



International Civil Aviation Organization

GUIDANCE ON ECONOMIC AND FINANCIAL MEASURES TO MITIGATE THE IMPACT OF THE CORONAVIRUS OUTBREAK ON AVIATION

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GUIDANCE ON ECONOMIC AND FINANCIAL MEASURES

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1. Economic impact of COVID-19 on aviation

The COVID-19 pandemic is not only a health crisis; it is also an economic, social and humanitarian crisis. In the global effort to contain the outbreak and to protect people's health, governments around the world enforced full or partial lockdowns, closed borders, imposed stringent travel restrictions and issued travel advisory against non-essential travel. As these measures have led to the collapse in air travel demand on an unprecedented scale, aviation has been one of the hardest-hit sectors.

The precipitous decline in air traffic has created severe liquidity strain to the aviation industry, risking its financial viability and threatening millions of jobs relying on the industry. All aviation stakeholders, including but not limited to airlines, airports, air navigation service providers (ANSPs) and aerospace manufacturers, as well as all those throughout the value chain, have all been confronting challenges to their business continuity and potentially their survival.

The latest [ICAO economic impact analysis of COVID-19 on civil aviation¹](#) reveals that for the year 2020, global passenger traffic has fallen drastically by approximately 60 per cent, an equivalent of around 2.7 billion reduction in passenger numbers, compared to 2019. The plunge in traffic is estimated to translate into a plummet of airline gross operating revenues by USD 370 billion; and the loss in revenues of airports and ANSPs would reach USD 115 billion and USD 13 billion, respectively. Near-term outlook indicates that the industry is anticipated to contend with depressed demand for a prolonged time.

The potential deterioration in future economic viability of the sector could affect the balance of aviation ecosystem, the repercussion of which might have far-reaching impact on broader economy at all levels. It is therefore of urgency for aviation companies to take bold and immediate steps to bolster their financial position and mitigate the impact from the massive revenue shortfall. It is also equally important that States take appropriate actions to stabilize and support the beleaguered aviation industry; and so aviation can continue its pivotal role in providing connectivity, driving national economy and supporting jobs, and as an enabler in the overall economic recovery.

This ***Guidance on Economic and Financial Measures*** summarizes a range of possible measures that can be explored by States and the aviation companies to cope with the economic fallout of the pandemic, alleviate the imminent liquidity and financial strain on the industry, and more importantly, to strengthen the industry resilience to future crisis. It outlines the potential implications and constraints of each measure while being complemented by concrete examples to help decision-making of policymakers and industry leaders in accordance with their unique circumstances and needs.

¹ <https://www.icao.int/sustainability/Pages/Economic-Impacts-of-COVID-19.aspx>

2. ICAO CART recommendation on economic and financial measures

The ICAO Council Aviation Recovery Task Force (CART) published the [CART Report²](#) in June 2020, providing ten (10) key principles and eleven (11) recommendations on globally- and regionally-harmonized, mutually-accepted measures for a safe, secure and sustainable restart and recovery of the aviation sector.

Key Principle 8 and 9 underscore the need to support financial relief strategies to help the aviation industry and to ensure its economic sustainability, while Recommendation 10 underlines a “safeguard” in implementing economic and financial measures to support financial viability of the industry.

CART Key Principle 8 – Support Financial Relief Strategies to Help the Aviation Industry.

States and industry institutions, consistent with their mandates, should consider the need to provide direct and/or indirect support in various proportionate and transparent ways. In doing so, they should safeguard fair competition and not distort markets or undermine diversity or access.

CART Key Principle 9 – Ensure Sustainability

Aviation is the business of connections, and a driver of economic and social recovery. States and industry should strive to ensure the economic and environmental sustainability of the aviation sector.

CART Recommendation 10 – Economic and Financial Measures

Member States should consider appropriate extraordinary emergency measures to support financial viability and to maintain an adequate level of safe, secure and efficient operations, which should be inclusive, targeted, proportionate, transparent, temporary and consistent with ICAO’s policies, while striking an appropriate balance among the respective interests without prejudice to fair competition and compromising safety, security and environmental performance.

Taking into consideration the direct and indirect economic benefits generated by air transport to their national economies, States should provide the most appropriate means for supporting stakeholders across the civil aviation sector, if and when deemed necessary, possibly through regional or international economic cooperation as well as with the private sector and financial institutions. Such extraordinary emergency measures could range from regulatory relief, operational flexibilities, grants of extra-bilateral air service rights or traffic rights, to economic stimulus or direct financial assistance.

As outlined in the next section, these measures must be inclusive, targeted, proportionate, transparent, temporary, and limited to what is necessary to mitigate the impact of COVID-19. They should also be consistent with ICAO’s policies while striking an appropriate balance among the respective interests without prejudice to fair competition or compromising safety, security and environmental commitments.

Capabilities of States to provide support to their industry vary greatly. Given diverging and competing requests made by different industry stakeholders, States will need to adhere to principles of good governance, through corresponding institutional and regulatory frameworks, in order to reconcile objectives and needs with responsibilities and resources, often in the face of rivalling, and/or conflicting priorities.

² <https://www.icao.int/covid/cart/Pages/CART-Report---Executive-Summary.aspx>

3. Key principles of State economic and financial measures

State has the primary responsibility for its own aviation recovery and development; and the role of national recovery mechanisms and action plans cannot be overemphasized. While objectives of State support to the industry are varied, the type and duration of economic and financial measures applied directly affects the recovery of the sector, as well as the future industry structure.

It is very difficult to determine the impact of State support to companies in order to compensate them for losses incurred in situations such as government-imposed closure of airspace or an airport. Market distortion may arise in cases where such support is considered by competing companies as beneficial to the recipient companies to the extent that it represents a figure that is more than the actual loss incurred by the recipient companies. At international level, assistance by States over perceived levels that may be considered to distort competition have the potential to lead to retaliatory actions by other States in view of differing attitudes towards such assistance.

In accordance with the ICAO CART Recommendation 10, a clear framework for State economic and financial support should be established with good governance. Due consideration should be given to the following key principles drawing from the existing ICAO economic policies and guidance related to air transport, which even in extraordinary times like the pandemic cannot be put away and neglected:

- Principle 1 – Well-defined objectives;
- Principle 2 – Data-driven evaluation;
- Principle 3 – Broadly inclusive and non-discriminatory;
- Principle 4 – Targeted and proportionate;
- Principle 5 – Transparency and consultation;
- Principle 6 – Striking appropriate balance among all stakeholders; and
- Principle 7 – Time-bound.

Principle 1 – Well-defined objectives

Irrespective of the type of economic and financial support to the aviation industry, the objectives need to be well-defined in line with the State's overarching fiscal and monetary policy in response to the COVID-19 pandemic which takes into account all economic sectors. Clear objectives should be measurable, achievable and relevant such as maintaining essential connectivity, employment preservation and preventing a permanent damage on travel, supply chains, global trade, etc.

Relevant existing ICAO policies and guidance:

Fifth Worldwide Air Transport Conference (ATConf/5), PART II. Sustainability and Participation – Conclusion d). States should consider the possibility of identifying and permitting assistance for essential service on specified routes of a public service nature in their air transport relationships.

Manual on the Regulation of International Air Transport (Doc 9626), 4.3 Good Regulatory Practices – Paragraph 4.3.3 c). Targeted and well-defined. Regulations should have specific and well-defined objectives that respond directly to the problems identified and targeted at the actors

best placed to solve those problems. Whenever appropriate, flexibility should be given to those being regulated to meet defined objectives.

Doc 9626, 4.3 Good Regulatory Practices – Paragraph 4.3.4 a). Defining a clear need. The objective of the regulation should be identified based on sound evidence and available alternatives; and the objective should be carefully considered in order to select the most appropriate solution.

Doc 9626, 4.6 Effects of State Aids and Subsidies – Paragraph 4.6.18. The government decisions on airline restructuring finances are usually made against a background of social and political pressures to save national airlines and to ensure that the transition to more efficient operations is achieved at the lowest cost to those most affected, in particular to labour and creditors. However, without well-defined conditions (including goals, adequate time frame and long-term plans) and stringent regulatory mechanisms for enforcement, information disclosure and monitoring, restructuring finances could have the effect of simply protecting less productive airlines without fostering internal efficiency. Restructuring finance of airlines, therefore, needs to be accompanied by clear criteria and methodology if it is to achieve its intended purpose.

Principle 2 – Data-driven evaluation

Determination on the type and scale of support should be based on thorough evaluation and assessment using rigorous data analysis. Parameters related to specific segment or company may include but not limited to magnitude of impact by the crisis, financial situation, economic and employment conditions, and direct and indirect effects on air connectivity and national economy.

Relevant existing ICAO policies and guidance:

Doc 9626, 4.3 Good Regulatory Practices – Paragraph 4.3.4 a). Defining a clear need. The objective of the regulation should be identified based on sound evidence and available alternatives; and the objective should be carefully considered in order to select the most appropriate solution.

Doc 9626, Paragraph 4.3 Good Regulatory Practices – 4.3.4 b). Impact assessment. There should be an assessment of the impacts from the regulation prior to implementation; and the on-going impacts should be regularly monitored.

ATConf/5, PART II. Sustainability and Participation – Conclusion b). Because of the lack of an acceptable quantification method and the existence of various non-monetary measures, it is very difficult to estimate accurately the full scale of State assistance and the impact of specific State assistance on competition. Given this difficulty, States should recognize that any actions against foreign airlines which receive State aids/subsidies might lead to retaliatory action by the affected State and hamper the ongoing liberalization of international air transport.

Principle 3 – Broadly inclusive and non-discriminatory

The scope of State support should be inclusive, giving consideration to impacts on all segments at all levels throughout the entire aviation value chain, as well as those on travel, tourism and trade. Criteria and eligibility of support should be applied fairly, uniformly, and without discrimination against any group(s) in particular.

Relevant existing ICAO policies and guidance:

ICAO's Policies on Charges for Airports and Air Navigation Services (Doc 9082), Section II – Paragraph 3 iv). Charges must be non-discriminatory both between foreign users and those having the nationality of the State in which the airport is located and engaged in similar international operations, and between two or more foreign users.

ATConf/5, PART II. Sustainability and Participation – Conclusion a). In a situation of transition to liberalization or even in an already-liberalized market, States may wish to continue providing some form of assistance to their airlines in order to ensure sustainability of the air transport industry and to address their legitimate concerns relating to assurance of services. However, States should bear in mind that provision of State aids/subsidies which confer benefits on national air carriers but are not available to competitors in the same market may distort trade in international air services and may constitute unfair competitive practices.

Doc 9626, Paragraph 4.3 Good Regulatory Practices – 4.3.3 d). Fair and non-distortive. Regulations should be applied fairly, uniformly, and without discrimination against those being regulated and not create discriminatory burdens on any group(s) in particular.

Principle 4 – Targeted and proportionate

Impact of the pandemic on different segments of the industry may be uneven, and the level of implication on revenues and costs varies from one company to another. While being broadly inclusive, the support should also be targeted to the most needed businesses; and the scale of support should be determined on a case-by-case basis and be proportionate to the extent of expected impacts and the associated economic benefits to national economy.

Relevant existing ICAO policies and guidance:

Doc 9626, Paragraph 4.3 Good Regulatory Practices – 4.3.3 b). Proportionality. Regulations should be used only when their necessity is demonstrated and should be proportionate to the problems identified so that the costs of compliance are minimized by pursuing the most cost-effective solution.

Doc 9626, Paragraph 4.3 Good Regulatory Practices – 4.3.3 c). Targeted and well-defined. Regulations should have specific and well-defined objectives that respond directly to the problems identified and targeted at the actors best placed to solve those problems. Whenever appropriate, flexibility should be given to those being regulated to meet defined objectives.

Principle 5 – Transparency and consultation

It is fundamentally important that State support is transparent so that all parties can access the information and clearly understand the conditions and criteria of the support. Support scheme should be made publicly available, be subject to regular review, audits and evaluation, and be used only for purposes aligned with the objectives. Before introducing any changes and updates to the conditions and criteria of the support, consultation should be conducted with all parties involved.

Relevant existing ICAO policies and guidance:

ATConf/5, Declaration of Global Principles for the Liberalization of International Air Transport – Paragraph 5.4. Where State aids provided for the air transport sector are justified, States should take transparent and effective measures to ensure that such aids do not adversely impact on competition in the marketplace or lead to unsustainable outcomes, and that they are to the extent possible temporary.

ATConf/5, PART II. Sustainability and Participation – Conclusion c). There may be some instances where State assistance can produce economic and/or social benefits in terms of restructuring of air carriers and assurance of services. Even in such special cases, however, States should take transparent and effective measures accompanied by clear criteria and methodology to ensure that aids/subsidies do not adversely impact on competition in the marketplace.

Doc 9082, Section I – Paragraph 17. Consultation with airport and air navigation services users before changes in charging systems or levels of charges are introduced is important. States are encouraged to ensure that a clearly defined, regular consultation process is established with users by providers. Specific procedures for effective consultation should be determined on a case-by-case basis taking into account the form of economic oversight adopted by the State. The procedures at individual airports and airspace will also need to take into account the size and scale of the airport's and the ANSP's activities.

Doc 9626, Paragraph 4.3 Good Regulatory Practices – 4.3.4 c) Transparency. The development of the regulation should involve those who are potentially affected with the minimum requirement being consultations; the decision-making process should be transparent and objective.

Principle 6 – Striking appropriate balance among all stakeholders

All parties in the aviation value chain from users to service providers have been impacted by the crisis; thus, it is recommended that caution be exercised when implementing measures which provide support to one party at the cost of another, and effects of the measures on all involved stakeholders be taken into account. For example, granting relief on aircraft landing charges or passenger service charges to ease financial burden on airlines will result in reduction in the revenues of airports and ANSPs.

Relevant existing ICAO policies and guidance:

Doc 9082, Foreword – Paragraph 4. The financial situation of airports and of ANSPs, as well as of their primary users, fluctuates with the performance of global, national and regional economies. Airports and ANSPs have a high proportion of fixed costs, mainly funded by traffic, and therefore in times of decreased demand are challenged to maintain high standards of safety, security and quality of service. Aircraft operators seek to reduce the charges they pay. It is recognized that it is difficult to reconcile the long-term planning horizon of airports and ANSPs with the shorter-term requirements of aircraft operators. Therefore, a mutual understanding between providers and users is important in addressing these challenges.

Doc 9082, Foreword – Paragraph 7. Under these circumstances many airports and ANSPs may find it necessary to increase their charges and, in the case of airports, place greater emphasis on further developing revenues from non-aeronautical sources. However, recognizing that users face restrictions with regard to their choice of particular airports and of routes to be flown, it is recommended that caution be exercised when attempting to compensate for shortfalls in revenue and that account be taken of the effects of increased charges on aircraft operators and end-users.

Doc 9082, Foreword – Paragraph 8. There should be a balance between the respective interests of airports and ANSPs on one hand and of aircraft operators and end-users on the other, in view of the importance of the air transport system to States and its influence in fostering economic, cultural and social interchanges between States. This applies particularly during periods of economic difficulty. It is therefore recommended that States encourage increased cooperation between airports and ANSPs and aircraft operators to ensure that the economic difficulties facing them all are shared in a reasonable manner.

Principle 7 – Time-bound

State support should be provided in a timely manner, and be time-bound with appropriate duration in line with the objectives defined and the actual needs. Positive and potential negative effect of the support scheme as well as the evolving situation should be continuously monitored in order to reassess, revalidate, adjust and exit the scheme when deemed necessary. The support which is no longer needed should be discontinued.

Relevant existing ICAO policies and guidance:

ATConf/5, Declaration of Global Principles for the Liberalization of International Air Transport – Paragraph 5.4. Where State aids provided for the air transport sector are justified, States should take transparent and effective measures to ensure that such aids do not adversely impact on competition in the marketplace or lead to unsustainable outcomes, and that they are to the extent possible temporary.

Airport Economics Manual (Doc 9562), Chapter 4 – Paragraph 4.147. Since the air services receiving preferential treatment are ultimately expected to become profitable (except for essential air services of a public or social service nature that a State may consider necessary to provide, and where the market may not have sufficient incentive to do so, for example, lifeline air services for remote or peripheral destinations), start-up aids and similar incentive schemes should be offered on a temporary basis only.

4. Form of State economic and financial measures

In response to the crisis, aviation companies have taken swift actions to mitigate the impact of dire economic consequence and to maintain financial and functional operability. Nevertheless, the steep fall in revenues has quite often been beyond the ability of even the most extreme cost-cutting measures taken by the industry. The greater and longer-than-anticipated financial strain has posed existential threat to aviation businesses and potential bankruptcy and insolvency, putting many jobs at stake.

Many States have recognized the importance and strategic nature of aviation industry in their national economy and its role in enabling essential economic activities. Considering the needs to stabilize the aviation industry so that it can continue its instrumental role in driving national economy and supporting employment, various forms of government support have been provided to the sector, i.e. financial, regulatory or a mixture of both. With grim forecasts ahead, more players in the sector are expected to seek support from States.

This section describes in detail each possible form of State economic and financial measures with examples on how it has been implemented. A summary of the encompassing measures contained in this section is presented in Appendix A. It is important to note that the list is non-exhaustive and there is no ‘one-size-fits-all’ solution. Different measures come with varying implications and constraints, which should be taken into account by States when designing support scheme and packages according to their unique circumstance as well as the evolving and diversifying situation.

4.1. State financial support measures

State financial support can be provided directly or indirectly for aviation companies to continue their businesses, retain employees, survive from the economic crisis, etc. Availability of additional capital could sustain full or partial operations under a low demand, capacity constrained environment. In general, financial support takes the following forms, which would have different budgetary and debt-related implications:

- a) capital injection as grants;
- b) government equity stakes;
- c) government loans and loan guarantees;
- d) financing of restructuring;
- e) operating subsidies or route specific grants;
- f) wage subsidies or guarantee;
- g) general taxation relief;
- h) relief of aviation related taxes, charges and fees; and
- i) integrated financial support package.

Further financial support may be required to position the nation’s aviation and economy for a speedy recovery once the health crisis and travel restrictions recede, which will be dependent on the fiscal capacity of the State. As the objectives and approach of support varies from one State to another, the scope and scale of support by individual States will greatly affect the global civil aviation system in the future.

Regardless of the form, State financial support to the industry should be provided with good governance and predetermined principles as outlined in Section 3, and cautions should be paid to its implication to competition, market structure and future development of the industry. It is also worth to keep in mind that diverging or competing requests for financial assistance may arise from different sectors; hence States need to gauge the value creation to the national economy from aviation in comparison to other sectors.

4.1.1. Capital injection as grants

Grants refer to direct funds provided by government to support critical sectors, businesses, projects or programmes for public interest. State's direct capital injection as grants could stabilize the financial situation of the targeted aviation companies, compensate for the loss incurred and ensure their operation continuity. The recipient company usually do not have to repay the funds but may be expected to use the grants for specifically-stated purpose under strict conditions; and in certain cases, there may also be revenue sharing agreements with the government.

Provision and distribution of grants should follow compliance and reporting mechanisms, in accordance with the principles set out in Section 3, to ensure the effective use of public funds and avoid unfair competition and potential market distortion.

Example 1: Grant to compensate Croatia Airlines for damage caused by COVID-19 outbreak³

On 1 December 2020, the European Commission approved a Croatian direct grant of approximately € 11.7 million to Croatia Airlines in which the government owns over 97 per cent stake. The measure aims at compensating the airline for the losses suffered as a result of the suspension of the flights due to the coronavirus outbreak in the period between 19 March 2020 and 30 June 2020. The Commission's assessment of the measure was pursuant to Article 107(2)(b) of the Treaty on the Functioning of the European Union (EU), which stipulates that aid to compensate specific companies for the damage directly caused by natural disasters or exceptional occurrences shall be compatible with the internal market. The Commission concluded that the measure would compensate the damage directly linked to the outbreak, and is proportionate, as the envisaged compensation does not exceed what is necessary to make good the damage.

Example 2: USD 10 billion in grants for airports in the United States⁴

The Coronavirus Aid, Relief, and Economic Security (CARES) Act, signed into law on 27 March 2020, provides a comprehensive USD 2.2 trillion economic stimulus package, which includes USD 10 billion in funds to be awarded as economic relief to over 3,000 eligible airports in the United States. At least USD 500 million is available to increase the Federal share to 100 per cent for the Airport Improvement Program (AIP) and supplemental discretionary grants already planned for fiscal year 2020. Under normal circumstances, AIP grant recipients contribute a matching percentage of the project costs. The remaining USD 9.5 billion is distributed by various formulas for commercial service airports (at least USD 7.4 billion), primary airports (up to USD 2 billion) and general aviation airports (at least USD 100 million). The airport grants can be used for any purpose for which airport revenues may lawfully be used.

³ https://ec.europa.eu/commission/presscorner/detail/en/mex_20_2277

⁴ https://www.faa.gov/airports/cares_act/

4.1.2. Government equity stakes

Government equity stakes or equity investment is where the government takes an ownership interest by subscribing for new shares or purchasing shares in a business, in anticipation of future returns via dividends and/or capital returns. Capital injection by the government through investment in equity can provide the targeted aviation companies with critical funds to sustain business and thus reduce the risk of insolvency. In accordance with the policy objectives, the share and terms of government equity stakes can affect the financial structure of the company in short- or long-term and the government's ability to influence or control over the company's business strategic direction. Therefore, government equity investment should be accompanied with appropriate conditions that are credible, reasonable and stable while being effective to prompt upside potential.

The government can maintain options to sell, transfer or redeem its shareholding when valuations improve in the future. It is important to note as value of returns on equity may fluctuate according to the market situation and the company's financial performance, equity investment has lower security over underlying assets. Active monitoring and oversight is required to ensure the government's objectives of equity investment are being achieved.

*Example 1: Germany supporting to Lufthansa's recapitalization*⁵

On 25 May 2020, the Economic Stabilization Fund (WSF) of Germany approved a support package for Lufthansa. The package amounts to € 9 billion, i.e. contributing up to € 5.7 billion to Lufthansa's assets, including € 4.7 billion in equity (silent participation), a cash investment of € 300 million in a 20 per cent shareholding, as well as a syndicated three-year credit facility of up to € 3 billion. In the event of non-payment of remuneration on the silent participation (4% to 9.5% till 2027) by Lufthansa, a further portion of the silent participation is to be convertible into additional shareholding of 5 per cent at the earliest from 2024 and 2026, respectively. Lufthansa's recapitalization by the WSF was conditional on the divestment of up to 24 slots/day at Frankfurt and Munich hub airports and of related assets to allow competing airlines to establish a base of up to four aircraft at each of these airports. On 25 June, the European Commission approved Lufthansa's recapitalization under the EU Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak, as well as Article 107(3)(b) of the Treaty on the Functioning of the EU (i.e. aid to remedy a serious disturbance in the economy of a Member State).

*Example 2: Underwriting Vietnam Airlines' new shares*⁶

On 17 November 2020, the National Assembly of Viet Nam approved measures to rescue Vietnam Airlines in which the government owns over 86 per cent stake. Under National Assembly Resolution No. 135/2020/QH14, the airline was allowed to sell new shares, reportedly worth VND 8 trillion, to existing shareholders to increase its capital. The State Capital Investment Corporation (SCIC) would act on behalf of the government to purchase the newly-issued shares, reportedly 85 per cent of these shares. In addition, the State Bank of Vietnam was allowed to refinance and offer loan extensions no more than two times to

⁵ <https://www.lufthansagroup.com/en/newsroom/media-relations-north-america/news-and-releases/economic-stabilization-fund-approves-lufthansas-stabilization-package.html>

https://ec.europa.eu/competition/eojade/isef/case_details.cfm?proc_code=3_SA_57153

⁶ <http://vietlaw.quochoi.vn/Pages/vbpg-toan-van.aspx?ItemID=28577>

<https://asia.nikkei.com/Business/Transportation/Hanoi-lawmakers-approve-520m-rescue-of-Vietnam-Airlines>

banks that would lend Vietnam Airlines additional capital. The National Assembly asked for strict inspection and auditing of the measures when they are carried out, and also urged Vietnam Airlines to put in place solutions for reducing losses and paying attention to the interests of employees.

*Example 3: Switzerland's contribution to skyguide's equity capital*⁷

On 10 September 2020, the Swiss Parliament approved a support proposal by the Federal Council to inject CHF 150 million to equity capital of skyguide, an air navigation service provider owned by the Confederation. The equity of the company limited by shares, which stood at around CHF 320 million at the end of 2019, would be wiped out as over 80 per cent of its income is derived from user charges for landing and overflight services. In return for the capital injection, skyguide was conditioned to implement cost-cutting measures that would lead to total savings of between CHF 90 and 100 million by 2024. These measures should include a temporary freeze on staff salaries, efficiency gains through digitalisation projects, as well as raising the retirement age of air traffic controllers that would relieve the financial burden on skyguide in the long term. In order to comply with the Air Transport Agreement with the EU, skyguide may only use the Confederation's funds for its sovereign tasks of providing civil and military air traffic control services.

4.1.3. Government loans and loan guarantees

Government credit support provides businesses with more favorable terms than they would be able to obtain by borrowing on their own. **Loans** may be lent directly to corporations at favorable interest rates, sometimes significantly below the government's cost of borrowing. Loan repayment schedules may also be favorable to the borrower. Government **loan guarantees** eliminate the default risk to the lender by shifting it entirely to the government, enabling the borrower to obtain loans or with much more favorable interest rates. Often, without the guarantee, the loan would not have been approved at all. In other cases, the interest rate would have been higher.

Terms and conditions for government loans or loan guarantees should be transparent, fair and uniform to all eligible firms, and be structured in a way to incentivize and allow quicker pay off by the borrower.

*Example 1: Fiji government support to Fiji Airways*⁸

Fiji Airways announced on 26 May 2020 that it has secured three-year sovereign guarantees from the Fijian government to a total of FJD 455 million loans, consisting of domestic borrowings of up to FJD 191.1 million and off-shore borrowings of up to USD 117.1 million. The sovereign guarantees would support initiatives aimed at bolstering cash reserves, including payment deferrals and new long-term debt financing. Despite earning near-zero revenue, the national carrier has to pay monthly fixed costs of FJD 38 million for aircraft loans and leases, employee costs, fixed payments for aircraft maintenance, etc.

⁷ <https://www.skyguide.ch/en/events-media-board/news/#p104772-104788-104807>
<https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-80037.html>

⁸ <https://www.fijiairways.com/en-ca/about-fiji-airways/media-centre/fiji-airways-secures-government-support-necessary-for-survival/>

Example 2: Government loan guarantee to Egyptair, airports and air navigation⁹

On 29 September 2020, Egyptian President issued two laws regarding the permission to the Minister of Finance to guarantee two state-owned companies, Egyptair Holding Company and Egyptian Holding Company for Airports and Air Navigation (EHCAAN), in the “long-term financing” that each company would receive from the Central Bank of Egypt at an amount of EGP 3 billion and EGP 1 billion, respectively. The State-guaranteed loan would be released from the Central Bank in accordance with the terms and conditions determined by the Minister of Finance. Egyptair had already obtained a EGP 2 billion soft loan from the government in May 2020, which was used to pay employee salaries.

Example 3: Government loan and loan guarantee to Air France-KLM¹⁰

The European Commission approved a € 7 billion French aid measure to Air France on 4 May 2020 and a € 3.4 billion Dutch aid measure to KLM on 13 July 2020. Both support packages consisted of a State guarantee on loans provided by a consortium of banks, and a subordinated loan by shareholders or State to the airline, aimed at providing urgent liquidity to the airlines. Air France and KLM demonstrated that all other potential means to obtain liquidity on the markets have already been explored and exhausted. Certain conditions in relation to the measures were imposed by the governments, including in the field of profit allocation, employment conditions, improved performance and competitiveness, and environmental sustainability for green recovery. The Commission assessed these two measures separately under the Temporary Framework for State aid measures and Article 107(3)(b) of the Treaty on the Functioning of the EU, and concluded that the measures are necessary, appropriate and proportionate to remedy a serious disturbance in the economy of France and the Netherland.

4.1.4. Financing of restructuring

States may infuse funds for financing of restructuring or transformation of the debt-ridden aviation companies, or even take over such companies. Government decisions on financing of restructuring are typically made against a background of social and political pressures to save national airlines and to ensure that the transition to more efficient operations is achieved at the lowest cost to those most affected, in particular to labour and creditors.

Financing of restructuring needs to be accompanied by clear criteria and methodology to achieve its intended purpose. Without well-defined conditions (including goals, adequate time frame and long-term plans) and stringent regulatory mechanisms for enforcement, information disclosure and monitoring, it could have the effect of simply protecting less productive companies without fostering internal efficiency.

Example: South African Airways’ restructuring plan¹¹

In December 2019, South African Airways (SAA), a government-owned airline of South Africa, was placed under a business rescue process. SAA lenders provided ZAR 2 billion as post commencement finance to enable SAA to continue to operate until the business rescue plan is finalized. Due to the impact of COVID-

⁹ <https://www.cc.gov.eg/i/l/404836.pdf>; <https://www.cc.gov.eg/i/l/404835.pdf>

¹⁰ https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_57082;
https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_57116

¹¹ <https://www.gov.za/speeches/minister-pravin-gordhan-welcomes-government-funding-saa-29-oct-2020-0000>

19, however, the government announced in May 2020 that SAA would cease all the operations. Considering that the liquidation of the airline would cost more than ZAR 18.5 billion, the establishment of a new airline was planned out of the ashes of SAA. In October 2020, the government outlined its commitment to providing ZAR10.5 billion for finalizing the business rescue plan and restructuring the airline. The business rescue plan includes the selection of a suitable strategic equity partner, settlement of the debt including voluntary severance packages to employees, and provision of training for laid-off employees.

4.1.5. Operating subsidies or route specific grants

Aviation provides vital lifelines and connections to remote or peripheral regions and isolated islands that otherwise would not be available. Air connectivity for these areas are “essential” for the functioning of society and the socioeconomic needs such as activities that are indispensable to life and health. The assurance of such “essential services” has generally been considered to be a major responsibility of States from public interest perspective.

Operating subsidies or route specific grants can be used to preserve and sustain air connectivity which the State deems as “essential” based on socioeconomic objectives and economic justification, in particular routes where no viable substitute transport is available. While the criteria are likely to vary between States, these subsidies are generally provided on the basis of the route concerned, and would not favour, or be perceived as favouring one airline or airport over another. States should also ensure non-discrimination and balance essential transportation needs for all communities.

Example 1: Australia’s support for critical regional aviation services¹²

On 28 March 2020, the government of Australia announced an AUD 198 million “Regional Airline Network Support Program”, additional support to help maintain the regional air network as part of the Government’s response to the COVID-19 crisis. This programme aims to ensure critical air services to connect over 100 regional and remote airports to freight, medical testing, supplies and essential personnel according to the specific grant criteria. Under the programme, domestic regional airlines are provided funding to maintain a minimal weekly schedule to regional and remote airports, initially for six weeks, and up to six months. On 7 June 2020, the government announced the extension of the programme for additional three months till 31 December 2020.

Example 2: International Air Freight Capacity scheme of New Zealand¹³

In March 2020, the New Zealand government set up a NZD 600 million COVID-19 support package for aviation, including the International Air Freight Capacity (IAFC) scheme. The primary objective of the IAFC scheme is to ensure the supply of critical imports, particularly medical supplies, and maintain air freight connectivity with key trading partners while ensuring exports by air still make it to those markets. Both New Zealand and foreign airlines can apply for the IAFC funding to operate air cargo flights from/to New Zealand under the agreed conditions (such as routes and frequency). Flights that break-even on their own are not eligible for support. Support for IAFC recipients amounted to NZD 176 million for Phase 1

¹² <https://www.grants.gov.au/Go/Show?GoUuid=760ec61b-d358-72d7-4bd2-771aef5c601c>
<https://minister.infrastructure.gov.au/mccormack/media-release/additional-new-support-critical-regional-aviation-services-through-covid-19>

¹³ <https://www.transport.govt.nz/area-of-interest/air-transport/government-support-for-the-transport-sector/>

(May to November 2020). Phase 2 of the scheme has been running from December 2020 to March 2021 with a forecast spend of NZD 196 million. During the phase 1, the scheme has helped over 3,700 flights in and out of New Zealand carrying 70,000 tonnes of cargo, returning to 90 per cent of pre-COVID levels.

Example 3: Incentive scheme to airlines operating from/to Cyprus¹⁴

On 1 July 2020, a € 6.3 million Cypriot incentive scheme was approved by the European Commission under the EU Temporary Framework for State aid measures and Article 107(3)(b) of the Treaty on the Functioning of the EU. The objective of the scheme is to incentivize airlines affected by coronavirus outbreak to re-establish air routes from/to Cyprus, thus enabling the recovery of air connectivity and tourism. The support would take a form of direct grants of up to € 800,000 per company and be accessible in a transparent and non-discriminatory manner to all interested airlines operating from/to Cyprus, benefiting approximately 60 airlines from inside and outside the European Economic Area. The level of remuneration depends on the aircraft's load factor (starting from 41% to 70%) and it will be paid per each transported passenger.

4.1.6. Wage subsidies or guarantee

Wage subsidies aim specifically at protecting jobs and preventing job losses where possible. Under the wage subsidy programme, the government pays eligible enterprises with a percentage of employee wages for a certain period of time. Many States have implemented wage subsidy programmes to help all businesses cope with the COVID-19 pandemic, and some have also announced specific schemes for aviation industry.

As wage subsidies are targeted directly to help protect workers by absorbing a portion of wage costs, government should ensure that the funds will be deployed to the intended recipient, i.e. personnel as deemed qualified by the programme concerned.

Example 1: Canada Emergency Wage Subsidy¹⁵

In April 2020, the government of Canada introduced the Canada Emergency Wage Subsidy (CEWS) programme to encourage employers to keep and return employees to payroll. The CEWS programme was put in place for an initial 12-week period from 15 March to 6 June 2020 with a series of extensions till June 2021. Under the initial CEWS, the government paid up to 75 per cent of wages to eligible employers while the employer remained responsible for pension and other benefits. On 17 July 2020, the government redesigned the programme, allowing more employers to access wage subsidy support and ensuring that support is better targeted to their needs. Air Canada was one of the biggest beneficiaries of the CEWS that helped the airline reduce its wages and salaries expenses by over 40 per cent. A total gross subsidy received by Air Canada from the CEWS was CAD 197 million in the third quarter of 2020 and CAD 492 million in the first nine months of 2020; the airline nonetheless decided in June 2020 to reduce half of its workforce because of the expected slow recovery of its operations in near- to mid-term.

¹⁴ https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_57691

¹⁵ <https://www.canada.ca/en/departement-finance/news/2020/11/details-on-the-canada-emergency-wage-subsidy-extension.html>; https://www.aircanada.com/content/dam/aircanada/portal/documents/PDF/en/quarterly-result/2020/2020_FSN_q3.pdf

Example 2: Singapore enhanced wage subsidy for aviation companies¹⁶

In March 2020, Singapore announced its second assistance package in response to the COVID-19 outbreak, setting aside more than SGD 1 billion for sectors such as aviation and tourism that have been hardest hit by the pandemic. Approximately SGD 750 million would be provided to the aviation sector through the two enhanced schemes. One of them is an enhanced jobs support scheme which helps businesses in the aviation sector retain local workers. For every worker in employment, a total of 75 per cent wage offset is provided for the first SGD 4,600 of monthly wages, which would cost the government more than SGD 400 million.

4.1.7. General taxation relief

Tax relief is a programme or incentive that reduces the tax liability and enhances cash-flow of an individual or business entity, providing assistance for a certain event or cause. It may be a universal or targeted to a specific group of taxpayers. Business entities typically obtain tax relief through tax rate reduction, waivers and refund. Deferral of tax payment can also be allowed for businesses to delay paying taxes to some future period.

States can also consider specific tax relief or further exemption of certain taxes for companies in severely affected sectors by the pandemic such as aviation or tourism, for example, alleviation of payroll taxes, corporate income taxes, property taxes or other government taxes.

Example: Tax payment deferral in Colombia¹⁷

The Ministry of Finance and Public Credit in Colombia has reduced the 2020 advance income tax rates to 25 per cent or 0 per cent (from the general 75 per cent of the net amount of income tax assessed in the return or the average of the income tax for the last 2 years) for certain economic sectors that have been most affected by the economic crisis caused by the COVID-19 pandemic. According to Decree 766 dated 29 May 2020, the advance payment for 2020 corporate income tax return was reduced to 0 per cent for air passenger transport, accommodation, food and beverage services, travel agencies, libraries, museums, archives, gambling and betting activities, sports, recreation, arts and entertainment activities.

4.1.8. Relief of aviation related taxes, charges and fees

Apart from the general taxation relief under government fiscal stimulus, States can consider providing relief of government imposed taxes and charges specifically on aviation industry, as well as concession fees for airports. **Reduction or deferral of aviation related taxes, charges and fees** could provide a timely and immediate saving on cost payment of companies in a short-term. These include, for example, air passenger ticket tax, departure tax, airport services charges, air navigation services charges, rental fees and fees paying to governments against the right to occupy land and/or to operate.

When exercising this measure, States should strike an appropriate balance between the respective interests of service providers (airports and ANSPs) on one hand and of users (airlines) and end-user on the other.

¹⁶ https://www.singaporebudget.gov.sg/budget_2020/resilience-budget/supplementary-budget-statement

¹⁷ <https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%20766%20DEL%2029%20DE%20MAYO%20DE%202020.pdf>

Example 1: Philippines' deferral of collection of user charges, and rental holidays¹⁸

On 9 March 2020, Department of Transportation of Philippines instructed the Civil Aviation Authority (CAAP) and the Manila International Airport Authority (MIAA) to defer the collection of landing/take-off and parking charges for domestic and international flights to cushion the COVID-19 outbreak impact. For all CAAP-operated airports, the deferment of payment started on 12 March 2020 and would be applied until 12 March 2021. For the MIAA, collection of aeronautical charges of local airlines has been deferred for a period of one year effective from 1 March 2020 billings. Rental charges of all concessionaires operating at the terminals, including check-in counter charges, as well as the interest charges of late settlement of account, have also been waived for two months effective 15 March 2020. This “lease/rental holiday” arrangement has been extended several times until 31 December 2020.

Example 2: Concession fee payment deferral for Italian airport operators¹⁹

On 9 April 2020, Italian Civil Aviation Authority (ENAC) announced the suspension of the issuance and collection of invoices for airlines and airports until the end of the state of emergency. In agreement with the Ministry of Infrastructure and Transport, ENAC further ordered on 23 April 2020 the suspension of the semi-annual payment of fees relating to airport concessions originally due in July 2020. For year 2020, concession fees would be commensurate with the actual traffic recorded during the year and must be paid in a single settlement by 31 January 2021.

Example 3: Oman payment relief to airlines²⁰

The Public Authority of Civil Aviation in Oman confirmed support to airlines by extending the payment terms for the invoices of March, April, and May 2020 to 90 days. This includes any fees paid by the airlines to the government, i.e. overflight charges, navigation, security, passenger-related, etc. In addition, the government announced waiver for airport rental charges and concession fees, extension of payment of invoices at airports to 60 days, and waiver of slot rules and consumer protection regulations.

4.1.9. Integrated financial support package

The sheer scale of the pandemic impact may often require more than one measures to be implemented simultaneously. An *integrated financial support package* with a combination of some or all of the foregoing measures can be applied by States to a targeted sector, segment or business. The coverage and size of the package, as well as the associated requirements and conditions of the support, would be subject to the capability and capacity of the government budget, and be justified by the efficient usage of public funds, based on evaluation of the social and economic role of the sector while taking into account of other sectors.

¹⁸ <https://dotr.gov.ph/55-dotrnews/1084-caap-miaa-to-defer-charges-for-take-off-landing-and-parking-fees-of-local-airlines-amid-covid-19-threat.html>; <https://dotr.gov.ph/55-dotrnews/1331-caap-miaa-extend-rental-holidays-to-may-15-defers-lease-rental-payment-for-airport-concessionaires.html>

¹⁹ <https://moduliweb.enac.gov.it/Applicazioni/comunicati/comunicato.asp?selpa1=2625&NumCom=24>
<https://moduliweb.enac.gov.it/Applicazioni/comunicati/comunicato.asp?selpa1=2626&NumCom=25> [http://aaco.org/Library/Assets/The Nashra- Issue 158-104514.pdf](http://aaco.org/Library/Assets/The%20Nashra- Issue 158-104514.pdf)

²⁰ <http://aaco.org/Library/Assets/The%20Nashra-%20Issue%20158-104514.pdf>

The support package should be designed in line with the intended objectives, following the key principles outlined in Section 3, in particular, be inclusive and non-discriminatory, be targeted and proportionate, be transparent and strike a balance among all stakeholders.

Example 1: United States Coronavirus Aid, Relief, and Economic Security (CARES) Act²¹

A USD 2.2 trillion economic stimulus package under the CARES Act includes up to USD 78 billion in relief for the aviation sector in the United States, in addition to USD 10 billion in grants-in-aid for airports (paragraph 4.1.1 refers). Out of this USD 78 billion, a total of USD 46 billion in loans and loan guarantees would be provided to passenger airlines, repair stations and ticket agents (up to USD 25 billion), cargo airlines (up to USD 4 billion), as well as businesses critical to maintaining national security (USD 17 billion). The USD 32 billion would be grants (payroll support), which should be used exclusively for employee wages, salaries and benefits, for passenger airlines (up to USD 25 billion), cargo airlines (up to USD 4 billion) and airline contractors or sub-contractors (up to USD 3 billion).

The CARES Act requires borrowers to agree to maintain employment levels as of 24 March 2020 to the extent practicable, and in any case not reduce their employment levels by more than 10 per cent from the levels on such date, until 30 September 2020. Under the statute, borrowers must also agree to certain restrictions on employee compensation; agree not to repurchase stock, except to the extent required under a contractual obligation in effect as of 27 March 2020; and agree not to pay dividends or make other capital distributions with respect to the borrower's common stock until 12 months after the loan has been repaid. To ensure transparency, the CARES Act requires the Department of the Treasury to publish on its website, within 72 hours after any loan transaction, information about the transaction including its material terms and relevant documentation.

Example 2: Financial support for airlines and ANSPs in the United Kingdom²²

On 7 April 2020, EUROCONTROL announced that its Member States have agreed a financial package, enabling airlines to temporarily defer payment of charges for air navigation services through European airspace for the billing periods of February to May 2020, for up to 14 months. The total deferral in route charges would amount to € 1.1 billion. For example, the 10 largest airlines in the United Kingdom was expected to pay a total of GBP 47.2 million for the bills issued for the February 2020 billing period.

While this temporary deferral of payment allowed airlines to save cost, it further deprived ANSPs of much-needed revenues. To provide financial relief to ANSPs, on 16 April 2020, the government of the United Kingdom along with other European States, has supported EUROCONTROL in securing a loan of GBP 1.1 billion, which will be repaid once it receives the deferred payments from airlines in 2021. The National Air Traffic Services (NATS) of the United Kingdom was eligible to receive up to GBP 92 million in support from this loan arrangement. In particular, the loan would be used for maintaining its regulated en-route business, supporting repatriation and cargo flights during the COVID-9 crisis, and ensuring that it will resume full operations after the pandemic to aid the aviation sector's recovery.

²¹ <https://home.treasury.gov/policy-issues/cares/preserving-jobs-for-american-industry>

²² <https://www.eurocontrol.int/press-release/eurocontrol-states-assist-airlines-11bln-deferral>;
<https://www.gov.uk/government/news/uk-airlines-to-save-millions-as-navigation-charges-deferred>;
<https://www.gov.uk/government/news/nats-eligible-for-funding-of-up-to-92-million-to-maintain-services>

4.2. State regulatory support measures

The extraordinary situation caused by the pandemic has changed the market conditions that significantly differ from those in which the aviation companies normally operate in the pre-pandemic era; and the operational capability of companies has also been affected. The provision of regulatory relief and operational flexibilities to companies could support their efforts in sustaining businesses and operations under low demand environment. Regulatory support measures include, inter alia:

- a) temporary suspension of airport slot allocation rules;
- b) temporary alleviation of regulatory restrictions to air cargo operations;
- c) temporary exemption from competition laws; and
- d) relaxation of restrictions on market and capital access.

These measures should not undermine the safety and security requirements of the aviation system. States have to closely monitor the evolving situation in order to properly determine the timing to implement the temporary measures and the need to modify, extend or discontinue such measures. From a longer term perspective, regulatory support should aim to enhance industry efficiency, preserve business dynamics and encourage future investment into the sector. Regulatory changes often take time, particularly when consultation and negotiation with other States is required, and due process needs to be followed.

4.2.1. Temporary suspension of airport slot allocation rules

Impacted by the pandemic, many airlines were forced to ground vast majority of fleets and reduce capacity; and it is highly uncertain as to when demand will return. This results in difficulties for airlines to comply with the current slot allocation rules, especially at capacity-constrained airports. ***Temporary suspension of the airport slot allocation rules*** such as a “use it or lose it” rule would, by protecting pre-COVID-19 routes and schedules, provide flexibility to allow airlines to plan and adjust schedules with appropriate levels to respond to market conditions and changing demand projections. Airlines can avoid operating empty flights to maintaining airport slots. On the other hand, receiving more realistic flight schedules will enable airports to take necessary measures to reduce operating costs proportionately.

When introducing slot waivers, governments and airport authorities have to address the needs of using the unutilized slots and allocating them to those required operations such as repatriation or cargo flights. A decision on the timing of re-commencing or extending suspension of slot allocation rules would also require assessment of the changing situation and all-round consideration.

Example 1: A waiver of slot regulation at EU airports²³

On 31 March 2020, EU adopted Regulation 2020/459 amending Regulation (EEC) No 95/93, which introduced a temporary waiver of the standard “use it or lose it” rule for airline slots at EU airports (i.e. use at least 80% of the allocated slots, or lose the grandfather rights to them the following year). The aim of the amendment was to protect the financial health of airlines and avoid the negative environmental impact of empty or largely-empty flights operated only for the purpose of maintaining underlying airport slots. The “use it or lose it” rule was suspended from 1 March 2020 until 24 October 2020. The waiver also applied

²³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0459>

retroactively from 23 January to 29 February 2020 for flights between the EU and China including Hong Kong SAR. On 14 October 2020, the European Commission adopted a further extension this waiver to cover the winter season until 27 March 2021.

*Example 2: A waiver of slot regulation in Brazil*²⁴

On 12 March 2020, the National Civil Aviation Agency (ANAC) of Brazil announced a waiver of the slot cancellation rule at ANAC's coordinated five airports. This waiver was applicable to all domestic and international flights planned to operate from 11 March 2020 through 24 October 2020. In July 2020, the slot waiver was further extended for the northern winter season from 25 October 2020 to 27 March 2021 with specific conditions; that is, applicable solely to cancellations of historic slots (slots allocated as historic or change of historic in the northern winter season 2020 baseline), provided they are returned at least four weeks prior to the date of operation.

4.2.2. Temporary alleviation of regulatory restrictions to air cargo operations

Aiming to ensure the sustainability of supply chains in the course of pandemic, governments can facilitate essential air cargo operations through *temporary alleviation of regulatory restrictions to air cargo operations*. Exceptional measures specific to air cargo operations may include temporarily removing night curfews or slot restrictions at airports, granting additional temporary traffic rights and/or route authorities to serve the market, and allowing the use of passenger aircraft for cargo-only operations, where legally possible. States are also encouraged to facilitate crew changes for cargo flights including humanitarian aid, medical and relief flights, by exempting “key workers” from travel and other restrictions, where applicable and in compliance with international safety and employment regulations.

While noting the importance to prevent shortages of essential goods and services and help reduce additional costs incurred for air cargo operations, these operational flexibilities should be in line with State's overall risk management strategy, and be proportionate and limited in time. Governments should also closely monitor the situation and continue to prohibit operators from abusing their dominant position.

*Example 1: European Commission guidance on facilitating air cargo operations during the COVID-19*²⁵

On 16 March 2020, the European Commission adopted the guidelines for facilitating air cargo operations during COVID-19 outbreak. The guidelines stressed that all EU internal borders should stay open to freight and that the supply chains for essential goods must be guaranteed. A series of temporary operational measures listed in the guidelines include: granting without delay all necessary authorisations and permits for transport from outside the EU; removing night curfews or slot restrictions at airports for essential air cargo operations; making it easier to use passenger aircraft for cargo-only operations, including for re-positioning of air cargo crew, medical staff etc.; ensuring that air cargo crew are qualified as critical staff in cases of lockdown; exempting asymptomatic transport personnel from travel restrictions; and encouraging cargo and express airlines to exceptionally reserve capacity for the supply of essential goods.

²⁴ <https://www.anac.gov.br/assuntos/setor-regulado/empresas/slot/comunicados-1>

²⁵ https://ec.europa.eu/transport/sites/transport/files/legislation/c20202010_en.pdf

Example 2: Republic of Korea's approval of cargo transportation in passenger cabins²⁶

On 9 April 2020, the government of Republic of Korea introduced a safety operation standard for cargo transportation in passenger cabins. The requirements include, inter alia, elimination of unreported dangerous substances through full X-ray inspection; observing the loading weight and fixing method recommended by the aircraft manufacturer; board emergency response by safety personnel on board; in-flight fire monitoring patrols every 15-20 minutes; additional installation of in-flight fire extinguishers and shutting off unnecessary cabin power supply; procedural education and simulation training for domestic and foreign cargo handlers and safety personnel. Since May 2020, both Korean Air and Asiana Airlines have started cargo transport using passenger aircraft. On 1 September 2020, approval was granted to the application of Korean Air for remodeling of a passenger aircraft for cargo transportation, i.e. removing seats and loading cargo in the passenger cabin, following safety verification procedures, including a technical review by the manufacturer. In October 2020, the government also approved cargo transport plans using idle passenger aircraft submitted by three low-cost carriers (LCCs), T-Way Air, Jeju Air, and Jin Air.

4.2.3. Temporary exemption from competition laws

In cases where drastic reduction of demand has rendered normal businesses commercially non-viable, governments can consider granting *temporary exemption from competition laws, regulations and practices* to allow airlines to coordinate routes and flight schedules through cooperative arrangements (paragraph 5.2.4 refers). Such exemptions should be granted with clearly-stated objectives and justifications whether they are proved to have positive effects on public interest. The exemptions should also be temporary and be introduced only when deemed necessary to help maintain transportation services for passengers and goods under exception situation; and effective oversight and monitoring should be in place to pre-empt potential negative impact on end-users.

Example: Exemption from the Competition Act to Norwegian transportation sector²⁷

In March 2020, the Norwegian government has granted the transportation sector (air, land and maritime) a three-month temporary exemption of anticompetitive agreements and practices from the Norwegian Competition Act. The exemption did not go beyond what is strictly necessary, aiming to secure the population access to necessary goods and services. Agreements and practices covered by the exemption must to the largest extent possible further the efficient use of resources and the interests of societies and consumers in this very special situation. The Competition Authority is notified if the exemption is granted.

4.2.4. Relaxation of restrictions on market and capital access

Relaxing restrictions on market and capital access of airlines may provide assurance of “essential” air connectivity during the severe economic downturn and widen the available pool of investment capitals. It may also allow for more efficient use and allocation of capital and capacity, with the corresponding benefits of sustainable economic development at national and regional level.

²⁶ http://www.molit.go.kr/USR/NEWS/m_71/dtl.jsp?lcmspage=3&id=95084392;
http://www.molit.go.kr/USR/NEWS/m_71/dtl.jsp?lcmspage=2&id=95084632

²⁷ <https://konkurransetilsynet.no/transportation-sector-is-granted-temporary-exception-from-the-competition-act/?lang=en>

One of the options that State can consider is to revise or supplement existing air services agreements by concluding a “mini-deal” with bilateral or regional partner States. The amendments to these agreements can include expanded opportunities of fifth and seventh freedom operations, especially for all-cargo services, temporary arrangements to grant additional air service rights in response to the urgent needs, as well as relaxation of airline designation and authorization (nationality) clauses.

Another option is to liberalize market and capital access of foreign airlines on a unilateral basis. Without changing or renegotiating the relevant air services agreement, States can, for example, grant extra-bilateral rights for foreign airlines’ international air services at specific airports and/or for limited durations. The nationality clause in exiting air services agreements such as the provision of substantial ownership and effective control of foreign airlines can also be waived by States’ own discretion.

Introducing certain degree of relaxation is premised on preserving the necessary link between the airline and the designating State and strengthening regulatory control and oversight including on safety and security. For States contemplating liberalization of ownership and control conditions for their own airlines, the attention is brought to a potential risk that traffic rights of the designated airline may be impacted by denial of bilateral parties if it can no longer meet the substantial ownership and effective control criteria.

*Example 1: Uzbekistan’s open skies policy for regional airports*²⁸

On 12 June 2020, the government of Uzbekistan issued an order on the introduction of an “open skies” regime to the country’s ten regional airports. This regime would ease restrictions on the number of flights and destinations, including fifth freedom operations, for foreign airlines in effect from 1 August 2020 and be valid initially for two years with the possibility of extension. Foreign airlines are allowed to operate without any restrictions at Karshi, Nukus, Termez, Bukhara, Navoi and Urgench airports. The fifth freedom operations and passenger flights at the airports of Andijan, Fergana, Namangan and Samarkand (upon completion of reconstruction work) are allowed on routes that are not operated by designated airlines of Uzbekistan without restrictions, considering the technical capabilities of these airports. Foreign airlines are also entitled to operate all-cargo flights in Navoi and Termez airports using seventh freedom.

*Example 2: China’s pilot plan on seventh freedom traffic in Hainan Province*²⁹

The Civil Aviation Administration of China announced a pilot plan in June 2020 to grant foreign airlines the right to carry passenger and cargo traffic between Hainan Province and third countries other than the airline’s home country, i.e. the seventh freedom traffic rights. The maximum number of scheduled passenger and cargo services on each route of the seventh freedom traffic rights would be up to seven flights per week. The third, fourth, and fifth freedom flights opened in Hainan Province have no frequency restrictions. Foreign airlines using the seventh freedom traffic rights shall be designated by the home country as the airline operating international passenger and cargo flights to China in accordance with the provisions of the bilateral air services agreement between the home country and China. The provisions of bilateral air services agreements or relevant agreements shall apply mutatis mutandis to, inter alia, technical services, freight rates, customs tariffs, etc. This pilot plan is intended to boost international route network, and is part of a broader plan to build a Free Trade Port (FTP) of global influence in Hainan Province.

²⁸ <https://mintrans.uz/news/ochiq-osmon-rejimi-raqobatni-kuchaytiradi-narxlarni-tushiradi-turistlar-oqimini-oshiradi>

²⁹ <http://www.caac.gov.cn/XXGK/XXGK/TZTG/202006/P020200609532421384974.pdf>

Example 3: LACAC MOU allowing temporary seventh freedom all-cargo operations³⁰

At the Extraordinary Assembly of the Latin America Civil Aviation Commission (LACAC) held on 14 December 2020, the Memorandum of Understanding (MOU) between the Civil Aviation Authorities of the Commission on the temporary liberalization of the seventh freedom for all-cargo services was open for signature of Members States who were willing to do so. This MOU would allow airlines of the party States to exercise the seventh freedom traffic rights for all-cargo services, both scheduled and non-scheduled, reciprocally with equal opportunities and without restrictions or limitations on routes and capacity. It will take effect on the date of signature (or the completion of the internal procedures) of each party, and will be valid until 31 December 2021, extendable for one more year.

4.3. Support for State's oversight functions

The drastic fall in air traffic has not only affected companies in the aviation industry; the sudden shortfall in income related to aviation activities has had a direct impact on funding to sustain effective regulatory oversight capability and capacity of oversight mechanisms of States. The impact is particularly acute where fees generated from services such as licensing and authorization, and charges for airport and air navigation services represent the primarily source of funding.

As stated in Doc 9082, States are ultimately responsible for safety, security and economic oversight of aviation, which should not be compromised during the recovery course. Given the challenges faced by aviation and the economic downturn, governments should undertake necessary actions to ensure adequate and sustainable funding for their oversight functions.

While financial situation varies from one State to another, developing States and Regional Safety Oversight Organizations (RSOOs) may seek funding support from foreign sources in a form of grants or interest-free loans from donor governments, economic cooperation and international assistance platforms, and financial institutions. Debt financing with more favourable terms, e.g. lower interest rate and repayment over a longer period, could also be an option.

Example: Sustainable Pacific Air Connectivity Programme³¹

On 4 December 2020, the Australian government announced to provide AUD 304.7 million in new funding for a COVID-19 Response Package to deliver temporary, targeted economic and fiscal assistance for the Pacific Island Countries and Timor-Leste. Part of this funding would be used for a Sustainable Pacific Air Connectivity Programme, which supports the re-establishment of safe, reliable, affordable and financially sustainable air connectivity in the region. Under this programme, an immediate AUD 2 million would be provided for the Pacific Aviation Safety Office (PASO) to ensure that PASO can perform effective safety and security oversight functions across the Pacific region during the current pandemic.

³⁰ <https://clac-lacac.org/reunion/asambleas/ae6/>

³¹ <https://www.foreignminister.gov.au/minister/marise-payne/speech/building-cohesive-indo-pacific>

5. Form of industry measures

Since the onset of the COVID-19 outbreak, the aviation industry has taken a series of “self-help” steps from financial to operational with the objective of cost control, maximizing liquidity and increasing operational efficiency. These measures include, for example, reducing and/or deferring payment, raising capital, and route rationalization and fleet rightsizing.

Potential implications and constraints associated with the individual measures are described in this section, supplemented with practical examples. A summary of these measures is presented in Appendix B.

Government financial support outlined in the previous section should be the “last resort” when the severity of the liquidity crisis is beyond the self-supporting efforts by individual aviation companies. While the measures listed in this section is non-exhaustive, they can be considered by companies when attempting to mitigate the financial stress, maintain financial and functional operability, and secure solvency.

5.1. Industry financial measures

Aviation industry is capital intensive with high fixed costs. All aviation companies, both solvent and less solvent, are grappling with sudden shortage in cash to cover costs and pay off their financial obligations. To replenish cash reserves and restore balance sheet in the short to medium term as well as to sustain operations under demand reduced environment, a range of emergency financial measures can be taken by companies including, inter alia:

- a) cost control and management;
- b) contractual negotiation with lessors, suppliers and/or providers;
- c) equity financing;
- d) debt financing and restructuring;
- e) monetizing the value of frequent flyer programme (FFP);
- f) securitization of future earnings and assets; and
- g) rehabilitation or reorganization under bankruptcy law.

Each measure comes with different effect. When weighing in on different options, both the positive effects and potential constrains or challenges to be encountered need to be taken into consideration.

5.1.1. Cost control and management

The severity of the pandemic impact has forced many aviation companies to take extreme ***cost control and management*** to reduce financial losses. Beyond the usual scale of cutting down discretionary spending such as administrative costs and travel, event and conferences, companies need to identify essential and non-essential expenses, defer and delay large outlays, and reduce or postpone projects with hefty costs such as capital expenditure or office expanding.

In most of the aviation companies, the cost-cutting measures entail workforce optimization, including temporary furlough and hiring freeze, reduction in salary, voluntary unpaid time-off, and other forms of downsizing. The reduced skilled workforce may cause a potential slow down in the recovery in post-crisis

operations and productivity, giving rise to a risk of obtaining short-term cost reductions at the expense of future growth.

Example 1: Copenhagen Airport cost-cutting programme³²

Copenhagen Airport announced on 17 March 2020 a plan to cut down operating costs and postpone investment plans for the airport to maintain minimum operations facing the sharp reduction in traffic. The airport identified potential savings of DKK 255 to 350 million in operating costs in the remainder year of 2020, including costs for marketing, consulting services and external contracts as well as reduced staff costs. In addition, a number of development projects and investments would be put on hold such as the airside expansion and upgrade of airport infrastructure, which would result in a total capital expenditure savings of DKK 400 to 700 million till the end of the year.

Example 2: Land sale plans by NATS³³

With air traffic volumes at only 40 per cent of the 2019 level, NATS has been putting acres of land at sites across the United Kingdom up for sale as part of its response to the COVID-19 crisis. According to its statement on 1 October 2020, NATS owns a number of sites where traditionally it has stationed multiple radars, radio masts and accommodation; however, advances in technology has made many of these sites now stand largely empty and unmanned. The sale of non-core assets would see these disused sites brought back into practical use for their local communities while helping NATS reduce its maintenance and running costs. NATS has also partnered with the company, Shared Access, to lease space on its sites to different mobile network operators.

Example 3: Emirates cost reduction measures³⁴

In March 2020, the Emirates Group announced to undertake a series of measures to contain costs, as the outlook for travel demand remained weak across markets in the short to medium term. These measures include: a) postponing or cancelling discretionary expenditure, a freeze on all non-essential recruitment and consultancy work; b) working with suppliers to find cost savings and efficiency; c) encouraging employees to take paid or unpaid leave in light of reduced flying capacity; d) a temporary reduction of basic salary for the majority of employees for three months, ranging from 25 to 50 per cent, while employees will continue to be paid their other allowances during this time; and e) a three-month 100 per cent basic salary cut for Presidents of Emirates and dnata.

5.1.2. Contractual negotiation with lessors, suppliers and/or providers

Aviation companies can obtain a temporary financial relief through **contractual negotiation with lessors, suppliers and/or providers**. For example, aircraft lessors, manufactures, service providers may agree with airlines to defer or rearrange delivery and payment schedules and conditions in order to maintain the long-

³² <https://www.cph.dk/en/about-cph/press/news/2020/3/copenhagen-airports-launches-cost-cutting-programme-and-postpones-investments>

³³ <https://www.nats.aero/news/air-traffic-service-nats-reveals-land-sale-plans-as-part-of-covid-response/>

³⁴ <https://www.emirates.com/media-centre/the-emirates-groups-business-response-to-covid-19-updated/>

term or well-established business relationship. With deferred delivery and payments, companies can reduce short- to medium-term payments, receive more favorable terms and preserve cash to sustain business.

One challenge might be that certain conditions included in the existing contracts and the future business continuity concerns could adversely impact the bargaining power of the company. Also, a deferral simply means that the borrower is delaying payment to a later time. Therefore, it will impact future finances, i.e. increasing an amortization period or payment amounts.

*Example 1: American Airlines secured deal to defer aircraft delivery*³⁵

According to American Airlines' news release on 22 October 2020, the airline removed more than 150 aircraft from its fleet through early retirements or by placing aircraft into temporary storage. An agreement was also reached with Boeing to secure rights to defer deliveries of 18 737 MAX aircraft scheduled to be delivered in 2021 and 2022 to 2023 and 2024. The company also finalized a series of sale-leaseback transactions to finance its remaining Airbus A321 aircraft deliveries in 2021. As a result, financing for all of its planned deliveries was secured through 2021.

*Example 2: SpiceJet renegotiating contracts with aircraft lessors*³⁶

SpiceJet, an Indian low-cost airline, has renegotiated various operating contracts, in particular, contracts with aircraft lessors. Continuing on the contract with lessors, the company has reassessed maintenance provisions, having regard to contractual obligations and current maintenance conditions, based on the anticipated scale of operations in the immediate future and the expectations of the timing of reintroduction of Boeing 737 MAX aircraft into its operations. The airline has also been in negotiations with lenders regarding deferment of dues and other waivers.

*Example 3: Irish lessor Avolon facing deferral of aircraft lease payments*³⁷

Ireland is one of the world's leading centers for aircraft finance and leasing. An Irish leasing company Avolon stated that as at 30 June 2020, many of its airline customers had entered into short-term deferral arrangements for aircraft rentals or were in arrears on their rental obligations. As a result, a lease revenue collection rate during the first half of 2020 was 68 per cent with two thirds of the collection shortfall related to deferral arrangements. During the second quarter of 2020, 12 of Avolon's customers were due to start repayments at the scheduled expiry of their deferral arrangements, 7 of them made payments in full and 5 customers have fallen into arrears or sought an extension to their short-term rental deferral arrangement for part or all of their rental obligations.

5.1.3. Equity financing

Equity financing involves the sale of equity or quasi-equity instruments such as preferred stock, convertible preferred stock, and equity units that include common shares and warrants, in return for additional capital. Companies can sell their shares in the market or by pledging it with financial institutions for a discount

³⁵ <https://news.aa.com/news/news-details/2020/American-Airlines-Reports-Third-Quarter-2020-Financial-Results-CORP-FI-10/default.aspx>

³⁶ <https://www.spicejet.com/InvestorCorporateAnnouncements.aspx>

³⁷ <https://www.avolon.aero/quarterly-updates>

over market prices. Alternatively, companies could issue preferential shares or convertible debentures where the capital has a loan and an equity component convertible at a premium over market value at a future date.

When using equity financing, three aspects need to be considered: a) investors could buy shares directly from market instead of negotiating a discount with the owner if they expect valuation to decline further; b) as is often the case of ownership and control of airlines, governments could limit ownership of equity if the investment is from a foreign fund or investor; and c) while equity financing places no additional financial burden on the company, investors will obtain a corresponding share of profits and may increase influence on decision-making and management of the company.

*Example 1: Japan Airlines to raise cash via public stock offering*³⁸

On 6 November 2020, Japan Airlines announced to raise JPY 182.6 billion by selling about 91 million new shares to general shareholders and 9 million new shares to a designated party under a third-party allotment programme. Before the sale, the airline had 337 million shares outstanding. As part of investment in its restructuring plan for the post-pandemic era, a total of JPY 100 billion would be spent to buy fuel-efficient flight equipment and support its low-cost carrier subsidiaries such as Zipair Tokyo and Jetstar. The rest would be mainly used to reduce interest-bearing debt.

*Example 2: Capital increase of IAG through rights issue*³⁹

On 10 September 2020, the International Airlines Group (IAG) announced fully underwritten capital increase with pre-emptive subscription rights to raise gross proceeds of € 2,741 million through the issuance of nearly 3 billion new shares at a 35.9 per cent discount price. This capital increase would enable IAG to strengthen its balance sheet and reduce leverage, enhance liquidity, and emerge from the current pandemic in a strong position. Qatar Airways, IAG's largest shareholder (25.1% holding), has undertaken to subscribe for its pro-rata entitlement under the capital increase. For each existing share of IAG, its holder is entitled to one subscription right and two subscription rights are required to subscribe for three new shares. By the end of a pre-emptive subscription period on 26 September 2020, nearly 93 per cent of those available have been subscribed while the remaining shares have been distributed in full, in proportion to the number requested by each shareholder.

*Example 3: Mexican LCC's equity offering in a form of ADS*⁴⁰

On 11 December 2020, Volaris, an ultra-low-cost airline based in Mexico, raised USD 164.4 million in net proceeds through the primary follow-on equity offering. The airline offered 134 million Series A shares of common stock or Ordinary Participation Certificates (CPO) in a form of American Depositary Shares (ADS) in the United States and other countries outside of Mexico. Traffic results of Volaris in November 2020 indicated a V-shaped recovery of seat capacity reaching to 98 per cent of 2019 level with a load factor of

³⁸ <https://www.jal.com/ja/investor/library/information/#Other>

³⁹ <https://www.iairgroup.com/~media/Files/I/IAG/press-releases/english/2020/Fully%20Underwritten%20Capital%20Increase%20to%20Raise%20Gross%20Proceeds%20of%202741%20million.pdf>

⁴⁰ <http://ir.volaris.com/English/home/default.aspx>

80.5 per cent. The airline intends to use this net proceeds from the offering to strengthen its capital structure and liquidity position and for general corporate purposes, including pre-delivery payments of aircraft.

5.1.4. Debt financing and restructuring

For a company that is in financial difficulty but is still ultimately a viable going concern, one of the options is **debt financing and restructuring**, including the issuance of debt instruments to investors, or negotiation with lenders/creditors to refinance or restructure the existing debt. The latter would be in a form of capital repayment holiday, reducing or adjusting interest/remuneration rates and repayment instalment amounts or extending the final maturity date of the loan. Another possible option is to reduce the debt to equity ratio through a debt-for-equity swap, in which lenders receive shares in the borrower in return for cancelling all or part of their debt claims. The debt-for-equity swap reduces the borrower's balance sheet liabilities, potentially allowing a lender to take some of the upside once the restructured borrower returns to profit.

When choosing the type of debt-related financing means, aviation companies should assess the balance sheet and cash flow statements to understand how much debt the company has and how much it is costing, and evaluate the impact of the increased debt ratio and the new/altered debt conditions on their future businesses. They should also prudently calculate the potential fees and costs associated with the debt refinancing or restructuring.

Example 1: Malaysia Airlines deferral of payments on bonds⁴¹

On 17 September 2020, Malaysia Airlines issued deferral notices on periodic payments due on 30 September 2020 for MYR 1.5 billion in Islamic bonds (sukuk) which had been issue in 2016. Payments to sukuk-holders would resume at the next periodic distribution date on 31 March 2021. Malaysia Airlines, which had struggled financially even before the outbreak, had made significant cost cuts in support with a sole shareholder Khazanah Nasional, a State-owned investment fund. The airline has also reached out to its lessors, creditors and key suppliers for payment deferral as it embarked on an urgent restructuring exercise.

Example 2: Comprehensive debt restructuring and refinancing of Swissport⁴²

Swissport, world's one of the largest ground handling companies, announced on 31 August 2020, that it has entered into binding agreements on a comprehensive restructuring and refinancing with creditors and shareholders. The Agreement included an approximately € 1.9 billion debt-for-equity swap with existing super senior and senior secured debt converting into equity, the extinguishment of senior unsecured and junior debt at corporate level, as well as a new € 500 million four-year debt facility. Swissport has also finalized additional € 300 million super senior interim debt facility, providing it with liquidity to trade through the pandemic and to facilitate the restructuring process. Ownership of the company will pass from China's HNA Group to a group of investment funds (the senior secured creditors owning over 75%) once the restructuring is complete.

⁴¹ <https://fast.bnm.gov.my/fastweb/public/MainPage.do>

⁴² https://www.swissport.com/fileadmin/downloads/pressreleases/2020/20200831_Media%20Release_Swissport%20agrees%20Restructuring.pdf

5.1.5. Monetizing the value of frequent flyer programme (FFP)

Frequent flyer programme (FFP) may be one of the biggest and valuable assets for some airlines, ***monetizing the value of FFP*** can help them raise cash. Airlines can, for example, sell tranches of miles to their credit card partners in advance with potential discount, or sell stakes in their FFP. There was also precedent for airline pre-sale of miles to overcome difficulties after both the September 11 and the 2008 financial crisis. In addition, airlines can use FFP to back new debt such as mortgaging FFP for loans (debt financing).

In utilizing aforementioned FFP related instruments, cautions need to be paid to the potential loss of control by the airline over its FFP which may adversely impact customer loyalty. While discounting the sale of FFP in large stock to partners can serve the immediate cash needs, it would be a one-time gain and limit the cash flow in the future.

Example 1: United Airlines mortgaging its MileagePlus FFP⁴³

In June 2020, United Airlines announced to mortgage its MileagePlus FFP to secure a USD 5 billion loan, part of its effort to raise proceeds for incremental liquidity. The seven-year term loan will come from three multinational investment banks and financial services companies. According to the airline, the MileagePlus FFP is one of United's most valuable assets, spinning off USD 5.3 billion in cash and USD 1.8 billion in EBITDA profit in 2019. United Airlines stated that the loan should not have any effect on its 100 million MileagePlus members, nor would it reduce the airline's control over the terms of the programme.

Example 2: Delta upsizing SkyMiles financing⁴⁴

Delta Air Lines launched in September 2020 the largest debt offering in aviation history, raising USD 9 billion by using its SkyMiles FFP as collateral. This USD 9 billion package, an increase of USD 2.5 billion from the original USD 6.5 billion deal size, was composed of: USD 3 billion term loan from a consortium of banks; USD 2.5 billion in principal amount of 4.5 per cent senior secured notes due 2025; and USD 3.5 billion in principal amount of 4.75 per cent senior secured notes due 2028. SkyMiles FFP will lend the net proceeds of the bond offering to Delta while a portion will go to a reserve account.

5.1.6. Securitization of future earnings and assets

Securitization of future earnings and assets allows an enterprise to monetize the value of earnings or receivables that are expected to be generated at a later time through the ordinary course of its sales or productions or other cash flows such as payments from credit cards or aircraft leases. A range of different businesses, especially those with long histories and predictable flows, have been using the future flow securitization framework. Aviation companies can raise funds on the back of their anticipated future earnings and/or assets that would generate such earnings, for example, in case of airlines, expected revenues from ticket sales, sub-leasing its services to other airlines, as well as onboard sales of goods.

In securitizing the future revenues, the company issues a debt instrument whose repayment of principal and interest is secured by payments on future flow receivables. As the likelihood of repayments of the debt

⁴³ <https://ir.united.com/static-files/1c0f0c79-23ca-4fd2-80c1-cf975348bab9>

⁴⁴ <https://d18rn0p25nwr6d.cloudfront.net/CIK-0000027904/5a89b9e9-71c9-4ab1-b755-8eff87febacf.pdf>

depends on the generation of future receivables, the uncertainty of future revenue streams and business sustainability can be a constraint. In addition, process of securitizing can be complex and discounting future flows carries a cost.

Example: China Aircraft Leasing Group listing asset-backed securities⁴⁵

In June 2020, China Aircraft Leasing Group Holdings (CALC) has received an approval from the Shanghai Stock Exchange for its asset-backed securities (ABS) issuance programme with a ceiling of CNY 5 billion. In a release, CALC stated that this was a first such ABS programme for the aircraft leasing sector in China, and the approval has been granted against the backdrop of steady recovery of the aviation industry and numerous national policy initiatives in favour of the civil aviation sector. The ABS were backed by income-generating aircraft leasing assets, which comprises mainly of narrow-body aircraft that are highly liquid.

5.1.7. Rehabilitation or reorganization under bankruptcy laws

A last resort for debtors that are unable to make any other settlement arrangements with their creditors is to file for bankruptcy. In general, bankruptcy laws provide two basic forms of relief for a debtor, i.e. liquidation and rehabilitation (also known as reorganization). If “going concern value” of a company in financial distress can be larger than its liquidation value, ***rehabilitation or reorganization under bankruptcy laws*** will protect the debtor from creditors and give the debtor an opportunity to restructure its debts and obligations. In most cases, the debtor remains open and operating during the reorganization process, using special financing such as Debtor in Possession (DIP) financing whose lenders usually have first priority on earnings and assets over previous lenders.

However, differences in national and regional bankruptcy laws will have different implications on the distressed companies attempting for rehabilitation or reorganization. For example, some bankruptcy laws provide little guidance on how assets, liabilities and claims should be valued, which was further complicated under the economic downturn instigated by the pandemic. Furthermore, the feasibility of a proposed reorganization plan may face increased scrutiny from the court and creditors in the current market climate.

Example 1: LATAM filing for Chapter 11 bankruptcy protection in the United States⁴⁶

On 26 May 2020, LATAM Airlines Group and its affiliates in Chile, Peru, Colombia, Ecuador and the United States each filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the Bankruptcy Court for the Southern District of New York. In light of the effects of COVID-19, this reorganization process has provided LATAM with an opportunity to work with the group’s creditors and other stakeholders to reduce its debt, access new sources of financing and continue operating as conditions permit throughout the process, while enabling the group to transform its business to the new demand environment. The group has secured the financial support of shareholders, including the Cueto and Amaro families and Qatar Airways, two of the largest shareholders of LATAM, to provide up to USD 900 million in DIP financing. The group has also been in discussions with their respective governments of Chile,

⁴⁵ https://www.calc.com.hk/?route=press_detail&id=233

⁴⁶ <http://www.latamairlinesgroup.net/news-releases/news-release-details/latam-announces-reorganization-ensure-long-term-sustainability>

Brazil, Colombia and Peru to assist in sourcing additional financing, protect jobs where possible and minimize disruption to its operations.

Example 2: Air Mauritius under voluntary administration⁴⁷

On 22 April 2020, Air Mauritius was placed under voluntary administration, stating that the airline would not be able to meet its financial obligations in the foreseeable future due to COVID-19 disruptions. Two voluntary administrators were subsequently appointed under sections 215 and 216 of the Insolvency Act 2009. The process of voluntary administration provides the airline with the necessary breathing space and sets the conditions for restructuring its operations and safeguarding its long-term interests. In the meantime, the administrators have been working with the court, government, banks and creditors to ensure that Air Mauritius continues to operate, plan the phased resumption of operations, and estimate the restructuring costs. Air Mauritius is majority owned by Air Mauritius Holdings (51%) and the government of Mauritius (8%, which also owns over 43% of Air Mauritius Holdings).

5.2. Industry operational measures

While revenues diminished, the fixed costs remain. Costs of pilots and cabin crews, fuel, maintenance and aircraft ownership, in average, accounted for around 50 per cent of the total cost of the operation of a flight, according to historical rules of thumb. An essential aspect for achieving break-even at the network level is to exploit economies of scale and scope to lower the unit costs of operations.

In the situation that demand is extremely low, companies in the aviation sector need to optimize operational efficiency through measures which are feasible at the control of themselves and can usually be implemented immediately before seeking support from external parties. To the extent possible, aviation companies should also utilize the opportunities brought by the aforementioned government regulatory support such as operational flexibilities and temporary alleviation of regulatory restrictions. The industry operational measures include, inter alia:

- a) route rationalization and fleet rightsizing;
- b) diverting excess passenger capacity to cargo-only or charter operations;
- c) flexible fare adjustments;
- d) cooperative arrangements; and
- e) mergers and acquisitions.

These measures may bring effects such as reducing the cost of operation, increasing efficiency and/or freeing up more cash, depending on the company's unique circumstances and capabilities.

5.2.1. Route rationalization and fleet rightsizing

Airlines facing excess capacity and poor route financial performance need to adjust network and fleet to maximize both profitability and reliability. **Route rationalization** refers to streamlining network operations

⁴⁷ <https://www.airmauritius.com/news/air-mauritius---administrators-appointed>;
<https://www.stockexchangeofmauritius.com/company-snapshot/official-market/air-mauritius-limited?market=official>

with focus on routes with higher demand and by shedding of uneconomical capacities, thus lower operating costs and increasing viability of the overall network. Constant evaluation of the market trend is crucial for realigning route networks to match demand while maintaining networks with efficient connectivity (including the use of codesharing with partner airlines as outlined in paragraph 5.2.4).

In connection to route rationalization is matching fleet with the network to meet diversified demand on different route, minimize excess capacity and maximize profitability. **Fleet rightsizing** includes selection of the right mix of aircraft for each market, re-configuring aircraft capacity according to operation needs, retiring the older and less-efficient aircraft and bringing in newer ones to reduce unit costs. Similarly, determination of aircraft type and size requires thorough assessment of the impact of fleet on airlines' financial performance, and deliberate consideration on financing mechanism such as leasing or purchasing, as well as the trade-off between higher ownership costs and lower operating cost.

These planning strategies are important to airports, ANSPs, aircraft manufacturers, regulatory authorities, investment community in addition to the airlines, and the various activities are interrelated and require close coordination among all involved parties.

Example 1: KLM network strategy during COVID-19⁴⁸

During the course of the pandemic, KLM has adopted flexible network strategy, opting to restore service to as many of its network destinations as possible with fewer flights and smaller aircraft. By restoring more routes, the airline could make up for declining demand on other routes and maintain its network through the Amsterdam hub. From August to October 2020, KLM served around 90 to 95 per cent of the European destinations it served before the crisis but at 50 to 60 per cent capacity level compared to pre-pandemic figures. The airline has also been serving many of its intercontinental destinations on a cargo-only basis. In response to the second wave of pandemic in Europe which has resulted in new lockdowns, KLM announced to trim seat capacity and flights frequency from November 2020 and the following months, and to make further adjustments depending on developments.

Example 2: Launch of new LCC – Air Arabia Abu Dhabi⁴⁹

On 14 July 2020, Air Arabia Abu Dhabi started operations with its first flight from its base Abu Dhabi International Airport to Alexandria. This new LCC was formed jointly by Etihad Airways and Sharjah-based Air Arabia, complementing the services of Etihad Airways from Abu Dhabi and catering to the growing low-cost travel market segment in the region. Despite being in the clutches of a pandemic, the airline has been taking a massive growth strategy. The number of destination served has increased from two in Egypt in July 2020 to eight in five countries (Egypt, Bangladesh, Nepal, Oman and Sudan) in December 2020. The number of frequency from Abu Dhabi has increased from 26 to 220 during the same period. Along with Air Arabia, the airline provides free global COVID-19 insurance for all passengers traveling from Sharjah and Abu Dhabi. This insurance is automatically included with the booking and valid for 31 days from the day of departure. It also includes medical expenses and quarantine costs.

⁴⁸ <https://news.klm.com/network-update--klm-reduces-capacity-in-europe-in-response-to-second-wave/>

⁴⁹ <https://press.airarabia.com/>

5.2.2. Diverting excess passenger capacity to cargo-only or charter operations

As air travel demand dwindles in the wake of pandemic, earnings from scheduled passenger operations have almost vanished. In contrast, global trade continues, especially with factories reopening gradually, and demand surging for medical supplies to fight the pandemic. Supply chains depend on air cargo services to deliver critical products such as food, medical supplies and personal protective equipment (PPE), as well as other essential products for remote and peripheral regions.

Cargo operations can help airlines (and airports) make up for some of the losses from the collapse in passenger operations. Airlines can consider *diverting excess passenger capacity to cargo-only operations*, through utilizing mainline passenger aircraft which would otherwise be parked to generate a fraction of the revenue and accommodate a spike in cargo demand. It should however note that air cargo operations face competition from other transport modes for carriage of cargo and conversion of passenger aircraft for cargo-only operations also carries upfront costs and requires regulatory approval (paragraph 4.2.2 refers).

In addition, while airlines have scaled back their scheduled flights and destinations, their flight utilization could be raised by *diverting excess scheduled passenger capacity to charter operations*. Amid the pandemic, charter operations enable the airlines to meet the diversified travel needs in a flexible manner without incurring additional commercial risk that would be assumed by charter organizers. International charter operation will be subject to the air services agreement governed.

Example 1: Cathay Pacific providing more cargo capacity using passenger aircraft⁵⁰

In May 2020, Cathay Pacific announced to provide more cargo capacity by using the cabins of its passenger aircraft. According to the news, while Cathay Pacific Cargo's 20-strong Boeing 747 freighter fleet has been operating nonstop from the beginning of the pandemic, demand also resulted in passenger aircraft being used as cargo-only freighters to ship medical supplies and PPE using the cargo belly hold. Meanwhile, the airline obtained special approvals from the Hong Kong Civil Aviation Department (HKCAD) to use the passenger cabin to carry cargo as well. The first of these passenger cabin cargo flights took place on 23 April 2020, flying from Hong Kong to Los Angeles with medical face shields loaded into the economy class cabin of Boeing 777 passenger aircraft. Boxes were loaded via the aircraft's passenger door using a catering truck, then manually secured into seats. It is estimated that loading additional cargo on the passenger seats provides 30 per cent additional capacity on top of the belly cargo alone.

Example 2: Ethiopian Airlines' cargo niche strategy⁵¹

As a quick response to the declining passenger revenues due to the pandemic, Ethiopian Airlines has focused on a cargo niche to carry PPE and other medical supplies during containment. As majority of the passenger aircraft have been on ground in the second quarter of 2020, a total of its 24 passenger aircraft have been converted to freighters, supplementing existing 12 cargo aircraft. The maintenance, repair and overhaul (MRO) unit of the airline took the initiative to design and change passenger aircraft for cargo transportation. The conversions constituted removing passenger seats and using both above and below the

⁵⁰ <http://cargoclan.cathaypacificcargo.com/cathay-pacific-adds-cargo-capacity-in-passenger-cabin/>

⁵¹ <https://corporate.ethiopianairlines.com/media/Whats-up-ET-Monthly-Newsletter;>
<https://simpleflying.com/ethiopian-refits-passenger-seats/>

wing capacity of the aircraft for cargo purposes. Since summer 2020, some of these aircraft have been converted back to passenger configuration as more countries were reopening their borders for air travel.

*Example 3: Wizz Air's flexible charter flight service*⁵²

On 4 December 2020, Wizz Air, an ultra-low-cost airline based in Hungary, announced to expand its “personalized” charter flight services to both domestic and international destinations. In addition to existing repatriation services, the expanded charter service can be tailored to suit corporate travel, incentive trips, and multi-stop tours. Customization can be made with choices of service, route and schedule in accordance with the needs of organizers, for example, transporting employees for business meetings, flying sports teams between tournaments or returning stranded tourists back to their home country. The charter flights would be operated using A320 and A321 with a capacity of maximum 239 passengers per flight. Since March 2020, the airline has operated over 50 repatriation flights, returning over 3,600 passengers home.

5.2.3. Flexible fare adjustments

Due to weak demand in the market, the load factor may continue to be far below the historical average level. As markets re-open, airlines will try to stimulate demand at lower fares but the potential under-recovery of demand and lower utilization of aircraft may continue posing challenges to cover operating costs. There may also be increase in cost of air travel as a result of “cost pass-through”, i.e. passing on costs incurred to implement actions and decisions by governments and the industry itself, including the health-related measures, to charges and air fares.

Consequently, air fares may significantly fluctuate to respond to both down and upward pressures on airlines. In certain markets, the leisure demand for air travel may be more elastic to changes in prices of travel and incomes; and thus increase in air fares may result in a further dampened demand. Moreover, business travel demand, which is less sensitive to price and accounted for a substantial percentage of revenues for many airlines in the pre-pandemic time, is expected to take longer to bounce back. The slow recovery of business travel would further complicate the airline pricing strategy. Replacing lost revenues from business travellers with predominantly discounted leisure tickets will not be easy given the overall reduction in demand.

*Example 1: China Eastern's “Fly at Will” ticket discount package for unlimited weekend travel*⁵³

On 18 June 2020, China Eastern Airlines rolled out its first-ever domestic air ticket discount package, “Fly at Will”, at a price of CNY 3,233 (around USD 474) for unlimited weekend travel until 31 December 2020. As the pandemic has been effectively brought under control in China, over 150,000 passengers flew for holidays or visiting their family by using Fly at Will in the first two weekends after the release of this package. The average passenger load factor of those weekend flights from Shanghai to more than ten domestic destinations rose by nearly 20 per cent, with some flights surpassing 90 per cent even with wide-body aircraft. Several other airlines such as China Express Airlines and Hainan Airlines quickly followed the suit by launching similar products.

⁵² <https://wizzair.com/en-gb/information-and-services/about-us/news/2020/12/04/wizz-air-offers-flexible-charter-flight-service>

⁵³ https://ca.ceair.com/newCMS/ca/en/content/en_News/PressRelease/202007/t20200717_15307.html

Example 2: Singapore – Hong Kong air fares jump 40 per cent on travel bubble plan⁵⁴

The air fares between Singapore and Hong Kong SAR of China started to rise less than 24 hours after unveiling a plan to establish a “travel bubble” between them, under which compulsory quarantine would be replaced by coronavirus testing. The cheapest roundtrip economy class fare between Singapore and Hong Kong listed on Singapore Airlines’ website increased from SGD 400 to SGD 558. Roundtrip business class fares rose by around HKD 5,000 to HKD 19,000. The pandemic has hit the airlines of Singapore and Hong Kong especially hard because of the lack of domestic market to fall back on. Prior to the COVID-19 outbreak, around 1 million trips were made between the two regional centers every year, according to data from the Singapore and Hong Kong tourism boards.

5.2.4. Cooperative arrangements

In a world struggling to balance between the restart of operations and a risk of overcapacity, especially when demand is curtailed and limited, *cooperative arrangements* can help partners optimize schedules and capacity to achieve higher load factors, as well as improve efficiency and reduce costs, and thus lower business risk. These arrangements can take various forms, ranging from *interlining*, *codesharing*, *FFP arrangements* to a deeper form of commercial partnership such as *joint venture* where services are operated jointly; the capacity, costs and revenues of operation are shared; and partners agree on all aspects of the operation including coordination of flight scheduling and pricing among other commercial activities.

Cooperation can be established at different scope, depending on the market situation and needs. The deeper form of cooperation often requires regulatory approval, considering its potential adverse effects on users through preventing, restricting or distorting competition under certain circumstances.

Example 1: Finnair to deepen its cooperation with Juneyao Air⁵⁵

On 14 April 2020, Finnair announced to elevate its codesharing agreement with Juneyao Air to a joint venture on the Helsinki – Shanghai route in spite of the ongoing pandemic, subject to required regulatory approvals. Once implemented, the joint venture cooperation would enable further expansion of codesharing operations across the networks of both airlines, particularly to key points behind Shanghai-Pudong and Helsinki, cushioning short-term effects of poor demand. Finnair has seen routes between Europe and Asia as a market with natural demand, which will continue to rise after the pandemic. By being one of the few airlines expanding its presence in China, Finnair could be the first to recover when demand returns.

Example 2: GOL and Avianca extending codesharing agreement⁵⁶

The codesharing agreement between GOL and Avianca was extended starting from 27 October 2020 to flights between Brazil and Colombia, as well as flights within both countries. The agreement includes an option of reaching 50 destinations within Brazil and 20 destinations within Colombia. In addition, FFP members of Smiles and LifeMiles are allowed to earn and redeem miles on flights of both airlines. Through

⁵⁴ <https://www.bnnbloomberg.ca/singapore-hong-kong-air-fares-jump-40-on-travel-bubble-plan-1.1508959>

⁵⁵ <https://company.finnair.com/en/media/all-releases/news?id=3630945>

⁵⁶ <https://www.avianca.com/co/en/about-us/news-center/avianca-news/alliance-gol-avianca/>

this agreement, both airlines can complement each other's respective strengths, especially critical access to a wider domestic network, increasing their resilience to demand shocks.

*Example 3: Air Serbia extending codesharing partnerships with larger airlines*⁵⁷

Air Serbia has been establishing and strengthening partnerships with larger foreign airlines to complement its own network that is limited as a consequence of the pandemic. On 7 August 2020, a codesharing agreement was concluded with Turkish Airlines, covering multiple destinations from the networks of both airlines. In November 2020, Air Serbia initiated a FFP cooperation with Air Canada. On 19 November 2020, Air Serbia and Aeroflot reached an agreement on expanding their existing codesharing agreement, under which the Russian airline would put its own flight code on Air Serbia's flights between Belgrade and Istanbul, while Aeroflot's Istanbul – Moscow flights carry Serbian airline's flight code.

5.2.5. Mergers and acquisitions

Mergers and acquisitions (M&As) are typically attempts to capture economies of scale and scope through shared infrastructure, assets, information, network, etc. M&As can help companies function more efficiently via reducing cost of operation, reducing excess capacity or optimizing capacity, as well as increasing market accessibility and profitability. Additionally, the merged entity could seek to increase revenues by using the landing and take off slots freed up by the cuts to fly to new destinations.

M&As, however, are subject to competition laws. The concentration attained through M&As might impede effective competition, in particular as a result of the creation or strengthening of a dominant position. There are also regulatory restrictions on foreign ownership and control. Hence, full-scale international mergers between airlines from different States are relatively rare, except in cases where specific arrangements enable each airline to preserve nationality requirements under air services agreements.

*Example 1: Air Canada plans to acquire Air Transat*⁵⁸

Air Canada and Transat A.T. Inc. (a company that owns Air Transat), two of Canada's four largest airlines, announced on 10 October 2020 that they have concluded an amended transaction agreement, under which Air Canada will acquire all the issued and outstanding shares of Transat A.T. for CAD 5.00 per share, down from CAD 18.00 agreed initially. Transat shareholders would have an option to receive payment in cash or shares of Air Canada at a fixed exchange ratio of 0.2862 Air Canada share for each Transat share (representing a price for the Air Canada shares of CAD 17.47). The value of the transaction is approximately CAD 190 million. The amended transaction reflected the impact of COVID-19 since the initial agreement was concluded. Air Canada's proposed acquisition of Transat is expected to close in early 2021 subject to court approval, the approval of the Toronto Stock Exchange, certain customary and other conditions, and regulatory approvals, including the ongoing approval process of regulatory authorities in Canada and the European Union (EU).

⁵⁷ https://www.airserbia.com/en/footer_menu/corporate/news/news?id=465

https://www.airserbia.com/en/footer_menu/corporate/news/news?id=524

⁵⁸ <https://aircanada.mediaroom.com/2020-10-10-Air-Canada-and-Transat-A-T-Inc-Conclude-Amended-Transaction-for-Combination-of-the-Two-Companies>

*Example 2: Korean Air's proposed acquisition of Asiana Airlines*⁵⁹

On 16 November 2020, Hanjin KAL, a holding company of Korean Air, announced a plan to acquire heavily-indebted Asiana Airlines. The acquisition would require KRW 1.8 trillion, i.e. purchase of KRW 1.5 trillion worth of Asiana's 63.9 per cent shares and KRW 300 billion worth of Asiana's convertible bonds. Asiana's main creditor, State-owned Korea Development Bank (KDB), signed an investment agreement with Hanjin KAL to inject a total of KRW 800 billion in Hanjin KAL through a rights offering and convertible bonds; in return the KDB will own Hanjin KAL's 10.66 per cent stake. Hanjin KAL would then participate in a KRW 2.5 trillion stock sale by Korean Air at the beginning of 2021 that will be used to acquire Asiana. Once this deal is complete, the combined airline would become the 10th largest in the world. The Korean Air – Asiana deal is subject to regulatory approval by Korean authorities and foreign competition authorities including the United States and EU.

⁵⁹ <https://news.koreanair.com/한진그룹-아시아나항공-인수-결의/>; <https://news.koreanair.com/대한항공-아시아나항공-통합-관련-온라인-기자-간담/>

6. Assessment of value creation of State financial support to aviation

Aviation generates economic growth, creates jobs, and facilitates international trade and tourism. Prior to the COVID-19 pandemic, according to the [Aviation Benefits Report 2019⁶⁰](#), aviation industry contributed USD 2.7 trillion to the world gross domestic product (GDP) and supported 65.5 million jobs globally on an annual basis (direct, indirect, induced and tourism-connected). The devastating impact of COVID-19 pandemic on the industry endangers the loss of economic driver and millions of jobs at national, regional and global level.

State financial support is usually provided against an exceptional circumstance, subject to State's financial capability and capacity of public funds; thus it is of utmost importance that the budget and the use of resources be well-planned. Following Principle 2 – Data-driven evaluation, States need to examine different options to support the industry and devise an optimal solution with the most favourable effect and generate win-win situation for all segments in the sector. It is also crucial for States to evaluate benefits and risks associated with the support measures and ensure that resources are used appropriately and efficiently.

In addition, in the face of diverging and competing requests for State financial support from various sectors, due consideration should be given to the value creation to the overall national economy from support provided to aviation in comparison to other sectors. This includes value added created directly by the aviation industry with State financial support, the indirect and induced impact from aviation related activities, as well as the catalytic impact on other sectors supported by aviation. Evaluation of the value added generated from State financial support can assist States to assess the appropriate level of intervention for the achievement of desirable outcomes.

Direct value added

The aviation industry itself is a source of considerable economic activities and creating jobs. Economic activities that are directly attributed to aviation industry comprise those of airlines, airports, ANSPs, and other stakeholders in the industry. These include providing passenger and cargo transportation, check-in, baggage handling, on-site retail, cargo and catering facilities, etc. Moreover, aviation directly enables jobs in the manufacturing sector (those companies that produce aircraft, engines and other vital technologies).

Airlines, for example, are the first and foremost directly impacted industry in the aviation value chain. The support to airline will enable it to continue its operation and generate revenue through providing air transport services to customers. Airports can benefit from the increased passenger traffic with revenue generation from the airport charges, as well as potential non-aeronautical revenues from concessions. Furthermore, ANSPs can also retain a level of revenues from providing air navigation services to airlines (users). Ultimately, financial support provided to airlines will not only support the airlines but also bring sequential benefits to all stakeholders in the value chain.

Indirect value added

The economic benefits of aviation extend much further than the industry's direct impacts. The indirect impacts include employment and economic activity generated by suppliers to the aviation industry: aviation

⁶⁰ <https://www.icao.int/sustainability/Documents/AVIATION-BENEFITS-2019-web.pdf>

fuel suppliers; construction companies that build airport facilities; suppliers of subcomponents used in aircraft; manufacturers of goods sold in airport retail outlets; and a wide variety of activities in the business services sector (such as call centres, information technology and accountancy).

Induced value added

The spending of those directly or indirectly employed in the aviation sector supports additional jobs in other sectors such as retail outlets, companies producing consumer goods and a range of service industries (for example, banks, telecommunication providers and restaurants). Worldwide, nearly eight million induced jobs are supported through employees in the aviation industry (whether direct or indirect) using their income to purchase goods and services for their own consumption.

Catalytic value added

Furthermore, many other industries rely on effective air transport links to function. Aviation's impact on other industries improves the efficiencies in a wide spectrum of economic activities, for example tourism. The connectivity brought by air transport is at the heart of tourism development, providing substantial economic benefits for all those involved in the tourism value chain. Over half of the international tourists arrived at their destinations by air, through a synergetic relationship, aviation can contribute further to global GDP and support jobs within the tourism sector.

ICAO methodological framework and value added calculator

The following tools being developed by ICAO can be used by State to evaluate the potential value creation from its financial support to aviation.

- ICAO Aviation Satellite Account Methodological Framework – States can apply this draft framework to its national accounting to assess the direct value added from civil aviation activities.
- ICAO value added calculator – States can compare the negative direct value added due to pandemic against the total positive value added from civil aviation for making informed choices on the level of their financial interventions.

7. Need for appropriate economic and financial measures to foster future aviation resilience

With mounting uncertainties surrounding the ongoing pandemic and its ramification, the projection of air travel recovery remains gloomy along with a grim economic outlook ahead. The strategies that States and the industry embark on will have an influence on the development of aviation, the industry financial stability, economic viability, and its future resilience, i.e. how long the industry can withstand the crisis, how strong and fast can the industry recover, to what extent the industry will be transformed, and to which degree will the future industry structure be reshaped at global level.

While the imminent priority is to stabilize the industry, it is as well imperative to seize opportunities to enable the industry to emerge from the pandemic more competitive, financially sustainable and resilient over the long-term horizon. State support therefore should be designed to promote market dynamics across the aviation ecosystem so that the industry can be more responsive in meeting changing market demand and customer expectations in the post-COVID-19 era.

Bearing in mind that there is no ‘one-size-fits-all’ approach, both States and industry need to apply appropriate approach in accordance with their unique position and needs, and continuously monitor and assess the evolving economic fallout of the COVID-19 pandemic. The shattering consequence and ever-changing situation requires States and industry to break free of traditional orthodoxies, and embrace innovative ways of thinking to chart a path to a strong, viable and resilient aviation sector in the future.

Appendix A

Highlights of State Economic and Financial Measures

State Financial Support Measures

Form of measures	Effect/Implication	Constraint/Caution
a) Capital injection as grants	Provide direct funds to stabilize the financial situation of targeted companies and ensure their operation continuity.	Effective use of public funds should be ensured; and unfair competition and potential market distortion be avoided.
b) Government equity stakes	Invest equity in companies with potential to increase government's influence on the company's business strategic direction.	Returns on equity may fluctuate according to market situation and company's financial performance; active oversight is required.
c) Government loans and loan guarantees	Provide companies with loans at favorable rates than they would be able to obtain by borrowing on their own.	Terms and conditions should be transparent, fair and uniform to all eligible firms, and incentivize quicker pay off by the borrower.
d) Financing of restructuring	Infuse funds to financially restructure or reorganize companies to achieve the transition to more efficient operations.	Well-defined conditions, stringent regulatory mechanisms, information disclosure and monitoring should be in place.
e) Operating subsidies or route specific grants	Preserve and sustain essential air connectivity based on socioeconomic objectives and economic justification.	Non-discrimination should be ensured and essential transportation needs for all communities be balanced.
f) Wage subsidies or guarantee	Protect jobs and prevent job losses by paying companies with part of employee wages for a certain period of time.	Funds should be deployed to the intended recipient, i.e. personnel as deemed qualified by the programme concerned.
g) General taxation relief	Reduce the tax liability and enhance cash-flow of an individual or business entity.	Specific tax relief or further exemption of certain taxes for companies in severely affected sectors can be considered.
h) Relief of aviation related taxes, charges and fees	Provide timely and immediate saving on cost payment of companies in short-term.	An appropriate balance should be struck between the respective interests of service providers and of users and end-user.
i) Integrated financial support package	Provide a combination of some or all of the foregoing financial support to a targeted sector, segment or business.	Support package should follow the principles, e.g. be inclusive and non-discriminatory, be targeted and proportionate, etc.

State Regulatory Support Measures

Form of measures	Effect/Implication	Constraint/Caution
a) Temporary suspension of airport slot allocation rules	Provide flexibility for airlines to plan and adjust schedules with appropriate levels to respond to market conditions and changing demand projections.	Decision on the timing of re-commencing or extending suspension of slot allocation rules requires assessment of the changing situation and all-round consideration.
b) Temporary alleviation of regulatory restrictions to air cargo operations	Ensure the sustainability of supply chains, prevent shortages of essential goods, and help reduce additional costs incurred for air cargo operations.	Operational flexibilities should be in line with State's overall risk management strategy, and be proportionate and limited in time; abusing of dominant position should be prohibited.
c) Temporary exemption from competition laws	Allow airlines to coordinate routes and flight schedules through cooperative arrangements to help maintain transportation services under exceptional circumstance.	Exemptions should be temporary and be granted when deemed necessary; effective oversight is required to pre-empt potential negative impact on end-users.
d) Relaxation of restrictions on market and capital access	Provide assurance of essential air connectivity, widen the available pool of investment capitals, and allow more efficient use and allocation of capital and capacity.	Necessary link between the airline and the designating State should be preserved while regulatory controls and oversight should be strengthened.

Appendix B

Highlights of Industry Financial and Operational Measures

Industry Financial Measures		
Form of measures	Effect/Implication	Constraint/Caution
a) Cost control and management	Cut down business expenses, e.g. discretionary spending, postpone projects with hefty costs, and optimize workforce.	Reduced skilled workforce and investment in infrastructure may slow down the recovery in post-crisis operations and productivity.
b) Contractual negotiation with lessors, suppliers and/or providers	Defer or rearrange service delivery and payment schedules and conditions to reduce short- to medium-term cost payment.	Existing contracts and business continuity concerns could adversely impact the bargaining; an amortization period or payment amounts will increase.
c) Equity financing	Sell equity or quasi-equity instruments or issue preferential shares in exchange for additional capital.	Investment from foreign fund may be subject to ownership and control rules; investors may increase influence on the company.
d) Debt financing and restructuring	Raise new capital or alter existing contract to receive more favorable loan terms, reduce interest payments or reduce debt.	Impact of the increased debt ratio and the new/altered debt conditions on future financial situation should be considered.
e) Monetizing the value of frequent flyer programme (FFP)	Raise cash through sale of miles to credit card partners or use of FFP to back new debt.	Potential loss of control by the airline over its FFP may adversely impact customer loyalty.
f) Securitization of future earnings and assets	Monetize the value of earning and receivables expected in the future, including assets, through the ordinary course of the company's business.	Future revenue streams and business sustainability is uncertain; process of securitizing can be complex with cost.
g) Rehabilitation or reorganization under bankruptcy law	Protect the debtor from creditors and give the debtor an opportunity to restructure its debts and obligations.	Some bankruptcy laws may provide little guidance on valuation of assets, liabilities and claims; feasibility of reorganization plan may face scrutiny in the current market climate.

Industry Operational Measures

Form of measures	Effect/Implication	Constraint/Caution
a) Route rationalization and fleet rightsizing	Streamline network operations and select right mix of aircraft to maximize both profitability and reliability.	Constant evaluation of the market trend is crucial for realigning route networks and fleet to match changing demand with efficient connectivity and capacity.
b) Diverting excess passenger capacity to cargo-only or charter operations	Utilize passenger aircraft which would be parked to generate a fraction of the revenue as well as to accommodate cargo demand and diversified travel needs.	Air cargo operations face competition from other transport modes; conversion of passenger aircraft for cargo-only operations also carries upfront costs; international charter operations are subject to the air services agreements governed.
c) Flexible fare adjustments	Adjust air fares to stimulate demand while responding to both down and upward pressures on airlines.	Increase in air fares may dampen leisure demand in certain markets; the slow return of business travel complicates the pricing strategy.
d) Cooperative arrangements	Enable partners to optimize schedules and capacity to achieve higher load factors, as well as improve efficiency and reduce costs.	The deeper form of cooperation often requires regulatory approval, considering its potential adverse effects on users under certain circumstances.
e) Mergers and acquisitions	Enable partners to capture economies of scale and scope through shared infrastructure, assets, information, network, etc.	M&As are subject to competition laws, as well as regulatory restrictions on foreign ownership and control; full-scale international mergers are relatively rare.