothing but Rearrange the Deckchairs

As described in the first article in this series two months ago [12] there was always an alternative that could have plugged the hole in the ship and prevented it from sinking. If airlines filed for bankruptcy protection as soon as it became obvious the virus could not be rapidly contained, they could have halted huge wasteful cash drains. Bankruptcy is painful and difficult but would have eliminated all the expenses related to unsustainable operations, and all the payments on unsustainable debt and fleet obligations. Moving quickly would have maximized the long-term value of the companies and maximized the recovery available for employees and creditors.

Instead, these airlines gambled that there was some way to preserve current equity holders' control of the company. This narrative was constructed to "explain" why there were no risks of bankruptcy, despite a revenue collapse dramatically larger than ones that recently sent 75% of the industry into bankruptcy. This gamble depended on all of the most optimistic scenarios coming true — rapid virus suppression and vaccine distribution, a robust summer 2020 revenue rebound, no damage to underlying corporate and international demand, and continuing taxpayer subsidies.

The senior managers of these major carriers deliberately, consciously choose to not deal with any of the real problems caused by the iceberg in the hope that their creative story-telling could distract everyone from all the financial evidence until a powerful turnaround magically appeared. But this choice painted the airline industry into a fatal corner. While the hull of the ship continued to flood, management had to take increasing desperate actions to preserve their fiction and could do nothing substantive but rearrange the proverbial deckchairs.

None of these efforts can possibly revive corporate/international demand or generate positive cash flow. Recent liquidity raises might create the temporary appearance that the danger of running out of cash is not imminent.

But that cash will be burned unproductively, will make airline capital structure problems even worse as well as making future restructuring much more difficult. Airlines have limited themselves to voluntary early retirement programs that will be very expensive and will not come anywhere close to aligning labor costs with the reduced revenue potential. The airlines cannot ask Congress for additional taxpayer payroll subsidies because the required conditions (no layoffs, capacity guarantees) would make the cash drain much worse.

In pursuing the extremely remote possibility that all airline equity could be salvaged, the airline narrative created a time bomb that could create far more damage than the bankruptcy option they rejected. No matter how bad the financial situation gets, it will be extraordinarily difficult for these airlines to suddenly admit they'd been deliberately misleading everyone all along, and now really need bankruptcy protection. And by the way, this bankruptcy process will be substantially more painful than if we'd filed in the spring.

The market capitalization of US airlines has fallen in half since the beginning of the year. [13] That it has not fallen further illustrates the success of the industry's storytelling. But at some point investors, employees and Congress will soon realize that no robust rebound is coming, and that the loan repayment, job protections and severance payments, and service levels they'd been promised aren't going to happen. As those realizations dawn, stock prices will likely collapse, the airlines will lose their limited remaining access to capital markets, and to any goodwill from unions, customers and politicians.

When Will the Timebomb Go Off?

If the industry continues to deny financial reality and cling to its narrative claims, the timebomb might not go off until the weakest link collapses. Since the beginning of the crisis, the widespread presumption is that American was the most financially vulnerable US carrier, as it had the weakest cash flow, and most debt, and that presumption is probably still correct.

Southwest is clearly the least vulnerable, as it has the strongest balance sheet and the least exposure to the markets that have collapsed the most. Delta had the greatest liquidity pre-crisis, but its cash flow has been hurt the worst by the loss of high-yielding corporate and international traffic. United also has huge corporate/international exposure but appears to have done the most sober analysis of the crisis and has made more effort to pare costs.

But this has created a game of musical chairs that is unlikely to work out well for anyone. The current strategy at United, Delta and Southwest seems to be simply to hope that American is the one left standing the first time the music stops. But a messy American collapse is unlikely to restore positive cash flow for the others. Unless a major vaccine breakthrough has occurred, it is more likely to set off (or increase the damage) from the narrative timebomb. An American bankruptcy filing won't solve the industry's huge overcapacity problem but will dramatically highlight that all carriers have been facing the same problems and that all of the claims these carriers have been making about their sound fundamentals have been total nonsense.

And as mentioned previously in this series, this musical chairs game is likely to be a disaster for consumers and the many cities and industries that depend on efficient airline service. Any semblance of competitive balance will quickly collapse and investors will be demanding massive capacity cuts and price increases. No one in Washington will try (or have the competence) to oversee a broader industry restructuring process, and the unmanaged process will be ugly and highly wasteful.

[1] IATA Air Passenger Market Analysis June 2020

[2] Centre for Aviation, "UK hurdles to Spain travel raise fears for European aviation recovery" 28 July 2020

[3] Angela Gittens, Director General of Airports Council International World, quoted in "Passenger traffic may only recover end-2021" Flight Global, 2 April 2020

[4] Judson Rollins, "An economic crisis on top of a medical one: Why airline traffic won't fully recover until the mid-late 2020s" Leeham News 13 July 2020

[5] US DOT Form 41 data. Revenue declined more than traffic because (given fleet obligations) it made more sense for airlines to cut prices to fill otherwise empty seats. The (2000) post-dot-com-era recession was a major crisis because the US industry had foolishly overexpanded in the late 90s, making it more difficult to get supply and demand back in line. Impacts on airlines outside the US were much smaller in 2000 while the 2008 recession affected airlines globally. Revenues grew much faster than traffic after 2004 because of massive reductions in industry competition (especially in longhaul intercontinental markets) that increased airline pricing power.

[6] United 8-K filed 2 July 2020.

[7] Leeham's worst case is the only forecast that acknowledges the serious impact of aversion to the health risks of flying and the likely persistence of international border closings. But no forecasts address

that recovering from an 75% traffic collapse is radically different from recovering from 6-9% declines or that problems of this magnitude raise serious doubts about industry viability

[8] USAirways was under chapter 11 bankruptcy protection 2002-05, United 2002-06, Delta 2005-07 and Northwest 2005-07

[9] The airlines public cash flow claims have been based on wildly inconsistent definitions of cash flow, and most carriers have not released meaningful data about outstanding refund claims. The \$15.4 billion quarterly cash drain is the sum of \$5.4bn (\$59m/day) at American \$4.8bn at Delta (\$52m/day), \$3.7 at United (\$40m/day) and \$1.5bn at Southwest (\$17m/day). Brett Snyder, Figuring Out How Much Cash the Airlines are Really Burning, Cranky Flyer 30 July 2020.

[10] Hubert Horan: Can Collateralizing Frequent Flyer Programs Help Save the US Airlines?, Naked Capitalism 6 July 2020

[11] Claire Bushey, American Airlines pledges brand and slots to secure \$1.2bn loan, Financial Times, 23 July 2020

[12] Hubert Horan: What Will it Take to Save the Airlines?, Naked Capitalism 3 June 2020

[13] Wolf Richter, No V-Shaped Recovery for Airlines. Ticket Sales Slide Again., Wolfstreet, 8 Jul 2020.

<https://www.nakedcapitalism.com/2020/09/hubert-horan-the-airline-industry-collapse-part-4-total-paralysis-continues.html>

Hubert Horan: The Airline Industry Collapse **Part 4 – Total Paralysis Continues**

Posted on [September 14, 2020](#) by [Yves Smith](#)

By Hubert Horan, who has 40 years of experience in the management and regulation of transportation companies (primarily airlines). Horan currently has no financial links with any airlines or other industry participants

Readers who had not seen the previous posts outlining the aviation crisis, or would find a summation of the critical issues useful, should take a look at my video interview with Izabella Kaminska of the Financial Times on Friday the 11th.

Here is the FT Link—there's no paywall but it may ask you to register (and registering for access to FT Alphaville is very worthwhile)

<https://ftalphaville.ft.com/2020/09/10/1599758074000/Alphavid-The-airline-sector-is-in-denial-about-its-imminent-collapse/>

Here is an alternative Youtube link to the video interview (about 40 minutes)

<https://www.youtube.com/watch?v=Hzig-gnKWTI>

Towards the end of the interview, Izabella noted that my main arguments were “depressing” and asked me to provide a bit of optimism by outlining potential solutions to the industry crisis. This might be a good place to clarify which parts of the crisis will be difficult and painful and which parts are legitimately “depressing.”

This series has laid out data showing that the current crisis is staggering worse than any previous crisis in aviation history. A previous downturn that reduced traffic 6% put 75% of US industry capacity into bankruptcy. The current crisis has cut traffic by 75% and revenue by 85%. The critical corporate and international markets have completely collapsed, every carrier is hemorrhaging cash, and almost none of the major carriers can be considered viable going concerns.

Since the collapse is greater and more widespread than anything the industry has ever faced, it logically follows that the actions needed to halt the collapse and restore sustainable operations will be more difficult and painful than anything the industry has ever required in the past.

More importantly, of collapse of this magnitude fundamentally changes the nature of the problem, and changes how any solution would need to be structured. Past airline crisis were limited to fairly narrow industry segments (a couple carriers had foolishly overexpanded, supply and demand had gotten out of whack in a specific country or market), were known to be temporary and had not disrupted basic

industry economics (recessions pass, and don't structurally change the demand for travel) and there was still a large set of competitors and investors that could help restructure (or replace) the companies that could no longer meet their financial obligations.

The current airline crisis is global, supply and demand are wildly out of balance everywhere, and the pandemic is likely to permanently reduce industry demand (due to videoconference, reduced global trade, and structurally higher fares). Competitors cannot step in to fix local problems; nobody wants to buy anyone's excess aircraft and the number of competing airlines had already been radically reduced.

The current collapse is a crisis for overall economic welfare. The industry's ability to sustainably produce benefits for society as a whole (facilitating huge amounts of economic activity, employment, trade, etc.) is fundamentally broken. As the past months have demonstrated, multi-billion dollar cash drains will not magically go away by themselves. Allowing desperate airline investors to pursue their short-term self interest will not maximize long-run welfare benefits for other stakeholders or the rest of society.

"Solving" the industry crisis requires an organization fully empowered to manage an industry-wide restructuring focused on restoring the value airlines provide for society as a whole. It would need to have clear legal authority to terminate prior economic interests (jobs, financial obligations, supplier contracts, local service levels, ownership and control positions) inconsistent with the requirements of a dramatically downsized industry. They would need to have clear legal authority to maximize long-term industry-wide competitiveness and efficiency, even when this conflicted with the short-term interests of specific companies or investors. They would need transparent legal guidelines that ensured the many parties (employees, suppliers, lessors) received compensation on an equitable basis.

The details of such a restructuring process would be difficult and painful, but a variety of plausible approaches could be laid out. What's "depressing" is that the political obstacles to any type of industry-wide approach focused on restoring the overall economic benefits of airlines seem insurmountable.

As this series has pointed out, the industry, capital markets and the business press have willfully ignored the actual magnitude of the collapse and remain wedded to absurd narratives that falsely assumed rapid, robust demand recovery. The industry and government officials who are actually dealing with the crisis have been myopically focused on narrow objectives (e.g. protecting the financial interests of select investors, minimizing direct government payments to workers). These parties have no interest in restoring and protecting society's interest in efficient and competitive airline service, and do not appear to consider broader economic interests as legitimate or relevant. In the US, it is not clear that the competence to oversee an industry-wide restructuring focused on overall economic welfare exists anywhere in the Federal government.

After five months absolutely no one from the industry, capital markets or government has put forward any proposals suggesting they understand the crisis or have any idea how it might be solved. Their favored approach seems to consist of nothing more than a determination to protect the industry's pre-pandemic competitive and ownership status quo. The "rapid demand recovery/industry fundamentals haven't been affected" narrative was designed to protect the status quo, and the need to protect the status quo explains why the narrative remains strong even though it was completely, totally wrong.[1]

If the current process was serving purposes other than status quo preservation, the narrative would have been abandoned in April, when the evidence that it was wrong became overwhelming. As will be discussed below, the conflict between this evidence and status quo preservation has continued to paralyze efforts to minimize cash drains, pursue temporary governmental relief, and begin a badly needed public discussion about the ugly future of the industry.

This approach is designed to give current airline owners control over any restructuring that might occur, even though they would be totally wiped out under any legally administered reorganization process. It would allow them to impose most of the cost and pain of restructuring onto workers and suppliers. It would allow restructuring to emphasize mergers and collusive pricing arrangements that would shift significant burdens onto consumers. This approach is designed to ensure that long-term industry-wide competitiveness and efficiency cannot be maximized, and to ensure that the burdens of needed changes are not distributed on a transparent and equitable basis.

Thus, to finally answer Izabella's question, yes, it would be entirely possible to lay out "solutions" for the industry crisis, but that would serve little purpose given the huge obstacles to getting any such solutions implemented. The critical problem isn't figuring how to restructure an industry where supply and demand are totally out of whack, or how to prevent airlines from collapsing during that restructuring process. The critical problem is how to overcome the political power that gives incumbent airline owners and senior management nearly total control of the current process, has totally delegitimized society's broader interest in competitive and efficient airline service, and has paralyzed efforts to keep the industry from falling into the abyss.

Continuing Paralysis Over Crippling Cash Flow Drains

There has not only been no meaningful signs of demand recovery in the last six weeks, but previous hopes that schedules could be expanded in the fall seem to have been dashed. But none of the large carriers announced any major new actions to reduce the ongoing cash drains. Gary Kelly, CEO of Southwest, told a reporter that business would need to double in order to reach cash breakeven.[2]

Observers should keep in mind that while LCCs like Southwest (and Easyjet and Ryanair in Europe) are suffering enormous losses, they are in a much better position than the Legacy international carriers, who would need an even bigger traffic increase to reach cash breakeven. These LCCs focus on short-haul and leisure markets that have declined the least, and their network and cost structures allow them to adopt more readily to sudden demand reductions. These short term advantages are purely fortuitous, but they explain why they are the only airlines that capital markets perceive to have legitimate going-concern value.[3]

Led by United, the US carriers announced last month that they were eliminating the change fees widely despised by their passengers. This should be seen as a short-term PR move, and not a permanent shift to a more customer-friendly approach. It only applied to domestic tickets, and almost all of the domestic tickets currently being sold had already been exempted from change fees. [4]

Continuing Paralysis Over Job Cuts and Federal Subsidies

There has been ongoing media coverage of the possibility of extending the airline payroll protection subsidies that will expire at the end of this month. But none of this coverage offers any coherent explanation of how this could be achieved.

It is not clear how the partisan divide over new coronavirus economic relief efforts could be overcome this year. The “skinny” Republican proposal that was defeated in the Senate last week included very little direct support to any workers and no assistance to airlines whatsoever, despite vaguely supportive statements from President Trump. The House Democratic proposal is much larger, but there has been no public explanation of what new airline subsidies would involve.

The unions representing staff at the big 4 carriers have been fighting for more taxpayer money. Despite seemingly supportive statements it isn't clear whether the airlines actually want new subsidies. The original March CARES Act subsidies prohibited layoffs and required airlines to continue to serve every US city previously served, on the (obviously incorrect) assumption that a major revenue recovery would be well underway when the subsidies expired in October. As a result, the CARES subsidy worsened the airline cash drain by forcing them to fly lots of nearly empty planes, and to pay staff who could not be properly utilized.

Airline executives appear caught between the proverbial rock and hard place. Openly stating the need for layoffs large enough to match vastly reduced operations would cause their pilots and mechanics to openly rebel and would signal Wall Street that they were on the edge of bankruptcy. Warnings to date about October layoffs cited smaller numbers that appeared designed to limit near-term industrial unrest (and Wall Street concerns) while pushing needed costs cuts into next year. Management needs to publicly support the union demands but new subsidies would certainly mandate a lot more employment and service than the airlines think they can afford, and make it more difficult to reduce negative cash flow. If subsidies aren't extended, management may be able to tell staff that they tried but couldn't overcome the mess in Washington. But election uncertainty may make it difficult to pursue the October layoffs initially planned.

Continuing Paralysis Over Unpleasant Realities About the Future of the Industry

Public discussion of the airline crisis has totally ignored the inevitable reality that future airfares will be much higher than consumers (and politicians) have contemplated.

The historic airline economic equation combined large and growing overall demand, the ability to optimize total revenue by managing the mix of high and low fare passengers (including the ability to shift low fare demand to times when there was little high fare demand and the ability to achieve 80% load factors year round) and the ability to carefully tailor costs and capacity to readily predictable demand.

The pandemic obliterated most high-fare (corporate/international) demand; the cost of a specific flight hasn't fallen but it earns much less revenue, and airlines can't reduce fixed and corporate costs in line with reduced revenue. All of the data and models historically used to manage revenue, capacity and costs are now largely useless. Higher unit costs require higher fares. Greater uncertainty about costs and revenues requires even higher fares.

In the very short-term fares will remain low because filling the abundant excess seat capacity will (very marginally) improve cash flow, but the losses and aggregate cash drains that result are obviously unsustainable. The major restructuring needed to pull the industry back from the abyss will require huge capacity cuts and much higher fares. The capacity cuts will not only reduce costs but will recreate some of the scarcity (via high load factors) needed to support higher business fares.

These higher fares and schedule cuts (and the massive layoffs and supplier cutbacks that will accompany them) will (needless to say) be incredibly unpopular, and will lead to further demand declines, and then to further price hikes and capacity cuts.

These problems will get worse if (as is likely) capacity cuts take the form of reduced competition and increased price collusion. Under a managed, industry-wide restructuring process balanced competition can be preserved but (given the political issues discussed above) no one is working to protect consumers or industry efficiency. If one large airline collapses, thousands of markets will be reduced to duopolies and monopolies, and a carrier may try to exploit the chaos in order to achieve a permanent market share dominance.

All of this is just airline economics 101. But absolutely no one in the industry, government, capital markets or media is willing to face up to this inevitable reality.

[1] Hubert Horan: [The Airline Industry Collapse Part 3 – Recovery Expectations Were Always Dreadfully Wrong](#), Naked Capitalism August 4, 2020

[2] Kyle Arnold, “Southwest Airlines needs ‘business to double in order to break even,’ CEO says” Dallas Morning News, August 28, 2020

[3] Ben Goldstein, “S&P Global Sees Just Three Investment-Grade Airlines Left” Aviation Week, August 12, 2020

[4] Brett Snyder, “United Ditches Domestic Change Fees” Cranky Flyer, August 31, 2020.

<https://www.nakedcapitalism.com/2020/10/hubert-horan-the-airline-industry-collapse-part-5-the-battle-to-protect-airline-investors-from-economic-reality-enters-a-new-phase.html>

Hubert Horan: The Airline Industry Collapse Part 5 – The Battle to Protect Airline Investors From Economic Reality Enters a New Phase

Posted on [October 26, 2020](#) by [Yves Smith](#)

Yves here. Hubert points out that foreign governments are more willing to take a steely-eyed look at the poor prospects for airline operators than American pols are. That may be due to government operated airlines being a fresh memory.

By Hubert Horan, who has 40 years of experience in the management and regulation of transportation companies (primarily airlines). While he has worked extensively in the industry, Horan currently has no financial links with any airlines or other industry participants

Third Quarter Produces More Ugly Financial Results

The third quarter US airline financial results released in the past week further confirmed what this series first argued five months ago—the industry cannot prevent ruinous cash drains because, in the absence of bankruptcy filings, there is no way to shrink their cost structures enough to match the catastrophic coronavirus -driven revenue collapse. [1]

In the third quarter (historically the industry’s most profitable quarter), the Big 4 US airlines reported a GAAP net loss of \$10.8 billion (versus \$10.6 bn in the second quarter) and a GAAP operating loss of \$12.3 bn (versus \$10.5 bn in the second quarter.) As the table below shows, these carriers are still \$17.5 billion below operating breakeven and \$10 billion below cash breakeven.

3Q 2020 worse than 3Q 2019	Delta	United	American	Southwest	Big 4 total
Operating Income	↓\$8.5 bn	↓\$3.1 bn	↓\$3.7 bn	↓\$2.2 bn	↓\$17.5 bn
Passenger revenue	\$9.5 bn (↓83%)	\$8.8 bn (↓84%)	\$8.4 bn (↓77%)	\$3.8 bn (↓72%)	↓\$30.7 bn
Total Operating Revenue	\$9.5 bn (↓76%)	\$8.9 bn (↓78%)	\$8.5 bn (↓73%)	\$3.8 bn (↓68%)	↓\$30.5 bn
Total Operating Expense(a)	\$5.4bn (↓48%)	\$5.8bn (↓58%)	\$5.1bn (↓45%)	\$1.6bn (↓33%)	↓\$17.9 bn
3Q cash burn(b)	\$2.3 bn	\$2.2 bn	\$4.0 bn	\$1.5 bn	\$10.0 bn
New funding/subsidies 2020	\$18.2 bn	\$22.0 bn	\$14.2 bn	\$18.9 bn	
Claimed 9/30 liquidity(b)	\$21.6 bn	\$19.4 bn	\$15.6 bn	\$15.6 bn	

(a) excludes restructuring charges, CARES funding (GAAP expenses are higher)
(b) carriers do not use consistent measures of cash burn or liquidity

After second quarter results were released, Southwest CEO Gary Kelly said that revenues would need to double in order for Southwest (the financially strongest carrier in the industry) to reach cash breakeven.

Kelly illustrated the industry's lack of improvement in the third quarter by saying Southwest still needed revenue to double in order to reach cash breakeven. [2]

Although basic operating economics did not improve at all, these carriers did manage to reduce their cash burn from an atrocious \$15 billion in the second quarter, to a somewhat less atrocious \$10 billion in the third quarter, mostly due to one-off agreements with unions and suppliers to delay or discount current contractual obligations.

Carrier cash drain measures should be taken with a sizeable grain of salt, since each carrier uses different components in their cash drain calculations, with some excluding debt repayments. One Wall Street analyst who constructed a more appropriate "apples-to-apples" measure found that United had understated cash drain by 56% (\$1.2 bn in the 3Q) and Delta had an understatement of 144% (\$3.4 bn in the 3Q). [3]

Between taxpayer subsidies (out of the \$50 billion CARES Act funding) and new debt instruments, these four carriers have raised \$73 billion since the beginning of the crisis, accounting for all (or nearly all) of their claimed September 30th liquidity. Thus current operations would not be possible without this magnitude of new funding.

The Cash Drain Will Continue Since The Huge Revenue/Cost Mismatch Isn't Being Addressed

There is no evidence of anything that could drive \$10-20 billion dollar revenue increases or cost savings anytime soon, and no one in the industry has even attempted to lay out a concrete program for achieving breakeven.

In their third quarter earnings announcements, the Big 4 carriers suggested that the fourth quarter cash drain would be 20-25% less than the third quarter drain, but did not explain how this would be accomplished, and previous predictions of cash breakeven by the end of the year will obviously not be met.

Even though the risks of contracting the virus aboard a flight are extremely low [4] people simply don't want to get on airplanes because the risks at other points during a trip (including quarantine and the overall hassle) remain high, many of the business/entertainment justifications for travel remain closed, and many travel alternatives (e.g. Zoom) make more sense. The major increase in Covid cases means that international borders will remain closed for the foreseeable future.

After eight months, airlines have obviously explored every possible way to reduce costs outside of bankruptcy. As the results in the table clearly indicate, these fleet order deferrals, capital spending freezes and voluntary staff furloughs and paycuts don't come anywhere close to reducing costs enough to match the revenue collapse. Many of these cuts are temporary—most staff savings expire in 3 to 12 months, and fleet obligations have been delayed but not reduced. Some simply shift the financial pain to even more vulnerable parts of the aviation ecosystem (including regional feeder carriers, airports, manufacturing and maintenance suppliers). Involuntary layoffs will likely increase, but outside of bankruptcy these are difficult and inefficient; Delta took a \$5 billion "restructuring charge" for its voluntary furlough program in the 3Q without making a sizeable dent in its cost structure.

The Industry's Phase One Narrative Claims Have Collapsed

Throughout the crisis the singular objective of the Big 4 US carriers is ensuring that their current owners maintain total control, so that they can reap all the gains from the equity appreciation that would likely follow a full demand recovery, and are not in any way penalized for anything they did that contributed to the collapse.

This objective creates insurmountable conflicts with traditional capitalist market mechanisms. Owners of companies whose business models collapse to the point where they hemorrhage cash for extended periods and cannot meet ongoing financial obligations do not get to keep exclusive control. The law establishes rules for how the initial burdens of restructuring should be shared, with previous equity holders having the lowest priority. The law also is designed to ensure that the distribution of future upside gains from restructuring should be based on the tangible contributions made to a recovery plan that had been approved by all of the major parties that had suffered from the collapse.

When major industries do not want to deal with the law or economic reality the number one priority becomes the construction of PR narratives that the media and politicians will uncritically accept. These airlines constructed narratives that portray actions directly benefitting current owners and managers as primarily serving broader public interests. The narratives are also designed to divert attention from the economic and financial data contradicting their claims, and from the self-inflicted problems that predated the virus, including major reductions in competition and \$50 billion in extractive stock buybacks that badly hurt the industry's ability to cope with the demand collapse.

The Phase One airline narrative, that emerged after coronavirus shutdowns first hit in March, emphasized that the \$50 billion taxpayer subsidies they demanded were a one-time, short-term fix. They were primarily benefitting airline employees, and were only needed as a stop-gap measure to prevent the collapse of industry infrastructure that created huge external benefits across the economy. Since the impacts of the virus would not affect industry fundamentals and that a rapid, "V-shaped" demand rebound would be fully underway by the fall, it would be foolish not to leave current owners and managers fully in control.

As discussed earlier in this series, [5] evidence completely discrediting the "subsidies are just a one-time temporary stopgap and industry fundamentals are fine" claims was available by April. However the industry's narrative promulgation successfully blocked any public discussion of whether the massive subsidies had actually benefited anyone other than these four private companies.

Seven months later, the bleak third quarter results have triggered a few media stories suggesting a "Prolonged Coronavirus Travel Drought" and that "Airlines have given up on 2020. Now next year is looking bleak too." [6] But no one in the media or Wall Street has openly admitted financial results clearly show that that all of the claims underlying the industry's narrative had been totally wrong.

The ability of manufactured narratives to block recognition of economic reality has always been weaker outside the US. The same demand/cost problem exists worldwide, but public debate in other countries has actively considered of restructuring alternatives (bankruptcy, public investments with strict conditions, temporary nationalization) that have been completely off the table in America. Carriers (Aeromexico, Latam, Avianca, South African, Thai, Kenya) have been forced to file bankruptcy where US-type subsidies have not been available, and carriers (Lufthansa, Air France, Cathay Pacific) who asked for bailout money on a one-time basis are now admitting that the problem is much bigger. [7] Foreign airline executives have been much more frank about the magnitude of the crisis than their US

counterparts. Air Canada CEO Calin Rovinescu called it “hundreds of times worse than 9/11, SARS, or the global financial crisis – quite frankly combined”. Lufthansa Chairman/CEO Carsten Spohr admitted that “We do not expect demand to return to pre-crisis levels before 2024.” [8]

US Airline Bailouts Were Always for Major Investors Not Workers, and Cannot Be Justified By Benefits For The Overall Economy

The airlines’ “this is all serving the greater public interest” narrative claims were just as illegitimate as the “this is just a short-term problem” claims. The sole purpose of airline payroll support was to help prop up airline stock prices, by creating expectations that these airlines were “Too Big To Fail.” Capital markets could safely ignore actual financial results and could lend money to (or invest in) the major carriers without worrying about bankruptcy risks. Every time rumors about a second tranche of “payroll support” subsidies emerged in the press, airline stocks jumped.

Support for airline bailouts in Washington came from politicians who wanted to boost stock prices but needed to create the appearance that they just wanted to help beleaguered workers. Job losses are unfortunate in any situation, but none of these politicians have ever explained why United pilots are more deserving of taxpayer largess than the tens of millions who have lost much lower paying jobs.

US airline bailouts had almost none of the major conditions (such as shareholdings and veto power over future mergers and other major decisions) imposed elsewhere. This was so that current equity holders could capture all of the gains from any financial recovery facilitated by the bailout funding.

US airlines have also adamantly opposed restrictions on their ability to funnel the company’s limited cash to shareholders and executives in the middle of the crisis. Delta and Southwest turned down Federal loans because they would have imposed temporary caps on executive pay and prohibitions on share buybacks and dividends. [9] This has increased discord at Southwest where management turned down taxpayer funds in order to avoid pay and buyback limitations, but then turned around and demanded all employees accept a “voluntary” 10% pay cut.

Coronavirus never threatened the critical aviation infrastructure that (in better times) much of the economy had relied on. Airline are one component of the global trade and tourism industry, which does create huge employment and other external economic benefits. But airlines don’t create any of these external benefits by themselves, and the subsidies airlines have received have done nothing to revive trade and tourism.

Society would obviously be harmed if the assets (aircraft, hubs) and management skills (ability to maintain aircraft and manage complex networks) employed by the major airlines were destroyed and had to be totally rebuilt from scratch. A major objective of the industry’s PR narrative is to falsely conflate the preservation of those capabilities with the preservation of the current ownership structure of these specific publicly listed companies including “current debt holders, current equity owners, and current programs to programmatically offer cash and non-cash compensation to senior executives” and most media coverage has explicitly endorsed the industry’s desired framing. [10]

The only voices in Washington dissenting from the “airline subsidies create huge economic benefits” consensus were a few conservative Republicans. “For the past six months, the American taxpayers have spent \$25 billion covering the payroll obligations of passenger airlines. No other Fortune 500

companies—including restaurant groups, transportation firms, hotel chains, or entertainment businesses—have received taxpayer-funded grants...The excess capacity of the airline sector will not be resolved in the near future and continuing to force the entire payroll obligation onto the taxpayers is not sustainable.” [11]

The Battle To Protect Current Airline Owners Enters a New Phase

The airlines’ narrative challenge has gotten more difficult. They still need to keep bankruptcy options completely off the table, and need to further solidify the conflation of “survival of airlines” with “survival of current ownership/financial arrangements.” They still want to make sure they capture 100% of any eventual industry recovery, but don’t want to have to contribute any additional cash, and want to make sure the taxpayers, workers and suppliers who are contributing get none of that upside.

But they now need to convince politicians and the media to replace emergency, one-time subsidies with totally open-ended subsidies, even though first \$50 billion didn’t solve the industry crisis, and other, worse-hit industries still aren’t getting anything. They need to ensure that ongoing subsidies don’t even have the mild restrictions of the March subsidies (such as prohibiting layoffs, service cuts, stock repurchases and mergers). And they need to divert attention from the growing evidence showing that past subsidies were just a direct wealth transfer from taxpayers to a tiny set of politically influential investors, and that those investors have no idea how to solve their structural problems (including the demand/cost mismatch and the permanent destruction of corporate and international business).

The industry began rolling out a second phase narrative with the release of its third quarter results. It redefines the problem in order to claim that the industry crisis is already over. The airlines have raised more than enough liquidity to sustain operations until coronavirus has been beaten. If the airlines can raise cash, and now have plenty, there’s no need for anyone to keep monitoring actual cash drains. If the “problem” has been solved, annoying questions about financial results can be ignored (more importantly) no one can suggest that the structural problems can’t be fixed without restructuring efforts that could wipe out equity holders.

United CEO Scott Kirby said cash burn had seemed like an important metric at the start of the pandemic. “But that’s not at issue anymore. We have enough liquidity to get through the crisis” and we are now refocused on “winning the recovery.” Delta CEO Ed Bastian said the money it had raised gave it a “good line of sight to positive cashflow by the spring.” [12] Needless to say, the airlines did not provide any evidence to support the new “crisis is over because we have all the cash we’d ever need” narrative, and the reporters following the story happily publicized the narrative without examining whether it was based on anything more than the same wishful thinking that was behind the previous “rapid V-shaped recovery” narrative.

But “is today’s liquidity sufficient?” not only isn’t the right question but is impossible to answer. It depends on numerous factors that the airlines cannot influence and no one can predict with any confidence (e.g. widespread vaccine availability, herd immunity rates, future demand for corporate and international travel.) When Scott Kirby says “we have enough liquidity to get through the crisis” he’s really just saying there’s enough cash on hand so we can’t be forced into bankruptcy involuntarily in the next few months, while we hope for billions in new open-ended taxpayer subsidies and a miraculous decline in the virus.

The much more important questions are “How can airlines quickly get costs (and financial obligations) back in line with their reduced near-term revenue potential?” and “When the coronavirus crisis finally begins to subside, what will it take to achieve ongoing improvements in industry efficiency given major changes in capacity and demand?” This series has argued that closing the cost/revenue gap and reestablishing an efficient industry is impossible outside of a bankruptcy-type process.

How Far Will Airline Owners Go In Order To Maintain Total Control?

As has been discussed throughout this series, the public has a huge interest in an airline industry that is strongly competitive and offers the most service that can be economically offered at the lowest economic process. The airline owners’ determination to maintain total, exclusive control of how the industry deals with the coronavirus crisis so that they can capture the full value of any future equity appreciation is fundamentally incompatible with the public interest.

The airlines’ refusal to address their major structural issues has left significant wasteful overcapacity in place. The desperate efforts to increase liquidity without risking control, including the “burn the furniture to heat the house” moves described in Part Two of this series [13] have led them to surrender control of frequent flyer programs and other core components of the business. The loss of those programs, and the cash they have wastefully been burning squanders resources that should have been contributing to an eventual business recovery.

Current owners have every incentive to take any risk that might protect their control. The outcome for current equity holders is the same whether they file for chapter 11 protection next week or whether they wait until eve<https://www.nakedcapitalism.com/wp-admin/edit.php> last asset has been mortgaged and all the cash has been burned. They have no incentive to allow their financial position to be wiped out, even if it would significantly improve the future viability of the airline.

As the fundamental cost/revenue mismatch remains unaddressed, and as cash drains continue, it is highly likely that these owners will further threaten the public interest by demanding further reductions in competition in order to provide short-term boosts to their stock price. Since they will refuse to consider any bankruptcy-type restructuring efforts they will insist the more mergers and more price collusion is the only way to “save the industry.” “Every big crisis in the industry so far has led to further consolidation. After pure crisis management is behind us, somewhere in the middle of next year, there is going to be a stage when consolidation and further collaboration in the industry will take place.” [14]

[1] [Hubert Horan: What Will it Take to Save the Airlines?](#) Naked Capitalism June 3, 2020. Second quarter financial results were discussed in [The Airline Industry Collapse Part 3 – Recovery Expectations Were Always Dreadfully Wrong](#), Naked Capitalism August 4, 2020

[2] Kyle Arnold, “Southwest Airlines needs ‘business to double in order to break even,’ CEO says” Dallas Morning News, August 28, 2020; press release, Southwest Reports Third Quarter 2020 Results, October 22, 2020

[3] Analysis of Hunter Key of Wolfe Research cited by Holly Hegeman, Plane Business Banter, October 23, 2020

[4] Bryan Corliss, Covid in cabins: Low risk, no silver bullet, Leeham News, October 14, 2020; Bjorn Fehrm, Do I get COVID in airline cabins? Part 13. DOD tests confirm OEM results, Leeham News, October 15, 2020

[5] see [Part 3](#), August 4, 2020

[6] Alison Sider, Airlines Plan for Prolonged Coronavirus Travel Drought, Wall Street Journal, October 16, 2020; Kyle Arnold, Airlines have given up on 2020. Now next year is looking bleak too, The Dallas Morning News, October 16, 2020

[7] Jens Flottau, Lufthansa CEO Says Deeper Cuts Are Needed As Recovery Falters, Aviation Week, September 16, 2020; Centre for Aviation, Canada's airlines remain in a dangerous state of limbo, 17 Sept 2020; Benjamin Katz, British Airways CEO Departs as Parent IAG Seeks Revamp, Wall Street Journal, October 12, 2020; Jude Webber, Latin America's airlines stare out along a future of empty runways, Financial Times, October 18, 2020

[8] Centre for Aviation, Airline Leader, issue 53, 2020, p. 6-7.

[9] Alison Sider, American Secures Larger Government Loan After Rivals Reject Cash, Wall Street Journal, Sept. 25, 2020

[10] Rusty Guinn, Hook, Line and Sinker, Epsilon Theory, October 1, 2020 cites multiple examples of media stories that had swallowed the industry narrative conflating "survival of the airline" with "survival of current executives and ownership positions" hook, line and sinker.

[11] Oct 8 statement of Senators Mike Lee (R-UT) and Pat Toomey (R-PA) Ben Goldstein, U.S. Senate Republicans Object To Proposed Airline Relief, Aviation Week, October 08, 2020. It is not clear whether the Senators objecting to blatant corporate welfare are willing to fund broad-based relief programs for the individuals and localities most at risk due to coronavirus impacts.

[12] David Slotnick, United's CEO argued it's not a problem that airlines will keep burning tens of millions of cash per day for months, Business Insider, Oct 15, 2020; Justin Bachman, United Airlines sinks as loss undermines vow to 'lead the rebound', Bloomberg October 15, 2020

[13] [Can Collateralizing Frequent Flyer Programs Help Save the US Airlines?](#), Naked Capitalism July 6th2020

[14] KLM CEO Pieter Elbers quoted in Helen Massy-Beresford, Airlines Likely To Need More Government Support, IATA CEO Says, Aviation Week, September 24, 2020

<https://www.nakedcapitalism.com/2021/02/hubert-horan-the-airline-industry-collapse-part-6-u-s-airlines-lost-over-35-billion-in-2020.html>

Hubert Horan: The Airline Industry Collapse **Part 6 – U.S. Airlines Lost Over \$35 Billion in** **2020**

Posted on [February 22, 2021](#) by [Yves Smith](#)

Yves here. Hubert continues his deep dive into why and how airlines are fighting the operational changes needed to get them on a sounder footing. And par for the course, airplanes are now falling apart in the sky! Well just some United and JAL Boeing 777s, but still...they symbolism is arresting.

By Hubert Horan, who has 40 years of experience in the management and regulation of transportation companies (primarily airlines). Horan currently has no financial links with any airlines or other industry participants

Readers who would like a comprehensive overview of the aviation issues discussed in this series over the last year should take a look at my new article, [The Airline Industry after Covid-19: Value Extraction or Recovery?](#) just published at American Affairs.

That article was commissioned after my September video interview with Izabella Kaminska of the Financial Times. [1] Izabella asked whether there wasn't some glimmer of good news or hopeful future prospects. Wasn't there still some way to reduce the economic value that was being destroyed? Short answer was no, but the new article lays out a more complete explanation than can be provided in a blogcast or posts like this.

While the magnitude of the losses and cash drains is unprecedented, the bigger issue is that the obstacles to a restoring the most possible service and employment are overwhelming. The new article explains the origins of those obstacles, and how they became powerfully entrenched.

Ugly Full Year 2020 Financial Results Reported

The Big 4 airlines (American, Delta, United and Southwest, that account for 86% of the industry) had full year 2020 GAAP net losses of over \$31 billion, and operating losses of over \$33 billion. Smaller carriers such as Alaska, JetBlue and Hawaiian have reported additional losses of over \$3 billion. The overall aviation ecosystem (including airports, regional feeder airlines, internet travel services and maintenance/ground handling suppliers) lost billions more.

Most of these losses occurred in the last three quarters when the Big 4 had an operating margin of negative 101% and reported burned over \$33 billion in cash. Underlying economics are worse because these carriers report a portion of the CARES Act subsidies as operating income. Excluding these gifts from taxpayers, the Big 4 had an April-December operating loss of \$44 billion (\$50 billion worse than the same period in 2019) and an operating margin of negative 141%.

(\$ billions)	Big 4	AA	DL	UA	WN
Full year 2020					
GAAP net loss	(31.5)	(8.9)	(12.4)	(7.1)	(3.1)
GAAP loss YOY decline	(43.3)	(10.6)	(17.2)	(10.1)	(5.4)
Operating margin	(56%)	(60%)	(73%)	(42%)	(42%)
Operating loss	(33.1)	(10.4)	(12.5)	(6.4)	(3.8)
Operating loss YOY decline	(50.0)	(13.4)	(19.1)	(10.7)	(6.8)
2020 Q2-Q4					
Operating margin	(101%)	(90%)	(145%)	(73%)	(88%)
Operating loss	(29.4)	(7.9)	(12.0)	(5.3)	(4.2)
Operating loss YOY decline	(44.0)	(10.6)	(17.5)	(9.2)	(6.7)
2020 Q2-Q4 excl CARES					
Operating margin	(141%)	(138%)	(193%)	(110%)	(108%)
Operating loss	(41.3)	(12.1)	(16.0)	(8.0)	(5.2)
Operating loss YOY decline	(55.9)	(14.8)	(21.5)	(11.9)	(7.7)
reported cash burn	33.1	12.0	7.2	8.9	4.9

As the previous five parts of this series have emphasized, the central problem is the industry's inability to reduce operating expenses (full year 2020 down \$50 billion versus full year 2019) anywhere remotely close to the decline in operating revenues (down \$100 billion year-over-year). Nothing in the carriers' fourth quarter results indicated any meaningful progress towards closing the cost/revenue gap. Southwest's fourth quarter results said that revenue performance would need to double just to reach cash flow breakeven (not profitability), the exact same warning they had issued six months ago. [2Taxpayer Subsidies to Sustain Equity Values Reach \$65 Billion, but Aren't Enough

Since the original \$50 billion in subsidies provided last March by the CARES Act did nothing to improve the industry's terrible economics, the Big 4 carriers spent most of the summer and fall lobbying for additional funding. In December Congress provided an additional \$15 billion.

As with half of the March subsidies, this was packaged as "payroll support." 38,000 staff who had been laid off in October when the March subsidies expired were rehired through March 2021 even though there was no work for any of them to do. While some of this money ended up in the pockets of United pilots, the claim that the central objective of these subsidies was unemployment reduction isn't credible. It requires believing that the same Congress that was fighting tooth and nail to prevent relief for other individuals from exceeding \$600 were willing to pay \$400,000 per person to keep a narrow set of airline employees employed for just four months.

As discussed previously in this series, the industry's primary objective throughout the pandemic has been to preserve the value of equity and the ownership/senior management status quo. Over 100% of the Legacy carriers' (AA/UA/DL) year end liquidity comes from the subsidies and funds raised from capital markets after the Congressional subsidies signaled that these airlines were Too Big To Fail.

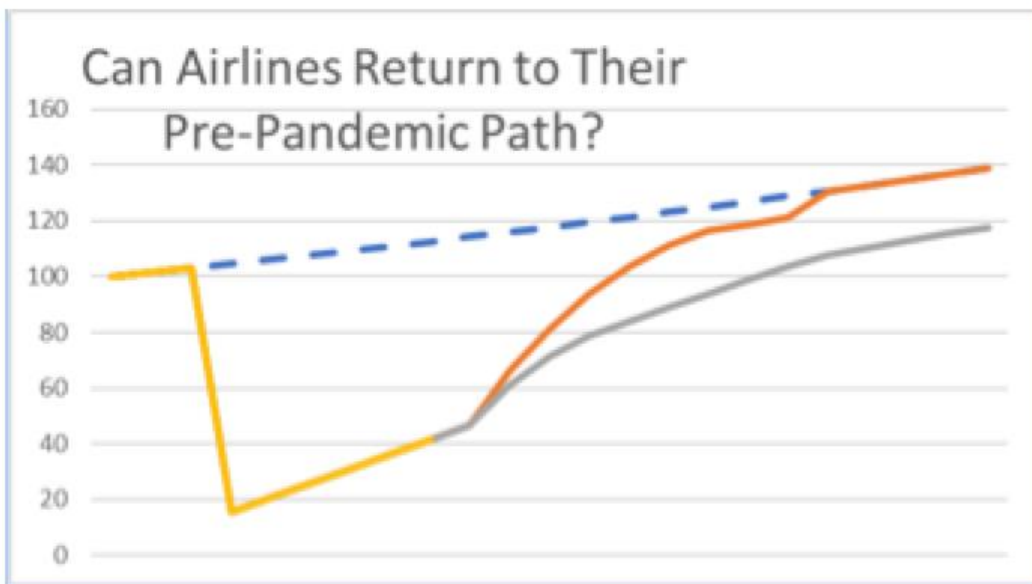
Without these subsidies, these carriers would not have been able to sustain operations and equity-holders would have been wiped out. “Saving jobs” was a PR smokescreen. The Congressional subsidies were designed to ensure that existing shareholders received 100% of the gains from any post-pandemic equity appreciation, and that the taxpayers who made it possible got none.

But \$65 billion is not enough to protect current airline owners if major cash drains continue throughout most (or all of) 2021, and the Big 4 have already started lobbying for a third round of subsidies while warning that major layoffs will resume when the second round subsidies expire at the end of March. The Legacy carriers have already mortgaged the vast majority of assets that could possibly serve as collateral and are unlikely to be able to raise significant new funding from capital markets until after a major revenue recovery is clearly underway. They are “zombie companies” unable to repay their financial obligations out of current earnings.[3]

No Light at End of the Tunnel

From the outset this series has pointed out that industry expectations for a rapid and complete return to pre-pandemic revenue levels had no basis in reality. Those narratives falsely assumed that the recovery of business and international demand that is critical to profitability would begin within a few months, and that once a recovery was underway, revenues would snap-back to their 2019 levels within 12-18 months. [4] When the first reports of vaccine effectiveness came out last fall, hopes for a rapid snap-back resurfaced, with the starting point repegged for the first or perhaps the second quarter of 2021.

Industry insiders are finally beginning to recognize the powerful linkage between border closures and the collapse of business travel. As one observer noted, “the countries that have been really good at suppressing the virus have done it by killing international aviation.” [5] Thus the industry’s recovery cannot begin until the spread of the virus had been so widely suppressed that businesses could start to reconsider travel bans and governments could end border closures without fears of triggering new case load spikes.



Myriad vaccine issues and the spread of virus mutations could push back the starting point of any recovery (and the end of the industry's ugly cash drains) into 2022. Aside from granting these four companies unlimited access to the US Treasury, there has been no public discussion as to how continuing drains might be funded, and how a major industry collapse could be avoided in any less-than-best-case virus suppression scenario.

Bankruptcy filings last summer could have easily stopped the hemorrhaging but it may now be too late for bankruptcy restructuring to work. Successful bankruptcy reorganizations require a significant amount of cash, but tens of billions in cash has already been burned and asset values have eroded waiting for a revenue rebound that wasn't going to happen. Past airline bankruptcies were painful but never had to deal with a cost/revenue gap remotely as large as what these airlines face today and never involved lengthy delays while airlines hoped that their financial problems would magically disappear . [6]

There are also serious concerns about the second part of the recovery equation—the restoration of some degree of financial viability and stability after the recovery begins. For the first time industry insiders have begun openly acknowledging that demand won't quickly snap back to pre-pandemic levels, and business travel may remain seriously reduced for a very long time, if not permanently. [7] But there are numerous other factors, that could also depress post-pandemic demand. Even after a real revenue recovery starts, the industry will still be dealing with the worst demand, efficiency and liquidity levels it has ever faced. Higher fares could significantly hurt the recovery as could external factors such as “long covid” and ongoing recurrences of smaller outbreaks. International travel could remain highly restricted for years until the virus has been eradicated globally.

Significant Risks of Post-Pandemic Predatory Value Extraction

In the 20th century, the airline industry not only survived multiple crises, but always emerged stronger. Unfortunately, both the general ability to drive ongoing efficiency improvements and the specific ability to use efficiency gains to accelerate crisis recovery have been lost. Industry productivity has been declining for 20 years, especially in domestic markets and for the legacy carriers. In the current crisis the industry has categorically ruled out any of the restructuring efforts used in the past to fix the problems that created crises and to liquidate the least competitive capacity.

Instead of responding to crises with efficiency-enhancing innovations, 21st century industry financial improvements have come from predatory value extraction, especially from exploiting the artificial market power over consumers, employees and suppliers made possible by extreme levels of industry concentration. [8] Innovation and competition is hard, mergers and price increases and lobbying to protect the ownership/management status quo are much easier. Returns to airline investors come from reducing the contribution of the industry to the overall economy.

Even though the industry recovery has yet to begin, it is important to understand why it will inevitably focus on further reductions in competition and other forms of increased predatory value extraction. As KLM CEO Pieter Elbers pointed out months ago, “every big crisis in the industry so far has led to further consolidation. After pure crisis management is behind us, somewhere in the middle of next year, there is going to be a stage when consolidation and further collaboration in the industry will take place.” [9]

Efforts are already underway to merge Korean and Asiana, and a similar Japan Air Lines-All Nippon merger has been proposed. These would effectively eliminate meaningful competition in Korea and Japan, and significantly reduce it in many Asia-Pacific markets. Stock speculators have bid up the prices of the second-tier US airlines (Jetblue, Alaska, Hawaiian) in the expectation that the Big 4 will try to acquire them.

The industry will also pursue ways to reduce competition without formal mergers. Qantas and JAL have proposed “strengthening” their existing code alliance (e.g. increasing their ability to collude on capacity and pricing) even though they already have an 86% share of the Japan-Australia market; and a JAL-ANA merger would push this closer to 100%. [10] On the last day of the Trump Administration DOT Secretary Elaine Chao approved cooperation between American and JetBlue, the first ever application for airline collusion in domestic US markets. [11] Lufthansa, Air France and other large international carriers have demanded that longstanding airport slot “use-it-or-lose-it” rules be abandoned in order to block new competition at their hub airports.

The problem isn’t that the industry might shrink. Given the incredible devastation of international airline demand, it may be that a major portion of 2019 capacity can never return, and that some previously viable airlines need to be liquidated. The problem is that the industry has come to believe that increased consolidation and collusion is the solution to any financial problem it might ever face. If industry revenue declines, the airlines refuse to consider reducing capacity across-the-board while maintaining competition and insist that the only possible option is to reduce the number of competitors.

Even if total capacity shrinks, governments could take a number of simple steps to preserve and protect competition and better balance the interest of airline investors and the interests of consumers, employees, suppliers and the overall economy. Airlines may insist that they cannot attract capital unless new mergers and price collusion are approved but demands to harm consumers in order to improve investor returns should be rejected out of hand.

Merger applicants should be required to demonstrate that they will not increase market power and to produce verifiable evidence of any cost synergy claims. Collusive international alliances and airport slot rules that had been justified by pre-pandemic levels of competition need to be suspended until independent analysis demonstrates they will not reduce competition under post-pandemic conditions. As an example, Delta’s collusive alliance with Korean assumed healthy competition in the Korean market and the existence of multiple other competitive Asia-Pacific alliances (United-Asiana, United-ANA, American-JAL), and all of these alliances should be terminated if any of the mergers being discussed are implemented. Any proposals to allow carriers to coordinate schedules while demand remains severely depressed must have strict termination clauses tied to actual traffic recovery and must not be permitted in any cases where the colluding carriers would have a significant market position.

The underlying problem is that the major 21st century reductions in competition that halted productivity growth and crippled the industry’s ability to respond to the current crisis all resulted from proactive government actions designed to help airline investors extract value from the rest of society. When coronavirus hits, Washington immediately responded with massive direct wealth transfers from taxpayers designed to protect existing airline equity holders. We have no evidence suggesting Washington will do anything to protect market competition or overall economic welfare, or take other steps to limit future fare increases, job losses or cuts to the service that cities and industries depend on.

[1] <https://ftalphaville.ft.com/2020/09/10/1599758074000/Alphavid-The-airline-sector-is-in-denial-about-its-imminent-collapse/#comments> Direct YouTube link to the video (about 40 minutes): <https://www.youtube.com/watch?v=Hzig-gnKWTI#action=share>

[2] Kyle Arnold, “Southwest Airlines needs ‘business to double in order to break even,’ CEO says” Dallas Morning News, August 28, 2020

[3] Lisa Lee, America’s Zombie Companies Have Racked Up \$1.4 Trillion of Debt, Bloomberg, November 17, 2020

[4] Hubert Horan: The Airline Industry Collapse Part 3 – Recovery Expectations Were Always Dreadfully Wrong, Naked Capitalism, August 4, 2020

[5] Philip Georgiadis and Claire Bushey, Airline industry alarm as vaccine-led recovery hopes take a dive, Financial Times, February 15, 2020

[6] The requirements of a successful bankruptcy—based on the industry’s long experience, and the major difficulties an airline bankruptcy would face after having already suffered a full year of coronavirus losses are discussed in pp. 50-52 and 55-57 of the American Affairs article.

[7] Kevin Michaels, “Why Business Travel Could Change Forever”, Aviation Week and Space Technology, January 18, 2021; Doug Cameron and Eric Morath, “Covid-19’s Blow to Business Travel Is Expected to Last for Years”, Wall Street Journal, January 17, 2021

[8] The data demonstrating these productivity/efficiency trends are shown at pp. 46-49 of the American Affairs article.

[9] Helen Massy-Beresford, Airlines Likely To Need More Government Support, IATA CEO Says, Aviation Week, September 24, 2020

[10] CAPA Centre for Aviation, “COVID-19 crisis strengthens case for JAL-Qantas partnership”, January 6, 2021.

[11] Leah Nysten and Stephanie Beasley, “Approval of American-JetBlue deal draws warnings of rising airfares”, Politico, January 16, 2021