

Anticipated acquisition by Sabre Corporation of Farelogix Inc

Appendices and Glossary

Appendices

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Appendix A: Terms of reference and conduct of the inquiry

Terms of reference

1. In exercise of its duty under section 33(1) of the Enterprise Act 2002 (the **Act**) the Competition and Markets Authority (**CMA**) believes that it is or may be the case that:
 - (a) arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation, in that:
 - (i) enterprises carried on by Sabre Corporation will cease to be distinct from enterprises carried on by Farelogix Inc; and
 - (ii) the condition specified in section 23(2)(b) of the Act is satisfied; and
 - (b) the creation of that situation may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom for goods or services, including in:
 - (i) The supply of non-core passenger service systems merchandising modules; and
 - (ii) The supply of services that facilitate the indirect distribution of airline content.
2. Therefore, in exercise of its duty under section 33(1) of the Act, the CMA hereby makes a reference to its chair for the constitution of a group under Schedule 4 to the Enterprise and Regulatory Reform Act 2013 in order that the group may investigate and report, within a period ending on 16 February 2020, on the following questions in accordance with section 36(1) of the Act:
 - (a) whether arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and
 - (b) if so, whether the creation of that situation may be expected to result in a substantial lessening of competition within any market or markets in the United Kingdom for goods or services.

Colin Raftery
Senior Director, Mergers
Competition and Markets Authority
2 September 2019

Conduct of the inquiry

1. On 2 September 2019 the CMA referred the anticipated acquisition by Sabre Inc. (Sabre) of Farelogix Inc (Farelogix) (the Merger) for an in-depth Phase 2 investigation by a group of CMA panel members.
2. We published the biographies of the members of the inquiry group conducting the phase 2 inquiry on the inquiry [webpage](#) on 2 September 2019 and the administrative timetable for the inquiry was published on the inquiry [webpage](#) on 11 September 2019. A revised version of the administrative timetable was published on the inquiry [webpage](#) on 19 December 2019.
3. We invited competitors and customers of Sabre and Farelogix (together, the Parties) to comment on the Merger. We issued detailed questionnaires to these various third parties and a number of them provided us with further information at hearings and in response to written requests. Summaries of third party hearings were published on the inquiry [webpage](#). Evidence submitted during Phase 1 was also considered in Phase 2.
4. Members of the inquiry group, accompanied by CMA staff, met with the Parties separately on 7 and 9 October 2019 to learn about the respective businesses.
5. We received written evidence from the Parties in the form of submissions and responses to information requests. The Parties' initial submission in response to the Phase 1 decision was published on the inquiry [webpage](#) on 17 October 2019.
6. On 17 October 2019, we published an [Issues Statement](#) setting out the areas of concern on which the Phase 2 inquiry would focus. The Parties' response to our issues statement was published on the inquiry webpage on 19 December 2019.
7. During our inquiry, we sent the Parties a number of working papers for comment. We also sent an annotated issues statement to the Parties, which outlined our thinking prior to their respective hearings.
8. We held separate hearings with the Parties on 21 and 22 November 2019.
9. On 19 December 2019, we published a [Notice of Extension](#) setting out the inquiry group's decision to extend the reference period of the inquiry and a revised version of the [Administrative Timetable](#). In taking this decision, the Inquiry Group had regard to the complexity of the investigation and the need to consider an exceptionally large volume of evidence, the necessity to allow sufficient time to take full and proper account of comments that will be

received in response to the Inquiry Group's provisional findings and to reach a fully reasoned final decision in the statutory timeframe.

10. On 7 February 2020, we published a notice of provisional findings, a summary of provisional findings, a notice of possible remedies and third party hearing summaries on the inquiry [webpage](#). A non-confidential version of our provisional findings was published on the inquiry [webpage](#) on 13 February 2020. Non-confidential versions of responses to our provisional findings and to our notice of possible remedies have been published on the inquiry [webpage](#).
11. We held separate response hearings with each of the Parties on 28 February 2020.
12. We invited various third parties to comment on remedies by issuing a questionnaire and holding calls.
13. We sent the Parties a remedies working paper on 16 March 2020 for comment.
14. A non-confidential version of the final report was published on the inquiry [webpage](#).
15. We would like to thank all those who have assisted in our inquiry.

Appendix B: Jurisdiction

Part A - Relevant Arrangements

Services Agreement between Farelogix and American Airlines

1. The Direct Connect Services Agreement¹ is the commercial agreement under which Farelogix supplies its FLX Services to American Airlines.²
2. The terms of this agreement include requirements for Farelogix to support and facilitate itineraries with American Airlines' partners.³ This means that the FLX Services can be used to provide travel agents with travel services information on both American Airlines segments and certain American Airlines partners' (including British Airways) interline segments.
3. American Airlines pays Farelogix a [X] fee (the **Fee**) for each ticket (irrespective of whether the ticket includes an interline segment).⁴ The level of the Fee depends on [X].⁵

Interline arrangement between British Airways and American Airlines

4. American Airlines and British Airways have entered into an interline arrangement which functions in the context of a revenue and cost sharing agreement with American Airlines and prompted British Airways to take steps to allow it to receive supply of the FLX Services. Before dealing with the interline arrangement between American Airlines and British Airways, we set out below, for context, a general overview of the main aspects of interline arrangements in the aviation sector.

Interline arrangements in the aviation sector

5. Interline arrangements enable cooperation amongst airlines to expand their offerings to passengers globally. In particular, interline arrangements allow

¹ [X].

² The original agreement between Farelogix and American Airlines was entered into on [X]. This original agreement was further amended on [X] and on [X]. Pursuant to the [X] amendment, Farelogix supplied the FLX Services (ie the FLX OC and FLX API) to American Airlines ([X]). The services provided under the original agreement are consistent with the services provided today, but the technology versions and Farelogix marketing of the product have evolved ([X]).

³ [X].

⁴ [X].

⁵ [X].

airlines to issue a single ticket for a journey that involves segments marketed and operated by interline partners of the issuing airlines (Interline Segments).

6. In the context of interline arrangements, the airline that issues the ticket for the entire journey is the issuing carrier⁶ The issuing carrier will market and operate at least one segment involved in the journey. The interline partner markets and (generally) operates at least one Interline Segment (ie the interline partner is the marketing and operating carrier for the Interline Segment). For the Interline Segment(s), the issuing carrier uses the flight code/number of the interline partner marketing and operating the Interline Segment.⁷ The interline partner, as the marketing carrier of the Interline Segment, retains control over the Interline Segment.
7. As further explained in paragraph 10 below, American Airlines has entered into an interline arrangement with British Airways. The effect of this arrangement is illustrated by the following example. If a passenger who travels from New York to Shanghai makes a booking on American Airlines, the interline arrangement between American Airlines and British Airways allows American Airlines to issue a single ticket for the New York-Shanghai (via London) journey.⁸ The New York to London segment will be marketed and operated by American Airlines and the London to Shanghai segment (the Interline Segment) will be marketed and operated by British Airways. These are two separate flights (ie operated by American Airlines and British Airways) which are offered to the passenger as part of a single itinerary.
8. As with tickets that do not include an Interline Segment, tickets that include an Interline Segment can be issued by the issuing airline through a range of channels (eg airline.com, call centre, GDS, direct connect), subject to the prior implementation of any required technical communications/connections between the issuing airline and its interline partner. The issuing airline chooses the channels it wishes to use in issuing tickets, including tickets with an Interline Segment.
9. In the context of interline arrangements, GDSs typically charge a fee per segment directly to each airline marketing a segment (including an Interline Segment) involved in a single ticket.⁹ In the example referred to in paragraph

⁶ The issuing carrier is also known as the validating or ticketing carrier.

⁷ In contrast, codeshare agreements also allow the primary airline to issue a single ticket for a journey that involves segments across multiple airlines. However, for codeshare flights the issuing carrier is the marketing carrier for all the segments involved in the journey and uses its own flight code/number for all the segments.

⁸ American Airlines, as issuing carrier, will collect the fare and will remit to British Airways the amount due based on a commercial agreement.

⁹ [REDACTED]. The evidence we have reviewed suggests that Farelogix' billing arrangements in respect of interline segments are more complex. As stated above in paragraph 3, Farelogix charges a [REDACTED] fee to the airline issuing the ticket, [REDACTED]. [REDACTED].

7 above, British Airways would pay a fee to the GDS for the London to Shanghai segment (ie the Interline Segment) and American Airlines would pay a separate fee to the GDS for the New York to London segment.

The Interline arrangement between American Airlines and British Airways

10. American Airlines and British Airways have entered into an interline arrangement.¹⁰ The interline arrangement enables British Airways to market Interline Segments using American Airlines' distribution channels, and American Airlines to issue tickets with a British Airways Interline Segment through its distribution channels.¹¹
11. In order for American Airlines to issue a ticket including a British Airways Interline Segment through Farelogix, technical connections between the British Airways' core PSS and the FLX Services are required. In particular, the technical connections enable British Airways to provide travel services information for its Interline Segments to travel agents through the FLX Services and to market Interline Segments through the FLX Services in the context of the interline arrangement. To establish these technical connections and, thereby, use and receive the supply of the FLX Services for its Interline Segments, British Airways made a deliberate choice to enter into the British Airways Agreement with Farelogix. We describe the British Airways Agreement below at paragraphs 13 – 15.
12. American Airlines and British Airways are part of a joint business for transatlantic flights under the Atlantic Joint Business Agreement (the AJB Agreement).¹² The AJB Agreement provides the terms of management, governance and operation of the joint business, and the provisions under which the carriers coordinate on sales, marketing and pricing. Under the AJB Agreement, transatlantic revenues and costs (including interlining revenues and costs resulting from transatlantic flights) are shared between all the joint business partners (including American Airlines and British Airways) on the basis of an agreed formula.

The British Airways Agreement

13. Farelogix and British Airways entered into the British Airways Agreement.¹³

¹⁰ [REDACTED].

¹¹ [REDACTED].

¹² [REDACTED].

¹³ Agreement dated 26 April 2011. [REDACTED].

14. The recitals to this agreement state that:

[REDACTED]

[REDACTED]

15. The British Airways Agreement further provides that:

(a) [REDACTED]¹⁴ [REDACTED]¹⁵ [REDACTED]¹⁶ [REDACTED]¹⁷.¹⁸

(b) [REDACTED].¹⁹

(c) [REDACTED].²⁰

(d) [REDACTED].²¹

(e) [REDACTED].²² [REDACTED].²³

¹⁴ “[REDACTED].

¹⁵ [REDACTED].

¹⁶ [REDACTED].

¹⁷ [REDACTED] ([REDACTED]).

¹⁸ Clause 2.1.

¹⁹ Clause 2.3.

²⁰ Clause 3.3.1.

²¹ Clause 6.

²² Clause 6.

²³ The GDSs payment structure is described in Chapter 3.

Chronology of relevant agreements

Date	Event
[REDACTED]	Interline arrangement between American Airlines and British Airways. ²⁴
[REDACTED]	Agreement between Farelogix and American Airlines ²⁵
August 2008	AJB agreement between American Airlines and British Airways.
[REDACTED]	The original agreement between Farelogix and American Airlines was amended.
March 2010	The original AJB agreement was amended.
[REDACTED]	Implementation of the AJB agreement after receiving the final approval from the European Commission and from the US Department of Transportation.
[REDACTED]	The original AJB agreement was amended. This change introduced the original revenue sharing arrangement between the AJB partners. The AJB commenced in October 2010.
[REDACTED]	British Airways Agreement between Farelogix and British Airways.
[REDACTED]	The original agreement between Farelogix and American Airlines was further amended becoming the Direct Connect Services Agreement pursuant to which Farelogix provided American Airlines with the FLX OC and the FLX NDC API.

²⁴ American Airlines told us that the earliest recalled anecdotal mention that American Airlines has identified is that the interline agreement between American Airlines and British Airways was in effect in [REDACTED], when American Airine's current interline manager first became involved in this subject area ([REDACTED]).

²⁵ The FLX OC and FLX API did not exist at that time. American Airlines has told us that the services provided under this agreement are consistent with the services provided today, but the technology versions and Farelogix marketing of the product have evolved ([REDACTED]).

Part B - Adjustments to the share of supply calculations

Exclusion of non-VITOs

16. As noted above, the Parties proactively excluded VITOs from their revenue calculations, but included non-VITOs in their proposed share of supply calculations.²⁶ The Parties submitted that non-VITOs should be included in the Relevant Description of Services for the following main reasons:²⁷
- (a) Non-VITOs aggregate content from several airlines and are a necessary and important component for the transfer of airline content to travel agents who may be selling their holiday packages.
 - (b) A customer booking their holiday through a non-VITO would not generate traffic on any GDS but still be able to compare and browse airline content from several different airlines in one single place.
 - (c) Non-VITOs' services have functional similarities to non-GDS aggregators, a service that has been included in the Relevant Description of Services.
 - (d) Although TOs are focused on the leisure segment, this cannot be used as a rationale for excluding them from a putative market for services to facilitate indirect bookings.
17. However, we consider that non-VITOs do not provide an IT solution to airlines.²⁸ The exclusion of non-VITOs from the Relevant Description of Services is supported by third party evidence. Third-party evidence indicates that the activities of non-VITOs are not comparable to the activities of the suppliers of the Relevant Description of Services.²⁹ Third-party evidence also

²⁶ See footnote 39.

²⁷ Parties response [X] and to Provisional Findings.

²⁸ The Parties submitted that the CMA's exclusion of non-VITOs has placed decisive weight on the fact that there is no contract between the airlines and the non-VITOs (Provisional Findings response, paragraph 2.26). However, we consider that the Parties have misinterpreted our position as the exclusion of non-VITOs is based on the nature of the services provided by non-VITOs as opposed to the existence or absence of an agreement.

²⁹ The Atmosphere Research Group Expert Report states that: '*GDSs are airlines' primary distribution channel to the broad travel agency community, which includes retail travel agencies, corporate travel management companies ("TMC's), wholesalers, consolidators, tour/holiday operators, and online travel companies*' (emphasis added). [X] said that '*In our view, Tour Operators distribution activities are akin to travel agents' activities. Indeed some tour operators also sell standalone flights. They also said that 'we do not have any evidence that other travel agents are using tour operators as content aggregators*'. [X] said that '*As a general starting point, [X] views Tour Operators' distribution activities to be closer to that of a travel agent than as a distribution channel per se. For example, we would not view Tour Operators as being close to the distribution function offered by GDSs or Direct Connect. Tour Operators may onward sell content to smaller third parties (including other Tour Operators or travel agents) to the extent they are taking the risk on inventory (whether airline, hotel, connections etc) but they are predominantly focussed on sale to end consumers and could not (without high levels of investment and/or material change to business model) offer a service akin to GDSs/direct connects*'. The [X] said that: '*To my knowledge non-VITOs (operators) do not offer airline content distribution services as those*

indicates that non-VITOs generally access airline content in the same way as travel agents (eg via GDSs or Direct connects)³⁰ and distribute airline content as part of a holiday package including accommodation and other amenities either directly to the public or through travel agents.³¹

18. Therefore, we consider that non-VITOs should be excluded from the Relevant Description of Services for the purposes of applying the share of supply test. For completeness, we note that, even if non-VITOs are included in the Relevant Description of Services and the calculations, the Parties' combined share of supply (by revenue) remains well above the 25% threshold (as illustrated in the Table B1 below).

provided by GDSs (eg, Amadeus and Sabre) and Direct Connects (eg Farelogix)' and that 'travel agents with an ATOL licence may also act as tour operators'.

³⁰ [X] said that 'As far as we understand it, Tour operators connect to airlines in the same way as other travel agents, either via GDSs or direct connects (often using another aggregator). We don't have specific knowledge of whether there are any preferred direct connect providers that are more relevant to tour operators than other travel agents'. [X] said that TOs connect [X] via GDSs. [X] said that 'Based on [X] experience, Tour Operators (similar to travel agents), are largely reliant on GDS services to access airline content. [X]. [X] said that 'Most members will access airfares via an airline consolidator. The consolidators may have a bespoke system which can be accessed by the operators. Some TOs access airlines via a web portal intended to use by the trade, eg Farelogix'.

³¹ [X].

Table B.1 - Shares of supply for IT solutions to airlines for the purpose of airlines providing travel services information to travel agents to enable travel agents to make bookings based on data from Sabre, Amadeus and Travelport and airline submissions (including non-VITOs)

Shares of supply for IT solutions to airlines for the purpose of airlines providing travel services information to travel agents to enable travel agents to make bookings (UK Airlines)		
Vendor	Revenues (\$)	Share of Supply
Sabre	[REDACTED]	[20-30]%
Farelogix	[REDACTED]	[0-5]%
Amadeus	[REDACTED]	[30-40]%
Travelport	[REDACTED]	[20-30]%
Other GDS (Host Direct)	[REDACTED]	[0-5]%
Direct Connect (excluding Farelogix)	[REDACTED]	[0-5]%
Non GDS Aggregators	[REDACTED]	[0-5]%
Tour Operator (Charter)	[REDACTED]	[5-10]%
Total	[REDACTED]	100%

Source: MIDT data, Sabre internal NEF data, 2018 T2RL data, airline data, Amadeus and Travelport data.

Parties' estimate of Direct Connect revenue

19. The estimate for Direct Connect revenues submitted by the Parties relied on a series of assumptions, including relying on an estimate for Direct Connect bookings based on estimated global Direct Connect bookings and an estimated fee based on Farelogix's average fee.³² We therefore considered that the Parties' estimate had a material risk of error and that it is more appropriate to use the expenditure data provided by UK Airlines for third-party Direct Connect.

20. When we compared the UK Airlines expenditure data with the Parties' Direct Connect figures, we identified that the Parties' estimate for Direct Connect revenues was higher than the UK Airlines expenditure data. We consider that the Parties' estimate is higher because the approach has allocated revenue to all direct connect bookings including those done by in-house IT teams (such as [REDACTED]).³³ As noted in Chapter 5, we consider that only third-party suppliers fall within the definition of the Relevant Description of Services.

³² [REDACTED]. [REDACTED].

21. Therefore, we consider that relying on the data submitted by UK Airlines showing the amount UK Airlines have spent on Direct Connect services is an accurate basis for estimating the Direct Connect revenue, from which the share of supply test is calculated. However, for completeness, we note that the Parties' combined share of supply remains above the 25% threshold even when using the Parties' Direct Connect revenue estimate (as shown in the Table B.2 below).

Table B.2 – Shares of supply for IT solutions to airlines for the purpose of airlines providing travel services information to travel agents to enable travel agents to make bookings based on data from Sabre, Amadeus and Travelport and airline submissions (excluding non-VITOs)

Shares of supply for IT solutions to airlines for the purpose of airlines providing travel services information to travel agents to enable travel agents to make bookings (UK Airlines)		
Vendor	Revenues (\$)	Share of Supply
Sabre	[REDACTED]	[30-40]%
Farelogix	[REDACTED]	[0-5]%
Amadeus	[REDACTED]	[30-40]%
Travelport	[REDACTED]	[20-30]%
Other GDS (Host Direct) ³⁴	[REDACTED]	[0-5]%
Other Direct Connects ³⁵	[REDACTED]	[0-5]%
Non GDS Aggregators	[REDACTED]	[0-5]%
Total	[REDACTED]	100%

Source: MIDT data, Sabre internal NEF data, 2018 T2RL data, airline data, Amadeus and Travelport data.

Approach concerning non-GDS aggregators

22. As mentioned in Chapter 5, we have included non-GDS aggregators (eg Travelfusion) on a conservative basis in the share of supply calculations. The non-GDS aggregators revenue figures included in Table 5.1 of Chapter 5 rely on UK Airlines' expenditure data for non-GDS aggregators received directly from the UK Airlines. To verify the robustness of the UK Airlines' expenditure data, we compared the UK Airlines' expenditure data for the largest aggregator with the revenue estimates submitted by the largest aggregator (ie

³⁴ Based on responses covering 95% of the market by bookings, remaining 5% is Thomas Cook and British Midland Regional which have ceased trading. For these airlines we have used revenue data from the GDS.

³⁵ Ibid.

Travelfusion) for UK Airlines which demonstrated the UK Airlines' expenditure data was a good approximation of revenues.³⁶

23. However, we understand that non-GDS aggregators require the use of a direct connect or GDS to provide the data and could, therefore, be considered to fall outside the Relevant Description of Services.³⁷ Table B3 below includes the market share calculations excluding these suppliers. As illustrated in Table B.3, the exclusion of non-GDS aggregators does not materially affect our initial calculations.
24. The Parties identified a large number of other suppliers which, in their view, could potentially supply direct connect APIs/aggregation services and should, therefore, be included in the denominator.³⁸ However, we have seen no evidence to suggest that these suppliers earn any revenues in the UK in 2018, and no UK Airlines identified any spend with these suppliers.³⁹

Table B.3 – Shares of supply for IT solutions to airlines for the purpose of airlines providing travel services information to travel agents to enable travel agents to make bookings based on data from Sabre, Amadeus and Travelport and airline submissions (excluding non-VITOs and Non GDS aggregators)

Shares of supply for IT solutions to airlines for the purpose of airlines providing travel services information to travel agents to enable travel agents to make bookings (UK Airlines)		
Vendor	Revenues (\$)	Share of Supply
Sabre	[REDACTED]	[30-40]%
Farelogix	[REDACTED]	[0-5]%
Amadeus	[REDACTED]	[30-40]%
Travelport	[REDACTED]	[20-30]%
Other GDS (Host Direct)	[REDACTED]	[0-5]%
Other Direct Connects	[REDACTED]	[0-5]%
Total	[REDACTED]	100%

Source: MIDT data, Sabre internal NEF data, 2018 T2RL data, airline data, Amadeus and Travelport data.

Parties' submissions on our calculation method

25. The Parties submitted in response to our working papers that the Provisional Findings calculations were arithmetically flawed: the CMA includes in its

³⁶ [REDACTED].

³⁷ This is supported by evidence provided by one airline.

³⁸ Provisional Findings response.

³⁹ Four of these suppliers confirmed that they did not generate any revenues from UK Airlines in 2018. [REDACTED].

numerator services which can be used in conjunction with one-another, without making any equivalent allowance in the denominator (eg a booking made via a FLX NDC API operating on a GDS pass-through basis with the Sabre GDS would be counted in the numerator twice, but in the denominator once).⁴⁰

26. We consider that by looking at revenues earned by suppliers of UK airlines our approach appropriately reflects the services being supplied in both the numerator and the denominator. In circumstances where a booking requires the services of both a GDS and third party direct connect, both revenues are represented in both our numerator and denominator to the extent these are supplied by a third party.
27. The Parties also suggested that the CMA has made no effort to take account of revenues receivable (but not received) from other suppliers of the Relevant Description of Services.⁴¹ However, we have not seen any evidence to suggest the revenue figures provided by the other suppliers of the Relevant Description of Services exclude receivable revenues similar to Farelogix.⁴² Even if this was the case, we do not consider this would materially impact our share of supply calculations because our share of supply calculations are not sensitive to small increases in the denominator. The share of supply would be satisfied even if there was an additional \$[40-50]m of revenue included for other suppliers, which we do not consider to be plausible.
28. Finally, we acknowledge that, in 2018, there may have been some instances where non-UK interline partners of UK Airlines issued tickets including UK Airlines' Interline Segments through direct connects or non-GDS aggregators (in the same way as American Airlines issued tickets with British Airways' Interline Segments through Farelogix). Therefore, it is possible that direct connects and non-GDS aggregators may have received revenues from non-UK Airlines which cover the distribution of UK Airlines Interline Segments. However, to the extent any such revenues exist, the evidence received indicates that the revenues earned by direct connects and non-GDS aggregators in 2018 for tickets issued by non-UK airlines including UK Airlines Interline Segments would be immaterial.⁴³

⁴⁰ [REDACTED].

⁴¹ Response to Provisional findings – paragraph 2.38; Provisional Findings response hearing.

⁴² Amadeus ([REDACTED]) told us that their revenue figures are based on revenues contractually owed.

⁴³ This is supported by the following evidence: **(i)** Most UK Airlines are not part of interline arrangements; **(ii)** Based on [REDACTED] data, we can expect around [REDACTED] of UK Airlines' bookings to be Interline Segments included in a ticket issued by non-UK airlines ([REDACTED]); **(iii)** A substantial proportion of direct connect bookings are likely to use the airlines' internal IT ([REDACTED]); **(iv)** Most bookings are conducted through the major GDS and revenues from the UK Airlines Interline Segments are already included in the GDS revenue figures; **(v)** Direct Connects only account for around [0-5]% of global indirect bookings (T2RL); **(vi)** Direct connects have less functionality for

interlining with many direct connects not able to support Interline Segments, which makes these types of bookings unlikely (for example, one airline in their response to our questionnaire indicated that one of the limitations of direct connects was interline capabilities and suggested they can only do this via the GDSs); **(vii)** To the extent there are UK Airline interline bookings, the revenues are likely to be low as Non-GDS aggregators typically do not charge airlines and direct connects typically only charge around [x] a ticket ([x]); and **(viii)** [x].

Appendix C: Transaction background and valuation

Introduction

1. This appendix provides additional information on the background to the Merger and the valuation which Sabre and Sandler ascribed to Farelogix.
2. Our review of documents relating to the valuation of Farelogix indicates that [REDACTED]. Our review of the Parties' valuation documents is covered in detail in paragraphs 21 to **Error! Reference source not found.** First, we set out further information relating to the background to the agreement of the Merger.

Events leading up to the Merger

3. We understand that Farelogix has [REDACTED].⁴⁴ We set out below a description of previous interest in acquiring Farelogix, prior to 2018. We then provide further background relating the 2018 sales process, which resulted in the agreement of the Merger.

Previous acquisition interest

4. Farelogix told us that various parties had expressed an interest in the business between 2015 and 2018 but that none of the proposals received had been considered acceptable.⁴⁵ Farelogix told us that:
 - (a) [REDACTED].⁴⁶
 - (b) [REDACTED].^{47, 48}
 - (c) [REDACTED].⁴⁹
5. Farelogix also told us that it had engaged with multiple airlines regarding potential investments between 2016 and 2018 but that an agreement could not be reached.⁵⁰ This was consistent with submissions that we received from [REDACTED]. Specifically:

⁴⁴ [REDACTED].

⁴⁵ [REDACTED].

⁴⁶ [REDACTED].

⁴⁷ [REDACTED].

⁴⁸ [REDACTED].

⁴⁹ [REDACTED].

⁵⁰ [REDACTED].

(a) [REDACTED].⁵¹

(b) [REDACTED].⁵²

2018 sales process

6. Farelogix internal documents from May 2018 indicate that it had considered initiating an outreach strategy [REDACTED].⁵³

7. However, a subsequent email from Farelogix's CEO, Jim Davidson, to Sandler dated 4 June 2018, stated that a decision had been taken to [REDACTED].⁵⁴ In the email, Jim Davidson stated that:

[REDACTED].⁵⁵

8. In a later email exchange on 26 June 2018, Theo Kruijssen, Chief Financial Officer of Farelogix, set out Farelogix's proposed sales process to [REDACTED].⁵⁶ [REDACTED]:

[REDACTED].⁵⁷

9. In response, Farelogix's CFO stated that:

[REDACTED].⁵⁸

10. In this context, Sandler told us that [REDACTED].

Potential [REDACTED] investment

11. Sandler told us that, [REDACTED].⁵⁹

12. Sandler told us that [REDACTED].⁶⁰ However, Sandler told us that:

(a) [REDACTED];

(b) [REDACTED]; and

⁵¹ [REDACTED].

⁵² [REDACTED].

⁵³ [REDACTED].

⁵⁴ [REDACTED].

⁵⁵ [REDACTED].

⁵⁶ [REDACTED].

⁵⁷ [REDACTED].

⁵⁸ [REDACTED].

⁵⁹ [REDACTED].

⁶⁰ [REDACTED].

(c) [REDACTED].⁶¹

13. Sandler told us that [REDACTED].⁶²

[REDACTED] potential investment

14. Farelogix told us that, as a result of its discussions with Sabre regarding a potential acquisition, it also engaged with [REDACTED].⁶³

15. Sandler told us that [REDACTED].⁶⁴ Sandler told us that [REDACTED].⁶⁵ Sandler told us that [REDACTED].⁶⁶

16. On 2 November 2019, [REDACTED] made a formal offer to acquire Farelogix for [REDACTED].⁶⁷ The offer from [REDACTED]:

(a) [REDACTED]; and

(b) [REDACTED].⁶⁸

17. Sandler told us that [REDACTED]:

(a) [REDACTED].⁶⁹

(b) [REDACTED].⁷⁰

18. Sandler told us that, [REDACTED].⁷¹

Agreement to sell Farelogix to Sabre

19. Sandler told us that it considered the offer of \$360 million from Sabre to be [REDACTED].⁷²

61 [REDACTED].

62 [REDACTED].

63 [REDACTED].

64 [REDACTED].

65 [REDACTED].

66 [REDACTED].

67 [REDACTED]. See also [REDACTED].

68 [REDACTED].

69 [REDACTED].

70 [REDACTED].

71 [REDACTED].

72 [REDACTED].

20. We note that Sandler told us [REDACTED]. Sandler told us that, [REDACTED].⁷³ We consider the evidence relating to the valuation of Farelogix next.

Valuation

Sabre's submissions

21. Sabre submitted that its valuation of Farelogix provided evidence of a pro-competitive acquisition of a complementary company. Sabre added that there was no suggestion that the deal's value to Sabre was predicated upon "killing" Farelogix because of a supposed threat that it poses to the GDS.⁷⁴
22. Sabre told us that the purchase price represented fair value for the standalone value of Farelogix and its anticipated synergies with the Sabre business and that Sabre's valuation model did not provide evidence of a "market power premium".⁷⁵ Sabre added that its valuation analysis was probative of the Merger involving the acquisition of a complementary company and not a "killer acquisition" of a nascent competitor.⁷⁶
23. Sabre also submitted that its valuation of Farelogix showed the following:
- (a) [REDACTED].⁷⁷
 - (b) [REDACTED].⁷⁸
 - (c) [REDACTED].⁷⁹
 - (d) [REDACTED]⁸⁰ and [REDACTED].⁸¹

Sabre's valuation

24. Sabre conducted an analysis of the fair market value of Farelogix through [REDACTED]:
- (a) [REDACTED].

⁷³ [REDACTED].

⁷⁴ [REDACTED].

⁷⁵ [REDACTED].

⁷⁶ [REDACTED].

⁷⁷ [REDACTED].

⁷⁸ [REDACTED].

⁷⁹ [REDACTED].

⁸⁰ [REDACTED].

⁸¹ [REDACTED].

(b) [REDACTED].

[REDACTED]

25. Sabre provided its valuation model which valued Farelogix on a [REDACTED].⁸² [REDACTED]⁸³ [REDACTED]:

(a) [REDACTED];

(b) [REDACTED];

(c) [REDACTED]; and

(d) [REDACTED].

26. Sabre calculated the [REDACTED]⁸⁴ [REDACTED] described in paragraph 25 above. Sabre then applied a [REDACTED] to account for the fact that [REDACTED].⁸⁵ The outputs from this analysis are summarised in table 1 below.

Table C.1:

[REDACTED]

27. Table C.2 below shows [REDACTED]. Table C.3 shows [REDACTED].

Table C.2:

[REDACTED]

Table C.3:

[REDACTED]

28. Table C.4 shows [REDACTED], and table 5 shows [REDACTED]⁸⁶ [REDACTED].

⁸² [REDACTED].

⁸³ Sabre told us that it considered that Farelogix's own forecasts were [REDACTED] and internal contemporaneous Sabre documents confirm that it viewed Farelogix management forecasts to be [REDACTED]. See [REDACTED] and [REDACTED].

⁸⁴ [REDACTED].

⁸⁵ [REDACTED].

⁸⁶ [REDACTED].

Table C.4:

[REDACTED]

Table C.5:

[REDACTED]

29. The tables above show that [REDACTED]. We note that Sabre submitted that Farelogix had repeatedly made [REDACTED].⁸⁷ However, Sabre also told us that, while it considered Farelogix management’s forecasts to be [REDACTED], Sabre itself [REDACTED].⁸⁸ This is clear from the tables above. We also note that, at its hearing, Farelogix told us that it continued to anticipate a ‘tipping point’ in the market for NDC solutions as NDC gained acceptance, in particular with GDS passthrough.⁸⁹
30. Sabre’s valuation model and supporting documents show that the majority of revenue growth was anticipated to derive from [REDACTED].⁹⁰ Sabre forecasted [REDACTED] as shown in table 6. While both Farelogix and Sabre projected stronger growth in [REDACTED].⁹¹

Table C.6:

[REDACTED]

31. Table 1 above shows that [REDACTED]⁹² [REDACTED]. [REDACTED], Sabre told us that:
- (a) [REDACTED];⁹³
 - (b) [REDACTED];⁹⁴ and
 - (c) therefore, Sabre told us that its synergies analysis could not be considered consistent with any unexplained overpayment on Sabre’s part.⁹⁵

⁸⁷ [REDACTED].

⁸⁸ [REDACTED].

⁸⁹ [REDACTED].

⁹⁰ Sabre’s valuation model does not show the [REDACTED]. We have therefore calculated [REDACTED].

⁹¹ Sabre told us that it expected [REDACTED]. See [REDACTED]. Farelogix management [REDACTED].

⁹² [REDACTED].

⁹³ [REDACTED].

⁹⁴ [REDACTED].

⁹⁵ [REDACTED].

32. Sabre's [REDACTED] shows that it anticipated revenue synergies arising from the transaction as a result of:
- (a) [REDACTED]: Sabre told us that its quantification of synergies included an assumption that [REDACTED]. Sabre forecast that it would [REDACTED] over three years from completion of the Merger, generating additional revenue of [REDACTED] in year three.⁹⁶
 - (b) [REDACTED]: Sabre projected that it would [REDACTED] and told us that including [REDACTED] in its platform would enable it to [REDACTED].⁹⁷ Sabre forecast [REDACTED] over three years, contributing [REDACTED] of revenue in the third year.⁹⁸
 - (c) [REDACTED]: Sabre told us that the combined sales force of the merged entity would enable it to [REDACTED].⁹⁹ As a result, its valuation model forecast incremental revenue of [REDACTED] by year three.¹⁰⁰
33. Sabre also told us that the Merger would [REDACTED]. Sabre told us that, as a result of integrating Farelogix products, the Merger would save Sabre an estimated [REDACTED] in aggregate over three years from completion, related to [REDACTED]¹⁰¹ and [REDACTED].¹⁰² Sabre submitted that these reductions did not represent [REDACTED], but rather [REDACTED].¹⁰³
34. Finally, we note that Sabre's valuation model also shows that it expected to save an aggregate [REDACTED] over three years from [REDACTED] as a result of the Merger.¹⁰⁴

[REDACTED]

35. Internal materials prepared in [REDACTED] show that Sabre compiled [REDACTED].¹⁰⁵
36. Sabre considered [REDACTED] and compared these to:
- (a) [REDACTED].
 - (b) [REDACTED];¹⁰⁶

⁹⁶ [REDACTED].

⁹⁷ [REDACTED].

⁹⁸ [REDACTED].

⁹⁹ [REDACTED].

¹⁰⁰ [REDACTED].

¹⁰¹ We understand that Dynamic Retailer is Sabre's closest equivalent of FLX Merchandise. See [REDACTED].

¹⁰² SabreSonic Inventory is Sabre's seat availability solution. The Parties told us that it is not NDC compatible, in contrast to FLX Availability. See [REDACTED].

¹⁰³ [REDACTED].

¹⁰⁴ [REDACTED].

¹⁰⁵ [REDACTED].

¹⁰⁶ The list comprised [REDACTED].

(c) [REDACTED]¹⁰⁷ [REDACTED].¹⁰⁸

37. As part of this analysis, Sabre stated that [REDACTED].¹⁰⁹ Sabre's purchase price of \$360 million equates to [REDACTED] Farelogix 2018 revenues.
38. A later document assessing the Merger and valuation of Farelogix stated that the purchase price represented [REDACTED].¹¹⁰ Sabre also noted that [REDACTED].¹¹¹

Farelogix/Sandler Capital's valuation

39. Sandler told us that [REDACTED].¹¹² Sandler provided the [REDACTED].
40. Sandler's valuations of Farelogix were based on [REDACTED]. Sandler's models show [REDACTED],¹¹³ and [REDACTED].¹¹⁴
41. We note that, in relation to Sandler's valuations of Farelogix, Sabre told us that [REDACTED].¹¹⁵

107 [REDACTED].
108 [REDACTED].
109 [REDACTED].
110 [REDACTED].
111 [REDACTED].
112 [REDACTED].
113 [REDACTED].
114 [REDACTED].
115 [REDACTED].

Appendix D: Evidence from the Parties

1. During the course of its investigation, the CMA has reviewed a large number of the Parties' internal documents. Where relevant, those documents are referred to in the Final Report.
2. This Appendix expands on references in the Final Report and provides additional documentary evidence with respect to the analysis set out in Chapter 9 of the Final Report. Further to the analysis in Chapter 9 of the Final Report, this Appendix also provides additional information on the development and implementation of Sabre's Next Generation Retailing (**NGR**) and Next Generation Distribution (**NGD**) strategy, which includes both a merchandising solution and an NDC API. The Appendix also sets out in more detail the available documentary evidence on Sabre's incentives in developing and investing into NDC-enabled products.
3. This Appendix is structured as follows:
 - (a) First, it sets out a brief overview of the development and implementation of Sabre's NGR/NGD strategy;
 - (b) Second, it expands on the evidence in the Final Report on Sabre's internal document evidence on the rationale and incentives in developing and implementing its NGR/NGD strategy;
 - (c) Third, it sets out a document by document summary of:
 - (i) Final internal documents produced during the development and implementation of Sabre's NGR/NGD strategy, as well as final documents prepared in the context of the Merger; and
 - (ii) Draft internal documents produced during the development and implementation of Sabre's NGR/NGD strategy;
 - (iii) Certain Sabre emails produced during the development and implementation of Sabre's NGR/NGD strategy and/or discussing competitive conditions.
 - (iv) Fourth, it sets out extracts from certain Farelogix documents referred to in the Final Report.

[✂]

Appendix E: Competitor evidence

Introduction

1. This appendix provides further details on the evidence gathered from competitors. It focuses on the internal documents presented in the provisional findings report but also includes competitors' responses to our requests for information and competitors' additional submissions.
2. We have requested and reviewed a number of senior management level internal documents from the following competitors of the Parties relating to the competitive landscape for NDC-enabled merchandising and distribution solutions as well as, where applicable, relating to their own expansion plans:
 - (a) Amadeus
 - (b) Travelport
 - (c) Datalex
 - (d) OpenJaw
 - (e) PROS
 - (f) ITA
3. This appendix provides further details regarding the documentary evidence used to inform the CMA's assessments at Chapter 10, in the Evidence from competitors' section of the provisional findings report. In particular, for each of the six competitors of the Parties listed above, a number of key documents have been extracted and are presented in the paragraphs below under two broad categories:
 - (a) Documents relating to the competitive landscape; and
 - (b) Documents and submissions relating to their NDC strategy and/or expansion plans.

[✂]

Appendix F: Airline Evidence

1. This appendix provides further details regarding the evidence gathered from airlines through their responses to our questionnaires, calls and internal documents presented in the report. The appendix considers the following evidence in further detail:
 - (a) airlines and their suppliers of merchandising and NDC API solutions;
 - (b) airline distribution of bookings across various channels;
 - (c) airline content distribution strategies, including evidence regarding airlines' adoption of the NDC standard, airlines' use of different distribution channels, airline views on GDS and PSS suppliers and their preference for suppliers that are independent of the GDS or PSS;
 - (d) evidence from airline recent Request for Information (RFI) or Request for Proposal (RFP) in relation to NDC, merchandising and/or distributions services;
 - (e) airlines views on the strength of merchandising and distribution solutions suppliers;
 - (f) airlines' views on self-supply (merchandising and distribution solutions);
 - (g) airlines negotiations with GDSs;
 - (h) airlines' general views on the Merger.

Introduction

2. We have received responses in Phase 1 and Phase 2 of the inquiry from 35 airlines, including 29 airlines which responded to our detailed questionnaire in Phase 2.¹¹⁶ These 35 airlines together account for 45% of passengers to/from and within the UK,¹¹⁷ and 36% of bookings globally.¹¹⁸ Majority of these airlines also responded to the CMA's Phase 1 questionnaire (16 out of total 24 airlines responding to the Phase 1 questionnaire). There are six¹¹⁹ airlines with responses to the Phase 1

¹¹⁶ In addition to the listed airlines, [REDACTED] did not respond to our detailed questionnaire, but provided responses to some of our questions.

¹¹⁷ Based on CAA Airport statistics data (2018), which includes data for the top eight UK airports accounting for 80% of total UK passenger; it is based on the weighted survey data.

¹¹⁸ This represents the share of bookings (T2RL data including franchise adjustments).

¹¹⁹ [REDACTED]

questionnaire only. The responses from Phase 1 questionnaire have been incorporated where applicable.

3. In addition, we have been provided with a number of senior management level internal documents regarding airline content distribution strategies of [REDACTED] airlines with significant operations globally and in the UK:¹²⁰ [REDACTED].
4. We have also been provided with a number of recent internal evaluations of suppliers, which responded to airlines' Request for Proposal (RFP) and Request for Information (RFI) regarding merchandising and content distribution services. These included [REDACTED].

Suppliers of merchandising and NDC API solutions

5. Table F.1 below sets out the airline groups (network carriers¹²¹ only) and their suppliers of merchandising and NDC APIs. The table includes 20 largest network carriers and 35 other airlines from which we have received responses or which were identified as customers of merchandising solutions and/or NDC API by the Parties, [REDACTED].
6. In terms of supplying the largest carriers operating in the UK, Farelogix's merchandising solution is used by [REDACTED] of the top 20 network carriers,¹²² which account for [REDACTED]% of all passengers travelling to/from and within the UK and its distribution solutions are used [REDACTED] which account for [REDACTED]% of all passengers travelling to/from the UK. Combined, the airlines supplied by Farelogix account for [REDACTED]% of all passengers travelling to/from the UK.

¹²⁰ These airlines contribute to approximately 30% of passengers carried to, from and within the UK (based on CAA Airport statistics 2018).

¹²¹ The airlines include "Network Carriers" and exclude "Low-Cost Carriers" and "Hybrid Carriers", as defined by T2RL. We have excluded low cost carriers because they use GDS only to a limited extent (and are typically orientated to sales through airline.com) and tend not use NDC standard.

¹²² These are (by passengers carried): [REDACTED]. It is based on the Civil Aviation Authority (CAA) Airport statistics 2018, based on survey data. Information obtained from the largest 8 UK airports, which account for 80% of total UK passengers. The list of airlines excludes "Low-Cost Carriers" and "Hybrid Carriers", and includes "Network Carriers" as defined by T2RL.

Table F.1: Supplier of merchandising solutions and NDC API

<i>Airline group</i>	<i>Tier</i>	<i>Main supplier of merchandising</i>	<i>Supplier of NDC API</i>	<i>Notes</i>
American Airlines‡ [X]	1	[X]	[X]	[X]
Delta	1	[X]	[X]	[X]
China Southern Airlines Group‡	1	[X]	[X]	[X]
United Airlines‡	1	[X]	[X]	[X]
Lufthansa Group (Lufthansa, Eurowings, Swiss Air, Austrian Air, Brussels Air) ‡	1	[X]	[X]	[X]
Air China Group	1	[X]	[X]	[X]
China Eastern	1	[X]	[X]	[X]
Hainan Group (Hainan, Beijing Capital, Tianjin)	1	[X]	[X]	[X]
IAG (British Airways, Aer Lingus, Vueling, Iberia) ‡	1	[X]	[X]	[X]
Air France KLM Group‡	1	[X]	[X]	[X]
Turkish Airlines	1	[X]	[X]	[X]
LATAM	1	[X]	[X]	[X]
ANA	1	[X]	[X]	[X]
Emirates	1	[X]	[X]	[X]
Air Canada‡	1	[X]	[X]	[X]
Alaska	1	[X]	[X]	[X]
Japan Airlines	1	[X]	[X]	[X]
Jet Blue‡	1	[X]	[X]	[X]
Norwegian	1	[X]	[X]	[X]
Aeroflot‡	1	[X]	[X]	[X]
			[X]	

Source: i) supplier information: airline responses, competitor responses, Farelogix and Sabre data; ii) T2RL.

(L) - [X]

† - [X]

‡ - indicates IATA Leadershipboard airlines.

§ - [X]

¶ - [X]

- [X]

Note: [X]
[X].^{123,124} [X]¹²⁵ [X].¹²⁶

123 [X]
124 [X]
125 [X]
126 [X]

the three GDSs. The table indicates that airlines typically multi-home, but each airline's distribution across different GDSs varies significantly.

Table F.3: distribution of bookings on GDS across the three main GDSs (2018)

<i>% of GDS bookings (2018)</i>			
<i>Airline</i>	<i>Amadeus</i>	<i>Sabre</i>	<i>Travelport</i>
American Airlines	[X] [20-30]	[X] [50-60]	[X] [20-30]
Delta	[X] [10-20]	[X] [50-60]	[X] [20-30]
United Airlines	[X] [20-30]	[X] [50-60]	[X] [10-20]
Lufthansa	[X] [60-70]	[X] [10-20]	[X] [10-20]
Emirates	[X] [40-50]	[X] [20-30]	[X] [20-30]
Turkish Airlines	[X] [50-60]	[X] [20-30]	[X] [10-20]
Air France	[X] [60-70]	[X] [20-30]	[X] [10-20]
British Airways	[X] [40-50]	[X] [20-30]	[X] [20-30]
Air Canada	[X] [20-30]	[X] [50-60]	[X] [20-30]
LATAM	[X] [40-50]	[X] [40-50]	[X] [5-10]
Aeroflot	[X] [40-50]	[X] [30-40]	[X] [20-30]
KLM	[X] [50-60]	[X] [20-30]	[X] [10-20]
Qatar Airways	[X] [50-60]	[X] [20-30]	[X] [20-30]
Air India	[X] [40-50]	[X] [20-30]	[X] [30-40]
Avianca	[X] [40-50]	[X] [40-50]	[X] [5-10]
Qantas	[X] [20-30]	[X] [50-60]	[X] [10-20]
Korean Air	[X] [70-80]	[X] [10-20]	[X] [10-20]
Alaska Airlines	[X] [20-30]	[X] [60-70]	[X] [10-20]
SAS	[X] [70-80]	[X] [10-20]	[X] [5-10]
Saudi Arabian Airlines	[X] [60-70]	[X] [10-20]	[X] [10-20]

Source: CMA's analysis [X], based on MIDT data.

Airline content distribution strategies

9. This section provides the evidence regarding airline content distribution strategies, which includes evidence regarding airlines' adoption of the NDC standard, airlines' use of different distribution channels, airline views on GDS and PSS suppliers.

Overview of airline distribution strategies

10. This section summarises the evidence from key internal airlines documents discussing airline future content distribution strategies and their strategy and views towards NDC standard adoption. The section also provides the summary of airline responses about their future content distribution strategies.

Airline internal documents

11. Internal documents from [X] indicate that airlines are looking to enhance their capabilities in retailing. To achieve this, they look to take greater control from GDS of creating offers and of the customer data, provide personalised content to passengers, as well as drive ancillary revenues. These strategies cover both aspects of merchandising (ie personalisation

and sale of ancillaries) and distribution. Below we summarise evidence from several larger airlines.

[REDACTED]

12. [REDACTED].

[REDACTED]

13. [REDACTED].

[REDACTED]

14. [REDACTED].¹²⁷

[REDACTED]

15. [REDACTED].

[REDACTED]

[REDACTED]

16. [REDACTED] internal distribution strategy document shows that the airline is focused on providing full spectrum of offers across various channels to achieve a [REDACTED] (Figure F.6 below).

[REDACTED]

17. The same document shows that airline has strategic goals to '[REDACTED].'

[REDACTED]

Lufthansa

18. A Lufthansa internal strategy document shows that Lufthansa's content distribution strategy is to be able to offer a product variety and use continuous pricing.

¹²⁷ [REDACTED]

Figure F.8: Lufthansa Group Strategy. Part 3: Distribution Strategy, 2018

New Distribution capabilities will unlock revenue potential from Product and Revenue Management innovation

Building the foundation for a more individual and complex travel market place, to the benefit of all involved parties.



Source: Lufthansa response to Phase 2 questionnaire, [REDACTED]

19. [REDACTED]. For Lufthansa Group airline future distribution include adoption of NDC, airlines gaining greater control and are able to distribute their content more efficiently, with the potential EBIT uplift of 20%.¹²⁸ That potential value could be created by shifting away from the GDS, and ancillaries could contribute to profit uplift by 'up to 2.25Eur/pax,' while dynamic pricing could bring +3% yield.

[REDACTED]

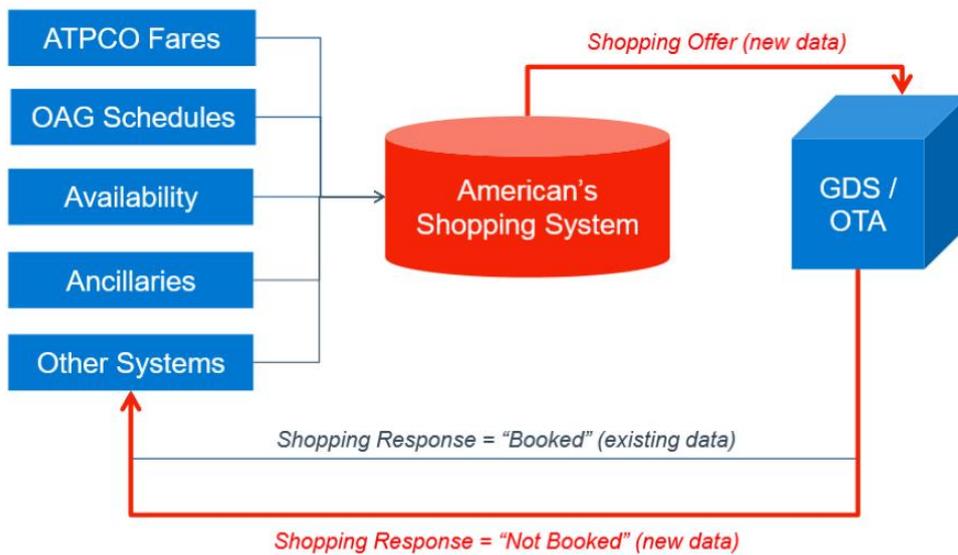
American Airlines

20. American Airlines internal strategy document indicates that distribution through NDC API, where an airline creates its shopping offer to a customer, provides new data to airlines, which is no longer held by GDS, by stating 'additionally, NDC provides new data: customers who did **not** book' (Figure F.10).
21. In addition, Figure F.11 shows that the airline considers that the application of real time offers provides them with the advanced pricing and offers.

¹²⁸ [REDACTED]

Figure F.10: Developments in Airline Product Distribution, 2016

Additionally, NDC provides new data: customers who did *not* book



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7/11/2016

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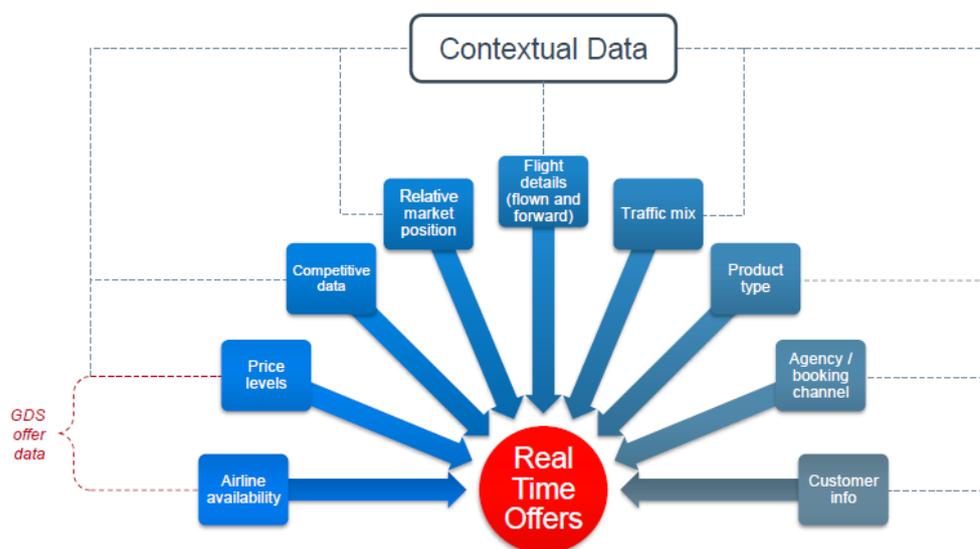
Source: American Airlines response to Phase 2 questionnaire, [redacted].

Figure F.11: Developments in Airline Product Distribution, 2016

Real Time Offers allow use of varied contextual data

RTO creates the ability to go beyond GDS offer logic and technology

- Added benefit to track what customers select as well as what offers customer reject – insight not readily available for all products and channels



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Source: American Airlines response to Phase 2 questionnaire [REDACTED].

Airline RFPs

22. Similarly, various airline strategies are reflected in airline internal documents assessing the NDC suppliers, which responded to their RFPs, and these documents also indicate that airlines are looking to be in control of their offer, provide personalised content to customers, as well as drive their ancillary revenues (further details in the section 'Airline recent RFPs' below).
 - (a) SAS in 2018¹²⁹ selected its provider of NDC-compatible merchandising and distribution solutions. In its provider assessment internal document¹³⁰ SAS described its vision as 'full control' of retailing, [REDACTED].
 - (b) In the RFP for NDC-compatible solutions (including merchandising and distribution), Etihad airline specifies that it is looking to select a technology partner that will develop its 'Retail Platform and Merchandising Engine,

¹²⁹ [REDACTED]
¹³⁰ [REDACTED]

that drives ancillary revenues through personalization across all touchpoints of the customer journey.’ The airline wishes to be able to sell: ‘the right product, at the right time and optimal price point, through the right channels ant to a unique customer.’¹³¹

(c) In the RFP¹³² for NDC-compatible solutions (including merchandising and distribution), LATAM acknowledges the changing way airlines market their products and customer demands for personalisation, which requires the airline to adapt ‘to better compete and avoid the customization of our products’ and take control of the offer to address client’s needs’.

(d) [REDACTED].

Airline responses to the CMA’s questionnaires

23. Many of the 35 responding airlines, particularly large airlines, told us that they are looking to enhance customer offering and to differentiate their products (such as by introducing more personalised and dynamic offers through merchandising), as well as to reduce costs in distribution. The certain aspects of airline strategies include:

(a) Differentiation and cost reduction in response to airline competition: eight¹³³ airlines indicated that in response to competition from other airlines, including low cost carriers, they are looking to reduce their costs through alternative distribution channels, as well as to offer better and differentiated products. For example:

(i) one large airline¹³⁴ [REDACTED] told us that they have a cost disadvantage compared to easyJet, Ryanair and the Gulf carriers and so the core of the strategy is to be a premium airline, be comparable and win customers because of the product they can deliver. This comparison is not available if they ‘are stuck on the GDS system’.¹³⁵

¹³¹ [REDACTED]

¹³² [REDACTED]

¹³³ [REDACTED]

¹³⁴ [REDACTED]

¹³⁵ In particular, [REDACTED] told us ‘We have a big problem which is that we just cannot retail this in the existing, or pre-existing, GDS system ... at the core, why we chose to do this [use direct connect and NDC APIs] ... is simply because of that need to enable comparison shopping on the true features we have to bring to the consumer ... We love to be compared...actually want to be compared for our Premium Economy cabin, in which we invest billions to be compared as it is with rich media, with pictures, with ratings, with user reviews, with user reviews on richer spaces for people to make an informed choice, whether they shop B2C, or whether they are corporate shoppers and they are travel managers. And we cannot do any of that, and therefore win according to our strategy, if we are stuck on the GDS system.’ [REDACTED]

- (ii) [REDACTED] told us that the UK is one of the most innovative and competitive markets in Europe and this forces airlines to compete on many levels and not just on products and brands.¹³⁶
- (b) Adopting advanced revenue management technics that include dynamic pricing and ancillaries with personalisation: six¹³⁷ airlines indicated that they intend to implement advanced pricing techniques, and seven¹³⁸ airlines indicated that it is in their strategy to improve content, develop more dynamic and personalised offers; two¹³⁹ airlines in particular submitted that they expect revenue uplift by offering ancillaries, creating product bundles, implementing dynamic pricing.
- (c) Distribution through various channels: responses from 14 airlines¹⁴⁰ indicated that they have an ‘omni-channel approach’ to distribute their content through various channels. For example, one major airline submitted that its ‘main strategy on distribution content is to encourage the development of NDC within all distribution channels,’¹⁴¹ while major airline submitted that ‘we have an omni-channel approach and want to distribute our content to any channel where our customers choose to shop’.¹⁴²

Airlines views on NDC standard and its adoption

24. Airlines internal documents and their responses indicate that NDC compatible solutions are important to them as they provide the airlines with greater ability to enhance product offering, ability to control the offer and order creation and distribute it across multiple channels. Airlines have been developing these NDC compatible solutions as part of their content distribution strategy and have already made (or have planned to make) significant investments. The airlines have a mixed approach in procuring their NDC compatible solutions, with more airlines recently looking to procure them together.

Airline internal documents

25. Airline internal documents also indicate benefits of NDC and consider that NDC is important in their future distribution strategy.

136 [REDACTED]
137 [REDACTED]
138 [REDACTED]
139 [REDACTED]
140 [REDACTED]
141 [REDACTED]
142 [REDACTED]

- (a) An extract from [redacted] distribution strategy shows that [redacted] considers that [redacted], allows to provide rich content and better customer experience, as well as to reduce costs.

[redacted]

- (b) Another [redacted] internal strategy document notes that NDC is one of the enablers [redacted].

[redacted]

- (c) Lufthansa’s internal strategy document shows that NDC allows introduction of key features from modern e-commerce.

Figure F.14: Lufthansa Group Strategy. Part 3: Distribution Strategy, 2018

NDC allows customer for enhanced offer search, comparison and selection

NDC will finally introduce key features known from modern E-commerce. Customers will benefit from more transparency, flexible prices and attractive offers in a digital environment.

The image displays two screenshots from a Lufthansa Group Strategy document. The left screenshot, titled 'Typical search website based on EDIFACT', shows a basic search form with fields for 'Round-trip' or 'One-way', 'Depart from', 'Arrive at', 'Depart on', 'Return on', '2 Adult', '3 Children', 'Class', and 'Airline'. The right screenshot, titled 'Potentials for advanced display and upsells based on XML', shows a more complex 'COMPARE' interface. It lists two flight options: Lufthansa (16:10 - 17:25, 1h 15m, 0 stops, FRA - AMS) priced at €645, and Other Airlines (14:00 - 15:20, 1h 20m, 0 stops, FRA - AMS) priced at €615. The Lufthansa option includes a 'Happy Family Package' for only +€55, which offers extra baggage, preferred zone, extra legroom, WiFi, airport parking, hand baggage, fast lane, change of booking, and lounge access. The document footer includes 'Lufthansa Group Strategy 4./5. DEC 2018, FRA HD/B Page 5' and logos for Austrian, Lufthansa, SWISS, and LUFTHANSA GROUP.

Source: Lufthansa response to Phase 2 questionnaire, [redacted]

- (d) [redacted].

[redacted]

Airline responses

- 26. Nearly all¹⁴³ of the airlines responding to the question submitted that NDC enabled services are important to them, with nine¹⁴⁴ airlines specifically

¹⁴³ [redacted] Three airlines [redacted] provided benefits of NDC, but did not indicate how important it is for them to have NDC enabled services.

¹⁴⁴ [redacted]

indicating that it is crucial, critical or very important in achieving their future goals.

- (a) 'NDC and ultimately One Order are at the very foundation of our future distribution strategy. Without having the industry move towards NDC, its very likely that we will not be able to move past the barriers that legacy ... concepts.'¹⁴⁵
- (b) 'NDC provides rich content, more efficient ancillaries sales process, Innovation; better access to all products and services of the airline, air segments, ancillaries, special services, exchanges, refunds ... if we do not move to NDC we will not be able to innovate, compete, enhance our functionalities and provide better products and services to our customers.'¹⁴⁶
- (c) 'NDC-enabled solutions are extremely important to enable enhanced retailing to travel agencies that can offer services that are equivalent to those offered through direct booking channels.'¹⁴⁷
- (d) '[REDACTED]'.¹⁴⁸

27. In addition to above, airlines that are developing or enhancing NDC-capabilities most frequently identified better customer experience (ie personalisation and differentiation, such as through dynamic and continuous pricing) and airline control of the offer as the benefits of having NDC enabled services. Specific comments included:

- (a) 'The airlines truly owning the "offer and order fulfilment" is a key driver for airlines pursuing an NDC/API strategy. [REDACTED] would expect to benefit from API distribution as follows: Providing customers with flexibility through tailored retail offerings; Improved customer satisfaction by recognising customer needs in advance; Revenue uplift delivered by creation of product bundles and dynamic pricing.'¹⁴⁹
- (b) Etihad described values and benefits of NDC to its airline, which included: 'Personalization & Merchandising capabilities (Ex: Dynamic pricing – Change fees based on the load factor of the flight; Real time dynamic

145 [REDACTED]
146 [REDACTED]
147 [REDACTED]
148 [REDACTED]
149 [REDACTED]

offer); includes rich content and ancillaries (similar booking experience as airline.com); offer tailored content (fare bundles & ancillaries).¹⁵⁰

- (c) One airline submitted that benefits in NDC enabled services are enhanced usage of retailing opportunities, enhanced display and user friendliness of airline products, higher transparency and comparability of products and better and faster technological integration possibilities into other html based systems and tools.¹⁵¹
- (d) 'It is extremely relevant for LATAM to move to the future distribution as an e-retailer. Creating offers adapted to the needs of each of our clients. Improving the way of presenting the offer and introduce a big jump on technology for an omnichannel perspective. Get the control of the offer and provide the best service to the agencies.'¹⁵²

Adoption of the NDC standard

28. The significant majority of the airlines submitted that they either already have some NDC capabilities developed or are working towards developing NDC-enabled capabilities. In addition, airline responses indicated that airlines have already made investments (monetary and time) in developing NDC enabled capabilities or are planning to do so in the next few years. Examples below indicate that airlines have been investing in NDC and have been doing this for several years:

- (a) [REDACTED].
- (b) [REDACTED] began investing in NDC in [REDACTED]. To date it has spent c. [REDACTED] million on NDC and expects development to continue for further [REDACTED] months and incur additional [REDACTED] million before the NDC solution is fully operational.
- (c) American Airlines – to date has spent [REDACTED] on its NDC deployment and has budgeted further [REDACTED] for the next year.
- (d) [REDACTED].
- (e) [REDACTED] investments in developing NDC would be millions of dollars and a team of 20 people.
- (f) Delta - building out [REDACTED]. This roadmap started in 2018 and will continue in 2020-21 with [REDACTED] investment per year.

¹⁵⁰ [REDACTED]

¹⁵¹ [REDACTED]

¹⁵² [REDACTED]

(g) [REDACTED] planned costs of adoption €40 million over 5 years.

*Approach in purchasing non-core and content distribution services*¹⁵³

29. While majority¹⁵⁴ of airlines in their submissions did not indicate that it is important for them to be able to purchase non-core PSS modules¹⁵⁵ and content distribution services (eg APIs, connection to travel agents/GDS) from the same supplier, about half of those airlines¹⁵⁶ submitted that there are advantages of purchasing the models from the same supplier, in particular noting integration and interoperability, as well as costs. A few¹⁵⁷ airlines also referred to disadvantages of purchasing from the same supplier, such as trade-offs of costs or functionality and dependency on a single provider. Specific comments included:
- (a) 'Same supplier shall be the preferred choice for such dependable service. Although purchase of such dependable services from the same supplier enables central control mechanism and cost optimisation (in some cases), this also creates huge dependency to a 3rd party.'¹⁵⁸
 - (b) [REDACTED] selects non-core PSS modules based on alignment to business requirements, TCO, ease of integration, supplier reputation. If possible, where a suitable solution exists, an existing supplier will be used but that is only secondary to the functional fit and TCO.'¹⁵⁹
 - (c) 'It is not critical, as evidenced by the fact that we have purchased various modules from different suppliers. Advantages may be realized in terms of seamless connectivity/interoperability. Disadvantages may be in terms trade-offs of cost or functionality.'¹⁶⁰
30. A few¹⁶¹ airlines noted that they would purchase from different suppliers to get the best solution while some airlines,¹⁶² noted that they would like to at least have a choice to purchase from the same supplier. For example, one airline¹⁶³ submitted:

¹⁵³ Note that this does not apply exclusively to NDC compatible solutions.

¹⁵⁴ [REDACTED]

¹⁵⁵ Note that this section covers both NDC capable and non-NDC capable non-core PSS modules.

¹⁵⁶ [REDACTED]

¹⁵⁷ [REDACTED]

¹⁵⁸ [REDACTED]

¹⁵⁹ [REDACTED]

¹⁶⁰ [REDACTED]

¹⁶¹ [REDACTED]

¹⁶² [REDACTED]

¹⁶³ [REDACTED]

(a) 'today [redacted] purchases non-core PSS modules and content distribution services from multiple suppliers because of the technological capabilities or the desire to have the most effective technology at the time. Another relevant element is the integration of these services into [redacted] system. Nevertheless, it is important from a functional, integration, speed to market and other considerations that [redacted] has at least the option of being able to purchase both services from a single supplier.'¹⁶⁴

31. Some¹⁶⁵ airlines indicated that they would prefer to purchase from separate providers due to advantage of better negotiation ability when purchased from separate suppliers. Nevertheless, some indicated that there are further considerations, such as architectural and operational. For example:

(a) 'Not important and not desired ... as this would further increase dependency and weaken our negotiation position. On the other hand architectural and operational considerations can be a factor to place certain bundles at the same PSS provider paired with offered price advantages.'¹⁶⁶

32. A few airlines,¹⁶⁷ which considered it is important, submitted this was due to their commercial strategy or because it delivers synergies and higher interoperability.

Airline changing mix of distribution channels

33. The airline responses and their internal documents indicate that the current mix of bookings through various distribution channels has been changing. Airlines' future content distribution projections include shifting volume away from traditional Edifact technology GDS to distribution through their NDC APIs (including GDS bypass and GDS pass-through), as well as shifting volume to airline.com. While airlines consider that GDS would remain relevant in the future, many airlines also are increasing the usage of GDS bypass and have plans to grow GDS bypass further (as in line with their strategy to be omni-channel).

Airline internal documents

34. Examples from airlines internal documents ([redacted]) show current airlines' strategies towards facilitating the use of different channels to distribute their content, which include direct connect, non-GDS aggregators, as well as

¹⁶⁴ [redacted]

¹⁶⁵ [redacted]

¹⁶⁶ [redacted]

¹⁶⁷ [redacted]

airline.com. [REDACTED] internal strategy documents consider shifting more bookings from GDS to both direct channels and GDS bypass.

[REDACTED]

35. [REDACTED].¹⁶⁸

36. [REDACTED].

[REDACTED]

37. [REDACTED].

[REDACTED]

38. [REDACTED].

[REDACTED]

39. [REDACTED].

[REDACTED]

40. [REDACTED].

[REDACTED]

[REDACTED]

41. An internal strategy document detailing [REDACTED] approach to NDC and APIs indicate that [REDACTED] preferred distribution channel is direct (with the aim of [REDACTED]% of bookings through direct channels, see Figure F.21 below) and that [REDACTED] objective is to '[REDACTED]' Nevertheless, the airline considers that it is strategic mission is to '[REDACTED]'.¹⁶⁹

[REDACTED]

42. Figure F.22 below presents the objectives of [REDACTED] distribution strategy. It states that [REDACTED] shift volume from indirect channel (in particular shifting metasearches bookings from OTAs to direct channel, which [REDACTED]). The airline plans to introduce facilitated bookings, which [REDACTED].¹⁷⁰

¹⁶⁸ [REDACTED]

¹⁶⁹ [REDACTED]

¹⁷⁰ [REDACTED].

43. In addition, [REDACTED] plans to develop NDC direct connect (GDS bypass) (Figure F.23 below) and considers imposing a GDS surcharge: [REDACTED].¹⁷¹

[REDACTED]

Airline booking data

44. We have considered how the shares of bookings on British Airways and Lufthansa have changed since these airlines introduced surcharges on the GDS or withdrew content from the GDS. We found that both GDS bypass and airline.com have gained material shares from the GDS for these airlines.

(a) [REDACTED].

Table F.4: Evolution of British Airways bookings across different channels

[REDACTED]

(b) We have also considered Lufthansa’s data on their bookings across different channels and how they changed since Lufthansa introduced Distribution Cost Charge in September 2015. The table below presents shares of Lufthansa bookings (%) broken down by channel for the period – between Q3-2015 and Q3-2019. For Lufthansa, the GDS share has decreased by 18pp (from 71% to 53%), [REDACTED]. Considering a shorter period since April 2018 (when Lufthansa further withdrew content from GDS), it saw a relatively significant increase in the share of bookings through GDS bypass by 5pp and increase in airline.com by 2pp between Q1-2018 and Q3-2019.

Table F.5: Evolution of Lufthansa Group bookings across different channels

Share of bookings through different channels, %					
Quarter	Airline.com	NDC (direct connect and aggregators)	Total GDS	Other	
2015 Q3	[REDACTED]	[REDACTED]	71	4	
2015 Q4	[REDACTED]	[REDACTED]	65	4	
2016 Q1	[REDACTED]	[REDACTED]	63	4	
2016 Q2	[REDACTED]	[REDACTED]	65	4	
2016 Q3	[REDACTED]	[REDACTED]	64	4	
2016 Q4	[REDACTED]	[REDACTED]	61	4	
2017 Q1	[REDACTED]	[REDACTED]	62	4	
2017 Q2	[REDACTED]	[REDACTED]	65	4	
2017 Q3	[REDACTED]	[REDACTED]	63	4	
2017 Q4	[REDACTED]	[REDACTED]	61	4	
2018 Q1	[REDACTED]	[REDACTED]	60	3	
2018 Q2	[REDACTED]	[REDACTED]	62	4	
2018 Q3	[REDACTED]	[REDACTED]	59	4	

¹⁷¹ [REDACTED].

Share of bookings through different channels, %				
Quarter	Airline.com	NDC (direct connect and aggregators)	Total GDS	Other
2018 Q4	[X]	[X]	55	3
2019 Q1	[X]	[X]	53	3
2019 Q2	[X]	[X]	56	3
2019 Q3	[X]	[X]	53	3
Change in % (Q3 2019 vs Q3 2015)	[X]	[X]	-18	-1
Change in % (Q3 2019 vs Q1 2018)	[X]	[X]	-7	-1

Source: CMA analysis of Lufthansa data.

Airline responses

45. Airline responses indicate that they project reducing the share of bookings through GDS, in particular, through the traditional Edifact technologies and project the growth in share of bookings through their NDC API, which includes GDS bypass and GDS pass-through. Airline responses also indicated that they project the growth in the share of bookings on their direct channels, but some airlines indicated that indirect channels are not fully substitutable for all customers.

GDS

46. Nearly all of the 29 airlines responding to Phase 2 indicated that they project reducing the share of bookings made through GDS, in particular through the traditional Edifact technologies.¹⁷² Several airlines submitted that they will be shifting their bookings to NDC-capable solutions:
- (a) 'We will continue to shift as much of our content and connections to NDC as possible so that eventually we can sunset legacy TTY and EDifact messages. ... We will implement NDC with the GDSs, with the non-GDS aggregators and we will pursue as many strategic Direct-Connect opportunities that make sense.'¹⁷³
- (b) 'Our project usage for the next five years is to increase the distribution of content through NDC-enabled solutions, regardless of the channel used.'¹⁷⁴

¹⁷² [X] submitted that they plan to grow GDS, but the responses indicate that in absolute volume rather than grow the share of bookings; [X] did not indicate their usage plans of GDS. [X] submitted that they plan to grow GDS share (but they also indicate that they plan to grow at least one other channel).

¹⁷³ [X]

¹⁷⁴ [X]

- (c) 'In the next few years traffic will be swapping from classic GDS distribution to NDC based distribution.'¹⁷⁵
- (d) Some¹⁷⁶ airlines noted that they support IATA's Leaderboard roadmap and NDC@scale or are working towards the goal to achieve at least 20% of indirect volume through NDC-capable APIs by 2020.

47. Nevertheless, some airlines¹⁷⁷ indicated that GDS will stay important in the indirect distribution as they provide the ability¹⁷⁸ to distribute at scale or that TMCs will continue to prefer GDSs (although, as noted in the paragraph above, airlines typically told us that their plans are to reduce their share of bookings through GDSs).¹⁷⁹ One airline submitted that they content 'will continue to be distributed via GDS but expanded to a range of other players such as agents and other new entrants via NDC either directly or via aggregators.'¹⁸⁰
48. A number of airlines noted adoption of NDC by GDS are required to drive the adoption of NDC at scale: American Airlines noted that to achieve the goal of 20% of indirect volume through NDC-capable API, NDC needs to be adopted by GDSs, while [REDACTED] submitted that they do not expect GDS bypass to fully replace GDS at least in the short/medium term. However, some¹⁸¹ noted that GDS role may change where they become more of an aggregator (no longer creating the offer).

GDS passthrough

49. Slightly more than half¹⁸² of 29 airlines responding to Phase 2 questionnaire submitted that they plan to either start using or grow GDS pass-through.
50. However, some airlines¹⁸³ indicated that GDS would stay important if they keep up with innovations, for example, one airline submitted 'should the GDS fail to invest in their platforms in order to enable new functionality, we

¹⁷⁵ [REDACTED]

¹⁷⁶ [REDACTED]

¹⁷⁷ [REDACTED], while [REDACTED] submitted that they will rely strongly in distributing their products through GDS [REDACTED].

¹⁷⁸ [REDACTED] submitted that while it is possible to distribute at scale through NDC as is demonstrated by the large OTAs, GDSs are likely to remain critical to distributing at scale to corporate customers through TMCs [REDACTED].

¹⁷⁹ [REDACTED] submitted that this doesn't mean that it is what [REDACTED] wishes, but what might happen due to GDS market position [REDACTED].

¹⁸⁰ [REDACTED]

¹⁸¹ [REDACTED]

¹⁸² [REDACTED]

¹⁸³ [REDACTED]

expect more agents to invest in Direct Connect capability to access' airline platform.'¹⁸⁴

GDS bypass

51. Nearly all¹⁸⁵ of airlines submitted that they project increasing their usage of both direct connect and aggregators and thereby reducing the share of bookings through GDS in overall. For example, one major airline submitted that it plans to 'build up more direct relationships with agencies (incl. paying them bonus payments for NDC set-up and/or production and upsell to higher fares and ancillaries).'¹⁸⁶
52. A few¹⁸⁷ airlines in particular noted that aggregators will be important in the growth of NDC distribution, such as IAG told us that 'it would be primarily aggregators that would drive most of our NDC value,'¹⁸⁸ while [X] submitted that 'non-GDS aggregators implementing NDC faster than the GDSs and ... we are absolutely focused on getting these aggregators up and running as quickly as possible.'¹⁸⁹
53. [X] submitted that 'we are close to implementing a solution which enables both aggregators and travel agents to connect to NDC' and 'from a level of almost 0% today, [X] seeks to grow this channel [aggregators] and for it to be double digits in the next 5 years.'¹⁹⁰

Airline.com

54. Nearly all airlines¹⁹¹ submitted that they plan to grow their share of bookings through airline.com. While some¹⁹² airlines noted that their preferred channel (or one of the preferred channels) to distribute would be airline.com, some airlines also indicated that indirect channels would still be

¹⁸⁴ [X]

¹⁸⁵ Only [X] submitted that it plans to keep the share of direct connect as it is currently, but grow the share through aggregators ([X]); [X] submitted that it is building the 'functionality to enable additional connectivity options and while the strategy is not determined yet, but it expects to make use of bypass ([X]). All other airlines indicated that they plan to grow both or either of the channels; except the following airlines which did not indicate their plans towards GDS bypass: [X].

¹⁸⁶ [X]

¹⁸⁷ [X]

¹⁸⁸ [X]

¹⁸⁹ [X]

¹⁹⁰ [X]

¹⁹¹ Three airlines did not provide a response ([X]), but [X] that its strategy is to grow bookings through airline.com.

¹⁹² [X]

important, with some noting that direct channels are not suitable for all customers and there might be limited substitution.¹⁹³ For example:

- (a) [X] preferred channel is Direct online as [X] can have a direct contact with its customers with cheapest costs. However, corporate customers are particularly key [X]. Such customers still very much rely on travel agencies.¹⁹⁴
- (b) '[X] has a deliberate strategy to have more customer shop and buy directly with the airline. We are investing significant resource over the next 3 years in growing traffic to our website and to our Direct Connect. We feel that there is an important (but perhaps relatively small) segment of the travel agency population that will not want / be able to build Direct Connects, and therefore a variety of aggregator solutions is important.'¹⁹⁵
- (c) 'The indirect channel remains critical to American's business because substitution between direct and indirect channels is currently limited. Indirect channels in the EEA account for more than [X]% of American's bookings by revenues. American would not be able to substitute sales through indirect channels by sales through direct channels because indirect channels provide access to additional customers that choose not to use the direct channel. The most significant group in the indirect channel in this respect are the Travel Management Companies.'¹⁹⁶
- (d) 'The different channels cater different needs, e.g time sensitive passengers often book through travel agents while leisure travellers to a larger extent use direct channels and so called OTA/Meta. Travel agents become more important outside [X] home markets [X].'¹⁹⁷

55. Similarly, another airline [X] noted that 'we will continue pushing for airline.com growth but we acknowledge this channel will never replace completely GDS distribution.'

GDS responses and Farelogix's role in airlines achieving their distribution goals

56. A number of airlines¹⁹⁸ noted the outdated GDS technology (which constrains airlines in enhancing their offering) and that GDS have been slow in innovating and developing technology, which would allow airlines to

193 [X]
194 [X]
195 [X]
196 [X]
197 [X]
198 [X]

respond to customer needs. For example, one airline [REDACTED] submitted that it has ‘approached all of the GDS [REDACTED] and asked them all to develop improved shopping workflows to support our new (at the time) fare brands. Realistically, they still do not adequately support them even today.’

57. In this regard, several airlines¹⁹⁹ noted that having a GDS bypass has brought competitive pressure on GDSs and encouraged them to innovate and develop their NDC enabled solutions. Specific comments included:
- (a) ‘American started using NDC to deliver new customer products and services that GDSs were not able to offer due to technological constraints. [...] and have sought to bring the functionality and services offered through their websites/apps to other channels,’ ‘the services Farelogix has provided to American and many other major airlines have created competitive pressure on the GDSs by facilitating alternative distribution options.’²⁰⁰
 - (b) ‘GDSs have not provided significant innovation ... having an alternative to the GDSs encourages the GDSs to modernize their systems and display/booking capabilities. Without this competition and threat, they would not feel the need to provide better services or capabilities.’²⁰¹
 - (c) ‘Direct Connect introduces competitive pressure on indirect distribution (and the GDSs that are so entrenched in the necessary content flow between airlines, travel agents and passengers).’²⁰²
 - (d) One airline²⁰³ submitted that although it has chosen to work with GDSs to drive NDC scale, they ‘see Direct Connect as driving competitive tension by providing a reason for GDS to continue innovating and investing. If the GDS fail to keep pace with innovation we expect we will see more travel companies using Direct Connect.’
58. A few airlines²⁰⁴ also noted that GDS and PSS may not be interested in allowing airlines to set GDS bypass and thereby reducing their own GDS volume, with one airline²⁰⁵ submitting that they have selected Farelogix as it is PSS agnostic: ‘past experiences show that GDS providers heavily fight direct connects and might do so in the future... Amadeus was not willing or

¹⁹⁹ [REDACTED]. In addition, [REDACTED] submitted that direct connect ‘has created more competition. Since then, GDSs have been very active to approach airline on NDC cooperation to ensure they will not be losing out.’

²⁰⁰ [REDACTED]

²⁰¹ [REDACTED]

²⁰² [REDACTED]

²⁰³ [REDACTED]

²⁰⁴ [REDACTED]

²⁰⁵ [REDACTED]

eager to implement [direct connect] due to the threat to its GDS business. This was also one of the drivers to select Farelogix as PSS agnostic IT provider.²⁰⁶

59. Several airlines,²⁰⁷ in particular, mentioned that Farelogix's solutions have enabled airlines to develop services or have created pressure on GDSs. Farelogix was also often referenced as leading in innovating (further discussion is provided in the section 'Airline responses on the strength of merchandising and distribution solution suppliers'). Specific comments included:

- (a) 'Farelogix is a key player in both non-core PSS services and connection services. They have caused disruption to the status quo and have been the close partner for many airlines as they evolved from "schedule and price" selling to true retailing. Farelogix has been responsible for a majority of the indirect bookings that have bypassed the GDS in the last decade.'²⁰⁸
- (b) 'Airlines are leading in this domain as they are the ones creating the product offer for their customers. Providers can enable airlines to distribute those new products and get out of the legacy way of distributing (fare filing, 26 letters of the alphabet...). To that extent, Farelogix is key.'²⁰⁹
- (c) 'The NDC standard is based on a standard that was initially created by them [Farelogix] and they are way ahead the others in creating business opportunities for airlines. Their roadmap seems to be ambitious and they drive a lot of the innovation forums in the market.'²¹⁰
- (d) 'Farelogix plays a very important role in the airline industry, being the driving force to bring new distribution technology to the market. ... Farelogix works with airlines (and travel agents) to develop individualised, tailored and innovative technical solutions for content distribution (and access).'²¹¹
- (e) 'The continued development and success of innovative players such as Farelogix will be key to realizing this future state.'²¹²

206 [X]
207 [X]
208 [X]
209 [X]
210 [X]
211 [X]
212 [X]

Airline recent RFPs

60. This section provides a summary of the recent, in the last three years, RFPs of airlines responding to our questionnaire.
61. Airlines may issue RFPs when seeking to upgrade their existing modules or seeking additional or complementary functionalities (eg such as NDC services or merchandising modules). However, a few airlines²¹³ may approach providers directly without an RFP, [REDACTED].²¹⁴
62. In addition, we have seen airlines purchasing additional services from a provider because they already had the relationship with them. For example:
- (a) [REDACTED].
 - (b) TAP's decision to go on with [REDACTED] was related [REDACTED].²¹⁵
 - (c) [REDACTED].²¹⁶
63. RFPs from 12 airlines to suppliers of NDC-compatible solutions in the last three years indicated that seven out of 12 RFPs relating to NDC solutions included at least merchandising and distribution, including cases²¹⁷ where multiple suppliers were chosen as winners of the same RFP.^{218,219}
- (a) [REDACTED].
 - (b) [REDACTED].
 - (c) [REDACTED].
 - (d) [REDACTED] issued an RFP for merchandising, but in April 2019 it has chosen Farelogix to provide the full suite of its Airline Commerce Gateway retailing and distribution solutions.
 - (e) [REDACTED].
 - (f) [REDACTED].
 - (g) [REDACTED].

²¹³ [REDACTED]

²¹⁴ [REDACTED]

²¹⁵ [REDACTED]

²¹⁶ [REDACTED]

²¹⁷ [REDACTED]

²¹⁸ Note that in addition to these 12 RFPs, [REDACTED]. However, these RFIs were for information only and did not result in any bids/winners/losers.

²¹⁹ [REDACTED]

64. However, this approach is not universal as some RFPs focus on specific functions: [REDACTED] in merchandising ([REDACTED]); [REDACTED] in NDC API and direct connect but not in offer creation modules ([REDACTED]); [REDACTED] on merchandising and pricing solutions (as they already had NDC API); and [REDACTED] in merchandising ([REDACTED]), but [REDACTED] has in-house built NDC API. [REDACTED].
65. In the following paragraphs, we provide the summary of airlines' internal documents evaluating suppliers which responded to their recent Request for Information or Request for Proposal in relation to NDC, merchandising and/or distributions services. In addition, we have considered airline responses regarding their recent RFP processes and their choice of the winning supplier.²²⁰

RFPs for NDC solutions that include both merchandising and distribution

TAP (Air Portugal) RFP

66. TAP undertook an RFP process (2017) to select its NDC provider. The RFP's scope included NDC APIs, offer (with merchandising and dynamic pricing capabilities) and order management solutions. [REDACTED] participated in the RFP and the winners [REDACTED].
67. The RFP stated that suppliers do not need to be able to offer the full solution and can present products, solutions and services that cover only part of the requirements. 'TAP will consider all proposed solutions and the possible combination of solutions in case the combination of modules and/or features of different candidates result in a more flexible, scalable and re-usable solution for TAP One Connect.'²²¹ Nevertheless, TAP submitted that 'retailing capability was critical factor for the decision about NDC provider. We preferred to have retailing module integrated under the same provider / solution.'²²²
68. The selection criteria included services provider's background, financial health, and experience (similar project/scale experience and experience in airline industry); technical quality of the project; implementation time and monitoring; solution flexibility; ability to cope with growing objectives; fees and terms and conditions.

²²⁰ In addition to the airline RFPs discussed below, two other airlines which responded to our questionnaire ([REDACTED]) have issued RFPs recently, but we have not received their internal documents on the evaluation of suppliers or their responses were not sufficient enough to qualitatively evaluate airline's views on bidders. For example, [REDACTED].

²²¹ [REDACTED]

²²² [REDACTED]

69. In addition, the RFP included the request for the service providers to ‘indicate references of similar projects that have been carried out by themselves, to clients with scale and complexity similar to TAP Group, whether domestic or international preferably in the aviation industry.’
70. Figures F.24 and F.25 below shows TAP’s evaluation of the offers. TAP submitted that it was a combined analysis of Offer Management, Order Management and revenue management/dynamic pricing capabilities.²²³
71. [REDACTED] participated in the RFP. TAP has [REDACTED].
- [REDACTED]
72. TAP submitted that it [REDACTED],²²⁴ [REDACTED]:
- (a) [REDACTED].²²⁵

SAS RFP

73. SAS undertook an RFI and RFP processes between late 2017 and early 2018 to select its NDC provider. The solutions sought included NDC API, and offer (with merchandising) and order management solutions, with requirement for personalised and rich content across all channels.
74. [REDACTED].
- [REDACTED]
75. The shortlisted bidders included [REDACTED], Datalex, and [REDACTED], and the winner was Datalex. [REDACTED].²²⁶
76. [REDACTED].
77. [REDACTED].²²⁷
- [REDACTED]
78. [REDACTED].²²⁸ [REDACTED].
- [REDACTED]

²²³ [REDACTED]

²²⁴ [REDACTED]

²²⁵ [REDACTED]

²²⁶ [REDACTED]

²²⁷ [REDACTED]

²²⁸ [REDACTED]

79. [REDACTED].

[REDACTED]

[REDACTED]

80. [REDACTED].²²⁹ [REDACTED]

81. [REDACTED].

(a) [REDACTED]

82. [REDACTED].²³⁰

83. [REDACTED].²³¹[REDACTED].²³²

84. [REDACTED].²³³ [REDACTED].²³⁴ [REDACTED].²³⁵,

85. [REDACTED].

86. [REDACTED].

[REDACTED]

87. [REDACTED].²³⁶ [REDACTED].

[REDACTED]

Etihad RFP

88. Etihad (2017) issued an RFP for 'Retail Platform and Merchandising Engine' to drive ancillary revenues through personalisation.²³⁷ The scope covers both merchandising and distribution solutions (NDC API and direct connect functions).

89. In the RFP for NDC solutions, Etihad airline specifies that it is looking to select a technology partner that will develop its 'Retail Platform and Merchandising Engine, that drives ancillary revenues through

²²⁹ [REDACTED]

²³⁰ [REDACTED]

²³¹ [REDACTED]

²³² [REDACTED]

²³³ [REDACTED]

²³⁴ [REDACTED]

²³⁵ [REDACTED]

²³⁶ [REDACTED]

²³⁷ [REDACTED]

personalization across all touchpoints of the customer journey.’ The airline wishes to be able to sell: ‘the right product, at the right time and optimal price point, through the right channels ant to a unique customer.’²³⁸

[REDACTED]

90. Etihad submitted that the bidders were [REDACTED].²³⁹ In the supplier evaluation internal document (Figures F.33 and F.34), Etihad gave Farelogix the highest score of [REDACTED] against Datalex ([REDACTED]), which was the only other shortlisted bidder. The criteria used was: functional capability (offer and order management, merchandising, direct connect and NDC and omni channel), architecture and technology, engagement approach and company strategy and vision (company vision and overview, product roadmap, client base and reference).

[REDACTED]

[REDACTED]

91. [REDACTED].²⁴⁰

[REDACTED]

92. [REDACTED] issued an RFP for merchandising, but in April 2019 it has chosen Farelogix to provide the full suite of its Airlines Commerce Gateway retailing and distribution solutions. [REDACTED].²⁴¹

RFPs for merchandising solutions

[REDACTED]

93. [REDACTED].²⁴²

94. [REDACTED]²⁴³ [REDACTED].²⁴⁴[REDACTED].²⁴⁵

95. [REDACTED].

²³⁸ [REDACTED]

²³⁹ [REDACTED]

²⁴⁰ [REDACTED]

²⁴¹ [REDACTED]

²⁴² [REDACTED]

²⁴³ [REDACTED]

²⁴⁴ [REDACTED]

²⁴⁵ [REDACTED]

[✂]

96. [✂]

97. [✂].

[✂]

[✂]

98. [✂].²⁴⁶

99. [✂].²⁴⁷ [✂].

[✂]

100. [✂].

101. [✂].

[✂]

102. [✂].

103. [✂].

[✂]

[✂]

104. [✂].

105. [✂].²⁴⁸

RFPs for distribution solutions

[✂]

106. [✂].²⁴⁹ [✂].²⁵⁰

²⁴⁶ [✂]
²⁴⁷ [✂]
²⁴⁸ [✂]
²⁴⁹ [✂]
²⁵⁰ [✂]

107. [REDACTED].²⁵¹ [REDACTED].

[REDACTED]

Airline responses on the strength of merchandising and distribution solution suppliers

108. This section summarises the airline responses to our questionnaires/calls on their views regarding the relative strengths of suppliers of merchandising and distribution solutions.

Evaluation of suppliers

Merchandising

109. The section below summarises airline views on the suppliers which they consider to be an alternative to either Sabre or Farelogix for the supply of merchandising solutions (21 airlines responded). We also asked airlines to identify the suppliers that they consider will become stronger or weaker competitor to either of the Parties in the next 5 years, based on their expectations of developments in the industry (to which 19 responded).

Farelogix

110. Airlines, comparing other providers to Farelogix, in general noted Farelogix's broader functionality and better capabilities (eg flexibility, has graphical user interface etc). Furthermore, airlines also noted Farelogix's independency from PSS and GDS and its agnostic approach. In addition, one major airline submitted that 'Farelogix does not restrict usage in combination with a pricing provider and PSS' and that 'it is currently used by many large airlines incl. Lufthansa Group to optimize offering based on merchandising techniques, ... the solution is clearly a frontrunner challenging standard legacy ATPCO pricing limitations.'²⁵²

111. Further comments²⁵³ about Farelogix regularly noted its innovative nature and that it is leading in developing technology in NDC, merchandising and related services, with five airlines²⁵⁴ describing it as 'disruptor.' For example (further details are provided in section Innovation):

²⁵¹ [REDACTED]

²⁵² [REDACTED]

²⁵³ Includes comments not restricted to the question about alternative suppliers.

²⁵⁴ [REDACTED]

- (a) 'Supply of Merchandising: We consider Farelogix as an innovator, technology leader, and implementing new technologies either early or firstly.'²⁵⁵
- (b) Not limiting to merchandising services, one airline submitted: 'Farelogix plays a very important role in the airline industry, being the driving force to bring new distribution technology to the market. It describes itself as an innovator and disruptor.'²⁵⁶

112. Five²⁵⁷ responding airlines identified Farelogix to become stronger in Merchandising,²⁵⁸ with the reasons provided such as Farelogix's established position in the industry and their forward thinking. However, one of the airlines [REDACTED] told us that this would happen if there is competition between Sabre, Farelogix and Amadeus, but if 'Sabre merges with FLX, we are not sure about the future evolution of FLX Merchandise.' No other airline mentioned that Farelogix will become weaker competitor in Merchandising.

113. One airline [REDACTED] submitted a general view about Sabre's and Farelogix's competitors (referring to both merchandising and content distribution), indicating that GDS would remain the main Farelogix's competitors as smaller providers (discussed in the following paragraphs) would not become effective competitors to Farelogix:

- (a) 'In addition to the major GDSs (i.e. Sabre, Amadeus and Travelport) becoming a threat to Farelogix there are also other entities which will focus on Merchandising and/or Indirect content distribution, such as Datalex, OpenJaw and JR Technologies. Many of these entities are small and it is too early to say whether they will scale to the same extent/level as Farelogix. However, they will not have the industry contacts, financial resources or potential economies of scale/scope to be able to compete as effectively with Farelogix as the major GDSs.'

²⁵⁵ [REDACTED] submitted that Farelogix is a key player in both non-core PSS services and connection services. They have caused disruption to the status quo and have been the close partner for many airlines as they evolved from "schedule and price" selling to true retailing. Farelogix has been responsible for a majority of the indirect bookings that have bypassed the GDS in the last decade. Together with airlines, Farelogix has defined indirect distribution and created an entirely new distribution channel that did not exist at all before.

²⁵⁶ [REDACTED]

²⁵⁷ [REDACTED] In addition to these airlines, [REDACTED] submitted that jointly Sabre and Farelogix will become stronger ('Amadeus and Sabre/Farelogix [will become stronger] if they leverage their PSS/GDS businesses.') and hence we did not include it in the count.

²⁵⁸ Note that the question asked which suppliers would become stronger/weaker competitors to either of the Parties and therefore the numbers of airlines identifying either Farelogix or Sabre would be understated as airlines are likely to have focused on providers they considered to be competitors to the Parties

Sabre

114. Airlines, comparing other providers to Sabre, in general noted that Sabre has less developed merchandising solution, with a few airlines noting that it is also PSS-dependent:

(a) one airline submitted that based on feedback ‘it is basic and lack of functionality to apply merchandizing/retailing techniques in general;’²⁵⁹

(b) [REDACTED];²⁶⁰

(c) [REDACTED].²⁶¹

115. Six²⁶² responding airlines identified Sabre to become stronger in Merchandising because of the following reasons: its established role as GDS, the fact that it is a PSS provider, and that it has substantial financial resources and a valued Merchandising product.²⁶³ However, one large European airline made these comments in anticipation of the Merger,²⁶⁴ while a Latin American airline²⁶⁵ said Sabre would be stronger if there was competition from Farelogix and Amadeus. One²⁶⁶ large airline mentioned Sabre among the ones that will become weaker in Merchandising as their innovation pace is too slow and therefore they will always be behind Farelogix’s product.

Amadeus

116. Airlines considered Amadeus to be an alternative and was the most often mentioned alternative by airlines (referred by 20 out of 21 airlines); however, the responses indicated that Amadeus is a weaker supplier than Farelogix. While three²⁶⁷ airlines indicated Amadeus as a close competitor to Farelogix, other airlines typically noted Farelogix’s broader functionality and offering, compared to Amadeus, as well as noting Amadeus’ limited

²⁵⁹ [REDACTED]

²⁶⁰ [REDACTED]

²⁶¹ [REDACTED]

²⁶² [REDACTED]. In addition to these airlines, [REDACTED] submitted that jointly Sabre and Farelogix will become stronger (‘Amadeus and Sabre/Farelogix [will become stronger] if they leverage their PSS/GDS businesses.’) and hence we did not include it in the count.

²⁶³ Note that the question asked which suppliers would become stronger/weaker competitors to either of the Parties and therefore the numbers of airlines identifying either Farelogix or Sabre would be understated as airlines are likely to have focused on providers they considered to be competitors to the Parties.

²⁶⁴ [REDACTED]

²⁶⁵ [REDACTED]

²⁶⁶ [REDACTED]

²⁶⁷ [REDACTED]

flexibility, including its dependence on Amadeus PSS, such as indicated by [REDACTED].²⁶⁸

(a) [REDACTED].²⁶⁹

(b) One major European airline submitted that it ‘has no modular approach, limited flexibility.’²⁷⁰

(c) [REDACTED].^{271,272}

(d) Moreover, while [REDACTED] listed GDS (Amadeus / Travelport) as an alternative supplier of merchandising services, it submitted that both (as well as Sabre) are not a viable alternative to merchandising services it receives from Farelogix due to the airline not using Amadeus or Sabre PSS services and because Farelogix provides a level of flexibility that is not currently replicated by other providers.

117. Airlines typically²⁷³ (17 out of the 19 responding airlines) identified Amadeus as a supplier which they consider would become a stronger competitor in merchandising to either of the Parties. The reasons mentioned included: their established position as PSS, mature capabilities and capital investments. No airline mentioned that Amadeus will become weaker in Merchandising. Some specific comments included:

(a) ‘Amadeus has the best capabilities with a complete suite of products that have already developed Full Enterprise Merchandising functionality; they can deliver as an entire enterprise package; and the expectation is that they will become stronger.’²⁷⁴

(b) ‘Their product is new and they are investing heavily, but they are many years behind.’²⁷⁵

²⁶⁸ [REDACTED]

²⁶⁹ [REDACTED]

²⁷⁰ [REDACTED]

²⁷¹ [REDACTED]

²⁷² [REDACTED]

²⁷³ However, one of the airlines [REDACTED] nuanced that this would happen if there is competition between Sabre, Farelogix and Amadeus and Sabre does not merge with Farelogix.

²⁷⁴ [REDACTED]

²⁷⁵ [REDACTED]

Travelport

118. Travelport was rarely mentioned as an alternative to either of the Parties. In the two cases it was mentioned, the airlines considered Farelogix to have better functionality and flexibility than Travelport.²⁷⁶

Datalex

119. Datalex was considered to be an alternative by slightly more than half²⁷⁷ (13) of responding airlines. However, five²⁷⁸ of these airlines highlighted differences in functionality and offering, noting Farelogix's advanced capabilities, compared to Datalex. For example, one airline, [REDACTED],²⁷⁹ while another another [REDACTED].²⁸⁰
120. Two airlines ([REDACTED]) identified previous issues with delivery of Datalex product as its weakness.²⁸¹
- (a) [REDACTED].²⁸²
- (b) [REDACTED].
121. Nevertheless, [REDACTED]²⁸³ while another major airline noted that '[REDACTED] compared well with Farelogix.'²⁸⁴
122. In addition, five responding airlines²⁸⁵ identified Datalex to become weaker. Two airlines²⁸⁶ airlines indicated Datalex recent financial issues and issues around Lufthansa's contract termination as the reasons (see below in section Datalex financial issues), while the rest did not provide reasons.
123. Only one²⁸⁷ airline identified Datalex to become stronger in Merchandising. In addition, another²⁸⁸ airline submitted that this will happen provided that Datalex solve their current financial problems, otherwise they would

276 [REDACTED]

277 [REDACTED]

278 [REDACTED]

279 [REDACTED]

280 [REDACTED]

281 [REDACTED]

282 [REDACTED]

283 [REDACTED]

284 [REDACTED]

285 [REDACTED]. In addition to the five airlines, [REDACTED] identified Datalex as both becoming stronger and weaker explaining that this would depend whether they manage to solve their current financial problems.

286 [REDACTED]

287 [REDACTED]

288 [REDACTED]

become weaker: 'Datalex [would become weaker], just in the case they get rear of their current issues financially and contractually.'

- *Datalex financial issues*

124. Datalex faces a series of challenges and uncertainties, including financial difficulties and the loss of a customer contract²⁸⁹ (see Appendix E for further details on financial issues). [REDACTED].²⁹⁰
125. Delta indicated that the financial issues Datalex faces has detracted them from using Datalex,²⁹¹ while a few other airlines noted Datalex's financial issues may leave them weaker:
 - (a) One airline²⁹² submitted that it 'investigated using Datalex to provide our NDC API, but stopped as a result of concerns regarding their long-term financial stability due to rumors they are seeking buyers.' And that 'their solution didn't seem to be nearly as sophisticated as the Farelogix Merchandising platform. Also, we are concerned about their longevity and stability.'
 - (b) [REDACTED].²⁹³
 - (c) 'Datalex had a spectacular accounting meltdown in 2018. Lufthansa, its largest customer, wants to terminate its contract.'²⁹⁴
 - (d) 'Farelogix has the best merchandising platform in the industry and their NDC solution seems to be the best so far as well, based on the number of customers they have attracted and their world-wide adoption/success. Datalex also has a good suite of products to offer, but their stability as a company is in question, making them a target for acquisition or general disruption.'²⁹⁵
126. SAS has recently (2018) selected Datalex to be their NDC supplier, [REDACTED].²⁹⁶

²⁸⁹ See [Datalex investor relations website](#).

²⁹⁰ [REDACTED]

²⁹¹ [REDACTED]

²⁹² [REDACTED]

²⁹³ [REDACTED]

²⁹⁴ [REDACTED]

²⁹⁵ [REDACTED]

²⁹⁶ [REDACTED]

OpenJaw

127. OpenJaw was referred as an alternative to either Sabre or Farelogix by approximately seven²⁹⁷ of responding airlines. While three²⁹⁸ airlines indicated that it is a close alternative, the rest of airlines indicated it as a limited or moderate alternative or noted limited functionalities of OpenJaw, compared to those of Farelogix. Specific comments included:

(a) [REDACTED].²⁹⁹

(b) 'OpenJaw functionality and tech capabilities seem to be behind FLX.'³⁰⁰

(c) [REDACTED].³⁰¹

128. Five³⁰² responding airlines identified OpenJaw to become stronger in merchandising. The reasons mentioned by airlines were: OpenJaw getting more NDC contracts³⁰³ and acquisition by Travelex, which could provide significant investment and strategic focus.³⁰⁴ Only one³⁰⁵ airline mentioned OpenJaw among the providers that will become weaker.

PROS

129. Similarly to Datalex, PROS was considered to be an alternative by slightly more than half³⁰⁶ (12) of the responding airlines. However, the airlines which compared PROS offering to Farelogix generally considered PROS functionality to be behind the level of Farelogix;³⁰⁷ they also noted that PROS merchandising solution is its new offering (following its recent acquisitions) and PROS is still developing it.³⁰⁸ Specific comments included:

(a) [REDACTED].³⁰⁹

²⁹⁷ [REDACTED] listed OpenJaw as an alternative but submitted that it has 'not evaluated OpenJaw, Datalex, ITA, IBM, Expedia or DXC in regard to non-core PSS services, and cannot comment on the extent to which they compete with Sabre and FareLogix' and hence we have not counted its response.

²⁹⁸ [REDACTED]

²⁹⁹ [REDACTED]

³⁰⁰ [REDACTED]

³⁰¹ [REDACTED]

³⁰² [REDACTED]

³⁰³ [REDACTED]

³⁰⁴ [REDACTED]

³⁰⁵ [REDACTED]

³⁰⁶ [REDACTED] Also [REDACTED], but it also submitted that they have not done functional comparison.

³⁰⁷ [REDACTED]

³⁰⁸ [REDACTED]

³⁰⁹ [REDACTED]

(b) [REDACTED].³¹⁰

(c) [REDACTED].³¹¹

(d) [PROS is] 'improving quickly on merchandising.'³¹²

130. Five³¹³ responding airlines identified PROS to become stronger in merchandising, highlighting its recent acquisition of a shopping tool, current effort to improve solution and revenue optimisation capabilities. For example, Etihad submitted 'PROS is building unique Merchandising capabilities with Machine Learning powered recommendation engine which is unlike most of the other Merchandising (rule based) engines in the market place.' One airline submitted it will become weaker as its merchandising solutions need to be 'flexible and easily integrated into PSS'.³¹⁴

ITA

131. ITA was referred as an alternative by six³¹⁵ responding airlines. While two³¹⁶ large US airlines indicated ITA as a close alternative to Farelogix (but did not identify particular reasons), other two airlines'³¹⁷ comments on ITA's product and its comparison to Farelogix indicated limited ITA's product offering:

(a) 'They see their solution as an alternative to Farelogix, but it was so similar to ATPCO's standard S7 record process that we didn't see it as anywhere near as sophisticated as the Farelogix Merchandising platform.'³¹⁸

(b) [REDACTED].³¹⁹

132. Three³²⁰ responding airlines identified ITA to become stronger in merchandising in future, [REDACTED]. One airline said ITA will become weaker as the airline is not 'sure they will continue to invest in their products'.³²¹

310 [REDACTED]

311 [REDACTED]

312 [REDACTED]

313 [REDACTED]

314 [REDACTED]

315 [REDACTED] (but [REDACTED] submitted it has not evaluated ITA).

316 [REDACTED]

317 [REDACTED]

318 [REDACTED]

319 [REDACTED]

320 [REDACTED]

321 [REDACTED]

Other providers

133. Some other providers were mentioned by responding airlines as an alternative provider to either Farelogix or Sabre; and these included:³²² SAP,³²³ IBS,³²⁴ JR Technologies,³²⁵ TP Connects.³²⁶ These suppliers were not in general identified by airlines as providers which could become stronger in future, except for JR Technologies and TP Connects. [X] submission indicates that it considered JR Technologies and TP Connects to be among providers becoming a stronger competitor in the future in merchandising, while [X] considered JR Technologies to be among competitors becoming stronger in merchandising.³²⁷

Distribution

134. This section summarises airlines' responses on their views on the suppliers which could supply them with services required to establish GDS bypass and their capabilities (to which 21 airlines responded). We also asked airlines to identify suppliers active in content distribution services which they expect to become stronger or weaker than either of the Parties in the next 5 years (to which 23 airlines responded). Their responses are summarised for each supplier below.³²⁸

Farelogix

135. Airlines, comparing other providers to Farelogix, in general noted that Farelogix has advanced connection (and NDC API) capabilities, experience with integration to PSS, and experience with travel agency implementation. In addition, airlines also noted Farelogix's independence from PSS and GDS, with a few airlines noting that it has created a competitive pressure on GDS. For example one airline submitted that 'Farelogix currently provide a solution that has better functionality (e.g. speed, development time, reliability), is agnostic to the PSS used and has increased the competitive pressure on GDSs to innovate.'³²⁹

³²² DXC, IBM and Expedia were mentioned by [X], but it submitted that it has not evaluated their products.

³²³ [X] (but noted SAP/PROS), [X]

³²⁴ [X]

³²⁵ [X]

³²⁶ [X]

³²⁷ [X]

³²⁸ Based on questionnaires across both Phase 1 and Phase 2.

³²⁹ [X], comparing GDS altogether to Farelogix

136. Further airline comments³³⁰ also referred to Farelogix as being an innovative and agile supplier, such as its [REDACTED].³³¹ Similarly, another airline³³² submitted with reference to ‘smaller providers (currently with limited scale including OpenJaw, JR Technologies and Pribas)’ that ‘whilst they are, like Farelogix, PSS neutral they have not innovated or provided the same GDS challenge that Farelogix has, and [REDACTED] does not expect them to be able to do so in the next 3 – 5 years.’
137. In addition, American Airlines³³³ submitted that only Farelogix has the required scale to serve them: ‘There are currently no real alternatives to Farelogix. For instance, Datalex and OpenJaw have never offered serious proposals to American.’
138. Seven³³⁴ airlines identified Farelogix to become stronger, with the reasons provided such as industry transition to an NDC world and Farelogix’s growth of technology offerings and direct distribution.³³⁵ Among these airlines, two³³⁶ submitted that Farelogix will become a stronger competitor specifically to Sabre, while a few other airlines³³⁷ submitted that Farelogix will become a threat to GDSs generally. However, one of the airlines caveated that this would be because of its combination with aggregators: ‘given the change in the model and the relevance of NDC, Farelogix combined with aggregators such as Travelfusion could become more competitive to the GDS.’³³⁸
139. One airline nevertheless submitted that Farelogix, together with Datalex and OpenJaw, will be weakened as they ‘cannot handle the rush of demand that is expected from airlines but smaller players might be in a good position. The NDC world will keep growing rapidly.’³³⁹

³³⁰ Includes comments not restricted to the question about alternative suppliers.

³³¹ [REDACTED]

³³² [REDACTED]

³³³ [REDACTED]

³³⁴ [REDACTED]

³³⁵ Note that the question asked which suppliers would become stronger/weaker competitors to either of the Parties and therefore the numbers of airlines identifying either Farelogix or Sabre would be understated as airlines are likely to have focused on providers they considered to be competitors to the Parties.

³³⁶ [REDACTED]

³³⁷ [REDACTED]

³³⁸ [REDACTED]

³³⁹ [REDACTED]

Sabre

140. Airline responses indicate that Sabre is considered to be one of the main GDS service providers, with some airlines referring to its strong market position as a GDS and / or PSS provider in general.
141. Regarding GDS bypass services, five airlines have identified Sabre as an alternative to provide GDS bypass services,³⁴⁰ but the airlines in overall noted Farelogix's advanced functionality compared to Sabre's offering. Specific comments included:
- (a) 'Farelogix has better/advanced Direct Connect capabilities and maturity. Better customer base with a longer list of NDC connectivity clients. Farelogix also has superior Merchandising capabilities in comparison to Sabre.'³⁴¹
 - (b) 'Sabre does not really have a solid solution for merchandising nor for direct connect. They seem to struggle organizing their IT and have lost most RFPs to Amadeus as PSS and no airline chose them for direct connect.'³⁴²
142. Four³⁴³ airlines identified Sabre to become stronger due to their established position and technical and financial resources, with one airline submitting that Sabre will become stronger than Amadeus if they acquire Farelogix.³⁴⁴ Airlines in general did not indicate that, among other GDSs, only Sabre would become weaker, but four³⁴⁵ airlines referred to the GDSs and submitted that legacy GDSs will become weaker in their traditional role or if they fail to evolve, innovate or adopt NDC (see also section Airline content distribution).

Amadeus

143. Approximately half of airlines³⁴⁶ (11) referred to Amadeus as a provider which could supply them with services required to establish GDS bypass. While two airlines³⁴⁷ noted that Amadeus solution is cheaper compared to

³⁴⁰ [REDACTED]

³⁴¹ [REDACTED]

³⁴² [REDACTED]

³⁴³ [REDACTED] submitted that Sabre would become stronger than Amadeus if they acquire Farelogix.

³⁴⁴ Note that the question asked which suppliers would become stronger/weaker competitors to either of the Parties and therefore the numbers of airlines identifying either Farelogix or Sabre would be understated as airlines are likely to have focused on providers they considered to be competitors to the Parties.

³⁴⁵ [REDACTED]

³⁴⁶ [REDACTED]

³⁴⁷ [REDACTED]

Farelogix, majority of airlines indicated Farelogix's better offering. In particular, four airlines³⁴⁸ noted advanced Farelogix's functionality compared to Amadeus's proposition and quicker functional enhancements, and three³⁴⁹ noted Farelogix's offering of independent (non-PSS agnostic) solutions. Specific comments included:

- (a) 'We believe Amadeus Altea NDC and Datalex are the closest alternatives. However, in our view, Farelogix has the most open platform with advanced merchandising capabilities.'³⁵⁰
- (b) [REDACTED].³⁵¹
- (c) '[REDACTED]'.³⁵²

144. Most airlines³⁵³ (14) identified Amadeus to become stronger competitor due to its technology investments, position as a GDS and PSS provider. In addition, one airline submitted that Amadeus would become stronger than Sabre, unless Sabre acquires Farelogix.³⁵⁴ One³⁵⁵ airline submitted that it will become weaker.³⁵⁶ Specific comments included:

- (a) '[Amadeus] currently has a technological advantage on the other GDSs. It is also more willing to explore enhanced NDC capabilities and [REDACTED] – both of which could allow it develop NDC capabilities/functionality more quickly than the other GDSs.'³⁵⁷
- (b) 'Amadeus – will become stronger compared to Farelogix since they have (i) a much bigger development shop, (ii) a far more extensive airline customer base using Altea as their PSS, (iii) an extensive agency base and an agency desktop product that is NDC enabled, (iv) solutions for agency mid and back office that are extensively being used today. We don't expect their position to change significantly against Sabre.'³⁵⁸

³⁴⁸ [REDACTED] (although the comparison is to GDS altogether rather than specifically to Amadeus), [REDACTED]

³⁴⁹ [REDACTED] (although the comparison is to GDS altogether rather than specifically to Amadeus), [REDACTED]

³⁵⁰ [REDACTED]

³⁵¹ [REDACTED]

³⁵² [REDACTED]

³⁵³ [REDACTED]

³⁵⁴ [REDACTED]

³⁵⁵ [REDACTED]

³⁵⁶ In addition, four airlines ([REDACTED]) submitted that legacy GDSs will become weaker in their traditional role.

³⁵⁷ [REDACTED]

³⁵⁸ [REDACTED]

Travelport

145. Only two airlines³⁵⁹ referred to Travelport as a provider which could supply them with the services required to establish GDS bypass; however, the responses to this question did not provide any specific comments on how Travelport compares to Farelogix or other providers.
146. The airlines identifying Travelport among suppliers that would become weaker or stronger, in general considered that Travelport will become weaker (although we note that Travelport does not offer NDC API solutions). 11³⁶⁰ airlines submitted that Travelport would weaker and provided the following reasons: its limited scope compared to other GDSs (eg, it does not have a PSS), is the weakest among the GDSs and has lower market share, continues to lose market share, and faces financial challenges. Nevertheless, three³⁶¹ airlines mentioned Travelport among the providers that will become stronger, with only one providing further comments:
- (a) 'Travelport - will become stronger compared to Farelogix since they have (i) a much bigger development shop, (ii) an extensive agency base and an agency desktop product that is NDC enabled, (iii) solutions for agency mid and back office that are extensively being used today. We don't expect their position to change significantly against Sabre.'³⁶²

Datalex

147. Approximately half of airlines (11)³⁶³ referred to Datalex as a supplier, which could supply the services required to establish GDS bypass. However, comparing it to Farelogix, four airlines³⁶⁴ noted more limited Datalex's functionality and offering. Also, two³⁶⁵ airlines noted Datalex's focus on airline.com. Specific comments regarding Datalex included:
- (a) 'Farelogix has better NDC APIs capabilities and maturity whereas Datalex is better product for direct channels. Overall capability of Farelogix is more mature.'³⁶⁶

³⁵⁹ [REDACTED] (note that while it named the main GDS as an alternative, the comparison to Farelogix was on general basis, without specifics to Travelport).

³⁶⁰ [REDACTED]. In addition, four airlines ([REDACTED]) submitted that legacy GDSs will become weaker in their traditional role.

³⁶¹ [REDACTED] (stronger compared to Farelogix, but position should not change against Sabre), [REDACTED]

³⁶² [REDACTED]

³⁶³ [REDACTED]

³⁶⁴ [REDACTED]

³⁶⁵ [REDACTED]

³⁶⁶ [REDACTED]

(b) Datalex 'have a NDC enabled technology platform that could form part of an airline's middleware equally competitively. Farelogix also has additional capability - i.e. agency front-end. As such we feel that Farelogix is an innovative player in the market and that it is likely to develop relationships with airlines more effectively than its rivals.' In response to Phase 1 questionnaire, the airline also noted that Datalex 'have been fairly successful in their technology platform business and in the NDC arena are well ahead of Sabre for now.'³⁶⁷

148. Airlines that identified Datalex among suppliers which would become stronger or weaker, in general, indicated that they consider that Datalex would become weaker (seven³⁶⁸ out of 23 submitted it will become weaker). Specific comments included:

(a) 'In general, relatively new and lightly funded NDC aggregators (Travelfusion, Datalex, JR Tehnologies, etc.) may become weaker and niche players due to GDSs increased investments to improve capabilities that would neutralize the needs for GDS by-pass.'³⁶⁹

(b) 'Datalex, OpenJaw, TP Connects, JR Technologies and DXC will all become weaker because they are either niche players or do not have technology as good as Farelogix.'³⁷⁰

149. Nevertheless, three airlines³⁷¹ identified Datalex to become stronger because NDC would lower barriers to entry and because they are among the ones growing in terms of their technology offering.

OpenJaw

150. Six³⁷² airlines referred to OpenJaw as provider which could supply them with services required to establish GDS bypass, with some respondents noting OpenJaw's current smaller scale and its relationship or focus on Chinese regions. Specific comments included:

(a) 'Offering merchandising with focus on .coms and partly NDC. Owned by Chinese GDS Travelsky, has business focus in Chinese / Asian region in meantime.'³⁷³ Nevertheless, the same airline indicated that OpenJaw is

³⁶⁷ [REDACTED]

³⁶⁸ [REDACTED] referred in general to 'new and lightly funded NDC aggregators' and mentioned Datalex among them.

³⁶⁹ [REDACTED]

³⁷⁰ [REDACTED]

³⁷¹ [REDACTED]

³⁷² [REDACTED]

³⁷³ [REDACTED]

'probably the next best alternative to Farelogix despite a different technical setup.'³⁷⁴

- (b) 'Have a NDC enabled technology platform that could form part of an airline's middleware equally competitively' [to Farelogix].³⁷⁵
- (c) 'There are currently no real alternatives to Farelogix. For instance, Datalex and OpenJaw have never offered serious proposals to American and they are also both dependent on relationships with GDSs for the IT solutions they offer to agencies (i.e., restrictions in authorized developer agreements).'³⁷⁶
- (d) With reference to 'smaller providers (currently with limited scale including OpenJaw, JR Technologies and Pribas)', one airline submitted that 'these players are all relatively small in terms of customer base. Whilst they are, like Farelogix, PSS neutral they have not innovated or provided the same GDS challenge that Farelogix has, and [X] does not expect them to be able to do so in the next 3 – 5 years.'³⁷⁷

151. Further airline comments on OpenJaw indicated its small scale and ownership by Chinese GDS TravelSky as a limiting factor for its competitiveness.

- (a) OpenJaw is a competitor to Farelogix with regards to offering PSS-related capabilities (merchandising and API access) to airlines. Both competitors also enable airlines to distribute their products and services to travel agencies. [X] investigated OpenJaw as an alternative to Farelogix, however OpenJaw is owned by a Chinese company which resulted in data security and privacy concerns.³⁷⁸
- (b) 'Today, we understand that [...] OpenJaw are developing quickly. We expect OpenJaw to be a bit of a dark horse over the next few years.'³⁷⁹
- (c) 'OpenJaw may be a competitors to Farelogix, but is a smaller airline IT solution provider.'³⁸⁰

374 [X]
375 [X]
376 [X]
377 [X]
378 [X]
379 [X]
380 [X]

152. Airlines provided mixed responses in whether they consider OpenJaw would become weaker or stronger in the future. Three airlines³⁸¹ identified OpenJaw to become weaker because they are niche, cannot handle the rush in demand or do not have as good technology as Farelogix. Two airlines³⁸² mentioned OpenJaw among the ones that will become stronger without giving any reason.

PROS

- (a) PROS was referenced by three smaller (Tier 3) airlines³⁸³ as a provider which could supply them with services required to establish GDS bypass, but provided comments indicating its more limited offering. One airline noted that it has 'ready API shopping capability, no ordering capability.'³⁸⁴ Two other airlines³⁸⁵ referred to PROS in a combination with OpenJaw or SAP, but one of the airlines noted that in comparison, 'Farelogix solution is more complete and extensively used by many airlines.'³⁸⁶
153. One airline³⁸⁷ identified SAP/PROS to become stronger in indirect content distribution but did not give reasons. No airline mentioned them among the providers which will become weaker

ITA

154. ITA was neither referred as a provider which could supply services required to establish GDS bypass nor identified by airlines as a provider which could become stronger / weaker.

Others

155. Five airlines³⁸⁸ referred to JR Technologies as a supplier which could supply them with services required to establish GDS bypass. However, the comments in general noted the small scale of JR Technologies, with one large airline,³⁸⁹ in particular, submitting that 'JR Technologies and DXC do not have scale to serve American.'

381 [REDACTED]

382 [REDACTED]

383 [REDACTED]

384 [REDACTED]

385 [REDACTED]

386 [REDACTED] did not provide commentary.

387 [REDACTED]

388 [REDACTED]

389 [REDACTED]

156. Nevertheless, one airline³⁹⁰ submitted that it considers JR Technologies to be a strong competitor to Farelogix in the technology platform business:
- (a) 'JR Technologies is primarily in the technology platform and Offer & Order Management business. They also have the ability to consume NDC content from any provider, including Farelogix. JR Tech is a very viable and strong contender to Farelogix in the technology platform provider business.'³⁹¹
157. However, another airline submitted that JR Technologies ownership structure makes it an unviable alternative for them:
- (a) '[REDACTED] investigated JR Technologies as an alternative to Farelogix. They are owned largely by an investor that also owns a Travel Consolidator agency (SkyBird Travel) and [REDACTED]. This ownership structure gives us pause.'
158. While Travelfusion was referred as a provider which could supply services required to establish GDS bypass by four³⁹² airlines, these airlines in general noted that Travelfusion's business is in aggregation. Airline responses did not indicate that Travelfusion has a substantial offering on the airlines' IT side. Nevertheless, one of the airlines indicated that Travelfusion could potentially take away the Direct Connect business currently supported by Farelogix:
- (a) 'Travelfusion is primarily in the aggregation business and therefore has the ability to consume NDC content from any provider, including Farelogix. With airlines adopting multiple tech provider products for NDC connectivity, TF can potentially take away the Direct Connect business currently supported by Farelogix.'³⁹³
159. Six³⁹⁴ airlines identified Travelfusion to become stronger due to its growth in technology offering and adoption of NDC, which also may lower barrier to entry. As noted previously, one airline³⁹⁵ submitted that Farelogix combined with aggregators such as Travelfusion could become more competitive to the GDS. Four airlines listed Travelfusion among the providers, which would become weaker, with two airlines providing the

390 [REDACTED]
391 [REDACTED]
392 [REDACTED]
393 [REDACTED]
394 [REDACTED]
395 [REDACTED]

reasoning. One airline submitted that [REDACTED].³⁹⁶ Another airline submitted that that ‘relatively new and lightly funded NDC aggregators (Travelfusion, Datalex, JR Tehnologies, etc.) may become weaker and niche players due to GDSs increased investments to improve capabilities that would neutralize the needs for GDS by-pass.’³⁹⁷

160. Two airlines³⁹⁸ referred to TPConnects as a supplier to establish services for GDS bypass; however, the airlines in general noted that their business is in aggregation. Further comments noted that it is adopted mostly in Gulf area³⁹⁹ and that TP Connects is a ‘new entrant, not tested at scale and small portfolio of customers,’ and has ‘better agency UI, less API functionality and limited BSP certifications in our markets,’ comparing to Farelogix.⁴⁰⁰

161. Other suppliers, including DXC, IBS, NDC Exchange and Interes, were referred as a supplier which could supply them with services required to establish GDS bypass each by three or fewer airlines, and the comments in general noted their weaker proposition compared to Farelogix. For example:

- (a) [REDACTED], but they didn’t offer any Desktop Tools for travel agents, any back-office integration capabilities for agencies, and no travel agency implementation experience (which Farelogix has all of this).⁴⁰¹
- (b) ‘Farelogix currently provide a has superior functionality [compared to IBS], is a more established innovator and offers a more stable/reliable offering, provides a more mature merchandising solution. [IBS is] similar to Farelogix in terms of being PSS neutral.’⁴⁰²
- (c) Two airlines noted lack of retailing functions in NDC Exchange (such as shopping, booking, merchandising).⁴⁰³

162. JR Technologies, TP Connects or DXC were rarely identified by airlines in their response about which providers could become weaker or stronger. All three airlines,⁴⁰⁴ which mentioned DXC submitted that they considered that DXC will become weaker, while the views on JR Technologies and TP

396 [REDACTED]
397 [REDACTED]
398 [REDACTED]
399 [REDACTED]
400 [REDACTED]
401 [REDACTED]
402 [REDACTED]
403 [REDACTED]
404 [REDACTED]

Connects were mixed. Two airlines⁴⁰⁵ submitted that they would become stronger due to adoption of NDC and because these providers are growing in terms of their technology offering, while the three airlines⁴⁰⁶ submitted that they would become weaker due to lesser needs of GDS by-pass or because they are either niche players or do not have technology as good as Farelogix.

163. In addition, one major airline [REDACTED].⁴⁰⁷

Innovation

164. This section summarises airlines views on who they identify to be leading providers in i) airline non-core PSS technology/services (including merchandising) and ii) indirect content distribution in terms of innovating and developing new services and capabilities (for example, developing NDC technology).⁴⁰⁸

Merchandising

165. Farelogix was mentioned most often by airlines as one of the leading providers in non-core PSS services, followed by Amadeus and PROS. Where airlines ranked providers on the strength of their leadership in innovation and development, Farelogix was most often ranked as first, ahead of other airline IT services providers. Particular reasons for placing Farelogix among the leading providers included the leading merchandising product and NDC solutions (see specific comments in the following paragraphs).⁴⁰⁹

(a) 'Generally, Lufthansa Group sees Farelogix as industry leader in providing provider/backend system agnostic Merchandising capabilities. The core product ... is continuously developed further...Due to its innovative approach their Merchandising engine has a respectable industry reach.'⁴¹⁰

⁴⁰⁵ [REDACTED]

⁴⁰⁶ [REDACTED] mentioned JR Technology only and submitted the following: 'relatively new and lightly funded NDC aggregators (Travelfusion, Datalex, JR Tehnologies, etc.) may become weaker and niche players due to GDSs increased investments to improve capabilities that would neutralize the needs for GDS by-pass.'

⁴⁰⁷ [REDACTED]

⁴⁰⁸ The section provides the summary of airline responses to the CMA's phase 1 questionnaire. This was further supplemented with the responses of additional airlines (which were not contacted during Phase 1 investigation) to our Phase 2 questionnaire.

⁴⁰⁹ [REDACTED]

⁴¹⁰ [REDACTED]

166. One⁴¹¹ airline provided general views on leading suppliers in the industry and submitted [REDACTED].
167. Airlines⁴¹² typically indicated that PROS leadership is due to products other than merchandising, which included its pricing, shopping, inventory and revenue management solutions, with one airline nevertheless mentioning that PROS has started developing merchandising:
- (a) 'PROS is the leader in terms of availability and inventory. We also believe they are developing a robust shopping/pricing solution, and they are starting development of a Merchandising solution that, when linked to the inventory and RM modules, we believe will be very powerful. Farelogix is without question the leader in Merchandising. There is not a single product on the market that comes close to the capabilities of FLX-M.'⁴¹³
168. Particular reasons for placing Amadeus among the leading providers included its full suite of products, established presence and investment. Nevertheless, one airline submitted that while Amadeus has a strong innovation capability, there is a risk of a conflict of interest with its GDS business:
- (a) [REDACTED].⁴¹⁴
169. Sabre and ITA were mentioned less often as leading suppliers. However, airlines⁴¹⁵ typically noted that ITA is leading because of its pricing/shopping engine. OpenJaw and Datalex were also indicated as leading suppliers, but only several times.

Content distribution

170. In regards to indirect content distribution, Farelogix was mentioned most often by airlines as one of the leading providers, followed by Amadeus, which was indicated by three⁴¹⁶ airlines as the most technologically advanced GDS, while one⁴¹⁷ airline made a general statement that content distribution at scale is led by the three GDSs. Sabre, Travelport and Travelfusion were indicated as the other leading providers in content distribution. Specific comments included:

⁴¹¹ [REDACTED]

⁴¹² [REDACTED]

⁴¹³ [REDACTED]

⁴¹⁴ [REDACTED]

⁴¹⁵ [REDACTED]

⁴¹⁶ [REDACTED]

⁴¹⁷ [REDACTED]

- (a) 'Among GDSs, Amadeus is the most technological advanced in terms of innovation and capabilities compares to Sabre and Travelport.'⁴¹⁸
- (b) 'Amadeus has the best capabilities for NDC enabled services. They have a complete suite of products that are already developed [...] Can deliver the entire enterprise package.'⁴¹⁹
- (c) 'Amadeus: Strong stability and technical performance. Innovation mainly driven by many acquisitions of companies across the value chain [...]. Sabre: Innovative agency frontend development with strong UX (sabre red), limitations in speed to market and presence in Europe.'⁴²⁰

171. While five airlines⁴²¹ also mentioned TPCconnects as being among the leading providers in innovation, they typically considered it a smaller supplier and behind Farelogix. Similarly, other suppliers – OpenJaw, Datalex and ITA - were each mentioned by a few airlines as being among leading providers in indirect content distribution, but they typically ranked after Farelogix. No airline mentioned PROS as leaders in content distribution.

Self-supply

Merchandising

172. Of all the 35 responding airlines, three⁴²² airlines (Tier 1 – Tier 2) submitted that they have developed merchandising solutions in-house. However, of these airlines, one⁴²³ [redacted] solutions, while the other two airlines submitted that they have plans to use a third party provider for merchandising solutions:

(a) [redacted]⁴²⁴ submitted that it 'currently run an in-house solution for e-commerce and Merchandising. Farelogix will replace part of this in-house solution.'

(b) [redacted].⁴²⁵ [redacted].⁴²⁶

418 [redacted]
 419 [redacted]
 420 [redacted]
 421 [redacted]
 422 [redacted]
 423 [redacted]
 424 [redacted]
 425 [redacted]
 426 [redacted]

173. The majority⁴²⁷ of the airlines submitted that they have not developed merchandising solutions in-house due to non-core PSS modules (including merchandising) being complex solutions that airlines may not be able to efficiently develop in-house. Specific comments included:

- (a) 'Airlines do not have the resources to produce the [merchandising] tool, drive continuous innovation and provide the proper support. External vendors can leverage specialized skill set for a diverse set of consumers and gain economies of scale.'⁴²⁸
- (b) '[Developing merchandising, scheduling, inventory, shopping] requires expertise and is not our current core competency. It also requires significant resource investment for steady state maintenance and regular development, which is too costly when compared to outsourcing to a vendor with a higher degree of expertise.'⁴²⁹
- (c) 'Merchandising solutions are complex in nature and would be difficult to build in-house.'⁴³⁰

174. None of the airlines submitted that they have plans or are currently developing in-house merchandising solutions. Nevertheless, six⁴³¹ airlines (of various Tiers) submitted that they would be able or willing to develop these services in-house, but some responses were caveated and noted the considerations of costs and skills. For example:

- (a) [REDACTED].⁴³²
- (b) [REDACTED] submitted that it 'would be able to develop these in-house if we had the right knowledge and resources.'⁴³³
- (c) Lufthansa Group 'would consider to develop inhouse (e.g. with Lufthansa Systems⁴³⁴) mainly driven by 2 factors: 1) in case of issues with the current provider, e.g. due to the integration into Sabre, 2) having the opportunity to develop a product that can be sold to other airlines.'

⁴²⁷ [REDACTED]. A few other airlines responded in more general terms and submitted that they have considered, but decided against, developing non-core PSS modules in general: [REDACTED]

⁴²⁸ [REDACTED]

⁴²⁹ [REDACTED]

⁴³⁰ [REDACTED]

⁴³¹ [REDACTED] not counted as it submitted 'not considered at the moment, but open to reconsider if ROI works on.'

⁴³² [REDACTED]

⁴³³ [REDACTED]

⁴³⁴ Lufthansa Systems is an IT services provider to the airlines industry. [REDACTED].

Distribution

175. Six⁴³⁵ out of all airlines responding to our questionnaires⁴³⁶ have developed or are developing their NDC distribution solutions (including NDC APIs) in-house, but generally they noted significant challenges and costs. Specific comments regarding the reasons for developing solutions in-house and related challenges included:
- (a) IAG submitted⁴³⁷ that the main reasons for British Airways and Iberia developing NDC APIs were no suitable providers and the desire to be in control of their distribution. It submitted that ‘the development of an NDC-based API solution is a complex, expensive process that involves many stages and requires a long time to develop comprehensive functionality.’⁴³⁸ IAG submitted that it engaged with Farelogix some years ago but took the view that there was a future risk that the company would be acquired by one of the major GDSs.
 - (b) [REDACTED].⁴³⁹
 - (c) Delta is currently building NDC and APIs and submitted that ‘developing an in-house capability is complicated, time-consuming and expensive.’⁴⁴⁰ However, Delta witness in the Delaware proceedings testified that it is currently considering Farelogix for their NDC API but has not made a decision yet.^{441,442}
176. [REDACTED], but found that it was very difficult and expensive to keep them updated and has chosen Farelogix to provide its NDC API for the full suite because it ‘didn’t want to use our IT resources to build this when we have so many other projects we’re trying to deliver. It would be a very large opportunity cost to do this work in-house. [...] Having Farelogix provide the services to us offers us economies of scale.’⁴⁴³
177. Even though seven⁴⁴⁴ airlines submitted that they would be able or willing to develop NDC enabled services (including NDC APIs), they have chosen to outsource it to a third party provider, with the main reasons being costs (including maintenance costs) and lack of expertise. The airlines that have

⁴³⁵ [REDACTED]

⁴³⁶ Phase 2 and Phase 1 questionnaires; 35 airlines in total

⁴³⁷ [REDACTED]

⁴³⁸ [REDACTED]

⁴³⁹ [REDACTED]

⁴⁴⁰ [REDACTED]

⁴⁴¹ [REDACTED]

⁴⁴² [REDACTED]

⁴⁴³ [REDACTED]

⁴⁴⁴ [REDACTED] not counted as it submitted ‘not considered at the moment, but open to reconsider if ROI works on’.

not developed NDC solutions in-house, have generally submitted that they have chosen to outsource it to a third party supplier due to financial costs, opportunity cost and lack of expertise.

- (a) American has considered developing solutions in-house, but decided not to pursue given the significant costs, time and resources that developing an in-house NDC solution as competitive as the Farelogix's would require. American indicated that the costs would be \$40m to develop and \$25m yearly to maintain. In the Delaware Proceedings, American Airlines testified that the process would take five years: it would take two three years to replicate the technology and another two years to replace all the connections.⁴⁴⁵ In addition, the required resources for developing NDC solutions would not be available for other projects.⁴⁴⁶
- (b) Avianca 'is not a software developer enterprise, therefore, to have an specialized IT area to develop, implement, maintain, evolve NDC protocol represent a high cost for the Airlines and we can't afford it. That is the main reason why outsourcing services with other provider is the best solution.'
- (c) 'In-housing would depend on our ability to find the right skill sets, deploy them efficiently and then maintain any solution. In light of the capability of external service providers; we would only consider in-housing if we felt it could deliver a cost or strategic advantage.'⁴⁴⁷

Negotiations between airlines and GDS over contract renewals

178. This section discusses airlines views on their contractual negotiations with GDS providers, in particular looking at what levers they use in negotiations to achieve better terms and how important they view that lever.⁴⁴⁸

⁴⁴⁵ [REDACTED]

⁴⁴⁶ [REDACTED]

⁴⁴⁷ [REDACTED]

⁴⁴⁸ We asked airlines: 'In your most recent contract renegotiations (within the last 3 years) with each of the Sabre, Amadeus and Travelport GDSs, what negotiating levers or techniques have you used to attempt to get more favourable commercial terms (eg lower price or less restrictive conditions)?'

In particular, we asked about their use of the following possible levers:

"the possibility of switching or increasing your use of the direct channel (ie airline.com)

"the possibility of using Direct Connect"

"Reference to Farelogix as an alternative or benchmark

"Reference to any other suppliers (as either an alternative to switch to or as a reference point for better terms) (please specify)"

"Agreeing to purchase additional services (please specify)"

"Any other factors (please specify/add more rows)"

Direct Connects

179. Of the 22 airlines that responded to our question,⁴⁴⁹ 18 have direct connect capability⁴⁵⁰ and 5 airlines do not have direct connect capability. We have focused on those airlines which currently have some Direct Connect capability. We consider they provide a more meaningful base from which to infer the extent to which Direct Connect is used as a lever because they already have the technology to use this alternative channel.
180. Of those 18 airlines that have direct connect capability, 13 (72%) told us that they have used the possibility of using a direct connect as a lever in their GDS negotiations.⁴⁵¹ These 13 airlines account for over 735 million passenger bookings.⁴⁵² These include eight large tier 1 airlines (ie airlines with bookings over 25 million in 2018) [X]. Compared with only two tier 1 airlines who said they did not use it as a lever.
- (a) Of the 13, nine of these airlines had also used the possibility of increasing volume to airline.com.⁴⁵³
- (b) However, four airlines said they had used direct connect but not airline.com.⁴⁵⁴ For example, one airline said its strategy was to grow the indirect channel, therefore airline.com was not relevant, but direct connect helped it in negotiations particularly in pushing the GDS to support future NDC capability [X].
181. We also asked airlines to score the importance of the direct connect lever in negotiations. Of the 13 airlines who said they had used direct connect as a negotiating lever, eight said that it was very important or important.⁴⁵⁵
182. Of the nine airlines who used both airline.com and direct connect as negotiating levers, five airlines ranked the importance of the different levers. One of these ranked direct connect as more important with the rest (four) considering them as equally important in the negotiating process.⁴⁵⁶

⁴⁴⁹ By airlines we refer to airline groups - [X]

⁴⁵⁰ [X]

⁴⁵¹ [X]

⁴⁵² 2018 figures based on Airline RFI responses.

⁴⁵³ [X]

⁴⁵⁴ [X]

⁴⁵⁵ [X]

⁴⁵⁶ [X]

Use of Farelogix as a lever in negotiations

183. For the nine airlines that are Farelogix customers and responded,⁴⁵⁷ five of them said that they had referenced Farelogix as an alternative or benchmark as part of the negotiations with GDSs.⁴⁵⁸ In addition, [REDACTED] another airline [REDACTED] also said it would have represented effective leverage for negotiating a distribution model change with the GDS if they had been a Farelogix customer.

Use of airline.com as a lever in negotiations

184. Of the 22 airlines that responded to our question, 14 said that they had used airline.com as a negotiating lever (64%),⁴⁵⁹ a similar number who had used direct connect. While nine airlines had used both direct connect and airline.com as levers,⁴⁶⁰ five airlines indicated that they had used airline.com but not direct connect as a negotiating lever,⁴⁶¹ only one of these was a large tier one airline.⁴⁶²

Other suppliers

185. We also asked airlines to highlight whether they had used any other suppliers as levers in the negotiations – only seven airlines said this was the case of the six airlines which provided more details;
- (a) two airlines highlighted NDC and other aggregators being used without specifying the name of the supplier,⁴⁶³
 - (b) Travelfusion was thought to be a lever by two airlines,⁴⁶⁴
 - (c) two airlines also said other GDS could be used as a negotiation.⁴⁶⁵

Other levers

186. We also asked about the extent purchasing additional services was used as a negotiating lever and 11 airlines responded that this was a lever,⁴⁶⁶

457 [REDACTED]

458 [REDACTED]

459 [REDACTED]

460 [REDACTED]

461 [REDACTED]

462 [REDACTED]

463 [REDACTED]

464 [REDACTED]

465 [REDACTED]

466 [REDACTED]

five of these airlines highlighted that this was linked to the use of the PSS and the others didn't specify.⁴⁶⁷

187. Ten airlines also listed other levers (not specified in the question),⁴⁶⁸ two of these were regarding moving content out of the GDS and using a private channel.⁴⁶⁹ One airline also mentioned referenced wholesale channel used by other airlines but caveated that this was to a limited extent.⁴⁷⁰ The rest were in relation to purchasing additional servicing volume or unspecified.

Views on the Merger

188. The paragraphs below summarise the airlines' views on the Merger's impact on the competition in merchandising, distribution and innovation.

Merchandising solutions

189. Nearly half of airlines [12 out of 27] raised concerns regarding non-core PSS solutions⁴⁷¹ (of which merchandising is a module).⁴⁷² Reasons for concerns included no viable alternative, removing an independent (non-PSS) provider of merchandising and NDC solutions, removing the leading provider, removing or stifling innovations by Farelogix or reduced. Specific comments included:

- (a) 'Removes from the market one of the largest non PSS vendors offering merchandising technology and direct connect NDC technology.'⁴⁷³
- (b) 'Competition in this space was already very limited and this deal will likely only make it more so. In areas where both Sabre and Farelogix have products, it seems unlikely they will continue to maintain and support two distinct, competitive products long term.'⁴⁷⁴

⁴⁶⁷ [REDACTED]

⁴⁶⁸ [REDACTED]

⁴⁶⁹ [REDACTED]

⁴⁷⁰ This airline [REDACTED] also raised other levers used/factors discussed in negotiations:

- Travel agents ever increasing demands for incentives
- GDS value to travel agents and that TAs should pay
- Reference to EU investigation
- application of parity clauses being against competition law
- Negative effects of DCC
- Content differentiation between GDS and NDC enabled channels (ranked as very important)
- Threat to cancel channels

⁴⁷¹ Note that the summary incorporates responses from Phase 1 and Phase 2. In Phase 1 we have asked airlines about their views on the merger's impact on non-core PSS services. The airlines responding to Phase 2 only questionnaire were asked about the merger's impact on merchandising solutions.

⁴⁷² [REDACTED]

⁴⁷³ [REDACTED]

⁴⁷⁴ [REDACTED]

- (c) 'FLX-M is the leading retailing solution in the market. It is the most comprehensive and most powerful solution by far. If it were removed from the market as a free-standing solution, most airlines would be challenged to effectively replace it.'⁴⁷⁵
- (d) 'Being Farelogix, pioneer and most successful firm in NDC Offer and Order solutions for GDS by-pass and pass-through for its innovative approach and independence from GDS and being Sabre a CSS vendor and also a GDS, impacted by Airlines policies adopted thanks to Farelogix NDC features, we are afraid that competition in the NDC non-core solutions might be impacted by the acquisition reducing independency of Farelogix decisions and prioritization. Furthermore, being Sabre the Vendor for the CSS adopted by [REDACTED], the relative contractual strength of the same Vendor managing both CSS and NDC budget, would most probably grow vs. current.'⁴⁷⁶

190. Two⁴⁷⁷ airlines (in addition to airlines referred to above) expressed concerns regarding airline IT services in general. For example, [REDACTED].⁴⁷⁸

191. On the other hand, some airlines (8 of 27)⁴⁷⁹ submitted that they do not have concerns regarding the Merger's impact on non-core PSS,⁴⁸⁰ with one airline submitting that there will be many providers that are able to deliver alternative and suitable non-core PSS products.⁴⁸¹ Of the non-concerned airlines, four⁴⁸² airlines submitted that the merger would be beneficial:

- (a) American Airlines, while concerned regarding the impact of the merger on content distribution and on innovation, in regards to the impact on merchandising it submitted that 'that this merger could be beneficial from a competitive point of view for the distribution of non-core PSS modules. As mentioned above in this answer, Sabre could rely on Farelogix's technology to improve their own technological capacities. This would create competitive pressure on the other providers of non-core PSS modules to further develop their own technology to integrate into their products, thereby driving innovation on the market.'

⁴⁷⁵ [REDACTED]

⁴⁷⁶ [REDACTED]

⁴⁷⁷ [REDACTED]

⁴⁷⁸ [REDACTED]

⁴⁷⁹ [REDACTED]

⁴⁸⁰ [REDACTED] Of these airlines, six [REDACTED] also did not express concerns regarding the impact on indirect distribution.

⁴⁸¹ [REDACTED]

⁴⁸² [REDACTED] (submitted that scheduling functionalities should be enhanced). [REDACTED] also submitted that the merger would be beneficial, but its reasoning related to distribution services and hence it is provided in the paragraphs below.

- (b) 'We expect that Farelogix will be able to compete and possibly do so more effectively with the financial backing of Sabre.'⁴⁸³

Distribution solutions

192. About half of airlines [13 out of 27] raised concerns regarding content distribution services, with some citing it would remove an experienced and / or independent supplier in the market with limited competition.⁴⁸⁴ The airlines were concerned that the merger may remove an alternative to GDSs, and sometimes noting that it is the only provider with the required expertise, provide Sabre with market power, which may lead to price increases or reduction in innovation.

- (a) 'We have not identified an alternative vendor that could provide NDC services to us in a manner that would work for us as well as Farelogix. [REDACTED].'⁴⁸⁵

- (b) [REDACTED].⁴⁸⁶

- (c) 'Sabre may constrain the industry's ability to pursue their business strategies without undue influence from one of the big 3 GDS providers. Additionally Sabre may introduce economic disincentives, increase prices, place obligations on the use of Farelogix products eg use of Sabre products & services, access non Sabre transaction data for competitive purposes.'⁴⁸⁷

- (d) 'Very likely one impact of the merger can be an increase of prices of Farelogix, not just to Lufthansa Group only, but to all airlines. This will have an effect on end-consumer prices.'⁴⁸⁸

- (e) [REDACTED] anticipates that the acquisition of Farelogix will increase Sabre's market power and the collective strength of the incumbent GDSs. For example, technology solutions in respect of: (i) internal system capability and interoperability; and (ii) innovation in NDC (and associated technologies) are key gateways to achieving lower costs, greater efficiencies and improved customer offering in airline distribution. ... Farelogix is a successful and growing innovator and is widely seen as one

⁴⁸³ [REDACTED]

⁴⁸⁴ [REDACTED] Of the airlines expressing concerns regarding distribution, only one airline [REDACTED] did not have concerns regarding non-core PSS solutions.

⁴⁸⁵ [REDACTED]

⁴⁸⁶ [REDACTED]

⁴⁸⁷ [REDACTED]

⁴⁸⁸ [REDACTED]

of the technology solution providers that could start to counter the market power exercised by GDSs in airline distribution and Merchandising solutions.⁴⁸⁹

- (f) 'Farelogix can be deemed as having more influence on the competitive process than its market share would suggest [...]. By offering airlines an alternative to the GDSs, it may empower them to negotiate lower prices and more favorable terms, even if they ultimately use a GDS instead of Farelogix for ticket distribution services. ... Farelogix, can be anticipated to have greater competitive significance in the future which would enhance competition on price as well as on product/service quality. However, if Farelogix prices increase and, more importantly, if Farelogix were to introduce restrictive contractual provisions such as the ones mentioned above, potential competitive constraints upon Sabre would likely be abolished. Non-merging entities in the relevant markets, such as Amadeus and Travelport, would also benefit from the reduction of competitive pressure resulting from the merger, by securing their market power in the territories active.'⁴⁹⁰

193. On the other hand, six airlines⁴⁹¹ did not express concerns regarding impact on indirect distribution. Of the non-concerned airlines, four⁴⁹² airlines said the merger would be beneficial:

- (a) 'Sabre's acquisition of Farelogix could benefit all markets participants, including end consumers, by introducing NDC content into the GDS and complementing the content and services that the Sabre GDS already provides'; and 'Sabre's acquisition of Farelogix could benefit market innovation as it will improve the services provided by Sabre and we are sure the result of the merger will generate a better solution for airlines and agencies increasing innovation and integration.'⁴⁹³
- (b) 'NDC Content distribution in Sabre will be better and enhanced by FareLogix best practices, granting a better position to Sabre in relation to Amadeus and Travelport.'⁴⁹⁴

489 [REDACTED]
490 [REDACTED]
491 [REDACTED]
492 [REDACTED]
493 [REDACTED]
494 [REDACTED]

Concerns across markets

194. Airlines that expressed concerns regarding the mergers impact on airline IT services, typically, were also concerned regarding merger's impact on innovation as Farelogix's, historically demonstrated, innovation may slow down or be limited (with two additional airlines⁴⁹⁵ [REDACTED] only being concerned about innovation). Airline reasoning for the impact on innovation included:

(a) Innovations may slow down due to the influence of Sabre's policy, corporate structure or its position in the market.⁴⁹⁶

(b) Sabre's different interests or incentives as a GDS; for example:⁴⁹⁷

(i) [REDACTED].⁴⁹⁸

(ii) 'The possible take-over can well reduce innovation for all market players, including airlines, agencies and consumers. As Farelogix has been a strong driver for NDC, and again with this efforts undermining the GDSs incl. Sabres business model, Sabre could use its ownership to slower down or even stop the innovative powers of Farelogix to prolong the existence of their traditional GDS business/technology model.'⁴⁹⁹

(iii) 'As an independent vendor, Farelogix has been bringing innovation to the market for more than a decade. We are hopeful this will continue but fear that either through management decisions to achieve Sabre's interests or due to the (future) loss of key individuals, Farelogix may become less innovative.'⁵⁰⁰

(c) Farelogix's development of NDC in the indirect channel has provided competitive pressure for GDS to invest more in developing NDC capabilities and technology.⁵⁰¹

(d) Farelogix is an innovative provider, with at least four airlines characterising Farelogix as disruptor.⁵⁰² For example:

⁴⁹⁵ Another airline [REDACTED] submitted two questionnaires; in one they expressed concerns regarding impact on innovation, while in another they said the opposite – positive impact on innovation as Sabre invests more.

⁴⁹⁶ [REDACTED] note that there were two submissions from [REDACTED], in one they expressed concerns regarding the merger's impact on innovation, while in another submission they said that it would be a positive impact on innovation).

⁴⁹⁷ [REDACTED]

⁴⁹⁸ [REDACTED]

⁴⁹⁹ [REDACTED]

⁵⁰⁰ [REDACTED]

⁵⁰¹ [REDACTED]

⁵⁰² [REDACTED]

- (i) 'Farelogix disrupted the market by developing its tools using technology that was not commonly used by GDSs or PSS. The acquisition by Sabre may impair Farelogix's incentives to experiment with technologies that negatively impact the Sabre business model.'⁵⁰³
- (ii) 'Farelogix is a leading disruptor and innovator in enabling the distribution of airline tickets, against a background of low investment and entrenchment of market power by GDSs. As such, [REDACTED] would have strong objections that the innovation being driven by Farelogix would be reduced and/or internalised such that it was exploited by Sabre rather than used to compete against the GDSs bringing distribution efficiencies and benefits to consumers ... Furthermore, Sabre's acquisition of Farelogix will also be likely to reduce the incentives on Amadeus and Travelport to seek to innovate to meet the challenge posed by Farelogix and NDC-enabled functionality if Sabre uses Farelogix to expand its own offering whilst at the same time entrenching the position of GDSs in the distribution chain.'⁵⁰⁴

195. [REDACTED] expressed concerns on non-core PSS services, distribution and innovation. In particular [REDACTED] submitted that the number of providers which have a competitive offer for NDC, direct connect and merchandising solutions is limited. Farelogix is one of the strongest providers that can compete with the leading PSS and GDS providers.

196. On the other hand, in total five⁵⁰⁵ airlines did not express concerns regarding innovation (of which three did not have any other concerns). Of non-concerned airlines, four⁵⁰⁶ airlines said the merger would be beneficial as: Sabre invests more in new capabilities,⁵⁰⁷ the merger generates a better solution for airlines and agencies as it will improve services provided by Sabre.⁵⁰⁸ However, one of these airlines⁵⁰⁹ submitted that the merger impact would be positive (as it provides funds required to Farelogix) as long as Farelogix is kept as separate company:

- (a) The impact will be positive because we can focus on true content innovation rather than specific products, as long as Farelogix is kept as a

503 [REDACTED]

504 [REDACTED]

505 [REDACTED]

506 [REDACTED] (although in their second response, [REDACTED] noted that they are concerned that Sabre's size and corporate structure could stifle innovation, but they are optimistic that the merger will not result in degradation of services or increased costs).

507 [REDACTED]

508 [REDACTED]

509 [REDACTED]

separate company (as was promised by the merging parties). NDC is very immature and so, without injection of funds, Farelogix cannot keep growing. It makes a lot of sense for Sabre to buy Farelogix (although someone else could also have provided the relevant funds to Farelogix) We think that with Travelsky investing into OpenJaw, this will also keep the GDSs on their toes.⁵¹⁰

197. A few⁵¹¹ other airlines provided ambiguous responses, raised concerns conditional on something happening, or noted both advantages and disadvantages, of the possible merger impact. Specific comments, where airlines noted advantages and disadvantages included:

- (a) 'Pros - Riding on Sabre's scale, network & technology, Farelogix may be better positioned to grow and provide enhanced NDC solution to the industry; Cons - Limit competition and reduce choice (higher fees) to airlines-Only offer standardized solution as they may be less willing to offer tailored-made/customized solution'⁵¹²
- (b) [REDACTED] Farelogix could benefit from being an independent, PSS agnostic suppliers, offering "best of breed" components, complementary to the traditional PSS suppliers.'⁵¹³
- (c) 'Aside from the risks identified above [Sabre imposing restrictions on contracts, increasing prices, slowing down development of Farelogix new solutions, which may also lead to Amadeus and Travelport benefiting from the reduction in competition] and even if may seem contradictory, assuming Sabre actually invests in innovation and certain safeguards are kept, Farelogix innovations may accelerate further than the point where Farelogix may reach using its current means.'⁵¹⁴

⁵¹⁰ [REDACTED]

⁵¹¹ [REDACTED] (ambiguous response to impact on innovation, but had no concerns regarding merchandising or distribution), [REDACTED] (ambiguous response to impact on distribution, but no concerns in non-core PSS and concerns on innovation), [REDACTED] (ambiguous response to impact on distribution, but concerns in non-core PSS and no concerns on innovation), [REDACTED] (response ambiguous in regards to innovation, but were concerned on distribution).

⁵¹² [REDACTED]

⁵¹³ [REDACTED]

⁵¹⁴ [REDACTED]

Appendix G: Travel agents evidence

1. This appendix provides an overview of our approach to collecting information from travel agents and the travel agents from which our evidence is based.
2. In our phase 2 inquiry we sent questionnaires to Sabre's largest travel agent questionnaires representing a large proportion of Sabre's travel agent customers.
3. This included the 15 largest Online travel agents and 15 largest Bricks and mortar travel agents in the Corporate segment by bookings. We also targeted other B&M travel agents including outside the corporate travel agents which featured in Sabre's top 15 B&M by bookings and supplemented this with B&M agents with the most bookings in the UK. Overall, we sent out detailed free text questionnaires to around 45 travel agents and received responses from 15 travel agents a response rate of 33%.
4. In addition, due to lower coverage of B&M travel agents we sent additional online questionnaires to travel agents representing over 80% of Sabre's UK bookings (excluding the top 15 covered previously). These questionnaires were mostly multiple choice of limited text responses covering similar topics. We received four responses in total.
5. In our phase 1 inquiry we also received responses from 18 travel agents covering similar topics in less detail. Evidence from these responses is also included where relevant.⁵¹⁵
6. This evidence from travel agents relevant to our assessment have been summarised and included in Chapter 10, evidence from travel agents and Chapter 3 – Travel agents. As responses appear to differ based on the type of travel agent responding we attempt to differentiate between OTAs, TMCS and Other B&M travel agents where possible.
7. In Table G.1 below we set out the full list of travel agents we received responses from across all different sources. In total the travel agents we have engaged with in relation to this merger cover around [X] of Sabre's global bookings and [X] of their UK PoS bookings.

⁵¹⁵ Where respondents had already answered a similar question in phase 1, in phase 2 we sent an abridged questionnaire

Table G.1 - list of travel agent respondents by type and source

<i>Travel Agent Name</i>	<i>Type of Travel Agent</i>	<i>Total Bookings with Sabre 2018</i>	<i>Total UK PoS bookings with Sabre 2018</i>	<i>Responded to Phase 1 Questionnaire</i>	<i>Responded to Phase 2 detailed questionnaire</i>	<i>Responded to Phase 2 online questionnaire</i>	<i>Telephone discussion with the CMA ph1/ph2</i>
[X]	TMC	[X]	[X]		Yes		
[X]	TMC	[X]	[X]		Yes		
[X]	TMC	[X]	[X]		Yes		
[X]	TMC	[X]	[X]		Yes		
[X]	TMC	[X]	[X]		Yes		
[X]	TMC	[X]	[X]	Yes	Yes		Yes
[X]	TMC	[X]	[X]	Yes	Yes		
[X]	TMC	[X]	[X]	Yes	Yes		Yes
[X]	TMC	[X]	[X]	Yes		Yes	
[X]	TMC	[X]	[X]	Yes			Yes
[X]	TMC	[X]	[X]			Yes	
[X]	TMC	[X]	[X]				
[X]	OTA	[X]	[X]		Yes		Yes
[X]	OTA	[X]	[X]		Yes		
[X]	OTA	[X]	[X]	Yes	Yes		Yes
[X]	OTA	[X]	[X]	Yes	Yes		Yes
[X]	OTA	[X]	[X]		Yes		
[X]	OTA	[X]	[X]	Yes			
[X]	OTA	[X]	[X]	Yes			
[X]	OTA	[X]	[X]	Yes			
[X]	B&M	[X]	[X]	Yes	Yes		
[X]	B&M	[X]	[X]	Yes	Yes		Yes
[X]	B&M	[X]	[X]	Yes	Partial		
[X]	B&M	[X]	[X]	Yes			
[X]	B&M	[X]	[X]			Yes	
[X]	B&M	[X]	[X]			Yes	
[X]	Other	[X]	[X]	Yes			
[X]	Other	[X]	[X]	Yes			Yes
Total	30	[X]	[X]	18	15	4	9
% Sabre Total	[X]	[X]	[X]				

Appendix H: Bidding and market shares

1. This Appendix sets out our approach to the analysis of bidding data in relation to the provision of merchandising and NDC APIs as well as our approach to calculating merchandising market shares.

Bidding Analysis

2. Our overall approach was to compile a master dataset of bids the Parties took part in and supplement this with additional data from competitors and airlines.
3. This appendix first sets out the data we used for our analysis, then discusses the adjustments and assumptions we have made in enhancing the data, and finally lists the results tables.

Data Received

4. The CMA has assessed the bids made by Sabre, Farelogix and their competitors utilising data from the following sources:
 - (a) The Parties provided us with data covering the opportunities recorded for the period of 2014 - September 2019⁵¹⁶. The data includes the following information to the extent it was available/recorded by the Parties:
 - (i) The name of the procuring customer,
 - (ii) the products tendered,
 - (iii) any known competitors which bid,
 - (iv) the winner (if known),
 - (v) the date of each bid (as recorded by the Parties),
 - (vi) description of the opportunity,
 - (vii) whether an RFP was received,
 - (viii) whether a bid was made,
 - (ix) expected value of the opportunity⁵¹⁷,

⁵¹⁶ [REDACTED]. [REDACTED]

⁵¹⁷ Often the Parties did not record an answer to this question. [REDACTED][REDACTED]

- (x) expected length of contract,
 - (xi) name of existing supplier,
 - (xii) whether the opportunity relates to stand-alone merchandising PSS contract or is bundled with other modules,⁵¹⁸
 - (xiii) whether in relation to new or existing customer,⁵¹⁹
 - (xiv) other suppliers known to be competing,
 - (xv) status of the opportunity.
- (b) [REDACTED] possible competitors of the Parties also provided their record of bids they had made for Merchandising and NDC APIs covering the previous three years as of September 2019.⁵²⁰ This included:
- (i) The name of the airline
 - (ii) The product the bid was in relation to
 - (iii) Any other known competitors
 - (iv) The winner of the bid if known
 - (v) The date of the bid as recorded by the competition
- (c) A sample of airlines' which responded to our market questionnaire.⁵²¹ This covers the RFPs they had held in the last three years to September 2019. Including:
- (i) the products tendered,
 - (ii) bidders,
 - (iii) the winner,
 - (iv) and the date of the RFP as recorded by the airline.

⁵¹⁸ This question was asked of Sabre and Farelogix only in relation to merchandising.

⁵¹⁹ This question was only asked from Sabre.

⁵²⁰ [REDACTED].

⁵²¹ [REDACTED]

Adjustments made

5. The Parties told us that information on competitors and winners is not always complete and accurate, as customers do not usually share this information with suppliers bidding on their tenders.
6. We have modified the Parties' data as follows, based on submissions to the CMA by airlines, and data from competitors.
 - (i) We removed duplicates when the Parties competed against each other, so as not to count the same bid twice.⁵²²
 - (ii) If competitors were recorded as participating in a bid for an airline in the competitors' data but were not recorded as such in the Parties' data, we added them as additional bidders.
 - (iii) If competitors were recorded as winning a bid in the competitors' data but were not recorded as such in the Parties' data, we added them as additional winners.⁵²³
 - (iv) We used information provided by the airline concerned to identify the winners/competitors of a bid, where such data is not available or different from the Parties' or competitors' own intelligence.
7. When making modifications to the Parties' bidding data, the CMA made a series of assumptions set out below:
 - (a) As per 6(iv) above when an airline provided information on its own RFPs and its contradicted to information provided by the Parties or their competitors, we gave precedence to what airlines said about their own RFPs.
 - (b) When we incorporated data from airlines and competitors, the combination of the date and airline name did not always match up with the Parties data, as dates can be recorded differently. The CMA used information from the opportunity description and list of products tendered columns to increase the likelihood that the right opportunities were matched. If there was more than a one-year difference in date, the CMA left those as separate opportunities.

⁵²² [✂] Note that in case of the matches, the date recorded is from Farelogix's database. Further note that if the Parties recorded different bidders, the CMA expanded the matched record to contain information about bidders from both sources.

⁵²³ Note we only did so if the opportunity was already included in the Parties opportunity set.

- (c) For duplicate records between the Parties we applied a similar approach matching together duplicates based on the airline name, opportunity description and date. If there was more than a one-year difference in date, or the winners in the two records, then we kept both opportunities.
- (d) In instances where a supplier was listed as a bidder/winner in the Parties data but not in the listed bidder/winner's own data we kept the supplier listed as the bidder/winner. This is a conservative approach because other suppliers submitted information only for the last 3 years and due to the uncertainty of date records, we can't be sure these were not bids listed outside of the date range submitted by other suppliers.
- (e) [REDACTED].⁵²⁴
- (f) If the outcome of the opportunity was listed as unknown [i.e. 'Tender outcome' column recorded 'unknown', 'lost or unknown' or no information given], the CMA considered the tender as closed when it was registered more than 1 year ago. If outcome was unknown [i.e. 'Tender outcome' column recorded 'unknown', 'lost or unknown' or no information given], but a competitor provided specific information about the outcome of that bid, the CMA updated the dataset.⁵²⁵
- (g) We only examined opportunities where at least one of the Parties submitted a bid.⁵²⁶ In case the *Bid was made* question was left blank, the CMA kept that opportunity in the dataset and assumed a bid was made.
- (h) [REDACTED].⁵²⁷ The data lists the number of passengers boarded in 2017. The airlines are categorized in tiers based on the following rules: tier 1 airlines boarded more than 25 million passenger in 2017; tier 2 boarded between 10 and 25 million; tier 3 boarded between 3 and 10 million; and tier 4 boarded below 3 million.^{528,529}
- (i) [REDACTED].⁵³⁰ [REDACTED].

Merchandising Results tables

8. The following section sets out our results tables for the analysis of bidding data in merchandising. As Sabre can currently only supply its merchandising

⁵²⁴ [REDACTED] [REDACTED].

⁵²⁵ [REDACTED]

⁵²⁶ [REDACTED]

⁵²⁷ [REDACTED]

⁵²⁸ The tiers and passenger boarded numbers are not applicable for [REDACTED] and [REDACTED].

⁵²⁹ In some cases, the CMA was able to identify that an airline is tier 4, however it didn't have the exact passengers boarded figures. [REDACTED]

[REDACTED].

modules to its PSS customers and Farelogix does not offer a core PSS product, we examine three separate groups of opportunities and their winners:

- (a) Unbundled bids irrespective of the identity of the core PSS provider
- (b) Unbundled bids for which Sabre is the Core PSS provider
- (c) Bundled bids (i.e. merchandising bids bundled with the core PSS).

9. We also then look at the number of times each supplier has bid against Sabre and Farelogix.

Unbundled bids irrespective of the identity of the core PSS provider

- 10. Table H.2 shows the number of times at which each merchandising supplier has won a contract in the Parties' dataset.^{531,532,533} The table excludes the opportunities in which merchandising is bundled to Core PSS.
- 11. Whether an opportunity was bundled to the Core PSS modules was determined based on the Parties' responses. If Farelogix bid, we presume opportunity is unbundled. For the duplicate bids we rely on information provided by Sabre.

⁵³¹ [REDACTED].

⁵³² If outcome was unknown, we considered the tender as closed when it was registered more than 1 year ago due to the slow-moving nature of the tender process this might overstate the number of closed bids and therefore unknowns.

⁵³³ This table only reflects the airlines listed in the opportunity datasets of Sabre and Farelogix. Where airlines have had tenders which Farelogix or Sabre have not listed in their records as opportunities these wins are not reflected. [REDACTED]

Table H.2 - Winning bids for merchandising solutions by competitor when bids are not bundled with core PSS, 2014 to September 2019

Known winner	Number of wins	Share of wins (%)	Weighted by boarded passengers (%)	Number of wins by airline tier			
				Tier 1	Tier 2	Tier 3	Tier 4
Farelogix	[X]	[20-30] [X]	[30-40] [X]	[X]	[X]	[X]	[X]
Sabre	[X]	[5-10] [X]	[0-5] [X]	[X]	[X]	[X]	[X]
Amadeus	[X]	[5-10] [X]	[5-10] [X]	[X]	[X]	[X]	[X]
Datalex	[X]	[5-10] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
Google/ITA	[X]	[0-5] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
[X]*	[X]	[0-5] [X]	[0-5] [X]	[X]	[X]	[X]	[X]
PROS	[X]	[0-5] [X]	[0-5] [X]	[X]	[X]	[X]	[X]
Self-supply	[X]	[0-5] [X]	[5-10] [X]	[X]	[X]	[X]	[X]
Unknown	[X]	[30-40] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
Total closed opportunities	[X]	100%	100%	[X]	[X]	[X]	[X]

Source: based on Sabre and Farelogix opportunities data excluding those opportunities in which Merchandising is bundled to core-PSS, adjustments made based on airline and competitor data if available

* [X]

Table H.3 - Winning bids for merchandising solutions by competitor when bids are not bundled with core PSS over time, 2014 to September 2019⁵³⁵

Known Bidders	Airlines concerned					
	2014	2015	2016	2017	2018	2019 to date
Farelogix	[X]	[X]	[X]	[X]	[X]	[X]
Sabre	[X]	[X]	[X]	[X]	[X]	[X]
Amadeus	[X]	[X]	[X]	[X]	[X]	[X]
Datalex	[X]	[X]	[X]	[X]	[X]	[X]
Google/ITA	[X]	[X]	[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]	[X]	[X]	[X]
PROS/Vayant	[X]	[X]	[X]	[X]	[X]	[X]
Self-supply	[X]	[X]	[X]	[X]	[X]	[X]

Source: based on Sabre and Farelogix opportunities data excluding those opportunities in which Merchandising is bundled to core-PSS, adjustments made based on airline and competitor data if available

12. We note there are several bids with unknown outcomes including [X] tier 1 [X], as well as several tier 2, tier 3 and 4 airlines. It may be the case that these bids are still potentially open, or the airlines withdrew the tender but there will also likely be some of these bids which were won by other suppliers or the airline decided to supply in house.

⁵³⁴ [X]

⁵³⁵ The date of bid is based on the date in the parties' opportunity data rather than the date each win was confirmed.

13. [REDACTED]⁵³⁶

Unbundled and Sabre Core PSS

14. Table H.4 shows the number of times at which each merchandising supplier has won a contract in the Parties’ dataset. The table includes only the opportunities in which Sabre already provides the Core PSS and the bids are unbundled.

15. [REDACTED].

Table H.4 - Winning bids for merchandising solutions by competitor when bids are not bundled with core PSS and Sabre is the core PSS provider, 2014 to September-2019

Known winner	Number of wins	Share of wins (%)	Weighted by boarded passengers (%)	Number of wins by airline tier			
				Tier 1	Tier 2	Tier 3	Tier 4
Sabre	[REDACTED]	[20-30] [REDACTED]	[5-10] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Farelogix	[REDACTED]	[40-50] [REDACTED]	[20-30] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[10-20] [REDACTED]	[50-60] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Unknown	[REDACTED]	[20-30] [REDACTED]	[5-10] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total	[REDACTED]	100%	100%	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: based on Sabre and Farelogix opportunities data excluding those opportunities in which Merchandising is bundled to core-PSS, adjustments made based on airline and competitor data if available

Frequency of wins – opportunities in which merchandising is bundled to Core PSS

16. Table H.5 shows the number of times at which each merchandising supplier has won a contract in the Parties’ dataset. The table includes only the opportunities in which merchandising is bundled to Core PSS.

536 [REDACTED]

Table H.5 - Winning bids for merchandising solutions by competitor when bids are bundled with core PSS, 2014 to September-2019

Known winner	Number of wins	Share of wins (%)	Weighted by boarded passengers (%)	Number of bids by airline tier			
				Tier 1	Tier 2	Tier 3	Tier 4
Sabre	[X]	[20-30] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
Amadeus	[X]	[50-60] [X]	[80-90] [X]	[X]	[X]	[X]	[X]
Radixx	[X]	[5-10] [X]	[0-5] [X]	[X]	[X]	[X]	[X]
IBS	[X]	[0-5] [X]	[0-5] [X]	[X]	[X]	[X]	[X]
Unknown	[X]	[10-20] [X]	[5-10] [X]	[X]	[X]	[X]	[X]
Total closed opportunity	[X]	100%	100%	[X]	[X]	[X]	[X]

Source: based on Sabre and Farelogix opportunities data in including only those opportunities in which Merchandising is bundled to core-PSS, adjustments made based on airline and competitor data if available

Frequency of bids

- Table H.6 shows the number of times each supplier has competed in bids in which Farelogix or Sabre has also competed based on the Parties' opportunity dataset.

Table H.6 - Bidders against Sabre and Farelogix, 2014-September 2019

<i>Known Bidders</i>	<i>Number of bids in which the competitor competed against Farelogix</i>	<i>Proportion of Farelogix bids in which bid rival also bid (%)</i>	<i>Number of bids in which the competitor competed against Sabre</i>	<i>Proportion of Sabre bids in which bid rival also bid (%)</i>
Farelogix	N/A	N/A	[X]	[10-20] [X]
Sabre	[X]	[10-20] [X]	N/A	N/A
Amadeus	[X]	[30-40] [X]	[X]	[50-60] [X]
Datalex	[X]	[40-50] [X]	[X]	[5-10] [X]
Google/ITA	[X]	[10-20] [X]	[X]	[10-20] [X]
OpenJaw	[X]	[10-20] [X]	[X]	[0-5] [X]
Pros/Vayant	[X]	[10-20] [X]	[X]	[0-5] [X]
DXC	[X]	[5-10] [X]	[X]	[5-10] [X]
Other*	[X]	[10-20] [X]	[X]	[20-30] [X]
Bids in which the Parties are the only known bidder	[X]	[30-40] [X]	[X]	[30-40] [X]
Total number of bids in which they participated	[X]	100%	[X]	100%

Source: based on Sabre and Farelogix opportunities data in Merchandising, adjustments made based on airline and competitor data if available

* [X]

NDC API Results tables

18. The following section sets out the results tables in relation to NDC API opportunities between 2014 and September 2019.⁵³⁷

Frequency of wins

19. Table H.7 shows the number of times each NDC API supplier has won, based on Farelogix’s opportunity dataset. It also provides a breakdown based on airline size and weighted shares of wins by the global number of passenger boarded each airline.

⁵³⁷ Where the outcome has been decided

Table H.7 - Winning bids for NDC API solutions by competitor, 2014 to September 2019

Known winner	Number of wins	Share of wins (%)	Weighted by boarded passengers (%)	Number of bids in each airline tier			
				Tier 1	Tier 2	Tier 3	Tier 4
Farelogix	[X]	[10-20] [X]	[20-30] [X]	[X]	[X]	[X]	[X]
Amadeus	[X]	[10-20] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
OpenJaw	[X]	[10-20] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
In-house	[X]	[5-10] [X]	[10-20] [X]	[X]	[X]	[X]	[X]
JR Technology	[X]	[0-5] [X]	[5-10] [X]	[X]	[X]	[X]	[X]
Datalex	[X]	[0-5] [X]	[0-5] [X]	[X]	[X]	[X]	[X]
Unknown	[X]	[50-60] [X]	[40-50] [X]	[X]	[X]	[X]	[X]
Total closed opportunity	[X]	100%	100%	[X]	[X]	[X]	[X]

Source: based on Farelogix opportunities data in NDC API, adjustments made based on airline and competitor data if available

Table H.8 - Winning bids for NDC API solutions by competitor over time, 2014 to September 2019⁵³⁸

Known Bidders	Airlines concerned				
	2015	2016	2017	2018	2019 to date
Farelogix	[X]	[X]	[X]	[X]	[X]
Amadeus	[X]	[X]	[X]	[X]	[X]
OpenJaw	[X]	[X]	[X]	[X]	[X]
In-house	[X]	[X]	[X]	[X]	[X]
Datalex	[X]	[X]	[X]	[X]	[X]
JR Technologies	[X]	[X]	[X]	[X]	[X]

Source: based on Farelogix opportunities data in NDC API, adjustments made based on airline and competitor data if available

Bidders against Farelogix

20. Table H.9 shows the number of times at which each NDC API supplier has competed against Farelogix, based on Farelogix’s opportunity dataset.

⁵³⁸ The date of bid is based on the date in the parties’ opportunity data rather than the date each win was confirmed.

Table H.9 - Bidders against Farelogix NDC API 2014-September 2019

Known Bidders*	Number of bids in which the competitor competed against Farelogix	Share of bids (%)	Weighted by boarded passengers (%)	Number of bids in each airline tier			
				Tier 1	Tier 2	Tier 3	Tier 4
Datalex	[REDACTED]	[30-40] [REDACTED]	[40-50] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Amadeus	[REDACTED]	[30-40] [REDACTED]	[40-50] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
OpenJaw	[REDACTED]	[20-30] [REDACTED]	[20-30] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PROS/Vayant	[REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
DXC	[REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
JR Technologies	[REDACTED]	[5-10] [REDACTED]	[10-20] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TPConnects	[REDACTED]	[0-5] [REDACTED]	[5-10] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Bids in which Farelogix is the only known bidder	[REDACTED]	[40-50] [REDACTED]	[30-40] [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Total number of bids in which Farelogix participated	[REDACTED]	100%	100%	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: based on Farelogix opportunities data in NDC API, adjustments made based on airline and competitor data if available
 * [REDACTED]

Merchandising market shares

21. The following section sets out our approach to calculating market shares for Merchandising solutions provided to airlines globally. We firstly recap the approach the parties estimate and approach before setting out our own methodology.

The parties approach

22. [REDACTED].⁵³⁹ [REDACTED]. Sabre knows which modules they supply and which ones they do not supply to a given airline. Naturally, Sabre’s market knowledge is imperfect in that they often do not know which third party supplier supplies modules to an airline for functionalities that Sabre is not supplying.
23. [REDACTED]. [REDACTED].⁵⁴⁰ To derive supply share estimates, the Parties combined the most recent data from [REDACTED] with Farelogix’s information on its PSS airline customers for 2018.

⁵³⁹ [REDACTED]

⁵⁴⁰ At the time of the submission

- (a) The customer lists of key competitors in relation to Merchandising.⁵⁴⁴
 - (b) Responses from a sample of airlines which responded to our market questionnaire listing their supplier of Merchandising
 - (c) The Parties' own customer lists and submissions.
28. When making these adjustments we make the following assumptions:
- (a) We take the most recent available data for which supplier is serving each airline to reflect the most recent market positions. [REDACTED].
 - (b) Where a supplier or airline indicates that Merchandising has been provided only partially (e.g. for airline.com) we still allocate all of the bookings to that supplier unless we have evidence from another source that there is another supplier of in-house supply.
 - (c) Where we have evidence that there is more than one supplier providing merchandising services, rather than using assumptions to allocate the bookings between the two, we include the share for the combination of suppliers and consider the combined share elements as upper bounds of shares when considered with each affected supplier's share.
 - (d) Where Farelogix intelligence /airline responses indicates Sabre were the merchandising provider but the Parties have indicated that the airline is not a Dynamic Retail user:
 - (i) If there is evidence that there is no other supplier, e.g. airline has responded listing only Sabre or no suppliers and no competitor lists the airline as a customer we list as 'none'
 - (ii) Where there is evidence of another supplier, we list that supplier only.
 - (iii) If we haven't received any additional information from airlines or competitors, we list as in-house.
29. With the adjusted dataset we then use the 2017 passenger boarded numbers in the dataset to calculate the share of passengers for each supplier. We make the following assumptions:
- (a) We group OpenJaw and Travelsky together under OpenJaw as one supplier.

⁵⁴⁴ We received data from the following suppliers; [REDACTED]

- (b) We group Sabre together with recent acquisition Radixx.
- (c) For the one airline listed as supplier by 'Other airline hosted' we group this with Self-supply.
- (d) We exclude airlines with no supplier from the market
- (e) [REDACTED] there is still a proportion of the market for which we have unknown suppliers. We note that these unknowns are for small airlines who would be less likely to utilise and merchandising software but for completeness we include the shares with these unknowns included as well.
- (f) We group suppliers with less than 1% share together as 'other' suppliers.
[REDACTED]

Table H.11 – our estimates for Merchandising shares base on total passengers boarded

Supplier	2017 Passengers Boarded (PBs)	% Share PBs	% Share PBs excluding Self-supply	% Share excluding self-supply and unknown
Farelogix	[REDACTED]	[10-20] [REDACTED]	[10-20] [REDACTED]	[10-20] [REDACTED]
Farelogix /Amadeus	[REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]	[0-10] [REDACTED]
Sabre	[REDACTED]	[0-5] [REDACTED]	[0-5] [REDACTED]	[0-5] [REDACTED]
Amadeus	[REDACTED]	[20-30] [REDACTED]	[20-30] [REDACTED]	[30-40] [REDACTED]
OpenJaw	[REDACTED]	[0-5] [REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]
[REDACTED]	[REDACTED]	[0-5] [REDACTED]	[0-5] [REDACTED]	[0-5] [REDACTED]
OpenJaw / In House	[REDACTED]	[0-5] [REDACTED]	[0-5] [REDACTED]	[0-5] [REDACTED]
ITA	[REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]
Datalex	[REDACTED]	[0-5] [REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]
Other	[REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]	[5-10] [REDACTED]
Unknown	[REDACTED]	[10-20] [REDACTED]	[10-20] [REDACTED]	
Self-Supply	[REDACTED]	[10-20] [REDACTED]		
Total	[REDACTED]	100%	100%	100%

Source: Farelogix annex 54, competitor submissions, Parties submission, submissions from airlines.

30. In addition, we carry out a further share calculation using revenues data from the suppliers. The results for this share are set out in Table H.12.^{545, 546, 547}

Table H.12 – share of merchandising revenue by supplier

<i>Supplier</i>	<i>Share of revenue</i>
Farelogix	[20-30] [✂]
Sabre	[5-10] [✂]
Amadeus	[20-30] [✂]
OpenJaw	[10-20] [✂]
Google ITA	[0-10] [✂]
Pros	[0-5] [✂]
Datalex	[5-10] [✂]
Other Smaller suppliers	[5-10] [✂]

Source: Farelogix annex 54, competitor submissions, Parties submission, submissions from airlines.

Distribution market shares

31. With regards to the share of global distribution we rely on data submitted by the Parties but exclude the share of bookings attributed to tour operators. The results are set out in Table H.13.^{548,549}

⁵⁴⁵ [✂]

⁵⁴⁶ Revenue for [✂] was unavailable at the merchandising module level we therefore assume the share is in line with the share based on the customer PB share and inflate the size of the market to reflect this.

⁵⁴⁷ As we do not have revenue data for other suppliers, we assume it is in line with the share based on customer PB and inflate the estimated size of market to reflect this.

⁵⁴⁸ Host direct are Axess (Japan), Infini (Japan), Sirena (Russia) and Travelsky. (China)

⁵⁴⁹ Direct Connect share relies on an estimate calculated by T2RL. T2RL calculate direct connect based on the remainder of bookings unallocated to other channels, this includes in house solutions and predominantly for low cost carriers.

Table H.13- Global airline passenger bookings by booking channel/vendor 2018

<i>Supplier/channel</i>	<i>Bookings (millions)</i>	<i>% share including direct</i> [10-20]	<i>% share including direct excluding host direct</i>	<i>% share indirect</i> [20-30]	<i>% share indirect excluding host direct</i> [30-35]
Sabre	[X]	[X]	[10-20] [X]	[X]	[X]
Farelogix	[X]	[0-5] [X]	[0-5] [X]	[0-5] [X]	[0-5] [X]
Amadeus	[X]	[10-20]	[10-20] [X]	[20-30]	[30-40]
Travelport	[X]	[0-10]	[10-20] [X]	[10-20]	[10-20]
Host Direct	[X]	[X]	[5-10] [X]	[X]	[X]
Direct connect (excluding Farelogix)	[X]	[10-20]		[30-40]	
Direct channel (airline.com and airline call centres)	[X]	[X]		[X]	
	[X]	[0-5] [X]	[0-5] [X]	[0-5] [X]	[X]8%
	[X]	[40-50]	[50-60] [X]		
Total	[X]	100%	100%	100%	100%

Source: Parties submission; Parties sales data for Parties estimates, MIDT for Amadeus and Travelport, T2RL for other channels.

32. We also examine the relative share of the three main GDS providers over time. This is set out in Table H.14.

Table H.14 - Relative share of bookings between Sabre, Amadeus and Travelport

	2015	2016	2017	2018
Sabre	[X]	[X]	[X]	[X]
Amadeus	[X]	[X]	[X]	[X]
Travelport	[X]	[X]	[X]	[X]

Source: Parties submission

Glossary

The Act	The Enterprise Act 2002
ATPCO	Airline Tariff Publishing Company
airline.com	An airline's own website
Ancillaries	Any airline non-ticket item which can be bundled with an airline ticket. Examples include in-flight meals, extra baggage allowance, extra leg room
API	Application Programming Interface. APIs allow for two or more software programs to communicate with each other
B&M	Bricks and mortar travel agents
CMA	Competition and Markets Authority
Core PSS	See PSS
Direct Channel	Distribution of airline content and bookings using airline.com or other direct contact with an airline (via a call centre for example)
Direct Connect	A one-to-one connection between an airline and a third party using an API
DoJ	US Department of Justice
Dynamic Retailer module	Sabre's merchandising module
EDIFACT	Electronic Data Interchange for Administration, Commerce and Transport
Evercore	Evercore Inc
FLX AC	Farelogix availability calculator
Farelogix	Farelogix Inc
FLX SB	Farelogix schedule builder
FLX S&P	Farelogix shopping and pricing engine

FLX M	FLX Merchandise
FLX OC	FLX Open Connect
FSC	Full-service carrier
GDS	Global Distribution System. Two-sided platforms that connect travel service providers (such as airlines) with travel agents. GDSs perform a range of functions including aggregating information across suppliers so that travel agents can undertake comparison shopping and creating offers for passengers
GDS Bypass	Distribution of airline content and bookings in the indirect channel but not using a GDS
GDS pass-through	Distribution of airline content and bookings in the indirect channel using a GDS but where the connection between the airline and the GDS is made via a third party
IATA	The International Air Transport Association. An association of airlines
IATA certification	Accreditation granted by IATA that certifies applicants' (eg airlines, sellers, aggregators and IT providers) technical capabilities to receive and send NDC messages.
Indirect channel	Distribution of airline content and bookings via a third party, usually a travel agent. In the large majority of instances bookings in the indirect channel involve going through a GDS
LCC	Low cost carrier
NDC	New Distribution Capability. NDC is an open-sourced XML-based data transmission programming standard
NGR/NGD	New generation retail and new generation distribution. A Sabre initiative to invest in and to provide NDC solutions
OTA	Online Travel Agent
PSS	Passenger Service System. A part of an airline's passenger booking IT system. The core PSS usually comprise the airline reservation system, the inventory system the departure control system.

	Non-core PSS modules interoperate with the core PSS to help airlines create and manage their offers.
PSS-agnostic	A non-core PSS module which can interoperate with a core PSS from a third party supplier.
RFP	Request for Proposal
Sabre	Sabre Corporation
Sabre AS	Sabre Airline Solutions. Sabre's business unit responsible for (amongst other activities) Sabre's core and non-core PSS solutions
Sabre TN	Sabre Transport Network. Sabre's business unit primarily responsible for Sabre's GDS activities
SLC	Substantial lessening of competition
the Act	The Enterprise Act 2002
TMCs	Travel Management Companies