

A REGULATORY FLIGHT-PATH TO AIRPORT RECOVERY

As specialists in regulatory economics, we are called on to help our airport clients to understand, deal with - and, hopefully, help to shape - the regime within which they have to operate. The pandemic and its aftermath make re-shaping those regulatory arrangements critical to the sector's survival. If aviation is to be resuscitated, the key question that needs to be answered from an economic and regulatory perspective is: how should the costs of the pandemic on the airport sector be shared? This bulletin explores an adjustment to simplistic cost-based regulation, that would enable the pain to be spread between parties and over time.

Many major European airports are suffering a huge loss in traffic, and facing uncertain prospects for 2021 and beyond. It is not uncommon to hear predictions that traffic in 2020 will turn out to have been a quarter of what it was in 2019. And while a substantial bounce-back is expected, it is plausible to think it may take three more years for traffic to recover to its pre-Covid-19 trend.

COVID TWO-STEP

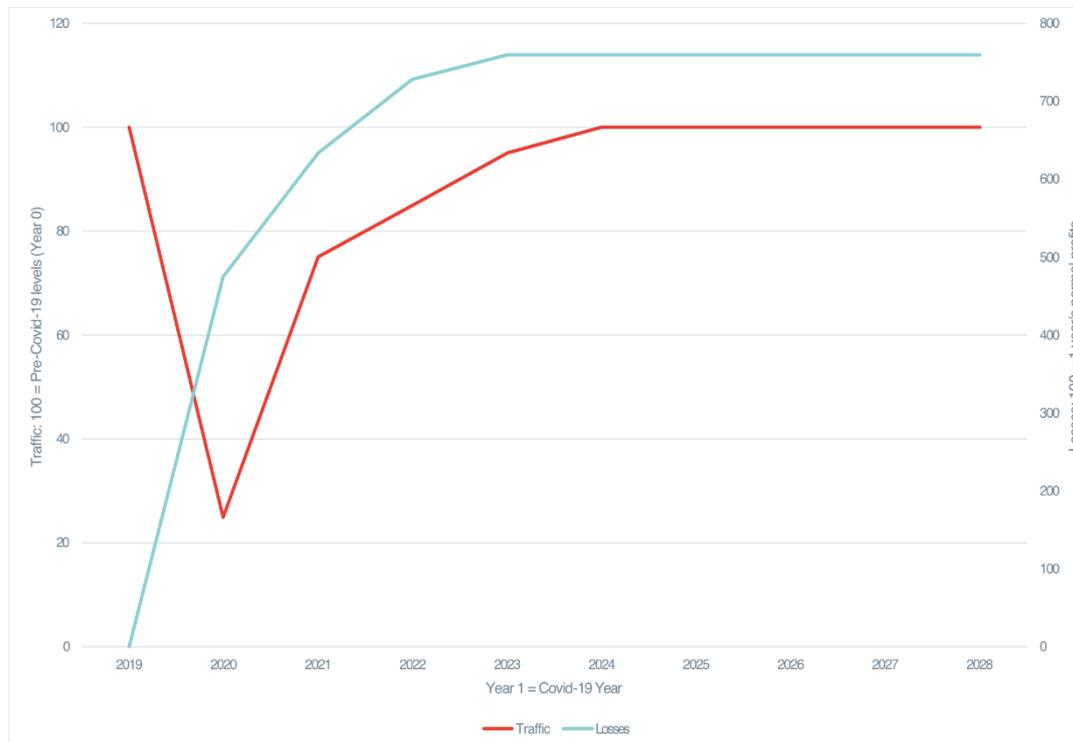
In very simple terms, the impact of the pandemic on the industry can be seen as going through two distinct phases, determined by:

- The immediate shock, during which international aviation has essentially been grounded, and
- The knock-on effect, creating a prolonged "recovery" period during which revenues are well short of pre-Covid expectations. Together with extra infection control costs, this shortfall is quite likely to drive profitability below the level that airport businesses can sustain.

Of course this is over-simplified, and the moment we move from phase one to phase two will be geographically mixed, as some countries open up air travel sooner than others. It will not be like turning on a switch, but slow and progressive - and indeed reversible, with regional/national shut-downs occurring in response to local flare-ups or a general second wave.

Indicative modelling by Frontier suggests that losses in 2020 could wipe out up to five years of normal airport profits. But the recovery phase could be very damaging too. Under plausible assumptions, and assuming no change in regulatory policy, a further two years of normal profits in the airport industry could be wiped out over the following four years.

Figure 1 Cumulative losses in the airport sector resulting from lost traffic in “do nothing” scenario



Source: Frontier simulation

If this is clearly bad news for airport shareholders, does it matter to the public, and the regulators that are there to protect their interests? There are two reasons to believe it should. First, it is highly questionable whether airports can withstand 2020 losses and re-emerge to meet demand in 2021 having suffered little or no operational damage. Second, it would be dangerous to assume that the 2020 shock is a one-off never-to-be-repeated event, whose effects could therefore be seen as sunk costs with no bearing on the future.

Airports with no traffic and little prospect of any significant return are haemorrhaging cash. Drastic steps are being taken to steady the ship financially, which have already involved significant furloughing and redundancies. However, as anyone in business knows, while cutting costs is difficult, it is nothing like as difficult as trying to rapidly rebuild a team that has been torn apart.

This is why in, “normal” recessions, job losses tend to be slow to materialise. Firms hold on to their trained personnel as long as possible to avoid down-sizing too soon or too much. The emergency measures airports now have had no choice but to take clearly imperil their ability to rapidly rebuild capacity. Hence the response to the immediate crisis is making a slow recovery all but inevitable.

If the pandemic were a unique event its costs could, in theory, be treated as an “act of God” - a one-off loss to shareholders, but no reason for regulatory intervention. But there are good reasons to think the current crisis will affect future financing costs. We now know two things (or at least are paying attention to them if we “knew” them before).

First, in our globally-connected world pandemics will continue to be a real threat. In the past 30 years we have had HIV/AIDS, Ebola, SARS and MERS and are in the grip of the seventh Cholera pandemic. The post-WWII myth that science has conquered nature, staunchly resisted by epidemiologists, is well and truly busted.

All of these pandemics have had severe economic consequences for individuals and regions. Covid-19 is merely the first one to have had such an impact on a global scale - the first to make the West finally sit up and take notice.

Science can help control these events, but it cannot prevent them. We have to take the risk, even the probability, of future pandemics seriously. To the extent that this risk was under-stated in the past, going forward it is likely to be built into market equity risk premia, driving up finance costs for all businesses, since all sectors have learnt that they cannot expect to be immune.

But airports will be especially badly hit. And the sector's pandemic-related financial risk is correlated with that of the market in general, yet at the same time much larger than average (in technical terms. equity betas in airports will rise). This makes the financing of airports relatively as well as absolutely expensive.

A number of estimates of the impact of the crisis add 200-300 basis points to airports' cost of capital. Our indicative calculation suggests that a 300-basis point increase would raise average costs to airport users permanently by about 10%. That's not implausible, given that the cash flow hit may be equivalent to a third of the total capital value of the airport.

Unless we see a material policy intervention there is likely to be prolonged damage to the productive capacity of our airports, reducing international connectivity, making airport services significantly more expensive to supply. There are material operational and financial benefits to be gained from putting in place arrangements that mitigate both the medium-term disruption and the long-run financial risk caused by the threat of pandemic-related shut-downs.

Regulation - more or less?

Airport leaders, especially European ones, are often vocal on the subject of economic regulation. Many argue that it is excessive, or even unnecessary, in their sector. And the pandemic has led them to call again for airport deregulation, or at least a lightening-up. Specifically, they point to the damage caused by simplified cost-based regulatory structures, which imply airports should respond to the crisis by raising their charges sharply in 2021.

It's unusual, to put it mildly, for regulated companies to complain that the regime will make them put prices up too much. But they are right. Simple regulatory arithmetic does point that way, as tariffs are effectively calculated on an average-cost basis and traffic will have fallen far more than costs. Airports are also correct to conclude that it would be wrong to raise charges in these circumstances.

In "normal" circumstances, since airport charge hikes are faced equally by all airlines in a given market (i.e., on a given route), so through the process of inter-airline competition we would expect these costs ultimately to be passed on to passengers in higher fares. Airlines would bear some frictional adjustment costs, but when capacity had aligned it would be the passenger who bore the bulk of the cost. In the long run, higher aviation costs will feed through to higher fares.

But this not what we'd expect to happen in the immediate aftermath of the pandemic. Right now capacity substantially exceeds depressed demand for flights, and airlines will be cutting prices to fill even social-distanced seats. Raising airport charges is likely to shift airport shareholders' problem on to airline shareholders at the time they are least well placed to bear it.

Something else has to change. Where airports are being regulated without good evidence that they have significant market power (SMP) there is a case for scaling-back or even removing regulation altogether. But while it might reduce the administrative burden (and annoyance), this would not make the slightest difference to such an airport's prospects through the pandemic. The key point is that if the airport does not have SMP, it is the market, and not regulation, that is constraining its prices.

By the same token, an airport that does have SMP may, in theory, be able to raise charges if released from the constraints of regulation. But during the recovery period that is not, as we have seen, what is likely to happen; and beyond that, the prospect of an unregulated airport exercising unfettered market power is not attractive. In other words, abolishing regulation for such airport would be ineffectual in the short term, dangerous in the long.

In neither case, therefore, is there a strong argument for complete deregulation. But there is a strong argument for reform, which we now explore.

Future reform, present help

When little or nothing is flying, it is hard to focus on the need to reform regulatory structures. But applied mechanistically, the current rules could lead to perverse outcomes as soon as next year. And they are not helping the industry to resolve its present financing issues, which are inextricably linked to the future financeability of the airport sector.

Airports are facing a long-run and irretrievable shortfall in earnings, a prospect that fatally undermines their ability to finance themselves through the current shut down. This makes them all the more dependent on state intervention to help them through the current emergency.

If regulation could be reshaped to protect a material proportion of earnings in the long run, the sector becomes instantly more financeable in the present, with much lower risk and consequently much lower costs in the medium to long run. Thinking clearly about long-run solutions generates ideas for mitigating the immediate crisis as well.

Two aspects of the regulatory contract need immediate attention:

- Thresholds for traffic loss, and
- The allocation of costs over time.

Many regulatory contracts in other sectors include a threshold for traffic variation that caps the airport's financial risk/reward (i.e., down or up). Tariffs are reduced if traffic is above the maximum and increased if it is below the minimum.

A direct tariff adjustment is not what is needed now. But the underlying concept is useful. The regulatory contract needs to be clear how much traffic risk the airport is subject to, and what happens if traffic falls outside that range.

A plausible option would be that shareholders should be fully exposed to traffic variation of up to $\pm 10\%$, but protected outside that range. In "normal" times such a rule would, as it should, leave almost all traffic risk with the airport. During a Covid-19 recovery phase, our indicative modelling suggests that such a rule would split the costs broadly equally between airports and passengers.

So far, so apparently reasonable - except that shifting costs to passengers right now does not look a good idea. What is also needed, therefore, is a mechanism to hold back the effects of such a rule until they can reasonably be absorbed.

Cost-based regulation looks blessedly simple, but also tends to be mechanistic and inflexible. It often involves little more than:

- identifying the airport's accounting costs; and
- dividing these by the traffic forecast; in order to
- arrive at the maximum aeronautical charge per passenger.

Clearly if the number of passengers is hugely depressed such a calculation produces a nonsensical answer. With very low passenger numbers, but relatively high fixed costs, it can generate an absurdly high maximum charge. A large part of the problem arises from adherence to accounting definitions of "operating" and "capital" costs". (The former are expensed through the profit and loss account in the period they are incurred, the latter credited to the balance sheet and recovered via depreciation charges levied over the assumed life of the asset.)

Thus the regulatory system attempts to make airports whole by allowing huge price increases which the airport cannot implement. Having "chosen" not to take this revenue, airports simply lose it, and their costs are never recouped. The inevitable result is not only short-term losses, but a significant increase in the financial risk. The cost of financing rises, driving up still further the long-run costs of airport infrastructure.

Our indicative modelling suggests that if it takes to 2024 for airport traffic to get broadly back on track, the losses from airports' inability to collect the fantasy charges allowed by this theoretical process could amount to two full years' profit, on top of almost five years of profit lost during 2020.

Finding the broadest shoulders

The task is to work out a way of sharing the pain that reduces rather than exacerbates future risk by allocating it to those best placed to bear it. Regulatory precedent does offer some solutions: mechanisms that allow these risks to be dispersed over time, and to the different parties, in ways that make them much easier to handle. The crucial step is to take advantage of one of the key elements of most regulatory regimes: the Regulatory Asset Base (RAB).

This is the measure of the net value of the regulated assets invested in the airport on which investors can reasonably expect to earn a return (provided airport operators discharge their obligations reasonably efficiently).

The RAB provides a mechanism that allows regulators and investors to “keep score” over time. It is the record of all those costs incurred in the past that need to be paid for in the future.

There are two established ways in which it can be used to help ease the problem described above. It can help us to:

- adopt a system based on “unit of output” or “economic depreciation”;
- adopt a flexible approach to the recovery of all expenditure by adjusting the relative run rate of operating and capital costs. This is sometimes described as the “fast money/slow money” approach.

Applying depreciation to “units of output”, rather than fixing depreciation over a given time frame, means that if traffic is low, costs are deferred (from a regulatory point of view) until it recovers. This approach is already used in some airport regulatory regimes, including for Dublin Airport. Capital charges attached to units of output rather than to fixed depreciation schedules also feature in some asset finance arrangements.

The “fast money/slow money” approach is already used by regulators in the UK to smooth the effects on prices of major investment spikes. It goes further than “unit of output” depreciation in that it can be applied to all costs, even operating costs that would normally be expensed through the accounts in the year they are incurred. Costs treated as “slow money” are capitalised in the RAB and can be recovered at a later date, but only when there is the traffic there to sustain them.

This approach would not just smooth the impact of the current disruption. By using the RAB as it should be used – as a repository for regulated value - it would substantially reduce the risk of investing in airports. In helping operators to avoid sharp Covid-driven increases in financing costs, it would have substantial long-term benefits.

Apply now, gain later

The following illustrative simulation shows how this approach could be used to mitigate ongoing airport losses in the recovery phase. It contrasts two scenarios. First, a “do nothing” scenario, in which charges are theoretically increased (to levels that cannot be levied) by the regulatory process in 2021; second, a scenario in which the ratio of slow to fast money is adjusted annually from 2021 to ensure that regulated prices are held constant, and the resultant financial deficits are added automatically to the RAB. From 2024, when normality is assumed to have resumed, the fast money/slow money ratio is inverted for 10 years, increasing prices but progressively reducing the RAB to its original level. This is shown to materially reduce the airport’s cumulative losses¹.

Such an approach would temper the effect of cost increases on airlines, too. The modest scale of the increases in charges, and the fact they are signalled years in advance, means that airlines can plan capacity with these firmly in mind, which we would expect - given competitive markets - to result in a pretty complete price pass-through. And the figure below suggests that the mitigating price increases might be relatively small, possibly less than 5% for a period of ten years, after recovery has occurred.

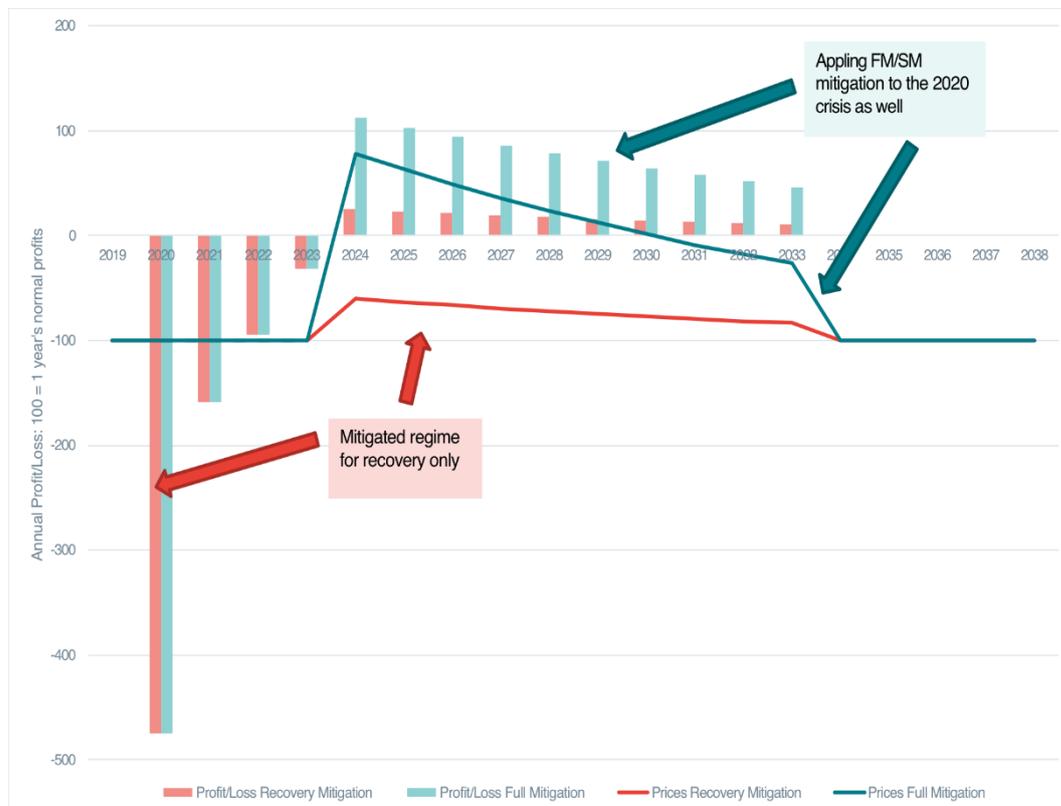
This second scenario is based on a simple principle: adjust the run rates of operating and capital costs to provide partial mitigation for the losses airports can expect to suffer during the slow recovery phase.

¹ Note that in these scenarios we have assumed the airport is fully exposed to all traffic variation up to 10% but protected thereafter.

Price rises are thereby deferred until such time as the airline sector is able to absorb them, meaning that it is able to pass much of them through in higher fares. An important point to note is that no retrospective changes need to be made to the regulatory settlement. It can simply be put in place on a forward-looking basis from 2021.

However, that would still leave big challenges with respect to the current year. There is nothing to prevent the use of the approach set out here to address the losses of 2020 as well, but the scale of the problem is greater and a little more flexibility of thought is required, because some retrospective re-writing of the regulatory “rules” for 2020 would be required. While retrospection is usually best avoided in regulatory settlements, the sheer scale of the problem requires exceptional treatment, with losses likely to be at least twice those accruing during the recovery phase.

Figure 2 Comparison of impact on prices and profits of applying FM/SM mitigation only to recovery or to the entire crisis



Source: Frontier financial simulations

The figure above suggests that mitigation of 2020 losses as well might require price rises of nearly 20% once recovery is complete, and approaching 10% on average over the following ten years. These numbers are high, but not surprising. Our estimates suggest that 2020 losses may be so substantial that even capitalising all opex in the year may be insufficient to cover the deficit. But without any mitigation, our calculations suggest the cost of finance for airports might rise by 300 basis points - a 10% increase in annual costs not just for ten years but in perpetuity.

Conclusions

In this paper I have tried to show how flexibility in the regulatory accounting for operating and capital costs, underpinned by strategic use of the RAB, could be used to partially mitigate the long-run financial

effect of the Covid-19 crisis on airports. Setting tram lines for the variation in traffic, with the airport taking the full risk within those lines and protected outside, offers the best framework. However, mechanistic cost-based regulatory structures may simply offer airports virtually worthless compensation for increases in costs in the form of permission to raise price to levels impossible to implement.

Changing the run rate of operating and capital costs through adjusting the ratio of “fast money” to “slow money” in the regulatory accounts provides a partial solution to this issue, provided interim losses are accrued in the airport’s RAB. But given the scale of the crisis, even if the price increases could be time-shifted in this way, they would still be very substantial.

The only alternative is for government to step in with direct support to airports now. The twin effects of such an intervention would be not only to reduce losses and hence future price rises, but also to secure the operating capability of this vital infrastructure, hopefully enabling airports to make the best of the recovery phase. Such an intervention should, however, be undertaken combined with a change in regulatory approach, which, by providing future protection could mitigate the size of the direct injection of funds the sector may need this year.