Department for Transport

Airline insolvency Review
Final Report
Financing Protection Methodology

Annex A

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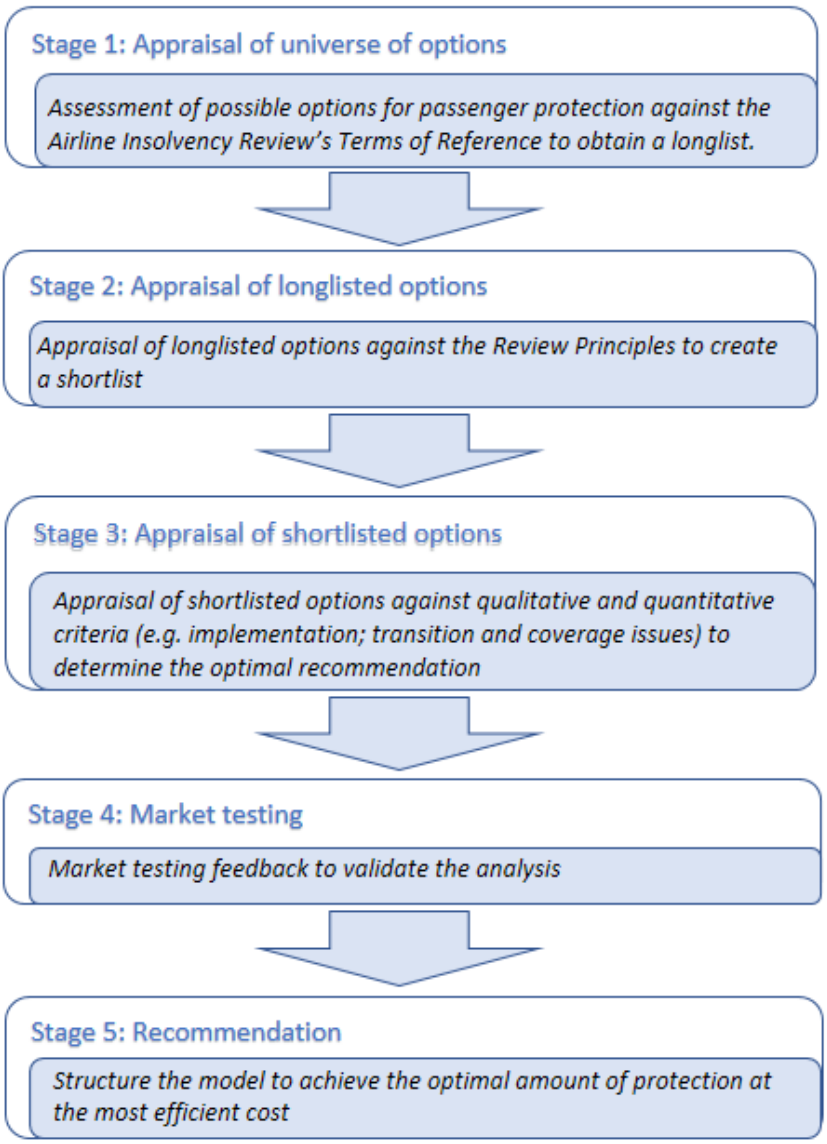
Introduction

1.1 This Annex sets out the Airline Insolvency Review's methodology to assess options for financing insolvency protection. It should be read in conjunction with Chapters 7 and 8 of the Final Report, and consultant reports from GAD, ICF and Steer (Annexes D, E and F respectively) for further insight into our analysis.

1.2 Alongside Steer, we developed a stage-based approach to filter potential options and develop our recommended mechanism, as set out in Figure 1 below. At each stage, options were assessed, and only taken forward if they were viable against the assessment criteria.

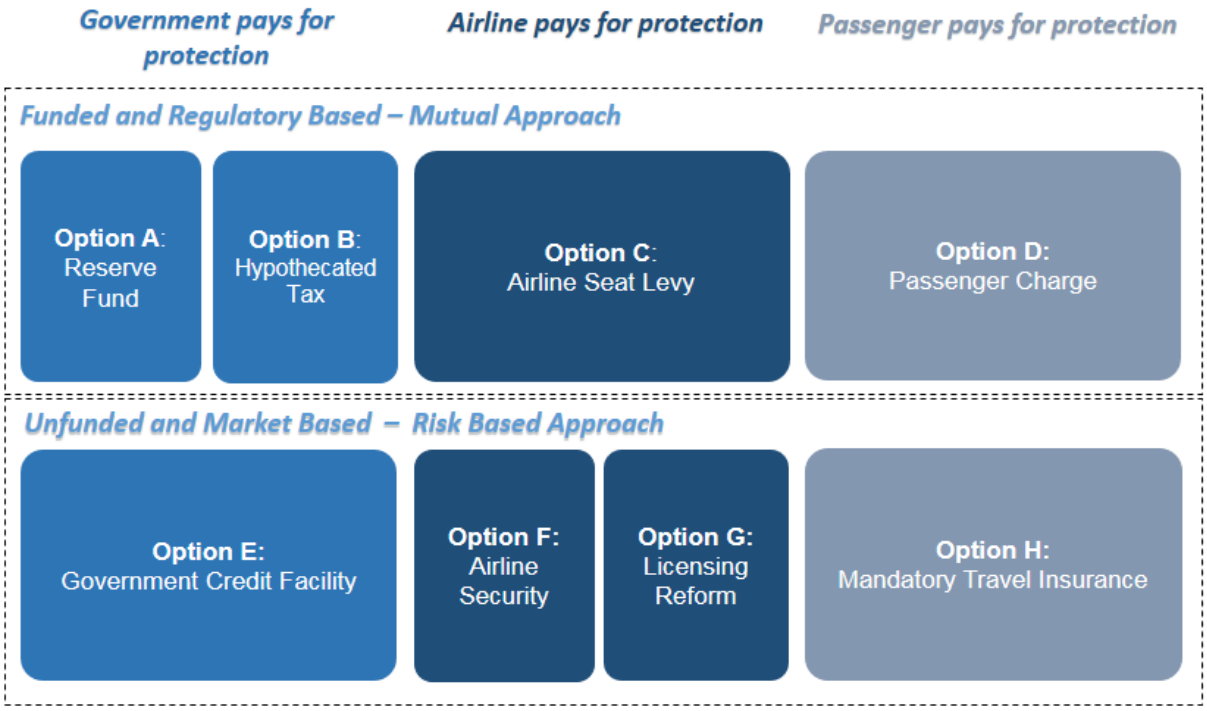
Figure 1 - option filtering approach



STAGE 1: Appraisal of universe of options

1.3 We developed an initial universe of options, as shown at Figure 2 below. We considered options which in our opinion could provide sufficient liquidity to the Coordinating Body for a repatriation operation.

Figure 2 - Universe of options



1.4 The options fall into three categories according to who is responsible for paying for the protection, (airlines, passengers or government).

1.5 They can also be allocated to one of two classes:

1.6 Funded options - these options result in a pool of money being built up over time. This can be used in the event of an insolvency to repatriate passengers. For example, an airline seat levy would contribute to a centrally managed fund.

1.7 Unfunded options - these options do not immediately contribute to a fund, instead representing collateral which can be called on as required, providing conditions are met. These are often specific to an airline or a passenger, for example, a bond or travel insurance.

1.8 The scope and limitations of each of these options are set out below. To determine whether it should be taken forward to Stage 2 each option was assessed against two key criteria based on the Review's Terms of Reference:

1.9 Commercialisation: the option should be delivered on a commercial basis.

1.10 Minimal or no government intervention: the option should require minimal or no government intervention.

OPTION A: Reserve fund

1.11 The UK government would establish a budgetary reserve which may be drawn on to pay for repatriation costs as outlined at Figure 3 below.

Figure 3 - Option A: Reserve Fund

1.12 Funds would be drawn from the central government budget to defray costs as they are incurred. The reserving policy would be based on a financial assessment of the forecast cost of repatriating passengers of insolvent airlines. The upper limit of any such fund would be regularly reviewed and reset based on forecasts of likely insolvencies.

Option Assessment

Pros

- This option would provide a simple, low cost solution. It would ensure immediate liquidity while placing the risk with the government which has the largest financial capacity of all parties to manage the risk

Cons

- This option would result in government taking on a risk over which it has little control.
- It could also act as an obstacle to both passengers and airlines paying and meeting their own obligations to protect themselves and therefore does not promote commercialisation.

1.13 While this option could provide comprehensive consumer protection in the event of any airline failure the onus would be on government to manage and run the scheme. The Review's Terms of Reference and principles make clear our objective is to set insolvency protection on a more commercial footing and minimise government

involvement. Therefore, this option does not fulfil the Review's Terms of Reference and so is not taken forward to

OPTION B: Hypothecated tax

1.14 The government would add a supplement to existing taxation of airlines, and then hypothecate, or 'ring-fence', the proceeds to provide funding for repatriation costs, as outlined in Figure 4 below.

Figure 4 - Option B: Hypothecated tax

1.15 The supplement would most likely be added to Air Passenger Duty (APD). This is an excise duty which is charged on the carriage of passengers flying from a United Kingdom or Isle of Man airport. It is levied on airlines by government, but is often passed onto consumers and can often be identified as a separate line in airline invoices.

Option Assessment

Pros

- As with Option A, this option could provide comprehensive consumer protection in the event of any airline failure.

Cons

- The UK Government has generally opposed hypothecation of taxes whatever the purpose.
- Currently, APD is raised in increments of £1. This means there would be no relation between the amount raised and the expected cost of repatriation.
- There are also challenges as the Flight Protection Scheme and Air Passenger Duty would have similar but distinct tax bases.
- As with Option A, this Option would result in government taking on a risk it has little control over.
- It could also act as an obstacle to both passengers and airlines paying and meeting their own obligations to protect themselves and therefore does not promote commercialisation.

1.16 While this option could provide comprehensive consumer protection in the event of any airline failure the onus would be on government to manage and run the scheme.

The Review's Terms of Reference and principles make clear our objective is to set insolvency protection on a more commercial footing and minimise government involvement. Therefore, this option does not fulfil the Review's Terms of Reference and so is not taken forward to Stage 2.

OPTION C: Airline seat levy

1.17 An airline seat levy would be underpinned by the principle that the airline industry as a whole would take the risk of protecting passengers on a pooled basis. This would see the role played by the industry in managing insolvency risk increase beyond the current provisions under which voluntary rescue fares are offered.

1.18 A levy would be charged to all airlines on the basis of the number of seats sold to UK originating passengers. The proceeds of the levy would capitalise a centrally managed fund vehicle to pay for repatriation costs. The vehicle would be run by the Coordinating Body, as outlined at Figure 5 below.

Figure 5 - Option C: Airline seat levy

1.19 The levy could be flat, based on the failure risk of each airline, or vary based on other factors (e.g. expected repatriation costs). It would be at individual carriers' discretion as to whether the levy was passed on to its passengers fully, in part or absorbed into the airline's operating costs. The funding policy and upper limit of the fund would be as for Option A.

Option Assessment

Pros

- Practically, a levy could be simple to administer if it were flat and would be reasonably simple to pass on to relevant passengers, were this based on data already available to airlines
- To the extent that a risk-based levy were charged, this would reduce the level of cross-subsidy by financially stronger airlines of riskier competitors, while increasing complexity

Cons

- Any levy would require the Coordinating Body to build a fully collateralised fund against the risk, which would not be financially efficient compared to an unfunded option such as provision of a security, which would tie up less capital.
- There will be transaction costs associated with collecting the levy and administering any fund, with higher costs the more complex the levy structure.
- May be classified as a tax (see below).

1.20 Even though the levy would not be collected by Her Majesty's Revenue and Customs (HMRC), nor accrue to the Consolidated Fund, depending on its structure, it may still be classified a tax. A flat levy would likely meet the Office of National Statistics (ONS) definition of a tax by virtue of being compulsory and unrequited:

1.21 A levy would be compulsory on the basis that both UK airlines and foreign carriers would be required to pay it

1.22 A levy on airlines to pay for protection afforded to passengers would be considered unrequited, as those who pay it (airlines) do not directly benefit.

1.23 Were the levy to be classified as a tax, repatriation expenses would consequently be included in government accounts, increasing the role of government, albeit with the costs of protection provided in advance.

1.24 This option has been taken forward to Stage 2 on the basis that, subject to further analysis, it could ensure that repatriation protection could be provided with minimal or no government intervention. This option would be on a more commercial basis than existing provisions as the costs would be borne by airlines and/or their passengers.

OPTION D: Passenger charge

1.25 As an alternative to Option C, a charge could be applied directly to UK originating passengers departing the UK to capitalise a centrally managed fund vehicle. Under this option, the government or designated agency would be responsible for collecting the levy from passengers and paying it into the fund, which could be accessed by the Coordinating Body when required. This is illustrated at Figure 6 below.

Figure 6 - Option D: Passenger charge

1.26 The charge could be flat or could discriminate based on the default risk of each particular airline, or vary based on other factors (e.g. expected repatriation cost). The funding policy and upper limit of any such fund would be as for Option A.

Option Assessment

Pros

- This option would directly charge those benefitting from protection for it.
- As the cost would be requited, it is less likely to be considered a tax, though depending on how it were implemented, may still be.

Cons

- Any charge would require the Coordinating Body to build a fully collateralised fund against the risk, which would not be financially efficient compared to an unfunded option such as provision of a security, which would tie up less capital.
- It would be practically challenging to implement and enforce. Practically this could require the payment to be made (e.g. via a website) before any ticket could be issued, with a subsequent check at UK departing airports to validate the protection. This would involve significant set up and transaction costs.
- There are also likely to be higher transaction costs associated with collecting the levy than Option C, alongside the cost of administering any fund.

1.27 This option has been taken forward to Stage 2 on the basis that, subject to financial analysis, it could ensure that repatriation following the collapse of an airline would have minimal or no government intervention, and would be on a more commercial basis than existing provisions.

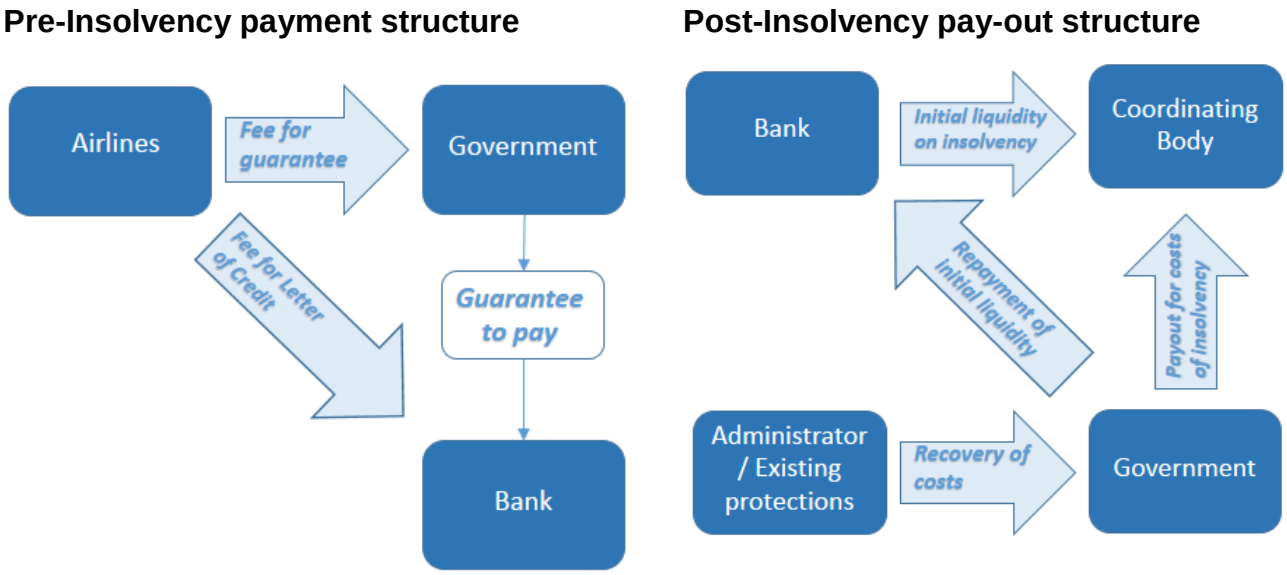
OPTION E: Government credit facility

1.28 The government would provide a financial guarantee to enable a solvent airline to obtain a line of credit to cover repatriation obligations in the event of its insolvency. This would be charged for at a commercial rate. Repatriation risk would represent a contingent liability, with the government charging a guarantee fee in exchange for carrying the risk.

1.29 To provide immediate liquidity, a line of credit could be obtained from a bank against the guarantee. In the event of insolvency, this would be converted to a loan to pay for the repatriation exercise. This would then be settled in the administration process,

allowing government to recover some of its costs from covering a failure. See Figure 7 below for an illustration of how this could work.

Figure 7 - Option E: Government credit facility



Option Assessment

Pros

- As with Options A and B, this option could provide comprehensive protection, while placing the risk with the government which has the largest financial capacity of all parties to manage the risk
- Government would not be required to keep a pool of funds available to provide the immediate liquidity

Cons

- This option would result in government taking on a risk over which it has little control.
- The government would bear the burden of excess costs resulting from failure that were not recovered through the administration process or from other forms of protection. This would release airlines and passengers from responsibility of managing repatriation risk, while burdening taxpayers.
- It could also act as an obstacle to both passengers and airlines from paying and meeting their own obligations to protect themselves and therefore does not promote commercialisation.
- There would be additional unavoidable costs arising in relation to the line of credit from a bank, which the airline would have to meet in advance.

1.30 As with Options A and B, this requires a high degree of government intervention given it would carry a risk over which it has little control. While this is more commercial than existing provisions as the government would be remunerated on a market basis for its actions, it fails on the basis that the funding of any repatriation operation would involve significant government intervention. Therefore, this option is not taken forward to Stage 2.

OPTION F: Airline security

1.31 Airline security could constitute a range of financial products which directly segregate money or alternatively provide access to finance following the insolvency of an airline. Under this option, airlines would be required to protect their passengers against the repatriation risk arising from their own insolvency. This differs from Options A - E in which risk is pooled across the airline industry. Here the airline is responsible for insuring itself against failure so that its passengers are protected.

1.32 Security could constitute a range of acceptable products. Regulations 20 to 23 of the UK Package Travel and Linked Travel Arrangements Regulations 20181 outline three permissible insolvency protection options for the use of non-flight packages:

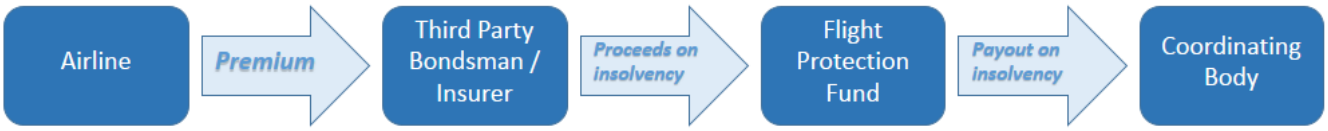
a. Bonding

b. Insurance

c. Trust Accounts

1.33 The costs of any financial product could be passed onto passengers at each airline's discretion. See Figure 8 below for an illustration of how this could work.

Figure 8 - Option F: Airline security



[1] For further detail, see the guidance as outlined below: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/749498/package-travel-regulations-2018.pdf

Option Assessment

Pros

- Airlines would have discretion to choose among eligible forms of security, with costs and availability based on their risk as assessed by third parties on a commercial basis.
- Were the airline subsequently to fail, the Coordinating Body would have access to money to fund repatriation activities, either immediately or with a delay that could be bridged by a bank facility.
- For financially stable airlines, providing security would be less costly than for weaker airlines, thought would still reduce the amount of finance it could raise for other purposes.

Cons

- There is likely to be less of an appetite for third party insurers to cover poorly rated or unrated airlines, or the larger airlines, which may require a consortium to provide protection or may not be available at all.
- If less financially stable airlines were unable to access security in the market, they would be required to set aside cash in trust, escrow or other similar accounts, limiting their access to a source of working capital, which would reduce their financial flexibility with potentially material adverse consequences.

1.34 This option has been taken forward to Stage 2 on the basis that airlines are protecting passengers from failure through the commercial market. This could ensure that repatriation following the collapse of an airline would require minimal or no government intervention, and would be on a more commercial basis than existing provisions.

OPTION G: Licencing reform

1.35 An airline with its principal place of business in the UK must hold an Operating Licence under European Union Regulation (EC) 1008/2008. Under current regulations, holders of foreign carrier permits have the right to operate flights in and out of the UK, but are not subject to the same obligations as airlines licensed by the CAA. Under this option, operating licence regulation would be reformed to require airlines showing signs of financial distress to set aside funding for a future repatriation exercise were they to fail.

1.36 The CAA, as a licencing authority, would be able to monitor the financial health of regulated airlines, and exercise powers to ensure that funds were ring-fenced were an airline's financial position to deteriorate. The CAA would set the appropriate

mechanism to monitor the industry, the threshold at which intervention would be needed and the amount of funds to ring fence, following consultation2.

Option Assessment

Pros

- This option ensure that airlines are incentivised through regulatory levers to protect their passengers from their potential failure

Cons

- This option would need to be carefully managed to ensure there is sufficient funding to repatriate UK originating passengers without exacerbating the airline's financial position by locking up funds, and/or inadvertently alarming creditors and shareholders
- There is a risk that if intervention were to occur too late, there would be a shortfall in the ring-fenced fund. This runs the risk that by locking up any residual cash in the business, the CAA triggers the insolvency.
- There is a risk that potentially large sums of working capital would be segregated for riskier airlines, reducing their ability to conduct business.
- It is likely that this option could only be enforced against UK airlines, meaning that those who fly with foreign airlines would have no protection, and UK airlines could be left at a commercial disadvantage.
- In practice, this would be resource intensive and complex for airlines as well as the CAA, which would need to employ the services of third party ratings agencies to be able to manage this risk effectively for every airline serving the UK.

1.37 This option ensures that airlines are responsible for protecting passengers against their potential failure and are doing so without significant recourse to the government. As such, it has been taken forward to Stage 2.

OPTION H: Mandatory travel insurance

1.38 At present, passengers are able to choose whether they wish to purchase travel insurance inclusive of insolvency protection.

1.39 This option would involve government requiring all travel insurance policies to include airline failure cover and/or all UK originating passengers to have a policy covering repatriation costs. Practically, this would involve validation of insurance at point of sale and/or at departure. Figure 9 below provides an illustration of how this would operate in practice.

[2] Please note - as the option of reforming the license does not see a finance mechanism put in place in advance, we have not produced a graphic setting out how it would be structured.

Figure 9 - Option H: Mandatory travel insurance

Option Assessment

Pros

- This option ensures that passengers would be paying directly for protection to mitigate the risk of being stranded abroad.

Cons

- It would be very challenging, if not impossible, to legally and practically enforce and verify 100% uptake across all UK originating passengers, without significant set up and ongoing transaction costs. This would place a sizeable burden on the air travel industry and government.
- Such a regime would increase the burden on passengers to arrange insurance, particularly those who are vulnerable, who may not be able to obtain an affordable policy.
- Coverage limitations and policy exceptions could exclude some travellers who require protection from cover, which could mean the option does not provide comprehensive protection.
- Were the insurance market to refuse to cover a particular airline, passengers would not legally be able to book tickets with it, potentially leading it to exit the market.
- It would be challenging to determine the amounts relevant for repatriation and refunds and then assign the appropriate proceeds of multiple insurers and parties to a Coordinating Body in the immediate aftermath of an insolvency.

1.40 This option has been taken forward to Stage 2 on the basis that, despite the challenges above, it could ensure that repatriation following the collapse of an airline would have minimal or no government intervention, and would be on a more commercial basis than existing provisions.

STAGE 2: Appraisal of longlisted options

1.41 Further analysis was conducted for each option taken forward from Stage 1:

- Option C - Airline seat levy
- Option D - Passenger charge
- Option F - Airline security
- Option G - Licencing reform
- Option H - Mandatory travel insurance

1.42 At Stage 2, these options were qualitatively assessed against the Review's Principles:

The beneficiary pays for protection.

- Those who benefit ought to pay for their protection. This will require a careful balancing of the level of risk covered and the affordability of protection. The corollary of this principle is that the taxpayer's exposure should be minimised.

Efficient allocation of risk.

- The risks for passengers should be allocated to those best placed to manage and control it, whilst avoiding duplication where possible.

Minimisation of market distortions.

- Constraints on the competitiveness and size of the UK aviation market should be minimised and UK registered airlines should not be put at a competitive disadvantage vis-à-vis international competitors.

Simplicity for passengers.

- Passengers should understand the protection available and be able to identify which risks are covered, and to what level. In addition, passengers should be compensated in a timely and efficient manner: being brought home and compensated quickly.

Deliverability.

- Any one of our recommendations should be deliverable by government with minimal legal risk. In relation to consideration of financing options, this principle also considers the option's ability to provide liquidity to the coordinating body in a timely fashion to fund a repatriation operation.

1.43 Each of the Review Principles was ranked equally for the purposes of this assessment to shortlist options for further design and analysis.

1.44 The two options that ranked highest across all the criteria were taken forward to Stage 3 for further analysis. For details on the methodology and the output of the ranking undertaken, see Annex E.

Option C - Airline seat levy

1.45 **Beneficiary pays for protection**: The cost of protection may be partly or wholly passed on to passengers, however this is not guaranteed. Particularly where the amount charged is small, it is unlikely that the beneficiary will be making an informed choice about the risk of insolvency when purchasing their ticket.

1.46 **Efficient allocation of risk**: This would put the onus of managing the risk of insolvency on airline management, who are best placed to manage it. However, to the extent a flat levy was applied over a risk-based levy, this could result in financially prudent airlines cross subsidising weaker airlines and therefore the risk allocation would not reflect the commercial reality.

1.47 **Minimisation of market distortions**: A levy fund represents pooling of risk; as such, the cost of protection is likely to be lower than other options. This cross subsidisation may however distort the market in favour of weaker airlines which would not be incentivised to manage risk prudently. Depending on the amount charged, a seat levy could also distort the market for new entrants, smaller airlines and low-cost carriers with tighter margins. A levy could be applied to all airlines and so would not disadvantage UK carriers disproportionately.

1.48 **Simplicity for passengers**: Repatriation protection would be provided without passengers being required to source it themselves. If airlines passed the charge on directly, passengers could see its costs.

1.49 **Deliverability**: In the immediate aftermath of an insolvency, it would be straightforward to assign proceeds to the Coordinating Body from a dedicated, ring-fenced fund. There would be transaction costs associated with collecting the levy and managing the fund.

Conclusion

This option is less financially efficient on a standalone basis as a significant fund would be needed to cover the full repatriation risk. However, an airline seat levy ensures that those who benefit from protection (airlines and passengers) pay for it. It would be simple to deliver as airlines would pay the levy into a fund vehicle, which could provide immediate liquidity to the Coordinating Body. As such, this is taken forward to Stage 3 as a shortlisted option for further analysis.

Option D - Passenger charge

1.50 **Beneficiary pays for protection**: The passenger would directly pay for protection. Particularly where the amount charged is small, it is unlikely that the beneficiary will be making an informed choice about the risk of insolvency when purchasing their ticket.

1.51 **Efficient allocation of risk**: Were the charge to be risk-based, passengers could manage it to the extent that they have information to be able to understand risk and make decisions accordingly (e.g. fly with another provider). However, they would not be able to influence the amount they pay to fly with a particular airline as they would have no control over its management approach.

1.52 **Minimisation of market distortions**: Paying for protection via a vehicle funded by a passenger charge would pool risk, and as such, the cost of protection is likely to be lower than other options. This cross subsidisation may however distort the market in favour of weaker airlines which would not be incentivised to prudently manage risk. Depending on the amount charged, a charge could also distort the market for new entrants, smaller airlines and low-cost carriers with tighter margins. A charge could be applied to all airlines and so would not disadvantage UK carriers disproportionately.

1.53 **Simplicity for passengers**: Practically, this would be complicated for consumers as a separate transaction would be required (e.g. via a website) before any ticket could be issued, with a subsequent check at UK departing airports to validate the protection.

1.54 **Deliverability**: Imposition of the charge and subsequent checks to ensure universal provision would be costly and intrusive. Depending on how it were structured, there could also be significant transaction costs associated with collecting the levy and managing the fund. As with Option C, in the immediate aftermath of an insolvency, it would be straightforward to assign proceeds to the Coordinating Body from the dedicated, ring fenced fund.

Conclusion

A passenger charge ensures that passengers pay directly for their own protection, however, it would be difficult and costly to implement and regulate. It would require a new, separate transaction for passengers, which could increase confusion in a highly complex protection landscape. Moreover, such an option largely absolves airlines from managing risks they are best positioned to manage. On this basis, this option is not taken forward for further analysis at Stage 3.

Option F - Airline security

1.55 **Beneficiary pays for protection**: Although the indirect costs of any financial product may be passed on to passengers, the passenger would not be directly appraising the risk of insolvency and the pass through may not be direct. Were the option implemented in isolation, given the lack of commercial appetite to provide cover to some airlines in distress, there remains potential for government to be required to cover some residual risk.

1.56 **Efficient allocation of risk**: Commercial providers would be independently appraising risk and charging airlines commensurately for providing security products to protect against it. Airlines are best placed to manage this risk, and would be incentivised to do so. The cost of protection would be risk based, therefore mitigating the risk that financially stronger airlines would be cross subsidising those with a weaker financial position. This approach is more financially efficient than Options C or D where, in isolation, a significant fund would need to be in place.

1.57 Depending on the type of security put into place this could be renewed on an annual basis, thus more accurately reflecting risk. However, some types of security from a third party can be withdrawn with relatively little notice which could introduce some uncertainty with government intervention potentially required.

1.58 **Minimisation of market distortions**: Obtaining security is likely to be easier for a well-established, well-capitalised airline. This may distort the market against new entrants, or less well capitalised airlines, which may impact their fares and reduce competition. The Review understands that legislation could be put into place to ensure that this applied to both UK and foreign carriers.

1.59 **Simplicity for passengers**: This would be simple provided passengers knew which risks were covered.

1.60 **Deliverability**: In isolation, this option would not necessarily provide readily accessible liquidity as it could take time to assign proceeds of a security to the Coordinating Body to provide the funds for any repatriation exercise. As such it would require putting in place a bank facility to provide liquidity, to be repaid from the proceeds of the security product when available. In addition, set up and enforcement costs are likely to be relatively high.

Conclusion

This option would ensure each airline is covering its own failure risk on behalf of government and its passengers, and could apply to both UK and foreign carriers, noting that it would put pressure on less well established and financially weaker airlines. Despite the potential challenges around providing immediate liquidity, it transfers risk away from government and brings the financial efficiency of a commercial solution. As such this is taken forward to Stage 3 as a shortlisted option for further analysis.

Option G - Licencing reform

1.61 **Beneficiary pays for protection**: As the trigger to tie up capital may not have been met, there is no guarantee that the cost of doing so would occur prior to a passenger buying ticket, so it may not be possible to pass it on. Even if the trigger had been met, there is no certainty that the cost would be transparently passed through. In either case, the beneficiary would not be making an informed choice about the risk of insolvency when purchasing their ticket.

1.62 **Efficient allocation of risk**: The burden of assessing the risk would fall to the CAA, which would have the oversight and powers to determine whether a ring-fenced fund were needed and when. The risk itself would be managed by the individual airline; however, this would require the CAA as regulator to demand additional capital from airlines when the company is under financial pressure and cash flow must be tightly managed, and could therefore crystallise an insolvency in itself. However, this approach is more financially efficient than Options C, D or F where in isolation, a significant fund would need to be in place to cover all risks.

1.63 **Minimisation of market distortions**: Further analysis would be needed to ensure that legally and practically, licence reform powers could be effectively applied to both

UK regulated and foreign carriers. For example, the CAA would need the resource and powers to enforce the ability to demand information, or lock up cash for all airlines serving the UK which are considered to be at risk. Depending on the amount of security needed, there could be significant distortion of the airline market, particularly for new entrants to the market, smaller airlines, and carriers with weaker balance sheets and tighter margins.

1.64 **Simplicity for passengers**: To the extent that all airlines at risk could be subject to licencing reform, this would be simple for passengers. However, given the multinational nature of the aviation industry, and ability for airlines to hold multiple licences in multiple jurisdictions, it would be very challenging for passengers to understand whether they had booked in a manner that would see them protected.

1.65 **Deliverability**: If sufficient capital could be set aside prior to failure, then for UK airlines, liquidity would be available for a repatriation operation. It is unlikely that the CAA would be able to apply provisions to foreign airlines - so protection of their passengers would have to be delivered by an alternative mechanism, or be outside of scope. This option is likely to result in high regulatory costs, particularly around monitoring and enforcement.

Conclusion

Licensing reform would incentivise airlines serving the UK to set aside internal resources for their obligations to repatriate their own passengers, requiring the airline to wholly manage this risk. This option is also straightforward for passengers as they are absolved from having to assess and manage this risk. However, the subjectivity in any framework could either risk too little security being in place ahead of an insolvency or alternatively disproportionally impact an airline that is still solvent, to the point of potentially even triggering a collapse. There would also be regulatory and administrative costs to the CAA and airlines of managing such a regime. To the extent that foreign airlines were not covered in the same way as UK carriers, UK airlines could be incentivised to shift passengers onto foreign licences.

We consider that Option F would finance similar protection that licencing reform provides, with greater certainty of being able to access sufficient capital, and potentially better applicability to all airlines, whether licensed by the UK or another state.

Given these challenges, this option will not provide sufficient coverage in isolation, but aspects of licencing reform can be used alongside the shortlisted options to improve risk management and exposure.

Option H - Mandatory travel insurance

1.66 **Beneficiary pays for protection**: Passengers would directly pay for protection. However, providers are unlikely to price risk on an airline by airline basis, and may exclude riskier airlines from cover, such that passengers are unlikely to be able to directly appraise the risk of an airline with whom they book.

1.67 **Efficient allocation of risk**: Insurers may struggle to assess or manage the risk, particularly for smaller unrated airlines or where the insurance was on an annual basis rather than on a trip by trip basis. The cost of travel insurance would therefore rise, potentially significantly, from current prices. However, this approach is more financially efficient than Options C or D where in isolation, a significant fund would need to be in place. This option provides a more diversified portfolio of parties to insure when compared to insuring just a small number of airlines.

1.68 **Minimisation of market distortions**: Mandatory travel insurance would impact all airlines departing the UK. While it may be possible to mandate airline failure insurance, it is likely to be challenging for the insurance market to individually assess and cover against this risk for smaller or unrated airlines. This could have marked competition effects due to high passenger premiums, which may impact the competitiveness of the market as a whole. Furthermore, it is likely that mandating provision of airline failure insurance would either drive up costs or reduce availability of travel insurance covering other risks, for instance medical expenses or lost or stolen baggage. Insurance providers may refuse to write or withdraw cover from weaker airlines, potentially hastening market exit.

1.69 **Simplicity for passengers**: Passengers would have to organise and obtain cover themselves. In particular, this could be challenging for certain passengers (for example, those with health conditions) where the cost of a mandatory insurance policy may have a significant impact on premiums and alternative cover would be more cost effective. If coverage of all airlines wasn't either mandated by government, or provided in some other way, passengers would not necessarily be aware if the airline they were booking with was covered.

1.70 **Deliverability**: There would be challenges in assigning the proceeds of any passenger insurance to a Coordinating Body in the immediate aftermath of a failure, given the number of commercial insurers and UK originating passengers on any given carrier when an airline fails. Therefore, an initial source of liquidity is likely to be necessary as an interim solution. The associated enforcement and set-up costs, particularly where insurance is mandated, are likely to be very high.

Conclusion

While this places the requirement to purchase protection on the passenger, the creation of a validation system would be very difficult to set up, costly to implement, challenging to enforce, and arguably further confuse an already complex protection landscape. Protection may not extend to every airline if insurers were not willing to cover them. For these reasons, this option is not taken forward for further analysis at Stage 3.

STAGE 3: Appraisal of shortlisted options

1.71 At this stage, the two shortlisted options have been explored in greater detail and broken down into potential sub options:

- Option C - Airline seat levy
- Option F - Airline security

1.72 The shortlisted options above have been assessed against the following criteria to assess whether they should be taken forward to market testing:

- **Delivering an affordable solution** to finance the right amount of protection for all passengers - this estimates the cost per passenger to achieve reasonable amounts of protection.
- **Applicability** of such an approach to all airlines - this considers whether the proposed option would apply universally across all carriers.
- **Implementation** of such an approach with least legal risk - high level analysis of the legal implementation risk and whether new legislation would be required to implement the option.
- Developing a **managed transition** from the current situation to a future scheme - this considers the availability of money to cover major losses or to cover losses as we transition to the new arrangements.

1.73 The analysis in this section was supported by quantitative actuarial assessment undertaken by the Government Actuary's Department (GAD). This was based on forecasts of repatriated passengers and costs developed by the aviation consultancy firm, ICF. Their full reports are at Annex D and E respectively.

Option C - Airline seat levy

1.74 Airlines would be levied on a per seat basis for seats sold to UK-originating passengers departing the UK and would be responsible for remitting the levy into a fund, built up to a certain amount. The levy could be used to pay for bank facilities or insurance to ensure sufficient liquidity for repatriation operations.

1.75 The levy could be flat, risk-based, or vary in some other way (e.g. expected repatriation costs).

1.76 In all cases, the Coordinating Body would need to put into place a system for collection which is online, efficient and proven as effective. This would incur initial set up and ongoing administrative costs.

Sub option C1 - Flat levy

1.77 The most straightforward of the sub options would be to charge airlines a flat levy based on the number of UK originating passengers.

Option Assessment

Pros

- A flat charging structure would be easy to understand and simple to operate. It is also transparent and easy to calculate and would have the lowest administrative cost of all the levy options.
- There is a degree of risk reflection, as airlines with more passengers (and hence higher exposure) contribute more.
- A flat levy would be predictable for operators and can be budgeted for and included in pricing without any uncertainty. This would assist an airline's forecasting abilities and would allow them to plan their business more effectively.

Cons

- A flat charge per passenger alone does not reflect risk.
- Under a flat levy, the same amount would be charged, regardless of the cost and location of the flight. For example, the cost of protection for short haul flight to Europe would be the same as for a long or medium haul destination. The correlation between repatriation costs and the cost of a flight is not always straightforward, and could be dependent on the type of ticket. Nonetheless, the cost of repatriating customers from different destinations will differ, even though the same flat rate is paid for each passenger. This is a further example of cross subsidisation.
- A flat charge does not incentivise management and reduction of risk by operators. The increased risk a certain operator might bring to the scheme is effectively borne by other members.
- A flat charge is more likely to be assessed as a tax, and therefore affect accounting of the liability of the fund with the scheme being treated as 'on-balance sheet' and imposing a contingent liability on government.

Sub option C2 - Risk based levy

1.78 An alternative to a flat levy would be to charge airlines a premium commensurate with the risk they pose to the fund, effectively resulting in the scheme taking on the role that would otherwise sit with the issuers of security and insurance. The methodology

used to asses an airline's failure risk would have to be objective, transparent, simple and readily replicable to command support.

Option Assessment

Pros

- This method of charging for insolvency protection arguably could be seen as the fairest option for the aviation market and would reward financially strong companies and encourage effective risk management.
- A risk-based charge is less likely to be assessed as a tax, and therefore would not impose a contingent liability on government.

Cons

- To implement a risk-based charge would require the Coordinating Body to develop a methodology that is simple and transparent enough to allow airlines to understand and replicate, while at the same time being robust enough to withstand legal challenge. This would likely be costly and time-intensive.
- Necessary financial and operational information relating to overseas airlines may be hard for the Coordinating Body to access.
- There is the potential that this could unduly create a competitive barrier to entry and competitive disadvantage to smaller airlines.
- The market is likely to be better placed to price risk as the expertise, capability and data to perform such an exercise already exists.

Option F - Airline security

1.79 Under this option, airlines would provide security as outlined above.

1.80 The Option Assessment below considers the types of security permitted by the Package Travel and Linked Travel Arrangements Regulations 2018. It may be possible that other mechanisms, such as a financial guarantee or letter of credit from a financial institution or a sovereign guarantee, could alternatively be procured by the airline, if considered acceptable by the Coordinating Body.

1.81 Airlines would be charged an appropriate premium for their level of risk by the market. This may incentivise airlines to reduce their perceived risk levels (to lower their premium cost).

1.82 Monitoring the provision of security and its validity, given the high number of airlines serving the UK would be onerous and require a rigorous process. This would be an additional administrative cost on both the CAA and the airline industry.

1.83 It is possible that the riskiest airlines may find the market unwilling to cover them on reasonable terms or at all, if security was required. In this case, they may need to post cash as collateral which could put a severe strain on their financial resources and, in the extreme case, force market exit.

Option Assessment

Bonding - this would be an irrevocable undertaking from a bond obligor which would pay out if the airline is unable to meet its obligations to consumers.

Pros

- Imposition of a requirement to provide a bond on XL Airways successfully reduced the ATT's exposure following its failure in 2008.

Cons

- It is unlikely that liquidity would be immediately available and as such, an interim line of credit would be required.
- Capacity in the bond market and the price of bonding are potential constraints. The market may have developed since 2008 (when the ATOL scheme moved away from bonding to the current levy-based system of protection) and so an assessment of current availability would be needed to ascertain whether (and for which airlines) bonding is a viable option.

Insurance - this would be an irrevocable undertaking from an insurance company which would pay out if the airline is unable to meet its obligations to consumers.

Exclusions within the policy terms and conditions could make pay-out more challenging than under a bonding arrangement, especially when an insolvency has happened through criminal or fraudulent activity of an airline's management. Therefore terms and conditions should be carefully scrutinised.

Pros

- These difficulties could be mitigated through the Coordinating Body developing relationships with the lead underwriters of financial failure insurance to ensure that indemnities are in place to meet the cost of insolvencies regardless of how they have arisen. For example, the ABTA non-flight package protection scheme has such relationships with several insurers, and allows members to have insurance through any one of these insurers.

Cons

- It would take time to assign any proceeds of insurance to the Coordinating Body. There is no certainty that protection will be available on demand as insurers may negotiate claims which could delay payments.

Trust Account - funds paid by consumers for bookings can be held in trust for use following the failure of an airline.

Pros

- Trust accounts would be more attractive to airlines with a large amount of free assets, for whom insurance or bonding could prove more costly than placing customer moneys in trust. Merchant facilities come more easily and cheaply with the security that a trust account brings.
- It may be possible to structure the trust in a way that provides the Coordinating Body with immediate access to the funds which confers a liquidity advantage over

bonding or insurance.

- One advantage of having a trust account is that the airline would not pay a premium to an insurer or bond obligor and if the terms of trust were flexible enough, the member could choose how their funds are invested.
- This would represent an early warning indication to the Coordinating Body if an airline started to require funds from the trust. This early warning would be beneficial for key stakeholders to establish the best course of action to optimise the airline's residual economic value in times of liquidity problems (e.g. allowing further money to be withdrawn from trust, or an orderly liquidation of the airline).

Cons

- However, commercially this is less favourable than bonding or insurance due to the tie-up of working capital in the trust. The opportunity cost of this capital would need to be compared to the cost of compensating an insurer for tying up their own capital though the provision of a bond or insurance product.
- Possible other disadvantages include the bespoke nature of trusts resulting in a relatively costly administrative process. The Coordinating Body would also need to make sure that the trustees are fit for purpose.

Analysis of Shortlisted Options

1.84 Figure 10 on page 20 summarises the output of the quantitative and qualitative analysis undertaken. Initial legal advice indicates that all options would be legally enforceable on both UK and foreign carriers.

Figure 10 - Summary of analysis of shortlisted options

Option	Affordability (Average cost per passenger)*	Applicability	Legal Risk		Transition		Overall RAG Rating and Commentary
Option C1 - Flat Levy	c. 10p			Could be treated as a tax and therefore could be treated as on-balance sheet and expose public accounts to the liability		Consultation required to agree levy scheme and structure of fund. Any fund would take time to build up and would not provide comprehensive protection initially	Option has minimal regulatory risk and low administrative cost but the solution has only a limited commercial basis and liability may be treated as on-balance sheet. However, like all levy solutions there is financial inefficiency associated with holding high levels of cash

Option C2 - Risk Based Levy	From <1p to £3.02 depending on risk			Limited legal risks but challenges in calibrating the scheme and the costs and challenges of monitoring it on an ongoing basis		Consultation required to agree levy scheme and structure of fund. Any fund would take time to build up and would not provide comprehensive protection initially		More commercial than the flat levy if accounting treatment can treat as off-balance sheet. Regulatory and administrative costs will be significant. However, like all levy solutions there is financial inefficiency associated with holding high levels of cash.
Option F - Airline Security	From <1p to £11.04 depending on risk			Limited or no legal implementation risk - security products are generally well established in the UK		Amount of security required would need to be carefully regulated and a fit-for-purpose monitoring regime set up which will have a significant lead time		Maximises the use of market products and so increases financial efficiency. Would need to apply equally to all airlines serving the UK and need a robust monitoring system to be established.

* Based on GAD's analysis - for levy options, assumes a 1/200 return period

STAGE 4: Market testing

1.85 Market testing was undertaken with a range of commercial insurers, reinsurers, payment card providers and merchant acquirers to assess current market coverage in the existing regime, market capacity and appetite to cover the cost of repatriation for the shortlisted options. This indicated that a hybrid funding mechanism could be developed that would see security provision or a fund built up from an airline seat levy taking either first or second loss.

Feedback from market testing exercise

Scope of the scheme

Existing protections currently cater well for refund risk, however this should be kept under review. Factors such as macroeconomic changes, airline industry uncertainty and the growth of alternative payment methods could increase pressure on carriers and cause the level of protection to decline. Therefore, any new funding mechanism should be kept under review and structured in a flexible manner such that it could be extended to cover refund risk if needed.

Levy fund structure

Market testing suggested that a flat-rate levy would be subject to challenge from the industry due to the risk that healthy, well financed airlines would be in effect cross subsidising their weaker, riskier counterparts, and as such, some risk discrimination would need to be in place for any recommendation to be palatable.

Market capacity

Insurers raised concerns around the potential lack of capacity in relation to the significant exposure presented by larger dominant airlines and the default risk of riskier airlines. Traditional insurance would be ineffective as these policies give insurers the right to cancel insurance at any time without any notice, thereby leaving a potential gap in protection. It would not be possible for the full risk to be covered by an individual provider, even if the exposure were fairly evenly spread among airlines. The consensus was that to provide systemic coverage a pooled insurance approach would be necessary, with a number of providers.

Proposed recommendation

The consensus was that to provide systemic coverage a pooled insurance approach would be necessary, in combination with levy fund and reinsurance. Any recommendation should be in conjunction with licencing reform, noting that this would only be enforceable on UK-licenced airlines. This was envisaged to operate in a similar manner to the existing ATOL scheme whereby the CAA can step in to reserve cash and to manage potential repatriation exposure. Reinsurers of the ATTF's exposure put considerable store by the CAA's scrutiny of ATOL holders and its ability to intervene when a licensee's financial condition deteriorates.

STAGE 5: Structuring options

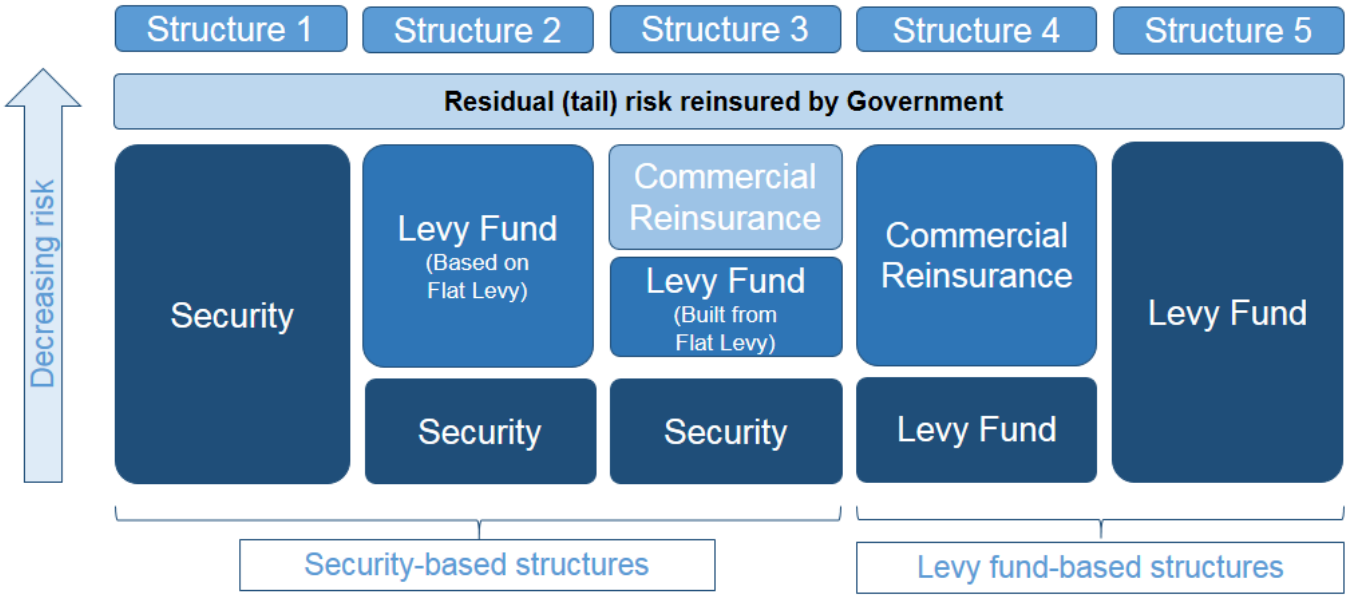
1.86 Based on the output of the quantitative and qualitative analysis undertaken, we consider that no single shortlisted option alone provides a comprehensive solution to covering insolvency risk, due to the challenges of financial efficiency relative to regulatory risks, benefits and cost.

1.87 Given this, and following market testing, we have concluded that the most effective way to provide a readily available, comprehensive and clearly assigned source of money for the Coordinating Body is a combination of the shortlisted options in a structured form.

1.88 There are various ways the shortlisted options could be combined and/or structured which would vary the cost, protection level and administration costs.

1.89 The short-listed options have been further refined following market testing and combined to create the illustrative structured options S1 - S5 in Figure 11 in which the loss profile is allocated in different ways.

Figure 11 - Summary of Structuring Options



1.90 In the figure above, the positioning of losses is arbitrary, and would need to be carefully calibrated during implementation

1.91 Figure 12 describes each option from Figure 11 in further detail. The approach taken, and assumptions applied to estimate costs are provided in detail in the GAD Report

(Annex D). Please see this for further insight into how we selected our chosen financing structure.

Figure 12 - Structuring options analysis

Structuring Option	Description (number indicates the order in which the loss is allocated)	Key features	Estimated annual 2018 costs, excluding administrative costs and assuming no other existing cover for the cost of repatriation
S1 - security and government reinsurance	UK regulated airlines legally mandated to provide security up to a threshold to protect against their own failure. All losses above the security covered by reinsurance provided by government.	This would be an unfunded, risk-based solution. The risk would not be pooled, as all airlines would seek individual security.	Total cost of £43.6m per year, or on average £0.54 per UK originating passenger. As the cost of security varies based on airline, there is a range of costs, from less than 0.01p to £11.04 per passenger.
S2 - security, levy fund, and government reinsurance	All airlines are legally mandated to provide 60% security up to a threshold to protect against their own insolvency. Losses above this limit covered by a levy fund paid into by all airlines based on a flat charge per UK originating passenger on all UK departing flights, up to a second overall limit. Losses above the overall coverage provided by the security and levy fund covered by reinsurance provided by government.	This would be a partially funded, partially risk-based solution (through passenger numbers and security pricing). The risk would be partly pooled through the levy fund and reinsurance.	Assuming that security products cover 60% of the average annual exposure, the total cost of both S2 and S3 is £30.3m per year, or on average £0.32 per UK originating passenger. As the cost of security varies based on airline, there is a range of costs, from 0.06p to £6.57 per passenger.
S3 - security, levy fund, commercial reinsurance, and government reinsurance	All airlines are legally mandated to provide 60% security up to a threshold to protect against their own insolvency. Losses above this limit covered by a levy fund paid into by all airlines based on a flat charge per UK originating passenger on all UK departing flights, up to a second overall limit. Losses above the levy fund are covered by commercial reinsurance, up to a threshold determined by market appetite to cover this risk. Any residual risk above the overall coverage provided by security, levy fund and commercial reinsurance covered by reinsurance provided by government at a commercial rate.	This would be a partially funded, partially risk-based solution (through passenger numbers and security pricing). The risk would be partly pooled through the levy fund and reinsurance.	

S4 - levy fund, commercial reinsurance, and government reinsurance	Airlines are charged a per UK originating passenger levy, which provides coverage for three layers of losses A levy fund which covers claims/losses up to a pre-defined limit. Commercial reinsurance above the fund up to the level the market can bear. Any residual risk above the overall coverage provided by the levy fund and commercial reinsurance covered by reinsurance provided by government at a commercial rate.	This would be a funded, semi risk-based solution (through passenger numbers). Excess risk would be managed by commercial and government reinsurance	Costs would depend on the level of risk protected against by the fund and by reinsurance. It is important to note that our analysis does not account for the opportunity cost of holding money, which would increase these estimates. A levy fund protected by reinsurance would cost between £7.6m and £13m per year depending on the amount of risk covered by the fund (or between £0.09 and £0.16 per passenger).
S5 - levy fund and government reinsurance	This option is structured in the same way as S4, without the layer of commercial insurance.	This would be a funded, semi risk-based solution (through passenger numbers). Excess risk would be managed by government reinsurance	

Proposed funding mechanism

1.92 Based on the analysis we have undertaken, we consider that the most effectual, deliverable and cost-effective mechanism to pay for repatriation protection is Structure 3.

1.93 Structure 3 sees security products provided by each airline meeting initial repatriation costs and covering the greater part of each airline's individual exposure. Beyond the security product layer, any additional losses would be met from a centrally managed levy fund built from mandatory airline contributions calculated by reference to UK originating seats sold and used to pay for incurred losses, administrative costs (including those of the Coordinating Body), and re-insurance premiums, and over time to build up a general reserve to provide a measure of resilience. The fund and reinsurance layers of protection would pay out sequentially to the extent the failed airline's security did not cover the costs of repatriating its passengers.

1.94 This structure would ensure that the majority of repatriation exposure would be priced in a per-airline, risk-based way through commercial security products. This meets our objective of ensuring that risk is allocated efficiently. We do not consider that all costs can be met through provision of security products, as to do so would expose the taxpayer to risk should the product fail to cover all costs. The addition of a small levy fund standing behind the security product would see some risk pooled, and ensure that reinsurance could be purchased (from commercial sources to the greatest extent possible, and if necessary, through government where there is no commercial market). We consider this minimises government's role in paying for or providing passenger protection. As airlines would likely pass costs through to passengers, we consider that the beneficiary would pay for protection, which would be provided in a simple fashion without passengers needing to take active steps to secure it. As we understand that the structure could be imposed either as a condition of the Airline Operating Licence for UK licensed airlines or as a condition of a Route Licence for overseas airlines, market distortion is minimised, and all passengers would be protected.

1.95 More details of our conclusions relating to this structure, and consequent issues and considerations in Chapter 8 of the full Airline Insolvency Review Final Report. Please see that document for more information.