



## Competition impact of airline code-share agreements



## Final Report

January 2007

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AGREEMENTS**

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## 1. INTRODUCTION

### Background

- 1.1 Code-sharing amongst air carriers became popular within the United States following the deregulation of the domestic air travel market at the end of the 1970s, from there spreading into international markets. In Europe, code-sharing similarly became more popular following EU deregulation in 1993. The scale and importance of code-sharing is demonstrated by the fact that in the latest annual airline alliance survey of the largest 200 airlines published by *Airline Business* magazine (in September 2006), virtually all of the over 100 airlines that responded had code-shares, usually with several partner airlines.
- 1.2 Although most airline alliance partners code-share on flights (whenever permitted by regulators), not all code-share agreements are between alliance partners. While code-share agreements therefore represent a lower level of co-operation than full membership of the airline alliances, they nevertheless involve significant levels of co-ordination between the airlines involved. In addition to the use of an airline's code on a flight operated by a different airline, code-share agreements always involve an underpinning set of operational and commercial agreements concerning at least access to, and prices for, seat inventory, and in many cases additional features such as changes to separate agreements allocating revenue and shared frequent flyer programmes.

### Objectives of the study

- 1.3 With the continuing growth in airline code-share agreements, as liberalisation and consolidation in the industry continues (and with the added competition of low cost carriers spurring network carriers towards closer co-operation in response), the Commission has identified the need to enhance its understanding and experience of the mechanisms and implications of code-share agreements, in order better to fulfil its role of ensuring fair competition within EU airline markets. Although the Commission has significant experience in consideration of the competition impacts of airline alliances, its knowledge of the impact of code-share agreements *per se* is less extensive, hence the particular focus of this study.
- 1.4 The Commission required two major areas of work relating to this task. The first was to provide a "typology" of airline code-shares, listing the various types of agreement (and circumstances in which they obtain) and their associated features, in particular access to capacity and financial settlement arrangements. The benefits to airlines, and the association of code-shares with other forms of cooperation also needed to be considered. Finally, the Commission required a full inventory of existing code-share agreements involving EU carriers.
- 1.5 The second major area of work was the development of a conceptual framework for the assessment of the competitive effects of code-share agreements. The framework was to take into account the different types of code-shares already identified, and in particular, the various contractual features found in different agreements. The framework was to address the extent to which code-shares affect market entry into the markets in which they operate, and to what extent they impact other markets. The

welfare impacts of code-share agreements were to be assessed, in particular the effects on prices paid by consumers.

### **Content of the report**

- 1.6 Our approach to the Study included a combination of desk research, interviews with industry stakeholders, workshops and analysis, which is described in Chapter 2.
- 1.7 The definition, and key features, of code-share agreements in the industry are described in Chapter 3.
- 1.8 Chapter 4 contains a review of case law and previous studies, while Chapter 5 presents a summary of stakeholder views.
- 1.9 Chapter 6 contains a summary of the code-share agreements involving EU-domiciled airlines, while Chapter 7 contains analysis of fares and capacity data for selected pairs of comparable routes, in each case where one is a code-share and the other not: a subset of these has been used as the case studies giving deeper insight into particular agreements.
- 1.10 Chapter 8 outlines the competition assessment framework and Chapter 9 gives examples of the practical application of the framework. Some conclusions from the study are discussed in Chapter 10.
- 1.11 A glossary is included in Appendix A. Theoretical examples of key code-share agreement features, and of their practical application, are given in Appendix B. Appendix C contains a bibliography of the literature reviewed. Appendix D contains an inventory of code-share routes operated, or marketed by EU-domiciled airlines.

## 2. APPROACH AND METHODOLOGY

- 2.1 In order to deliver the various outputs of the study (including the typology and inventory of code-share agreements and the framework for competition assessment), it has been necessary to undertake a number of parallel workstreams. These include an initial internal workshop, stakeholder interviews, desktop research (both qualitative and quantitative), and detailed data analysis.

### **Stakeholder interviews**

#### ***Airlines interviewed / planned for interview***

- 2.2 Interviews were held (either in person or by teleconference) with 14 airlines that code-share. In all cases, a high degree of cooperation was given, and in a number of cases, the airlines have provided additional information detailing the agreements they have in place. The interviews were based around a number of standard questions pre-notified to the airlines, and formal minutes were taken based on this format. The views of airline stakeholders, in relation to each question, are summarised in Chapter 5.

#### ***Other organisations interviewed / planned for interview***

- 2.3 In addition to interviews with airlines, discussions were also held with seven other organisations, including air transport user groups, travel trade representatives, a low cost carrier and two airline organisations. For these interviews, a less structured approach was followed compared to that used with the airlines, although the standard questions for the airlines were provided in advance for information. The views of industry stakeholders are also summarised in Chapter 5.

### **Desktop data research and analysis**

#### ***Review of relevant legal precedent***

- 2.4 The Commission has never issued a decision concerning a code-sharing agreement on its own. However, it has looked at the competitive impact of code-sharing arrangements in the context of wider airline alliances, and the analysis and conclusions in these cases provide some useful guidance, which we have taken into account in developing a framework for assessment.
- 2.5 The US DoT has a well developed policy on the competition implications of code-sharing. This has been reviewed and we include some commentary on the US approach in Chapter 4.

### ***Literature Review***

- 2.6 We have reviewed the relevant literature and have considered the implications of the various findings for the study. The results of our review are discussed in Chapter 4. Here we note that much of the literature does not distinguish precisely between code-share agreements, strictly defined, and broader relationships such as joint ventures and alliances. In addition, many of the studies focus on US code-shares, reflecting the

greater availability of fares and data in the US as compared with Europe. As a result, the literature is arguably of limited value in assessing the implications of a specific code-share agreement in a European context, although many of the findings of the studies reviewed have nevertheless been useful in informing the development of the competition assessment framework.

- 2.7 A full list of references is included in Appendix C.

### **Review and analysis of OAG data and “Airline Business” Report**

- 2.8 We have access to OAG worldwide flight schedules (and inferred seat capacity data), through software supplied by BACK Aviation, including the current schedule and historical schedules back to 2002.
- 2.9 Within the database duplicate flights are identified. These are flights where there is only one physical flight movement but the database records two or more flight movements, because two or more different carriers have filed a flight record with OAG. The database distinguishes between the published carrier and the carrier that actually operated the flight. We have used this to identify where there is a code-share operation on a route (airport pair). We have identified code-share operations involving all airlines domiciled within the EU, as well as the EEA states (Norway and Iceland), Switzerland, and the accession states, Bulgaria and Romania. A summary of the analysis performed appears in Chapter 6. We have also developed a comprehensive list of code-share routes operated or marketed by EU-domiciled airlines, based on OAG data. This is presented in Appendix D.
- 2.10 We have reviewed the list of airline code-shares within the Special Report on Alliances published by *Airline Business* in its September 2006 edition. This has been supplemented from web-based research, as well as by the first phase of OAG analysis. From this, we have populated with typical examples a matrix of different types of code-shares, by airline-pair and route, categorised by geography and type (for example, whether the airlines were within an alliance, and how access to capacity was determined). This is presented in Chapter 6.

### **Analysis of fares and capacity data**

- 2.11 Through analysis of OAG data and the *Airline Business* review, we have identified twelve pairs of routes of generally similar characteristics in terms of passengers carried, number of operating airlines and geographical location, where one member of the pair has a parallel code-share operation (with the exception of Brussels – Zurich, a unilateral code-share), while there is no such code-share on the other. For each pair, we have then researched the level of current fares (business, advanced purchase and last-minute purchase) and the growth of capacity over recent years, to see whether significant and consistent differences could be identified between the code-sharing and non-code-sharing routes. This analysis is described in Chapter 7.

### **Case studies**

- 2.12 For a subset of these pairs of comparable routes (selected as case studies), we have undertaken further data analysis, and in particular obtained time-series of published

fare levels, again with the view of identifying differences that may be attributable to code-sharing. We have also looked at the connectivity provided by the (longhaul) case study routes. The case study analysis is described in Chapter 7.

### **Development of the competition assessment framework**

- 2.13 We held an initial internal workshop, involving both technical and legal experts within the team, to facilitate the development of the competition assessment framework. The workshop included discussion on the motivation for, and main features of, code-share agreements, from an airline perspective. In addition we reviewed, from a legal perspective, the competition issues raised generally by code-sharing, relevant Commission decisions and cases where parties agree to remain free to compete but do not in fact do so.
- 2.14 Following on from the workshop, we were able to develop an initial code-share assessment framework, which was later adapted, with modifications based on further research, including airline and other stakeholder interviews, for this document. The framework is presented in Chapter 8, and guidelines for the practical application of the framework are given in Chapter 9.



### 3. DEFINITION AND FEATURES OF CODE SHARES

#### Introduction

- 3.1 This chapter introduces the concept of airline code-sharing, providing definitions and listing key features. A glossary of relevant terms is produced as Appendix A. Some examples describing the features and practical application of code-share arrangements are provided in Appendix B.
- 3.2 Historically, code-sharing arose out of the increasing use of Computer Reservations Systems (CRSs, now known as Global Distribution Systems, GDSs) by travel agents in the 1980s and 1990s. Unlike airlines' own reservations systems, CRSs were required to be "neutral", not favouring one airline's flights above another. A set of display rules were agreed within the industry, with the endorsement of the authorities, in both the US and the EU. One of these rules, applying to journeys involving a connection, gave higher priority to "online" connections (i.e. those between two flights of the same airline) than to interline connections (those involving flights from different airlines).
- 3.3 In response to this rule, airlines adopted code-sharing, which allowed connecting flights operated by two different airlines to appear, as far as the CRS was concerned, to be an "online" connection, and hence appear higher up the CRS screen than it otherwise would (and therefore have a greater chance of being sold). With the ending of the CRS display rules in the US (though not in the EU), and with the now reducing importance of CRSs as direct selling channels, especially the internet, have become more important, the original motivation for code-sharing has reduced. However, airlines clearly find the practice advantageous, and it is now widespread across the industry, and is no longer confined to connecting flights.

#### Definition and basic types of code-sharing

- 3.4 In its most basic form, a code-share agreement simply allows for a flight operated by one carrier (which will offer the flight for sale under its own code or designator and associated flight number, such as 'XY1234'), also to be marketed by another carrier, under that other carrier's code and flight number (e.g. 'PQ5678'). The carrier operating the flight (in this case, carrier with code 'XY') is known as the "operating carrier", while the carrier marketing the flight under its own code (in this case 'PQ') is known as the "marketing carrier".
- 3.5 In principle there is no limit to the number of marketing carriers on any one flight, although Global Distribution System (GDS) system limitations restrict the number to 11. However, it should be noted that GDS rules, which govern the systems that are used to market and sell airline tickets, prevent more than one marketing carrier being displayed for any proposed journey between a given pair of origin and destination ("O&D") airports. Thus, for example, at least seven airlines market code-share flights on BMi-operated flights between London Heathrow and Edinburgh; however, of these, only Lufthansa is able to market the London-Edinburgh O&D journey. The other carriers that put their code on the London-Edinburgh route do so as part of journeys originating from behind London.

3.6 The carrier that issues tickets to the passenger for a journey involving a code-share flight is known as the “ticketing carrier”. Where the complete journey does not involve a third carrier, the ticketing carrier will generally be the same as the marketing carrier (unless the ticket is issued by the operating carrier itself, in which case no code-sharing is involved). Where a third carrier is involved in a passenger’s journey, the carrier issuing the ticket may, in some cases, be neither the operating nor the marketing carrier, but part of the journey may, nevertheless, be booked under the marketing carrier’s code for a flight operated by the operating carrier. This can cause problems in revenue settlement if the operating carrier, which in general accepts the ticket coupon for carriage on the flights that it operates (or equivalent electronic ticketing procedure), has no interline relationship with the ticketing carrier.

3.7 The underlying geography of the routes covered by code-share agreements can be classified into three major types, namely:

- **Parallel operation on a trunk route** - two carriers both operate the same sector (flown airport pair), and each gives its code to the other’s operated flights. An example of this is flights between Paris and Milan, operated by Air France and Alitalia, which have each others’ codes as well as their own. These are sometimes known as “online code-shares” (although this term may be misleading and we have avoided it in this Report).
- **Unilateral operation on a trunk route** - a carrier puts its code on a sector operated by another carrier, but not by itself, and not (necessarily) connecting to one of its own operated flights (for example, British Airways puts its code on Manchester-Chicago, operated by American Airlines; Delta puts its code on Paris-Boston, operated by Air France). These are sometimes known as “network extension code-shares”.
- **Behind and beyond route** (connecting to a trunk route service) – a carrier puts its code on sectors, operated by another carrier, to provide connections with its own operated services. Connecting code-shares generally require the marketing carrier to sell an interline journey, i.e. one involving travel on its own service and then on the service of the partner carrier (and this kind of code-share is therefore sometimes known as an “interline code-share”). The classic example of this sort of code-share is, for example, when British Airways sells a journey from London Heathrow to, say, Albuquerque, via Dallas, with the US domestic sector operated by American Airlines. However, because of the existence of a code-share agreement, they can nevertheless be distinguished from a traditional interline journey, on which passengers simply take connecting flights designated only by the code of the operating carrier.

3.8 These basic types of code-share are illustrated in Appendix B, Section B1.

### **Motivation for code-sharing**

3.9 The underlying motivation of airlines in entering into code-share agreements is to broaden the offer that airlines can make to customers in terms of the number of destinations and, in some cases, the flight timings that they can offer potential customers, without the costs and difficulties involved in additional investment in equipment or in mergers with other airlines (which may in any case be prohibited by legislation or international agreements).

- 3.10 Code-share agreements also enhance the “presence” of an airline in markets where it would otherwise have no profile (usually at the end of a route away from the airline’s home country), and hence facilitate the marketing of its services, allowing its seats to be sold via a marketing carrier which may be much better known in that market. (In contrast, low cost carriers believe that market presence can be achieved through advertising and direct selling channels at both ends of a route, and therefore generally do not feel the need to enter into code-sharing agreements.)
- 3.11 Code-share agreements enable an airline to market a flight operated by another carrier, and of course airlines are only willing to use their brand in this way if they are confident that the other carrier is safe and has a suitable product. The existence of a code-share agreement with a partner airline can therefore give confidence to both customers and distribution channels that journeys involving the partner can be sold with the expectation of a good overall level of service, in terms of suitability of the product and seamlessness of ticketing and flight connection arrangements.
- 3.12 Airlines believe that these factors – enhancing customer reach, widening the offer to customers and giving confidence to the market about products offered in combination with other carriers – will generate additional traffic, and hence revenue, at relatively low cost. For example, a figure of 20% was mentioned by one airline as an example of the expected increase in passenger traffic when an interline connection is upgraded into a code-share connection.
- 3.13 However, it is possible that part of the motivation of carriers in entering into code-share agreements is to allow them, jointly, to dominate a market, allowing capacity to be restricted or prices to be raised (or to remain high), resulting in disadvantages for purchasers and discrimination against other airlines. It is part of the purpose of this study to identify situations in which this is more likely to occur.

### **Basic provisions of code-share agreements**

- 3.14 Code-share agreements are, from a legal perspective, commercial agreements (contracts) between the marketing and operating carriers. They can be distinguished from the broader relationships underpinning the three major, worldwide airline alliances (STAR, SkyTeam and oneworld). Alliance members often code share with each other (one alliance actually requires this as a condition of membership) but they do not specify the details of such agreements, which remain bilateral between the parties. Alliance membership implies a number of mutual obligations that go well beyond those required by code-sharing (for example, mutual Frequent Flyer Programme participation is generally required), but it is not always easy to distinguish the extent to which features of code-share agreements, or of parallel agreements, relate to alliance membership rather than specifically to code-sharing. This is particularly the case for airlines that only choose to code-share with fellow alliance members.
- 3.15 The typical provisions of code-share agreements, narrowly defined, are discussed below.

### ***List of routes***

- 3.16 Agreements will specify which routes are covered by the agreement, either in generic

terms (e.g. “all behind points in the US”) or through an explicit list within an annex. The provisions may also state that the list can be amended by agreement between the parties.

### ***Marketing and product display***

- 3.17 As a minimum, the agreement will contain various provisions allowing each carrier to market a flight under its own code, and requiring the marketing carrier to identify the flight to the customer, before the transaction is finalised, as being actually operated by the operating carrier. The marketing carrier must also identify the flight as a code-share in submissions to GDSs, the OAG and other similar publications. Where carriage of passengers within the local market is not permitted (under the relevant air service agreement), this must also be indicated to prevent the marketing flight being offered for sale in the local market (as opposed to being offered as a component of a connecting journey for which the marketing carrier does have the necessary traffic rights).

### ***In-flight product and quality monitoring***

- 3.18 The agreement may contain provisions on the minimum level of operational, ground and in-flight service to be provided by each carrier, and may outline procedures for agreeing minimum standards and ensuring that these are met.

### ***Technical and operational requirements***

- 3.19 These provisions describe the operating carrier’s responsibility for operating the flight, and rights to make operational changes as necessary for safety and other reasons. Procedures for handling changes to schedules, delays and cancellations are described (for example relating to the re-accommodation of passengers on alternative flights).

### ***Safety and security***

- 3.20 These provisions ensure that flights are operated safely with suitable equipment, and typically cross-refer to standards set by the relevant governmental authorities.

### ***Passenger handling and airport procedures***

- 3.21 These provisions specify the procedures for handling passengers (check-in, flight transfer, luggage retrieval, etc.) and in particular how disruptions should be managed. In general, where issues occur on the day of travel, it is for the operating carrier to manage the situation (and to treat code-share passengers no differently from its own). However, where a flight is cancelled in advance, it would generally be up to the marketing carrier to rebook the code-share passengers onto other flights.

### ***Inventory control procedures***

- 3.22 These provisions, which may alternatively be subsumed within the revenue management and settlement clauses, or which may be included in a separate agreement, may specify how the two airlines’ reservations booking classes are to be mapped (either in detail, or in principle, for example, by stating that average yields in each pair of matched booking classes should be similar). The provisions may also

make statements about potential “block space” arrangements between the parties, and, for both freesale and block space arrangements, specify how access to inventory on the operating carrier’s flight will be provided to the marketing carrier. The paragraphs below explain these terms in more detail.

- 3.23 Booking classes are “buckets” of seat inventory (often overlapping), indicated by a single letter (A, B, C, etc.), and are the basic “raw material” handled by airline and GDS reservations systems. The airline’s inventory control system will indicate the level of availability (i.e. number of seats) associated with each booking class, and reservations systems are able to book passengers into that booking class until its availability reaches zero. It should be noted that booking classes are distinct from service classes (e.g. First, Business, Economy), and in general there will be more than one booking class associated with each service class.
- 3.24 Each booking class is generally associated with particular types of fare (business class, fully flexible, advance purchase, etc.) and/or types of traffic (e.g. flexible-ticket passengers connecting onto longhaul services), and hence with particular ranges of yields (i.e. revenue per passenger). In some airlines, for convenience, the booking class letter is the first letter of the “fare basis code” that describes the fare to be charged. In general, the booking classes representing fares of lower yield will be closed (i.e. availability set to zero) earlier in the booking process than is the case for higher yield booking classes. The yields associated with each booking class letter generally differ for each airline (they are not, for example, in alphabetical order), hence the need for a mapping between the classes of different airlines.
- 3.25 In a “freesale” code-share arrangement, the booking classes of the two airlines are mapped, as described above. When a passenger tries to book on the marketing carrier, a seat from the booking class relating to the fare being sold by the marketing carrier needs to be allocated. The reservations system will try to access this booking class, which will be automatically mapped to the corresponding booking class of the operating carrier – if seats are available in this booking class on the relevant flight, a booking can be made (otherwise it will be denied). In this way, the marketing and operating carrier book into the same inventory of seats.
- 3.26 In a “block space” arrangement, the marketing carrier pre-arranges to reserve a given number (“block”) of seats on the operating carrier’s flights. This may be an absolute arrangement, whereby the marketing carrier purchases the block of seats at an agreed price (called a “hard block”), or there may be an option to return some of the seats at an agreed number of days before departure (“soft block”).
- 3.27 The effect of this arrangement is to set up a “virtual flight” controlled by the marketing carrier, with a guaranteed availability of seats for the marketing carrier. When a passenger tries to book with the marketing carrier, the reservations system only needs to check whether seats are available on the “virtual flight”, and hence no real-time communication is required with the operating carrier. For a block space agreement, there is therefore also no need to set up a mapping between the airlines’ booking classes.

***Pricing, revenue management, ticketing, commission payments and financial settlement***

- 3.28 These provisions are fundamental to the specification of the flow of revenue resulting from the agreement. As a general principle, the part of a fare applicable to a particular flight sector belongs to the operating carrier. In some agreements, the relevant clause may simply state that the division of revenues (and payment of commissions) shall follow standard industry procedures, in other words the industry rules concerning interlining and proration (which has the effect, *inter alia*, of attributing revenue to the operating carrier). These rules may be derived from standard industry frameworks (see below from paragraph 3.35), or they may be parallel agreements between the parties, not necessarily referred to within the code-share agreement. Alternatively, various mechanisms for the division of revenues, known as “proration”, particularly in relation to connecting journeys may be set out, which may or may not be separately specified.
- 3.29 Code-share commission, payable by the operating carrier to the marketing carrier, may also be specified (with rates either in a separate schedule, or in a parallel agreement). Interline service charge (ISC), which is payable between carriers on normal interline journeys, with or without code-shares, is generally payable by the operating carrier to the marketing carrier.
- 3.30 In view of the potential complexity of different arrangements for pricing and revenue allocation and determination of commission payments, we discuss their application in the context of code-sharing in more detail below.

***Taxes***

- 3.31 There may be clauses relating to the payment, collection and settlement of relevant taxes and charges.

***Liability, indemnification and insurance***

- 3.32 These clauses deal with liability in case there is a problem. In general, the operating carrier indemnifies the marketing carrier for any liability it incurs in relation to non-performance of its obligations to its customer (the passenger) due to the actions or omissions of the operating carrier (e.g. when the operating carrier cancels a flight). The operating carrier is also required to hold suitable insurance.

***Exclusivity***

- 3.33 Some code-share agreements are exclusive to the parties, preventing them from entering into further code-share agreements with third party carriers in certain markets. Note that even where an exclusivity clause is not included in the code-share agreement itself, the associated fare and revenue allocation mechanisms set out in separate agreements, discussed below, may discriminate in favour of code-share partners.

**Pricing, revenue allocation and commission payments**

- 3.34 As noted above, arrangements for allocating revenue and paying commission for

flights sold by a partner airline can take a number of different forms, in some cases following standard industry procedures and in others bespoke to a particular relationship between airlines. We therefore discuss these arrangements in more detail, initially setting out the established industry frameworks governing rules on interlining and proration before describing the more specific arrangements that airlines may choose to make.

### ***Standard airline industry frameworks***

- 3.35 Code-share agreements should be seen in the context of the IATA-sponsored industry-wide rules on interlining, pricing and proration, which, while often superseded by specific bilateral agreements between airlines (both within and outside code-share agreements), form the default arrangements for airline cooperation in ticketing and settlement. These originally developed in an environment of highly restrictive bilateral air service agreements, where access to routes was closely restricted and where airlines were permitted to discuss procedures for mutual convenience, particularly through the forum of IATA. Over the years, with a more market-focused approach to the regulation of air services across the world, the opportunities for airlines to offer services have been liberalised, but conversely, competition authorities have reduced the scope of permitted discussions between airlines, including those at IATA, to focus exclusively on arrangements that can be demonstrated to benefit passengers, and in particular those relating to interline journeys.

### *Interlining*

- 3.36 The most fundamental part of the industry framework relates to interlining, i.e. sales by one carrier of journeys involving another carrier (not necessarily involving code-sharing). The Multilateral Interline Traffic Agreement (MITA) is formally defined by resolutions of IATA's Passenger Service Conference, which includes all IATA members (and which is also open to non-members). It relates to the ability of one carrier to sell a journey, or part of a journey, on the services of another carrier, together with the procedures for settlement of the revenue owed to the carrying airline, and payment of an ISC to the ticketing carrier, in recognition of the costs of sale incurred.
- 3.37 Although MITA has a very large airline membership, being party to the agreement does not automatically mean that a carrier will take other members' issued tickets. For this to happen each airline has to state that it is in "concurrence" with each other airline with which it wishes to interline. Therefore, despite the existence of a multilateral framework on interlining, the agreement to interline requires bilateral agreement between each pair of airlines. This means that airlines retain the ability to agree or to refuse to interline with any other airline.

### *Establishing fares*

- 3.38 Historically, airline fares were set by airlines in discussion at IATA, and "industry" fares (with a "carrier" code of "YY") were established between key locations. From the late 1980s onwards, "carrier" fares (indicated with the carrier's code, e.g. "AA" for American Airlines, as opposed to "YY" for industry fares) began to be introduced and are now nearly universal (with some exceptions in Asia and Africa). Carrier fares

are generally equal to or lower than the industry fares, in order to be attractive in the market. The conditions on these fares might either permit, or not allow, their use in fare construction – in general, carriers did not allow their reduced, carrier-specific fares, to be used in interline journeys involving proration (see below), since this would reduce the revenue collected by the carrier.

- 3.39 Various “fare construction rules” have also been adopted, which permit booking systems to quote fares for journeys involving connections. Through fares (i.e. those for journeys involving a connection) are calculated by taking the lower of any quoted through fares and the “sum of sectors”, i.e. adding up the fares for each sector on the itinerary. For this purpose, standard exchange rates are set (to enable all selling systems to quote identical fares for identical journeys), and a number of other rules applied – for example, if the passenger makes a stopover during the itinerary, a “higher intermediate fare” check, to protect point-to-point market fares. In general, CRSs are programmed to quote carrier fares, where one is available, and only use the industry “YY” fare where there is no alternative.
- 3.40 Carriers may agree, generally within a Special Prorate Agreement, discussed below, to allow each carrier to establish (carrier-coded) through fares for journeys involving carriage on both airlines. The agreement will also specify how the revenue for the journey is to be divided between the carriers. Such agreements are, of course, only entered into when in both carriers’ interests. Although not restricted to use within code-shares, this approach is common practice where a code-share is in place, so that airlines will generally have carrier-specific fares to all their code-share destinations. To some extent this approach has reduced the need for creating through fares using industry “fare construction” rules.

### *Proration of through fares*

- 3.41 Separately from the interlining and pricing frameworks, the Multilateral Prorate Agreement (MPA), relates specifically to the division, or “proration” of the revenue from a fare specified between an origin airport and a destination airport, where the journey in fact involves travel on more than one carrier. It is important to note that the MPA applies to “international through fares”, including carrier-specific and industry “YY” fares. There can be disputes where a carrier-specific through fare is used which has not been agreed by the other carrier.
- 3.42 An example would be a journey from Chicago to Prague, which, at the time of writing, has a specified (round trip) fare of USD 912.36. For a passenger travelling on United Airlines from Chicago to Frankfurt, and on Lufthansa from Frankfurt to Prague (ticket sold by UA), the question is how the USD 456.18 (half of the round trip fare) should be divided between the carriers. The default approach to proration is that the fare is split pro-rata to weighted mileage (this is called “straight rate proration”). Mileage is weighted to take account of the additional costs of short-haul flights (this varies by world region), with the weighted mileage known as “prorate factor miles”.
- 3.43 As an alternative to straight-rate proration, it is possible for a carrier to specify a “proviso”, or fixed revenue amount, for its part of the journey, where the revenue under straight-rate proration may not cover selling and operating costs (which are non-linear in distance). For this reason, provisos are generally applied to the shorter

portion of an itinerary (and in any case are restricted to sectors under 1700 miles).

- 3.44 Provisos are applied by carriers within the MPA framework, but the framework imposes rules which mean that in some circumstances, the proviso does not apply, and the calculation reverts to straight-rate proration. These circumstances are becoming increasingly common, with the effect of undermining the existing MPA framework, and driving airlines towards adopting bilateral Special Prorate Agreements (see below) to override it.
- 3.45 The most important situation preventing a proviso from being applied is the “minimum prorate rule”. This states that if the residual amount (i.e. the amount of the through fare, less the proviso) is less than a threshold value, then straight-rate proration will be used. This threshold value is set in terms of an amount in USD per prorate factor mile, which is currently \$0.11 (uprated each year in line with YY fares). Hence, if after a proviso is applied, the ticketing carrier would receive less than 11 US cents per (prorate factor) mile, the proviso is not used, and straight rate proration applies. Because fare levels have declined over recent years, it is now quite common for provisos to be cancelled out by this rule.
- 3.46 Separately, provisos will be cancelled out if *both* carriers apply a proviso to their sectors on the route, and the sum of these is greater than the through fare paid – again the calculation reverts to straight-rate proration.

### ***Provisions of revenue settlement and Special Prorate Agreements***

- 3.47 In many code-share agreements, key provisions of the arrangement are in fact held in separate, parallel agreements between the parties, which may or may not be concluded at the same time as the code-share agreement itself. The most important parallel agreements relating to pricing and revenue settlement are:
- **Special Prorate Agreements (SPAs).** An SPA specifies how revenue for a journey involving carriage of a passenger on flights operated by both the marketing and the operating carrier should be divided between the parties (i.e. a particular method of proration).
  - **Revenue settlement agreement.** A revenue settlement agreement is likely to contain provisions relating to the division of revenues, payment of code-share commission and revenue settlement procedures between the parties. Such agreements are potentially wider in scope than an SPA, but may substitute for a separate SPA.
- 3.48 SPAs are common in the airline industry, and are not specific to code-share arrangements. They may be “net” or “gross”, as discussed below.

### ***SPAs with straight-rate proration or provisos (“gross SPAs”)***

- 3.49 Many SPAs specify straight-rate proration, the default mechanism under the multilateral framework (MPA), although provisos may apply in some cases. Such SPAs may also specify the carrier through fares that can be used on various itineraries. In the case of a code-share the through fares are likely to cover all itineraries available with the code-share.

- 3.50 In this kind of SPA, fare revenue is prorated using straight-rate proration (or, sometimes, with a proviso). In general, an Interline Service Charge (ISC) is payable to the ticketing carrier, in principle to cover agency selling costs, and again, this is not specific to code-sharing. The ISC is generally a low percentage of the (prorated) fare amount receivable by the carrying airline.
- 3.51 Where the SPA takes place in the context of a code-share agreement, either the SPA itself, or the code-share agreement (or annex), is likely to specify a mapping between the booking class hierarchies of each airline. Since straight-rate proration does not define the exact amount to be received by each airline, the two parties will need to agree which kinds of tickets and fares, on which kinds of itineraries, can be booked into each booking class, in order to ensure that the operating carrier receives a suitable revenue for the passenger's journey, given the booking class into which he or she was booked.
- 3.52 Code-share commission may also be payable –this is discussed below in more detail.

### ***Net SPAs and relation to code-sharing***

- 3.53 An alternative approach to traditional proration is to use a “net SPA”. This will specify a given amount to be paid to the airline carrying the passenger on a particular sector, dependent solely on the booking class into which the passenger is booked. In this type of agreement, the passenger's origin and destination, and the through fare paid, are irrelevant, a key difference from the approach taken under the MPA rules. Net SPAs can exist independently of code-sharing arrangements, in parallel with a code-share agreement, or be incorporated within a code-share agreement.
- 3.54 Where the SPA takes place in the context of a code-share agreement, a mapping between the booking class hierarchies of the carriers will need to be established. As with a gross SPA, the booking class mapping may form part of the code-share agreement, or may be specified within the SPA itself. However, with a net SPA, the operating carrier knows exactly how much revenue it will receive for the booking, and needs to be less concerned with the type of fare issued, compared to the situation with a gross SPA.
- 3.55 The booking class mapping can therefore, effectively, be determined by the marketing carrier, since it knows how much it will have to pay for each of the operating carrier's booking classes, and hence knows which of its own fares should be booked into which of the operating carrier's booking classes.
- 3.56 Under a net SPA, it is often the case that there are no further payments beyond the net rate for the booking class (although in some cases an ISC is payable to the marketing carrier). In general, airlines do not charge code-share commission when using a net SPA, since the marketing carrier's margin can be realised from within the residual amount of the fare (i.e. the difference between the through fare paid and the payment to the operating carrier).

### ***Code-share commission***

- 3.57 In code-share arrangements the ticketing carrier is, as noted above, usually also the

marketing carrier. The carriers may decide that the normal ISC (generally payable to the ticketing carrier to defray costs of sales commission) is insufficient to cover the costs of, or motivate selling by, the marketing carrier. This will almost certainly be the case for parallel and unilateral trunk operation code-shares, since these do not involve proration, and hence there is no benefit to the marketing carrier in making the sale unless a commission is paid. In some parallel code-shares, however, the carriers agree to waive the code-share commission, since the payments from each carrier to the other can be expected to cancel out.

- 3.58 For behind and beyond code-shares, which do involve proration, code-share commission is generally payable when gross SPAs are used, since the shares of revenues would otherwise be no different from that under normal interlining and proration rules. When net SPAs are used, as noted above, the marketing carrier is expected to find the equivalent of a commission from its residual revenue.
- 3.59 When code-share commission is payable, it is based on the revenue accruing to the operating carrier (prorated revenue when proration is involved). Code-share commission can be specified within the SPA itself, as part of a wider revenue settlement agreement between the parties (in parallel with the code-share agreement), or within the code-share agreement itself.

### ***Choice of method of proration in code-share context***

- 3.60 As noted above, airline code-share agreements vary significantly in their approach to proration, commission payments and revenue settlement. Some agreements rely exclusively on the industry standard approach, prorating the passenger fare, while others use either net or gross SPAs. Some carriers use a combination of these methods, even within the same agreement (e.g. they may specify a gross SPA approach, based on prorating the fare with a code-share commission payment, but with a minimum amount to be paid).
- 3.61 From the carrier's point of view, there are pros and cons to each approach. The gross SPA and code-share commission approach leaves the operating carrier more vulnerable to the behaviour of the marketing carrier, in that where the marketing carrier sells at a lower fare, the operating carrier will generally receive a lower amount. However this risk can be largely mitigated by enforcement of the booking class matching rules agreed, together with the automatic function of the operating carrier's yield management system, which will close down access to seat inventory at yields unacceptable to the operating carrier.
- 3.62 With the net SPA approach, the operating carrier can be sure of the revenue it will receive (and has no further commission to pay), but does not benefit from any upside when the marketing carrier is able to sell at a higher fare than strictly required by the booking class matching provisions of the agreement.
- 3.63 From a competition policy perspective, the most important distinction may relate not to the method of revenue division / commission payment employed, but to whether similar terms are applied to airlines with which the carrier in question has code-share agreements, compared to those offered to airlines with which the carrier issues or accepts tickets for interline journeys outside a code-share. Where the terms differ

significantly, it may be impossible for the non-code-sharing airline to offer through fares at prices competitive with those of the code-share partners.

### **Frequent Flyer Programme (FFP) participation agreements**

3.64 These agreements (which are only present in some cases, and which are not a requirement for the existence of a code-share agreement) specify how the FFPs of each airline are to be treated for the purposes of the code-share. In general, they allow passengers in each programme to “earn” and redeem (“burn”) miles on the flights of either carrier (usually in return for a fee paid by one airline to the other). Access to airport business lounges may be included in this agreement (or may be in yet another, separate, agreement), although again lounge access is by no means essential for a code-share agreement to be put in place.

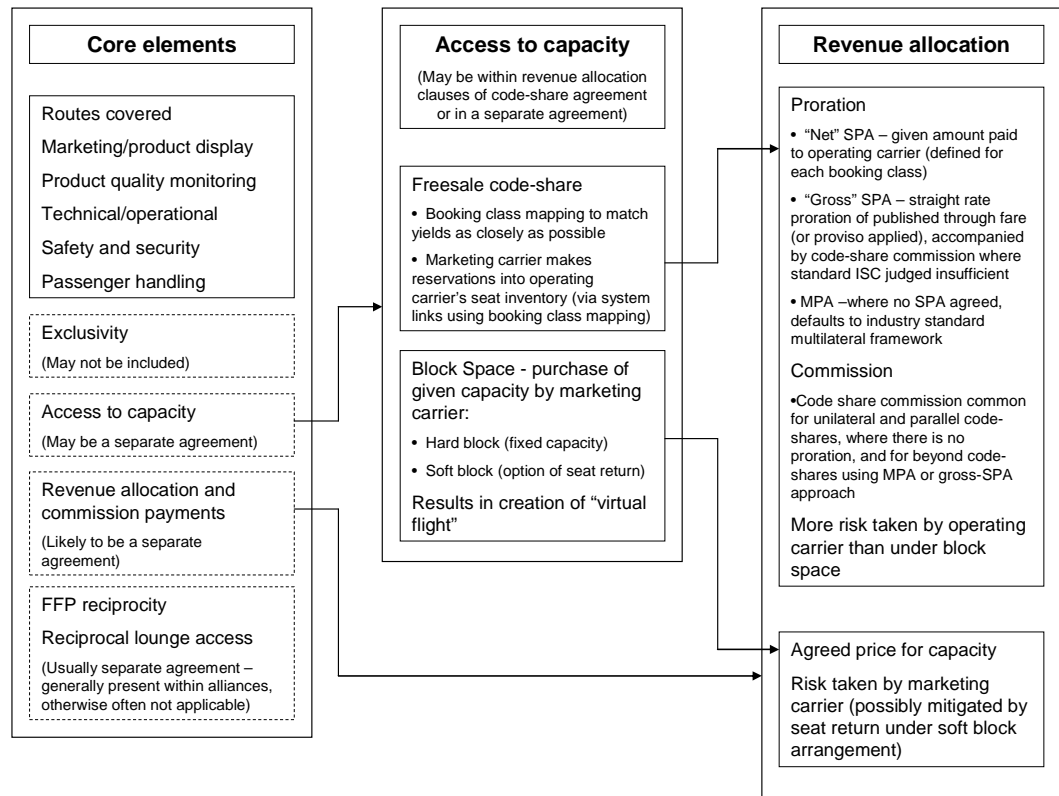
### **Implications for competition assessment**

3.65 The diagram below shows the main elements of code-share agreements, as discussed, simplified for ease of understanding. It is clear from the discussion of these elements in this chapter that it will generally not be possible to gain a full understanding of the competitive impact of a code-share from a review of the code-share agreement in isolation. Critically, it is also important to examine:

- The terms of any separate agreement covering each party’s access to the other’s capacity, in particular the booking class mapping arrangements in the case of freesale, and how these compare to the access granted to other airlines that may interline, but not code-share, with the carrier;
- The application, where relevant, of standard industry frameworks for the determination of fares and, in the case of behind and beyond code-shares, proration arrangements and the use of provisos, any applicable SPAs and the extent to which these are exclusive to code-share or other partner airlines;
- The basis of commission payments, which may also be specified outside of the code-share agreement itself; and
- Any related agreements covering, in particular, FFPs and lounge access.

3.66 Taken together, these elements of the overall arrangement will determine the nature of the code-share product from the passenger’s perspective and the ability of other airlines to offer competing services. The core of any competition assessment of the code-share will be an investigation of whether a specific combination of the elements we have identified, set against the background of regulatory and market conditions, limit or enhance the scope for competition.

FIGURE 3.1 KEY FEATURES OF CODE-SHARE AND RELATED AGREEMENTS





## 4. REVIEW OF CASE LAW AND PREVIOUS STUDIES

### Relevant case law and decisions within the EU

4.1 As mentioned in 2.4 above, the Commission has never issued a decision concerning a code-sharing agreement on its own. However, it has looked at the competitive impact of code-sharing arrangements in the context of wider airline alliances, and the analysis and conclusions in these cases provide some useful guidance, which we have taken into account in developing a framework for assessment.

4.2 The principal decisions concerned are:

- Lufthansa/SAS 1995
- British Midland/Lufthansa/SAS 2001
- Lufthansa/SAS/United 2002
- KLM/Northwest 2002
- Lufthansa/Austrian 2002
- British Airways/SN Brussels 2003
- British Airways/Iberia/GB Airways 2003
- Air France/Alitalia 2004
- SAS/Austrian 2005.

4.3 Of particular importance is the approach taken to market definition in these cases. As discussed in more detail in Chapter 8, the Commission now has a well developed methodology for defining the relevant market in airline competition cases, based on consideration of airport or city-pairs. While code-share agreements are different in nature from the alliance and joint venture arrangements investigated in the cases listed above, code-sharing is essentially a form of co-operation between airlines, potentially raising similar concerns in relation to competition in airline markets. The established approach to market definition therefore appears appropriate as a starting point for the competition assessment framework developed in this study.

4.4 Also of interest is Commission Decision 2001/716 concerning SAS and Maersk. The two airlines had notified to the Commission a number of cooperation agreements (principally code-sharing agreements), but the Commission discovered that they did not reflect the full extent of the airlines' cooperation and that the arrangements in fact amounted to market sharing, and imposed substantial fines. While there is nothing in the Decision itself which assists an understanding of the competition implications of code-sharing, it demonstrates how code-sharing arrangements may sometimes lead to, or conceal, much deeper cooperation involving serious anti-competitive behaviour.

### Approach taken by the US authorities

4.5 US and foreign air carriers that want to operate code-share services involving the US must obtain authorisation from the Department of Transport (DOT) in the form of a "Statement of Authorization" under Part 212 of the DOT's economic regulations (14 CFR 212). The DOT approves the application if it determines that it is in the public interest, which includes competition considerations. If the code-share exemption is provided, the DOT Notice of Action Taken will merely state that the grant of authority

was consistent with the public interest. The specific conditions address particular features of the arrangement but are not specifically competition related save that the parties must agree to keep to the terms as written. There are also Orders and/or Decisions that provide a slightly more reasoned basis by the DOT in some cases, typically where there has been some objection to the application since there is an opportunity for third parties, who are often competitors, to present their views. However, the analysis in respect of competition considerations is very limited and tends to be superficial. The overall process is transparent and all documents are available for public scrutiny.

- 4.6 In assessing the public interest benefits, the DOT considers whether the code-share operations are provided for in a bilateral agreement between the US and the government of the foreign air carrier(s) involved, safety standards, the benefits to the public from expansion of services and fare options, and the impact the code share would have on airline competition. This usually involves a single statement about increasing the number of operators on a route and possibly listing the existing operators and/or the improvement of overall consumer choice on long haul routes. One area where the DOT appears to exercise caution is with exclusivity, and it often includes a note that authorisation has only been granted on the basis that the agreement is not exclusive.
- 4.7 The DOT takes a generally favourable approach to code-share agreements, which appears to stem from two reports by their Office of Aviation Analysis (dealing with alliances more generally), although website guidance provides that “major code-sharing and alliance arrangements require careful examination in terms of their impact on competition in both domestic and international markets”. As a result of the favourable approach, there has been considerable growth in US carrier code-sharing arrangements with foreign airlines, and in alliances including code-sharing.

### **Review of previous studies**

#### ***Introduction***

- 4.8 We have undertaken an extensive review of the existing academic literature relating to alliances and code-sharing. A full bibliography is provided in Appendix C. In this chapter, we set out a summary of a number of key articles which have particular relevance to the impact of code-sharing agreements on competition between airlines. The results are potentially helpful in informing the competition assessment framework but, as noted below, must be qualified in terms of their applicability to agreements involving EU-domiciled airlines.
- 4.9 In broad terms, the studies undertaken to date fall into one of two categories. The first considers international alliances and code-sharing agreements, typically, although not always, between airlines offering complementary route networks. The second focuses on domestic code-share agreements between US carriers with networks that may overlap to some degree. We consider each of these categories in turn before drawing general conclusions to be explored in greater detail in later chapters.

### *International agreements*

- 4.10 The majority of studies reviewed support the view that international alliances and code-share agreements have generally benefited passengers. This reflects their focus on agreements between airlines with largely complementary networks, which benefit interline passengers in terms of both price and quality of service. The theoretical underpinnings for this view are provided by Brueckner (2001), who suggests that international code-sharing may reduce prices in behind and beyond markets while potentially increasing prices in inter-hub markets.
- 4.11 A key conclusion from this work is that price decreases in “beyond” markets arise mainly from the removal of a negative externality. This externality is caused by the separate pricing of segments on an interline trip by different airlines – an example of the more general “double marginalisation” problem identified by industrial economists. With a code-share agreement there is more incentive for partner airlines to consider the overall price of the trip rather than simply the price for the segment that they operate (e.g. if revenues for the trip are shared), which results in lower prices.
- 4.12 There is considerable empirical evidence for consumer benefits arising from behind and beyond alliances and code-shares in the literature that we have reviewed. For example, Park and Zhang (2000) examine the effects of four transatlantic alliances in the period 1990-4. They find that three of these alliances involving complementary networks benefited consumers, while one involving overlapping networks did not. Similarly, Brueckner and Whalen (2000) find that code-sharing does reduce prices significantly in beyond markets, although they fail to find a significant price increase effect in inter-hub markets. Moreover, Gagnepain and Marin (2005) conclude that the majority of alliances operating between 1995 and 2005 consisted of airlines offering complementary networks.
- 4.13 The specific issue of double marginalisation is examined further in Brueckner (2003), which seeks to explore the separate effects of co-operation on price (consequent upon code-sharing) and anti-trust immunity on air fares. In practice, the international alliances examined were characterised by both anti-trust immunity and code-sharing arrangements, and the interaction between the two effects is complex. However, the paper concludes that antitrust immunity can increase price benefits from code-sharing by enabling closer price-cooperation.
- 4.14 There is also some evidence that code-share agreements can result in more competitive behaviour on the part of rival airlines. For example, a paper by Oum et al (1996), which investigates the effects of code-share agreements in a number of city pair markets, suggests that code-shares between two non-market leader airlines can result in a reduction in equilibrium fares for the market leader.
- 4.15 At the same time, a number of studies have highlighted the potential disadvantages of international code-share agreements. A seminal study by Gellman Research Associates (1994) identified the potential for code-sharing partners to reduce capacity on transatlantic routes, potentially leading to fare increases, although this could also be an efficient response to over-supply and the presence of loss-making services in the market.

- 4.16 More recently, Guerra (2006) has provided evidence that international code-share agreements can reduce competition by deterring new entry. Interestingly, he suggests that deterrence is most likely on routes where only one of the code-share partners operates, since the effect of introducing the code-share in these circumstances is generally to depress profitability and therefore reduce the attractiveness of entry. Conversely, on routes where both partners operate, profits tend to rise as a result of co-operation on fares, making competitive entry more likely.
- 4.17 Experience following the introduction of a code-share agreement between United Airlines and Lufthansa in 1996 provides some support for this argument, since competition subsequently tended to fall on routes where only one of the parties operated. Guerra therefore suggests that US antitrust policy applied in the airline sector, which tends to focus on the direct effects on competition of code-share agreements, should also take account of indirect entry deterrence effects.
- 4.18 Czerny (2006) also challenges the conventional competition policy stance by demonstrating the theoretical possibility that code-share agreements can result in higher prices and lower consumer welfare even where the networks of the participating airlines are complementary. His argument is based on the view that code-share agreements enable airlines to identify inter-lining passengers, for whom demand tends to be more elastic than for passengers on direct flights. Airlines operating code-shares are therefore better placed to discriminate in favour of inter-lining and against direct passengers, and in some circumstances the consumer disbenefits arising from higher direct fares can outweigh the benefits of lower inter-line fares.
- 4.19 We note, however, that both Guerra's and Czerny's arguments have yet to be subject to extensive empirical testing. Indeed, Czerny's paper is entirely theoretical, and he notes in his conclusions that where airlines can co-operate on fares (in order to overcome the double marginalisation problem), the negative effects of code-sharing in complementary networks are highly unlikely to outweigh the benefits. Moreover, we question whether code-share agreements in isolation are a key mechanism for discriminating between inter-line and direct passengers. Given the standard industry procedures and systems for allocating through fares on interline journeys, and the associated proviso and pro-rate arrangements, discussed in more detail in Chapter 3, in practice there are other means of identifying passengers connecting between flights and pricing in accordance with their particular demand characteristics.

### ***Domestic agreements***

- 4.20 There have been a number of significant code-sharing agreements between US domestic carriers in recent years. The literature suggests that these have tended to differ from their international counterparts in two important respects:
- They generally do not involve joint pricing with a view to addressing the double marginalisation problem; and
  - There tends to be a greater degree of overlap between the networks of the participating airlines.

- 4.21 However, notwithstanding these observations, a number of studies indicate that domestic agreements also result in passenger benefits, although there is also evidence of significant disbenefits.
- 4.22 Recent studies by Ito and Lee (forthcoming and 2006) identify the importance of “virtual” code-shares in US domestic markets, whereby a code-share itinerary is operated by a single carrier even where it includes a number of sectors. They find that fares for such itineraries, while they are typically above those for more conventional code-shares (involving a different operating carrier on each sector), are below pure on-line fares offered in the same market. They conclude that virtual code-shares are a means of product differentiation, enabling airlines to compete for more price sensitive passengers by offering a lower priced product with more restrictions compared to the on-line alternative. This echoes Cerzy’s argument, as outlined above, but similarly raises the question of why code-sharing should be the chosen means of product differentiation.
- 4.23 Armantier and Richard (2005a) investigate a specific domestic US alliance (between Continental Airlines and Northwest Airlines) and suggest that anti-competitive effects cannot always be inferred from observed increases in yield. Rather, the authors argue that one of the benefits of code-share agreements is that they tend to result in higher levels of transfer traffic and hence higher load factors on a given sector. Given the way in which yield management systems operate, a higher take-up of seats will result in higher yields even in the absence of collusion on fares. Hence, point-to-point price increases may be the result of traffic increases on code-shared routes rather than anticompetitive behaviour.
- 4.24 The difficulty in drawing firm conclusions about the impact of parallel code-shares is underlined in a paper by Gayle (2006), which also looks at domestic US alliances. He finds that even where there is an overlap between the networks of code-share partners, they can result in lower prices.
- 4.25 At the same time, in a further paper Armantier and Richard (2005b) argue that the Continental-Northwest code share may have reduced overall consumer welfare as a result of its impact on other product characteristics, for example the duration of the flight and the time of departure. Moreover, they suggest that the most significant disbenefits arise in markets for connecting journeys, highlighting the difficulties of drawing general conclusions about the effects of behind and beyond versus parallel code-shares.

### **Conclusions**

- 4.26 The relevance of the literature reviewed is subject to two important qualifications. First, much of the literature makes little attempt to take into account different types of alliances and agreements. Therefore, there is a question as to how far the results reflect the effects of code-sharing versus other aspects of an agreement or alliance between airlines. Secondly, it is questionable whether the work on US domestic airline alliances is readily transferable to the European market. This is because the European market has more point-to point traffic, more severe slot constraints and hubs that tend to be the biggest origin/destination markets. These features mean that code-sharing

could have more anti-competitive effects in the intra-European market than have so far been identified in the US.

4.27 However, the literature has nevertheless highlighted a number of issues that have helped to inform our broad approach to the development of the competition assessment framework and to focus our investigation and analysis of actual code-share agreements. In particular:

- While code-share agreements can be beneficial, particularly where the partner airlines have complementary networks, there is evidence that ostensibly similar agreements can lead to different outcomes depending on market conditions;
- The results therefore support the need for a case-by-case assessment of code-share arrangements as distinct from a broader policy response to specific types of agreement, for example parallel code-shares or arrangements involving overlapping networks;
- In view of the need to take account of individual route characteristics, the Commission's conventional approach to the analysis of airline markets, based on city or airport-pair market definitions, appears appropriate;
- Where airlines operating behind and beyond code-shares are able to co-ordinate the price of through fares, there are likely to be benefits to passengers as compared with uncoordinated interline fares, largely because it enables them to overcome the double marginalisation problem;
- There is nevertheless some evidence that such code-shares can be used to facilitate discrimination between passengers with different demand elasticities, potentially leading to passenger disbenefits, although this in itself is not necessarily anti-competitive; and
- Emerging evidence suggests that code-shares can have a significant indirect effect on competition through entry-deterrence, although further research is needed to confirm the arguments put forward by Guerra and outlined above.

4.28 Our proposed competition assessment framework therefore takes account of the potential for anti-competitive effects arising from all types of code-share, including both behind and beyond and parallel agreements. In particular, we have considered how the operational characteristics of these agreements, notably those relating to the setting of fares and revenue allocations, might be used to distort or limit the normal competitive determination of prices.

## 5. SUMMARY OF STAKEHOLDER INTERVIEWS

### Introduction

5.1 Between September and December 2006, 21 formal interviews were undertaken by Steer Davies and Gleave (SDG) with parties directly associated with code-sharing. The first list below consists of 14 airlines which code-share. The second list (of seven) comprises entities within the broad civil aviation industry which are either directly or indirectly involved with code-sharing. In addition to those listed, we also had informal discussions with a number of other organisations.

5.2 The code-sharing airlines interviewed were:

- Air France;
- Alitalia;
- American Airlines;
- Austrian Airlines;
- BMI;
- British Airways;
- Czech Airlines;
- Finnair;
- Iberia;
- KLM;
- Lufthansa;
- SAS;
- SN Brussels Airlines; and
- Virgin Atlantic.

5.3 Other organisations interviewed were:

- Air Transport Users Council (AUC);
- Association of British Travel Agents (ABTA);
- Guild of Travel Management Companies (GTMC);
- Group of National Travel Agents' and Tour Operators' Associations within the EU (ECTAA / GEBTA);
- EasyJet (non code-sharing airline);
- European Regional Airlines Association (ERA); and
- International Air Transport Association (IATA).

5.4 Each of the code-sharing airlines were asked the same set of questions, while a more free format approach was used for the other interviewees.

## Summary of Responses to Questions by Code-Sharing Airlines

### *Preliminary question*

*Why do you code-share?*

- 5.5 The majority of the 14 interviewees claimed they code-shared to achieve network extension and better connectivity. They typically claimed code-shares offered a greater choice, faster and more reliable transfers and uncomplicated itineraries. They also claimed that because higher load factors could be achieved then greater efficiencies would lead to more attractive prices.
- 5.6 From an airline business perspective code-shares enabled them to spread risk and facilitated extra presence without necessarily the need to invest in new aircraft.

### **Question 1**

*Which airlines do you code share with, on which routes, and when did these code share operations start? On which of the sectors flown as part of the code share are you the operating carrier? On which code share routes do you and your partner carrier:*

- *Operate services in parallel, with both codes on both carriers' flights?*
- *Provide interline journey opportunities on a single airline code (e.g. to a "behind and beyond" point)?*
- *Provide any other kind of code share opportunity?*

- 5.7 Many airlines provided a complete list of all the routes upon which it code-shares together with details of where they are the operating carrier or the marketing carrier.
- 5.8 Virtually all carriers are involved in the 'behind and beyond' interline type activity. Longhaul-only carriers, such as Virgin Atlantic, need feed opportunities and consequently have seven marketing code-shares in Europe. BMi, with their shorthaul network, typically provide feed to other carriers and will offer a marketing code-share to up to eleven airlines on any one of its services
- 5.9 13 of the 14 carriers offer code-shares in parallel. Many of these have anti-trust immunity but some are run as competing services. On most occasions the carriers involved spoke of better consumer choice in terms of timings and frequencies. No carrier could recall a frequency reduction as a result of code-sharing.
- 5.10 All of the carriers are involved in unreciprocated code-shares, sometimes as the marketing carrier and sometimes as the operating carrier. This is all part of the network extension strategy, sometimes encompassing other transport modes. For example, the Vienna to Brno bus was operated by Austrian as a code-share.

**Question 2**

*How is the marketing carrier's access to the operating carrier's capacity determined? Do you use block space, freeflow or another type of arrangement?*

- 5.11 All of the carriers use and prefer freeflow. However in order to do operate a freeflow code-share considerable investment must be made in IT, including the setting up of a 'mapping' facility between the booking class hierarchies in the two carriers' revenue management systems. It is important for the integrity of the system that the mapping between the selling class hierarchies takes accounts of the level of yields from each booking into the marketing carrier's booking classes, as compared to the level of yield required by the operating carrier in each of its own booking classes. Seat availability for the flight is set against each of the operating carrier's booking classes, so that the effect of the mapping is to ensure that bookings are only accepted from the marketing carrier at the appropriate yield. The CRSs can provide a conduit to facilitate this activity. Often mapping details are specified in a special prorate agreement (SPA) between the two code-share parties.
- 5.12 Freeflow can deal with small loads and offer virtually last seat availability in each selling class. Functionality has been developed by the GDSs to facilitate this activity. Freeflow was said to be efficient, easy and offers greater opportunities to passengers and the airlines.
- 5.13 Block space is used for one of three reasons:
- One of the parties to the code-share has poor IT capability;
  - Large numbers of passengers often travel together and require to be treated as a group, for example Far East tour groups; and
  - A stipulation occurs in the Air Services Agreement (ASA) which compels the carriers to enter into a block space agreement, as on a number of routes into Russia for example.
- 5.14 Block space capacity will be determined between the parties in advance and a price agreed. Most block space agreements were 'soft blocks' with unused capacity being returned with no penalty typically 72 hours in advance of the flight.
- 5.15 Some 'block swaps' where capacity exchanges took place, usually at no charge, as part of a code-share.

**Question 3**

*To what extent do you coordinate schedules with your code share partners? Have you retimed flights, or reduced the number of flights operated, as a consequence of code sharing?*

- 5.16 Eight of the 14 airlines said that, unless they had anti-trust immunity, they did not co-ordinate schedules with their respective code-share partners. The other six airlines typically spoke about co-ordination if it improved customer benefits e.g. by facilitating two key connecting flights.
- 5.17 Carriers can access partners' schedules through public channels, such as OAG, and so

will make unilateral schedule changes if possible to facilitate connections. As a consequence of discussions flights were retimed and extra services added. We found no evidence of a reduction in services.

**Question 4**

*How do you coordinate operations and systems with your code share partners? Are there any technical issues affecting your ability to implement code share agreements, for example in relation to passenger information displays at airports, or interfaces between different systems?*

- 5.18 Six carriers specifically mentioned the key interface with their code-share partners was through a Global Distribution System (GDS) platform.
- 5.19 The GDS Computer Reservation Systems (CRS) have rules limiting local sales on a flight to the operating carrier and one marketing carrier. For connecting traffic up to 11 additional carriers can be displayed on one sector although some airport systems are unable, or unwilling, to display such a large number.
- 5.20 Of the world's key GDSs it was observed that Amadeus, Sabre, Worldspan, Galileo from Travelport and SITA Gabriel all had platforms to facilitate code-share airline interfaces.
- 5.21 No airline identified any insurmountable difficulties. However, it was recognised by all parties that significant time and money had to be devoted to the IT challenges to make code-sharing work effectively.
- 5.22 In general, airports no longer created problems in handling code-shares.

**Question 5**

*What provisions or procedures do your code-sharing agreements have with respect to handling passengers at airports? What procedures do you have for handling disruptions?*

- 5.23 Ten of the 14 carriers specifically referred to the operating carrier taking responsibility on the day of the operation in the event of any changes or disruption. Prior to a period 24 hours from flight departure, the ticketing carrier typically takes responsibility.
- 5.24 Most procedures, including disruption, are dealt with through a specific code-share agreement annex. Other issues and procedures are dealt with through an agreement struck as part of an alliance membership. Most alliances will reach out to help any customer if necessary, provided they are flying with a member airline.
- 5.25 There is a tendency, although this may not be practical, for the operating carrier also to be the handling agent.

### Question 6

*How do you manage product compatibility issues? Do you have any special cooperation measures relating to marketing or selling?*

- 5.26 There is no requirement to offer the same product, particularly on a parallel code-share. The airlines used phrases such as ‘should not be too different’, ‘needs to be a compatible service’, ‘similar service’, ‘no attempt to change product’, ‘need to focus on quality’ etc. Most carriers suggested that any residual issue should be overcome by communication to the customer in advance of ticket purchase.
- 5.27 A number of carriers did mention that if the product standards were too far apart then there would be no code-share in the first place.
- 5.28 Six carriers explicitly said that they have no contact with their code-share partners in the medium of marketing and selling. One carrier said that it would have a marketing agreement to a behind point but only where there was no competition and legal advice had confirmed such a move.

### Question 7

*Do any of your code share agreements include provisions on mutual access to Frequent Flyer Programmes and/or lounge access? Are there any special terms or restrictions that apply to code share passengers?*

- 5.29 Outside of the alliances and their rules all 14 carriers said there was no linkage between code-shares, FFPs and lounge access. Frequently negotiations will take place to explore such opportunities but these are independent of the code-share deal itself.
- 5.30 Most carriers said that under a code-share FFP points could be earned by booking under ‘their’ code irrespective of the operator. However, outside of the alliance rules, redemption invariably only took place on the operator for whom the points had been credited.

### Question 8

*For code-shares involving interlining, what proration arrangements do you have in place? Are these arrangements different from those that you have with other carriers (i.e. those with whom you interline, but do not code share)?*

- 5.31 The normal interline rate reflects the multilateral prorate agreement level. This is typically a mileage weighted amount designed to help carriers taking traffic over shorter expensive sectors. This level is often referred to as the straight rate prorate.
- 5.32 Most code-shares appear to involve a special prorate agreement between the parties designed to encourage both parties to generate traffic for the specific arrangement. This could be a straight rate prorate but with a minimum level, it could involve floors for each selling class bookable by the marketing carrier, or be set at fixed revenue amounts by booking class.
- 5.33 Usually the code-share provides access to all of the operating carriers selling classes whereas an interline partner sometimes only has access to certain selling classes.

- 5.34 This potential area of concern was amplified by one carrier who accused an alliance of applying high provisos to interline prorates and then arranging attractive SPAs with its own alliance members.
- 5.35 Nine of the carriers suggested that an SPA was typically concluded with a code-share partner. Four of the carriers would first look at the straight rate prorate and then add a proviso.
- 5.36 Most of the carriers indicated that they would entertain negotiating an SPA with any other airline completely independently of whether there was a code-share or not. Each case was to be judged on its own merit.

### **Question 9**

*What is the approach to the division of revenues between the marketing and operating carriers in your code share agreements? Do any of your code share agreements contain:*

- *Code share commission paid by the operating carrier to the marketing carrier?*
  - *Net rates for access to selling classes (either on a freeflow or block space basis)?*
  - *Revenue or profit sharing between the carriers?*
  - *Reciprocity of access to capacity, but no other payments?*
  - *Other mechanisms for allocating revenues?*
- 5.37 11 of the airlines paid and received code-share commission. The levels paid could be as high as 32% but typically were closer to around 5%. This was in addition to the interline service charge which is paid to the marketing carrier to cover basic costs such as ticket issue and revenue accounting.
- 5.38 Code share agreements do contain net rates for selling classes, not typically written in the agreement but generally specified within a separate Special Prorate Agreement (SPA).
- 5.39 The only revenue and profit sharing occurring within code-shares took place in agreements with anti-trust immunity.
- 5.40 Under Question 2 we did discover reciprocal allocations of block space capacity. In addition, in some freeflow parallel code-shares, the two carriers offered reciprocal access to each other's capacity without code-share commission.

### **Question 10**

*Are any of your code share agreements exclusive between the parties?*

- 5.41 Nine airlines replied that there was no exclusivity clause in any of their code-share arrangements.
- 5.42 Alliance issues meant that Skyteam must approve new code-shares for its members and STAR will not allow its members to sign code-shares with members of other alliances.

- 5.43 There are also rules often imposed by US carriers forbidding their European code-share partners from agreeing code-shares with other US domiciled airlines

### **Summary of responses by other organisations**

- 5.44 User groups regard code sharing as now far less of an issue than it was five or ten years ago. Complaints related to issues of liability and misrepresentation rather than competition. They viewed behind and beyond code-shares as pro competitive and even on point-to-point code-shares were seen as potentially useful to passengers in view of the ability to change carriers.
- 5.45 Some travel trade representatives regarded code-sharing as generally beneficial, giving more travel opportunities. Only when things went wrong in areas such as delays, denied boarding compensation and baggage handling did their members bring forward issues and concerns. There was also an issue as to whether passengers from the marketing carrier were given equal treatment in the area of upgrades, on the one hand, and offloading and disruption handling on the other.
- 5.46 However, there was also a concern that code-sharing might form a barrier to entry, based on the fact that the only carriers to have entered routes with (parallel) code-shares have been low cost carriers (which have a different business model).
- 5.47 One effect of code-sharing is that an airline's offer to the public is widened to include the services of another (operating) carrier. However, when airlines make deals with corporations or business travel managers that provide a significant amount of business-related travel demand, they have the option to offer special deals on all flights with their code (including marketing flights operated by other carriers), or to restrict the deal only to flights that the airline operates itself. Discussions with the travel trade indicate that both approaches are adopted, dependent on the circumstances. In addition, one of the alliances offers a deal with the alliance as a whole, rather than with the individual members.
- 5.48 One respondent saw code-sharing as a way for traditional carriers to establish 'customer reach' to access new markets. They saw it as a transient phenomenon whereby carriers need not invest in new capital equipment and tried to get their product sold in new markets at virtually no cost.
- 5.49 The same respondent was not, however, overly concerned about code-shares as they saw them as a substitute for the consolidation that the industry needs. They did see reason for concern where code-sharing takes place between two strong airlines and regarded remedies based solely on slot reallocation as potentially inadequate.
- 5.50 Smaller airlines have not expressed concerns about the competitive impact of code-sharing.
- 5.51 IATA were interviewed primarily to obtain an accurate technical view of the industry frameworks for interline, fare construction rules and proration, and fare filing. Their technical assistance has proved invaluable in developing our understanding of these frameworks as part of the overall discussion of the context and features of code-share agreements.



## 6. ANALYSIS OF CODE SHARES IN THE EUROPEAN UNION

### Summary of code-share activity by EU carriers

6.1 As described in paragraph 2.9 above, we have identified code-share agreements involving airlines domiciled in the EU, Norway, Iceland, Switzerland, Bulgaria and Romania (described below as EU-domiciled airlines) through analysis of the OAG database, based on flight details notified to OAG by the marketing and operating carriers. Necessarily, where carriers have not so notified OAG, the relevant agreement will not be captured in this analysis.

6.2 Table 6.1 gives an analysis of the overall levels of code-share routes, operations and seats since 2002, for code-shares operated by EU-domiciled airlines (i.e. where the EU-domiciled carrier acts as operating carrier in a code-share). Code-shares on parallel-operation routes have been separately identified. In addition it shows growth indices by year, based on 2002, and the CAGR (cumulative average annual growth rates) for each factor.

**TABLE 6.1 SUMMARY OF CODE-SHARE ACTIVITY FOR EU-DOMICILED AIRLINES**

**Code-Share Routes, Operations and Seats Operated by EU-Domiciled Carriers**

	Absolute Values					Index					CAGR
	2002	2003	2004	2005	2006	2002	2003	2004	2005	2006	2002 - 2006
<b>Routes</b>											
Parallel	1,245	1,351	1,354	1,388	1,367	100	109	109	111	110	2.4%
Non-Parallel	2,556	2,497	2,929	2,921	2,987	100	98	115	114	117	4.0%
<b>Total</b>	<b>3,801</b>	<b>3,848</b>	<b>4,283</b>	<b>4,309</b>	<b>4,354</b>	<b>100</b>	<b>101</b>	<b>113</b>	<b>113</b>	<b>115</b>	<b>3.5%</b>
<b>Operations ('000)</b>											
Parallel	615	771	740	797	860	100	125	120	130	140	8.8%
Non-Parallel	1,112	1,133	1,137	1,157	1,245	100	102	102	104	112	2.9%
<b>Total</b>	<b>1,726</b>	<b>1,904</b>	<b>1,877</b>	<b>1,953</b>	<b>2,105</b>	<b>100</b>	<b>110</b>	<b>109</b>	<b>113</b>	<b>122</b>	<b>5.1%</b>
<b>Seats (m)</b>											
Parallel	70	86	85	94	103	100	124	123	135	148	10.3%
Non-Parallel	145	149	155	161	170	100	102	107	111	117	4.0%
<b>Total</b>	<b>215</b>	<b>235</b>	<b>241</b>	<b>256</b>	<b>273</b>	<b>100</b>	<b>109</b>	<b>112</b>	<b>119</b>	<b>127</b>	<b>6.2%</b>

6.3 The table shows that code-share activity by EU-domiciled airlines has been growing at a steady pace over the last few years. The number of code-share routes operated by EU-domiciled carriers rose by 3.5% p.a. and the number of code-share operations has increased at 5.1% p.a., while, with increasing aircraft size, the number of seats offered on code-shares has increased at 6.2% p.a. This compares with overall growth in capacity for EU-domiciled airlines of 4.4% p.a. in operations and 6.6% p.a. in seats.

6.4 Therefore, in broad terms, the extent of code-sharing across the route network flown by these airlines has remained relatively stable, and that capacity on code-share routes has been growing in line with capacity as a whole. This suggests that where code-sharing is likely to bring benefits for airlines and passengers on a given route, it has generally already been applied, although individual agreements may continue to be made or fall away depending on changing market conditions and the commercial pressures on the specific airlines involved.

6.5 Table 6.2 shows, for each EU-domiciled carrier operating code-share flights (i.e. as operating carrier in the code-share), the number of code-share routes in 2006, and of these, the number of routes on which the other carrier also operates its own flights

## Competition Impact of Airline Code-Share Agreements

(parallel operation). The table also shows the related number of flight operations and seats flown on code-share routes (and of these, the number of flight operations and seats on parallel operation code-share routes). The table is sorted in descending order of the total number of seats on code-share routes.

**TABLE 6.2 CODE-SHARE ROUTES AND SEATS OPERATED BY EU-DOMICILED CARRIERS**

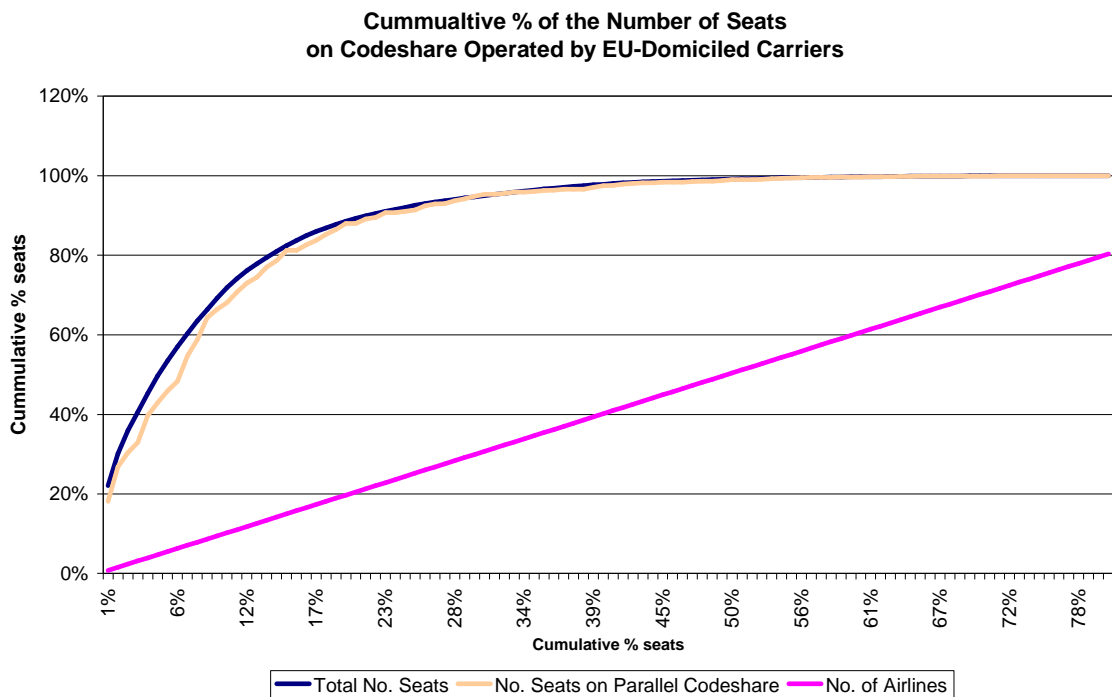
Summary of Operating Carrier Codeshare statistics when Operating Carrier is EU-Domiciled

			2006					
			No. Routes Operated with Codeshare	No. Codeshare Route with Parallel Operation	No. Scheduled Seats	No. Scheduled Seats with Parallel Operations	No. Scheduled Operations	No. Scheduled Operations with Parallel Operation
1	Lufthansa German Airlines	Germany	464	144	60,406,685	18,766,370	380,529	239,775
2	Air France	France	262	81	21,902,329	8,902,185	149,514	82,459
3	British Airways	UK	98	18	15,955,457	3,651,643	98,486	73,168
4	BMI British Midland	UK	58	6	12,790,442	2,638,160	83,966	66,914
5	Alitalia	Italy	135	62	12,714,777	7,011,818	96,015	40,878
6	KLM-Royal Dutch Airlines	Netherlands	202	29	11,981,667	3,347,652	64,420	42,711
7	Iberia	Spain	129	31	10,494,837	3,087,335	64,709	45,768
8	SAS Scandinavian Airlines	Denmark	122	33	9,733,938	2,490,989	73,968	53,813
9	TAP Air Portugal	Portugal	93	42	8,947,969	6,504,743	57,292	13,028
10	Air One	Italy	84	19	8,693,789	4,237,474	56,806	29,432
11	Spanair	Spain	120	61	7,867,355	5,721,824	55,247	15,970
12	Austrian Airlines	Austria	164	36	7,677,536	2,215,806	55,668	37,572
13	Air Europa	Spain	71	19	7,360,151	1,733,442	38,642	29,419
14	SWISS	Switzerland	117	40	6,171,076	2,721,244	38,356	19,419
15	Finnair	Finland	72	22	5,403,034	2,328,799	37,333	19,266
16	Tyrollean Airways	Portugal	101	33	4,749,654	1,495,183	73,432	50,643
17	Czech Airlines	Czechia Rep	103	38	4,461,240	2,640,810	40,862	16,799
18	Lufthansa Cityline	Germany	205	79	4,190,197	1,669,091	57,238	34,786
19	SN Brussels Airlines	Belgium	72	40	3,790,942	2,629,221	40,617	11,599
20	Virgin Atlantic Airways	UK	20	0	3,752,850	0	11,090	11,090
21	LOT Polish Airlines	Poland	89	26	3,186,079	1,425,320	34,465	16,915
22	Blue1	Finland	60	14	2,791,279	1,199,921	32,336	17,754
23	Eurowings Luftverkehrs	Germany	133	69	2,487,435	1,532,295	30,620	10,636
24	SWISS European Air	Switzerland	59	20	2,420,668	1,298,013	25,970	12,458
25	MALEV Hungarian Airlines	Hungary	50	20	2,229,343	1,522,997	22,093	7,779
26	KLM Cityhopper	Netherlands	89	0	2,028,105	0	24,917	24,917
27	Portugalia	Portugal	52	18	1,668,578	1,174,660	25,446	8,915
28	Skyways	Sweden	50	12	1,580,637	469,037	33,526	22,995
29	ALPI Eagles	Italy	60	36	1,490,464	1,189,664	15,856	3,200
30	CCM Airlines	France	22	2	1,407,076	30,600	15,740	15,290
31	Aegean Airlines	Greece	18	4	1,330,352	291,308	9,173	7,020
32	GB Air	UK	34	4	1,307,202	363,190	8,238	6,118
33	Alitalia Express	Italy	31	21	1,252,199	1,123,937	10,624	1,982
34	NIKI	Austria	40	20	1,056,802	473,344	6,112	3,431
35	Cirrus Airlines	Germany	42	8	1,003,550	57,768	22,047	20,517
36	TAROM-Romanian Air Transp	Romania	26	14	944,340	742,506	8,755	2,445
37	Air Dolomiti	Italy	40	16	912,277	468,925	14,351	7,964
38	SATA International	Portugal	27	11	854,719	672,217	4,778	1,104
39	Cyprus Airways	Cyprus	38	16	805,058	573,470	5,392	1,528
40	KLM City Hopper	Netherlands	88	0	771,141	0	9,277	9,277
41	Braathens ASA	Norway	12	4	762,461	203,810	5,653	4,233
42	Widerøse Flyveselskap	Norway	29	9	753,403	343,597	13,281	7,515
43	Flybe British European	UK	12	0	737,946	0	7,446	7,446
44	Adria Airways	Slovenia	18	6	721,032	150,736	11,763	8,700
45	Augsburg Airways	Germany	46	20	699,678	250,298	11,578	7,667
46	BMI Regional	UK	34	3	598,847	119,285	11,898	9,516
47	Estonian Air	Estonia	14	2	580,247	171,648	5,103	3,591
48	Luxair-Luxembourg Airline	Luxembourg	14	0	577,597	0	9,976	9,976
49	Arctic Air	Norway	40	0	558,502	0	3,684	3,684
50	Sterling	Denmark	14	14	509,640	509,640	2,752	0
51	Meridiana	Italy	4	2	484,548	390,060	3,146	782
52	Timber Air	Denmark	20	6	467,962	118,606	9,305	7,038
53	Air Alps Aviation	Austria	28	18	382,696	348,844	12,172	1,092
54	Aebal-Spanair Link	Spain	39	7	334,501	177,034	2,959	1,402
55	Eurolot SA	Poland	18	10	329,820	138,744	6,404	3,724
56	Air Plus Comet	Spain	12	0	297,637	0	1,602	1,602
57	Bulgaria Air	Bulgaria	12	8	257,816	180,560	1,874	654
58	Air Malta	Malta	10	0	247,611	0	1,658	1,658
59	Contactair And CO	Germany	20	4	228,708	1,224	4,899	4,881
60	BA Connect	UK	8	2	216,384	161,700	2,586	1,116
61	Icelandair	Iceland	9	3	211,292	53,126	1,046	783
62	Aerienne Europeene	France	16	2	200,853	28,680	3,903	3,335
63	Audell	Spain	20	20	192,072	192,072	967	0
64	FlyNordic	Sweden	2	2	191,912	191,912	1,192	0
65	City Airline	Sweden	16	2	180,380	31,382	3,982	3,332
66	Germania Fluggesellschaft	Germany	7	3	169,065	31,230	1,320	1,021
67	Sterling Blue	UK	14	3	167,850	26,968	1,316	1,102
68	ScotAirways	UK	2	2	150,945	150,945	4,401	0
69	Aerocondor	Portugal	2	2	120,816	120,816	3,356	0
70	Contact Air	Germany	8	6	119,198	94,006	1,850	376
71	Air Caledonie	France	2	2	106,428	106,428	362	0
72	Carpatair	Romania	8	2	103,648	24,240	1,820	1,580
73	Shtyan Spirit	Austria	10	2	103,040	58,000	1,864	704
74	Darwin Airline	Switzerland	8	0	99,200	0	1,984	1,984
75	Slovak Airlines	Slovakia	4	2	90,695	50,925	935	410
76	Airlinair	France	2	0	84,144	0	1,753	1,753
77	European Air Express	Germany	2	0	75,164	0	1,634	1,634
78	Norwegian Air Shuttle	Norway	4	2	72,076	49,580	487	152
79	Lauda Air Luftfahrt	Austria	4	2	71,196	2,392	255	242
80	Virgin Express	Belgium	4	4	61,362	61,362	458	0
81	Malmo Aviation	Sweden	2	2	59,808	59,808	534	0
82	LTU International Airways	Germany	4	0	55,556	0	172	172
83	germanwings	Germany	2	1	52,804	30,758	358	149
84	Finncomm Airlines	Finland	8	1	41,209	41,209	841	0
85	Air Atlanta Icelandic	Iceland	2	1	39,898	39,378	144	1
86	Brit Air	France	2	0	39,000	0	390	390
87	Viaggio Air	Bulgaria	2	0	34,010	0	446	446
88	Condor Flugdienst	Germany	2	0	27,976	0	104	104
89	Privatair SA	Switzerland	2	0	26,972	0	613	613
90	Olt Ostriesische Lufttra	Germany	2	0	25,296	0	744	744
91	Hemus Air	Bulgaria	9	4	22,701	21,062	465	11
92	Travel Servis	Switzerland	2	2	21,172	21,172	152	0
93	Itali Airlines	Italy	4	4	15,996	7,998	516	258
94	Golden Air Flyg Ab	Sweden	4	4	15,314	15,314	449	0
95	Air Austral	France	2	0	14,294	0	104	104
96	Olympic Airways	Greece	2	0	13,140	0	90	90
97	Gestion Aerea Ejec	Spain	4	1	11,613	11,289	107	3
98	Eurofly	Italy	2	0	1,440	0	30	30
99	Air Gabon	UK	2	0	1,122	0	6	6
100	Air Caraibes	France	2	0	608	0	32	32
101	City Jet	Ireland	2	0	564	0	6	6
102	Titan Airways	UK	3	0	462	0	6	6
Total			4,354	1,367	273,412,596	103,196,699	2,104,836	1,244,604

6.6 As may be expected, the EU’s big three airlines Air France, Lufthansa and British Airways, appear near the top of the table. However, some smaller carriers are also placed towards the top, including TAP, BMi and Air One, reflecting the value that code-sharing provides for the smaller carrier wanting to provide a wider route network to its customers.

6.7 The corresponding distribution of operated seats across airlines is shown in Figure 6.1. This demonstrates a relatively high level of concentration among operating than among marketing carriers. The top 22% per cent of airlines operate some 90 per cent of code-share seats. Over 40% of EU-domiciled airlines do not operate code-share flights.

**FIGURE 6.1 CUMULATIVE DISTRIBUTION OF SEATS OPERATED BY EU-DOMICILED CARRIERS**



6.8 Table 6.3 below shows, for each EU-domiciled carrier putting its code onto flights operated by another carrier (i.e. where the carrier acts as the marketing carrier in a code-share), the number of code-share routes in 2006, and of these, the number of routes on which the carrier also operates its own flights (parallel operation). In contrast to the table of operating carriers above, no seats are shown in this table. This is because there can be multiple marketing carriers on a code-share flight, so that counting the seats on each marketing flight could result in double-counting. The table is sorted in descending order of the total number of flight operations on code-share routes.

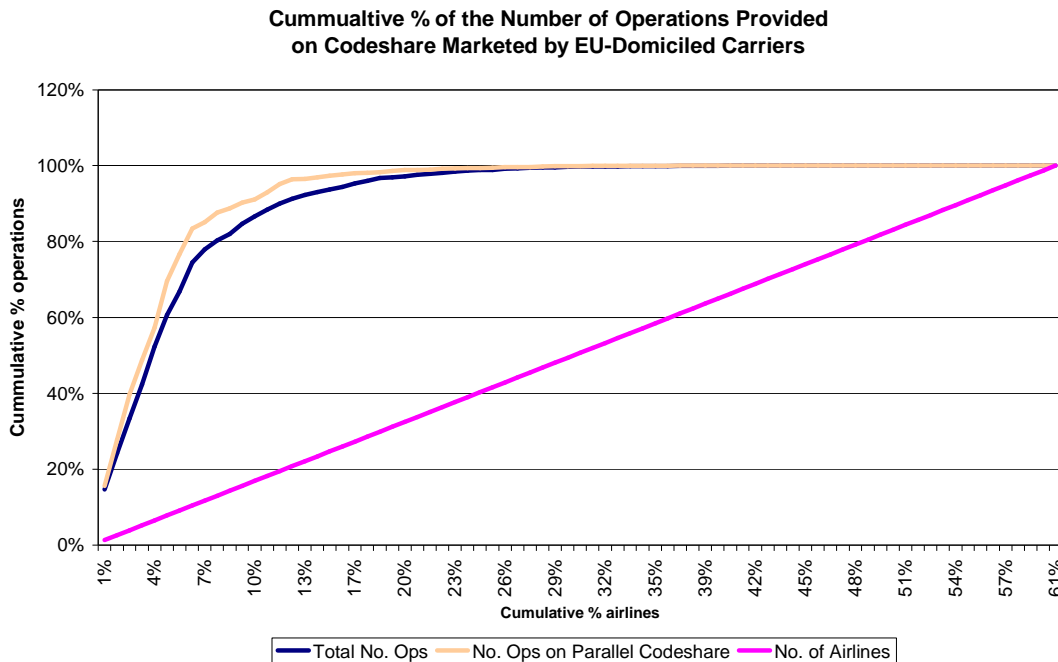
**TABLE 6.3 CODE-SHARE ROUTES AND SEATS MARKETED BY EU-DOMICILED CARRIERS**

Summary of Marketing Carrier Codeshare statistics when Marketing Carrier is EU-Domiciled

			2006			
			No. Routes Operated with Codeshare	No. Codeshare Route with Parallel Operation	No. Scheduled Operations	No. Scheduled Operations with Parallel Operation
1	Lufthansa German Airlines	Germany	517	134	333,954	234,615
2	Alitalia	Italy	589	186	226,573	128,070
3	British Airways	UK	423	48	217,787	181,967
4	TAP Air Portugal	Portugal	387	39	208,196	180,867
5	Air France	France	407	101	203,268	135,457
6	BMI British Midland	UK	279	14	190,860	184,236
7	SAS Scandinavian Airlines	Denmark	380	108	173,865	102,321
8	Iberia	Spain	360	90	141,060	106,791
9	SWISS	Switzerland	123	84	79,227	24,266
10	Austrian Airlines	Austria	138	75	63,593	23,374
11	Spanair	Spain	118	18	53,273	39,121
12	SN Brussels Airlines	Belgium	78	40	43,524	12,256
13	KLM-Royal Dutch Airlines	Netherlands	128	29	38,528	16,002
14	Portugalia	Portugal	83	15	38,472	28,344
15	Air One	Italy	67	6	36,812	32,114
16	Air Europa	Spain	71	33	29,785	19,010
17	LOT Polish Airlines	Poland	40	34	21,729	5,550
18	Air Dolomiti	Italy	40	36	21,717	1,876
19	MALEV Hungarian Airlines	Hungary	61	36	19,297	5,766
20	TAROM-Romanian Air Transp	Romania	33	26	16,332	2,044
21	Czech Airlines	Czech Rep	36	29	15,046	1,775
22	Finnair	Finland	38	28	15,014	6,155
23	ALPI Eagles	Italy	34	18	14,351	4,947
24	SATA International	Portugal	12	10	7,957	116
25	Bulgaria Air	Bulgaria	32	20	7,404	2,066
26	Olympic Airways	Greece	30	10	7,379	4,022
27	Flybe British European	UK	8	2	6,549	2,148
28	Aegean Airlines	Greece	28	14	6,175	1,534
29	Air Berlin	Germany	40	20	6,170	3,431
30	CCM Airlines	France	40	22	4,954	482
31	Virgin Atlantic Airways	UK	8	0	4,741	4,741
32	Norwegian Air Shuttle	Norway	14	14	3,784	0
33	Malmö Aviation	Sweden	4	4	3,442	0
34	Estonian Air	Estonia	6	6	3,278	0
35	Eurofly	Italy	8	4	2,263	956
36	Adria Airways	Slovenia	18	2	1,996	1,878
37	Air Malta	Malta	14	2	1,513	1,414
38	dba	Germany	6	2	1,319	1,021
39	Hemus Air	Bulgaria	4	2	1,054	446
40	Luxair-Luxembourg Airline	Luxembourg	2	2	1,036	0
41	Airlinair	France	2	0	605	605
42	Virgin Express	Belgium	2	2	580	0
43	Cirrus Airlines	Germany	2	0	560	560
44	Skyways	Sweden	2	2	457	0
45	Eurowings Luftverkehrs	Germany	2	1	358	149
46	Air Austral	France	4	2	337	152
47	FlyNordic	Sweden	2	2	335	0
48	Air Caraibes	France	4	4	284	0
49	SkyEurope Airlines	Hungary	2	2	222	0
50	Cyprus Airways	Cyprus	3	3	134	0
51	City Airline	Sweden	2	0	118	118
52	Sterling Blue	UK	2	2	96	0
53	Blue Panorama Airlines	Italy	4	4	60	0
54	Icelandair	Iceland	2	0	30	30
55	Munich Airlines	Germany	2	0	30	30
56	Blue1	Finland	3	0	21	21
57	Travel Servis	Switzerland	1	1	9	0
58	Air Gabon	UK	4	2	8	2
59	Finncomm Airlines	Finland	2	2	3	0
60	LTU International Airways	Germany	1	1	1	0
Total			4,752	1,393	2,277,525	1,502,846

6.9 The distribution of marketing code-share flight operations across EU-domiciled carriers is illustrated in Figure 6.2 (showing seats in the context of marketing flights might be misleading due to double-counting, so flight operations have been used instead). This demonstrates that the marketing of code-share flights is more concentrated than the operation of code-share flights, with over 91% of flight operations accounted for by 10% of airlines. Over 70% of EU-domiciled airlines do not market code-share flights.

**FIGURE 6.2 CUMULATIVE DISTRIBUTION OF FLIGHT OPERATIONS MARKETED BY EU-DOMICILED CARRIERS**



6.10 This result is not surprising – marketing code-shares only make sense for carriers with a strong brand in their home market, whereas operating code-shares can be used by smaller airlines to generate additional passengers using the marketing strength of more well-known carriers.

**Inventory of code-share agreements**

6.11 A full inventory of code-share agreements involving EU-domiciled carriers, specifying marketing and operating carriers, routes operated with associated flight operations and seat capacity is attached as Appendix D of this Report. This inventory is based on an analysis of the OAG schedules database.

6.12 The OAG database distinguishes between published carriers and the carrier that actually operated the flight. We have used this to identify where there is a code-share operation on a route (airport pair). We have identified code-share operations involving all airlines domiciled within the EU, as well as the EEA states (Norway and Iceland), Switzerland, and the accession states, Bulgaria and Romania. In completing this process we generated 3 tables (all to be found within Appendix D):

- Parallel Code-shares involving EU-domiciled Carriers – to generate this table we have extracted all the code-shares where EU-domiciled carriers operate the route and have a reciprocal code-share marketing agreement with another EU or non-EU carrier that operates the route. In this table there are 52 unique marketing carriers and 142 operating carriers flying 842 routes
- Non-Parallel Code-shares when the EU-domiciled Carriers is the Marketing Carrier – this table provides information on route which are marketed by EU carriers through a code-share agreement but are not operated by the carrier. It

also provides information on which EU or non-EU carrier actually operates the route. There are 42 unique marketing carriers and 152 operating carriers flying 2,101 routes in this table.

- Non-Parallel Code-shares when the EU-domiciled Carrier is the Operating Carrier - this table provides information on all the routes where EU carriers operate the route and allows EU and Non-EU carriers, who do not operate the route, to market the route through a code-share agreement. There are 72 unique marketing carriers and 59 operating carriers flying 1,352 routes in this table

### Distribution of code-share agreements by type

6.13 From discussions with airlines, we have identified a number of different types of code-share, dependent on a number of different dimensions. These are:

- The relationship of the code-share partners with regard to the relevant route:
  - Operating a joint venture with anti-trust immunity;
  - Within an alliance (but without anti-trust immunity); or
  - Outside of an airline alliance or joint venture.
- The geography of the relevant route (see above in paragraph 3.7 for more detailed definitions of these categories):
  - Parallel operation on a trunk route;
  - Unilateral operation on a trunk route; or
  - Behind and beyond route (connecting to a trunk route service).
- The method by which capacity is accessed, as described in Chapter 3, namely:
  - Freeflow; or
  - Block-space.

6.14 Through a review of various data sources, including the *Airline Business* Special Report on Alliances and the OAG data, we have identified some typical examples of each type of code-share, as defined in paragraph 6.13 above, also split geographically by world region (see table below). These illustrate, for example, the preponderance of freeflow over block-space arrangements, and more generally, the widespread and varied nature of code-shares across the world.

6.15 The format of the table is as follows:

- Each horizontal block represents sets of routes between world geographical regions (only those including Europe); within each block, each row represents, respectively, parallel trunk route operation, unilateral trunk route operation and behind & beyond / connecting operation.
- Each vertical block represents the relationship between the airlines concerned – a joint venture with anti-trust immunity, within an alliance (but not with code-share immunity) or outside an alliance (or joint venture); within each block each column represents freesale or block space access to capacity. Within each cell code-shares are indicated by the IATA codes of the two carriers involved, followed by the IATA codes of the airports or cities on the relevant route.

6.16 Against each code a number in brackets is appended – this number is the reference to the table of notes on the following page, which gives more detail on the arrangement

(including explanations of the IATA codes).

- 6.17 We have used this categorisation of code-shares, and the indicative distribution of types of code-share implied, in order to help identify a number of code-share operations for further examination as part of the fares and capacity analysis discussed in Chapter 7.

TABLE 6.4 EXAMPLES OF CODE-SHARE ROUTES OPERATED, BY CATEGORY

		Joint Venture (with anti-trust immunity)		Within Alliance (no anti-trust immunity)		Outside Alliance	
		Freeflow	Block Space	Freeflow	Block Space	Freeflow	Block Space
		<b>Intra-European</b>	<i>Parallel Trunk Operation</i>	AF/KL, CDG-AMS (1) BA/IB, LHR-MAD (2) AF/AZ, FCO-CDG (3) BA/SN, LON-BRU (6)		BA/AY, LON-HEL (33) AF/UX, PAR-MAD (51) KL/QK, AMS-PRG (70)	
	<i>Unilateral Trunk Operation</i>	BA/IB, MAN-MAD (11)		LO/JK, MAD-WAW (52) LH/BD, LHR-FRA (12)	AM/UX, CUN-MAD (66)	IB/RO MAD-OTP (62)	MA/AF, LYS-BUD (63)
	<i>Behind and Beyond / Connecting</i>	BA/IB, MAD-LHR-EDI (41)		OS/JK, MAD-VIE-LNZ (53)			
<b>Europe-North America</b>	<i>Parallel Trunk Operation</i>	UA/LH, FRA-IAD (7) AZ/DL, FCO-JFK (8) AF/DL, CDG-ATL (42)		IB/AA, MAD-MIA (71) LH/AC, FRA-YYZ (72)			
	<i>Unilateral Trunk Operation</i>	KL/NW, AMS-MSP (9) AF/DL, CDG-BOS (43)		AA/AY, HEL-JFK (34)			
	<i>Behind and Beyond / Connecting</i>	UA/LH, FRA-ORD-DEN (5) DL/AF, CDG-ATL-DFW (4) KL/NW, AMS-DTW-DEN (26)		UX/CO, MAD-EWR-MIA (10) AA/BA, LGW-DFW-ABQ (44)			
<b>Europe-South America</b>	<i>Parallel Trunk Operation</i>			IB/LA, MAD-SCL (15)	AF/AM, CDG-MEX (61)	IB/AV, MAD-BOG (14)	
	<i>Unilateral Trunk Operation</i>			UX/CU, MAD-HAV (54)			A7/P5 MAD-BOG (64)
	<i>Behind and Beyond / Connecting</i>			IB/LA, MAD-SCL-MDZ (55)		IB/AV, MAD-BOG-CLO (13)	
<b>Europe-Middle East</b>	<i>Parallel Trunk Operation</i>				AF/ME, CDG-BEY (16)		LY/LO, WAW-TLV (35) LH/QR, FRA-DOH (73)
	<i>Unilateral Trunk Operation</i>			IB/RJ, MAD-AMM (56)			AZ/QR, FCO-DOH (17)
	<i>Behind and Beyond / Connecting</i>	AF/KL, AMS-CDG-DAM (45)		KL/KQ, AMS-NBO-DXB (21)			OS/RJ, VIE-AMM (19) IB/RJ, MAD-AMM (20)
<b>Europe-Africa</b>	<i>Parallel Trunk Operation</i>			LH/SA, FRA-CPT (22) KL/KQ, AMS-NBO (58)			OS/MS, VIE-CAI (39) OA/MS, ATH-CAI (36)
	<i>Unilateral Trunk Operation</i>			IB/AT MAD-TNG (57)			
	<i>Behind and Beyond / Connecting</i>	IB/MN, MAD-JNB-DUR (46)		LH/SA, JNB-DUR (23) KL/KQ, NBO-ADD (24)		IB/AT, CMN-MAD-BIO (25)	
<b>Europe-Asia</b>	<i>Parallel Trunk Operation</i>	BA/QF, LHR-SYD (47) AF/MK, PAR-MRU (29)		LH/TG, FRA-BKK (59)	AF/KE CDG-SEL (50) AF/CZ, CDG-CAN (68)	VS/SQ, LHR-SIN (28) KL/MH, AMS-KUL (30)	AI/AF, CDG-DEL (69)
	<i>Unilateral Trunk Operation</i>	BA/QF, LHR-BNE (48)		OS/SQ, VIE-SIN (60)		SN/HU, BRU-PEK (40)	OA/GF, ATH-BAH-SIN-SYD (18) AY/CA, HEL-PEK (67)
	<i>Behind and Beyond / Connecting</i>	BA/QF, LHR-SYD-CHC (49)		LH/SQ, MAD-FRA-SIN (31) OS/NH, VIE-TYO-SPK (32)		AF/QF, CDG-SIN-SYD (37)	

- 1 Paris CDG/Amsterdam. Air France/KLM signed a strategic global alliance in 2004. It is a hybrid between an alliance and a merger.
- 2 London Heathrow-Madrid. British Airways/Iberia. Code share agreement, revenue sharing on trunk routes.
- 3 Air France and Alitalia between Rome Fiumicino and Paris CDG. Skyteam members
- 4 Air France and Delta Air Lines on the route Paris CDG-Atlanta-Dallas Fort Worth, first leg operated by Air France and second leg operated by Delta.
- 5 United Airlines and Lufthansa on the Frankfurt-Chicago O'Hare-Denver, United Airlines operating
- 6 British Airways flies the London-Heathrow-Brussels route and SN Brussels the London-Gatwick-Brussels route.
  
- 7 Frankfurt-Washington Dulles. Both airlines are founder members of Star Alliance
- 8 Rome Fiumicino- New York JFK. They are Skyteam members
- 9 Amsterdam-Minneapolis Saint Paul operated by Northwest. Skyteam members
- 10 Continental Airlines operates the route, Air Europa is only a marketing carrier. Skyteam members or associates/regional partners
- 11 Manchester-Madrid operated by BA Connect
- 12 Lufthansa and BMI from London-Heathrow to Frankfurt, Lufthansa operating
- 13 Avianca and Iberia on the Madrid-Bogota-Cali route.
- 14 Avianca and Iberia from Madrid to Bogota.
- 15 Iberia and LAN from Madrid to Santiago de Chile. Oneworld members, code share in Madrid-Santiago de Chile plus nine destinations beyond Madrid, five in Chile and two in Argentina
- 16 Air France/MEA. Joint operation in the Paris CDG-Beirut route.
- 17 Alitalia and Qatar Airways on the Rome Fiumicino-Doha route, Qatar Airways operating.
- 18 Gulf Air/Olympic Airlines. Code share on the route Athens-Bahrain-Sydney
- 19 Royal Jordanian/Austrian Airlines. Code share in the Vienna-Amman route
- 20 Royal Jordanian/Iberia. Code share in the Barcelona and Madrid to Amman
  
- 21 KLM/Kenya Airways. Amsterdam-Nairobi-Dubai.
- 22 South African Airways/Lufthansa from Frankfurt to Cape Town.
- 23 Lufthansa and South African Airways from Johannesburg to Durban. From Frankfurt/Munich to points in Europe and from Johannesburg and Cape Town to points in South Africa and neighbour countries.
- 24 From Amsterdam Addis Ababa via Nairobi. First leg operated by KLM or Kenya Airways, second leg operated by Kenya Airways.
- 25 Iberia/Royal Air Maroc on the Casablanca-Madrid-Bilbao route.
- 26 KLM and Northwest on the route Amsterdam-Detroit-Denver operated by Northwest
- 27 SAS and Air Baltic on the route between Stockholm Arlanda to Riga, Air Baltic operating.
- 28 Virgin/Singapore Airlines, London Heathrow-Singapore route.
- 29 Air France/Air Mauritius. Joint venture Paris CDG-Mauritius.
- 30 KLM/Malaysia Airlines in the Amsterdam-Kuala Lumpur route.
- 31 Lufthansa/Singapore Airlines, Madrid-Frankfurt-Singapore. First leg operated by Lufthansa, second leg by Singapore Airlines.
- 32 Austrian Airlines/All Nippon Airways from Vienna to Sapporo via Tokyo Narita.
- 33 British Airways and Finnair on the route from London Heathrow to Helsinki
- 34 American Airlines and Finnair on the route from Helsinki to New York JFK
- 35 El Al and LOT between Warsaw and Tel Aviv.
- 36 Olympic Airlines and Egyptair between Athens and Cairo
  
- 37 Air France and Qantas on the Paris CDG-Singapore-Sydney route. Free sale codeshare on Paris CDG-Singapore, Air France operating and on Singapore to 7 Australian destinations Qantas operating.
- 38 Cyprus Airways and LOT on the route between Larnaca and Warsaw.
- 39 Austrian and Egyptair between Vienna and Cairo.
- 40 SN Brussels and Hainan Airlines on Brussels-Beijing.
  
- 41 Madrid-London Heathrow-Edinburgh, operated by British Airways
- 42 Air France and Delta Air Lines on the Paris CDG-Atlanta
  
- 43 Paris-Boston operated by Air France
- 44 London Gatwick-Dallas-Albuquerque, first sector operated by British Airways, second sector operated by
- 45 Amsterdam-Paris CDG-Damascus operated by Air France
- 46 Madrid-Johannesburg-Durban, first leg operated by Iberia, domestic South African sector operated by Comair (a British Airways franchisee)
- 47 London Heathrow-Sydney, route operated by both carriers.
- 48 London Heathrow, operated by Qantas
- 49 London Heathrow-Sydney-Christchurch, the second sector operated by Qantas
- 50 Paris CDG Seoul, operated by Air France and Korean Airlines
- 51 Paris-Madrid, the flights from Orly are operated by Air Europa and marketed by Air France, the flights from Charles de Gaulle are operated by Air France and Air Europa does not put its code on these flights.
- 52 Madrid-Warsaw, operated by LOT Polish Airlines, marketed by Spanair
- 53 Madrid-Vienna-Linz, first leg operated by Spanair, second leg operated by Asutrian
- 54 Madrid-Havana, operated by Air Europa, marketed by Cubana de Aviacion as well.
- 55 Madrid Santiago de Chile Mendoza, first leg operated by Iberia or LAN, second leg operated by LAN.
- 56 Madrid-Amman route operated by Royal Jordanian
  
- 57 Madrid-Tangiers, operated by Iberia
- 58 KLM and Kenya Airways from Amsterdam to Nairobi
- 59 Lufthansa and Thai Airways from Frankfurt to Bangkok
  
- 60 Austrian Airlines and Singapore Airlines from Vienna to Singapore
  
- 61 Air France and Aeromexico from Paris CDG to Mexico DF.
- 62 Iberia and TAROM between Madrid and Bucharest, TAROM operating.
- 63 Air France and Malev from Lyon to Budapest.
- 64 Air Plus and Aerorepublica between Madrid and Bogota, Air Plus operating.
- 65 Austrian and Aeroflot on the route between Vienna and Moscow-Sheretmeyevo.
- 66 Aeromexico and Air Europa between Cancun and Madrid, Air Europa operating.
- 67 Finnair and Air China between Helsinki and Beijing, Finnair operating.
  
- 68 Air France and China Southern on the route between Paris CDG and Guangzhou.
- 69 Air France and Air India from Paris CDG to Delhi.
- 70 KLM and CSA between Amsterdam and Prague
- 71 Iberia and American Airlines parallel code-share between Madrid and Miami
- 72 Lufthansa and Air Canada parallel code-share between Frankfurt and Toronto
- 73 Lufthansa and Qatar Airways between Frankfurt and Doha



## 7. QUANTITATIVE ANALYSIS AND CASE STUDIES

### Overview

7.1 We have undertaken quantitative analysis of the impact of code-share agreements to assess the extent of any associated benefits and disbenefits. In particular, we have assessed the impact of code-share agreements on:

- Capacity and frequency provided;
- Air fares; and
- The range of connecting opportunities available for passengers.

7.2 In principle, code-share agreements may benefit passengers on some routes but may have disbenefits on other routes:

- On routes where there is a parallel code-share (both code-share partners operate services on the route), there may be disbenefits. The potential risk is that a code-share agreement results in fares being higher or capacity provided being lower than would otherwise have been the case. Higher fares could result from collusion, facilitated by the code-share agreement, but could also result because point-to-point passengers are displaced by passengers making connecting journeys.
- On routes where there is a 'beyond' code-share (only one carrier actually operates the service), code-shares may benefit passengers by increasing the range of online connecting journey opportunities. However, where the code-share is associated with discriminatory terms that disadvantage other carriers which may wish to participate in carrying passengers on the through journey, they may act as a barrier to entry, and consequently, may disadvantage passengers.

7.3 These observations are consistent with the conclusions of academic studies (summarised in chapter 4), which generally have shown benefits from code-sharing on beyond routes, with some qualifications, but disbenefits on parallel routes. In order to focus on the cases where code-shares may have had the greatest disbenefit, we have therefore focused on routes where there is a parallel code-share, although our competition assessment framework encompasses the full range of code-share arrangements identified in the course of the study.

7.4 As discussed in Chapter 2, we have undertaken fares and capacity analysis across a number of routes as well as an examination of four specific case studies. These are discussed in turn.

### Fares and capacity analysis

7.5 For the purposes of this analysis, we have selected a sample of routes on which airlines code-share (with parallel operation) but do not have a joint venture agreement with anti-trust immunity, and a sample of comparator routes on which there is no code-share agreement. We have excluded routes on which the carriers have obtained anti-trust immunity for their alliance as the Commission already has an established approach to evaluating the benefits of these arrangements. We selected comparator routes which are as similar as possible in terms of the location of the destination city and the size of the market; we have also tried to avoid routes such as UK-US routes

where the bilateral Air Services Agreement (ASA) is known to be particularly restrictive, although as most bilateral agreements are not published, this cannot be done completely accurately.

7.6 The combined effect of these restrictions was to significantly limit the range of routes from which we could select, particularly on long haul, and therefore there are some differences between the routes; in addition, as explained below, there may be other route-specific factors influencing each market. The routes that we have selected are shown in Table 7.1 below.

**TABLE 7.1 SAMPLE OF ROUTES**

Route type	Code-share route	Comparator non code-share route
Long haul	Madrid-Santiago de Chile	Madrid-Buenos Aires
	Paris-Mexico	Madrid-Bogota
	Frankfurt-Toronto	Paris-Toronto
	Madrid-Miami	Dublin-New York
	Frankfurt-Cape Town	Paris-Johannesburg
	Paris-Beirut	Paris-Tel Aviv
	Amsterdam-Kuala Lumpur	Amsterdam-Bangkok
	Frankfurt-Singapore	Paris-Singapore
Short haul	London-Helsinki	London-Stockholm
	Paris-Madrid	London-Milan
	Amsterdam-Prague	Amsterdam-Warsaw
	Brussels-Zurich	Brussels-Vienna

7.7 The Brussels-Zurich route was included because of the relevance of the comparison with Brussels-Vienna, even though it is not a parallel code-share because only one carrier, Swiss, actually operates services on the route. SN Brussels Airlines puts its code on the Swiss flight and this is therefore a unilateral code-share.

***Capacity and frequency***

7.8 In principle, we would expect the introduction of a code-share agreement to lead to increased capacity on a route. This is because the airlines involved should attract more passengers making connecting journeys to use the service. For example, the existence of the Air France/Aeromexico code-share on the Paris-Mexico City route allows passengers travelling between London and Guadalajara to make their journey via Paris-Mexico, using ‘online’ connections. If this code-share did not exist, the only online connection option available to these passengers would have been to travel via a US hub, which might be unattractive for a number of reasons. Therefore, the existence of the code-share should channel additional passengers onto the Paris-Mexico route, which should in turn prompt the airlines to increase the capacity provided.

7.9 In order to investigate the evidence for this proposition, we have undertaken two types of analysis of capacity and frequency:

- analysis of capacity trends on the sample of comparator routes shown above; and

- analysis of trends across all routes on which a code-share was introduced or was not introduced.

7.10 The analysis was based on data obtained from the OAG for frequencies and capacity provided on all routes to/from Europe during the period 2002-6.

*Analysis of comparator routes*

7.11 Table 7.2 below compares the trend in the number of scheduled seats available on each route during the period 2002-2006. On eight out of the 12 routes, capacity has grown faster on the non-code-share comparator routes than on the code-share routes. This result is surprising given that, as discussed above, we would expect capacity to be greater on the code-share routes. This may indicate that in some cases code-shares have worked against the public interest.

**TABLE 7.2 COMPARISON OF TREND IN SEATS PROVIDED**

Codeshares			Non-Codehares		
	No of Operating Carriers in 2006	CAGR (2002 - 2006)	CAGR (2002 - 2006)	No of Operating Carriers in 2006	
Madrid-Santiago	3	13.4%	12.4%	3	Madrid-Buenos Aires
Paris-Mexico	2	11.1%	18.3%	4	Madrid-Bogota
Frankfurt-Toronto	3	1.0%	5.9%	3	Paris-Toronto
Madrid-Miami	3	-12.2%	22.8%	3	Dublin-New York
Frankfurt-Cape Town	2	4.3%	6.2%	2	Paris-Johannesburg
Paris-Beirut	2	2.1%	8.3%	2	Paris-Tel Aviv
Amsterdam-Kuala Lumpur	2	7.9%	-0.2%	3	Amsterdam-Bangkok
Frankfurt-Singapore	3	-0.6%	-1.8%	2	Paris-Singapore
London-Helsinki	3	4.6%	1.3%	4	London-Stockholm
Paris-Madrid	5	2.8%	7.2%	4	London-Milan
Amsterdam-Prague	4	3.3%	4.2%	2	Amsterdam-Warsaw
Brussels-Zurich	1	-4.5%	0.7%	3	Brussels-Vienna

7.12 However, this analysis is subject to a number of limitations:

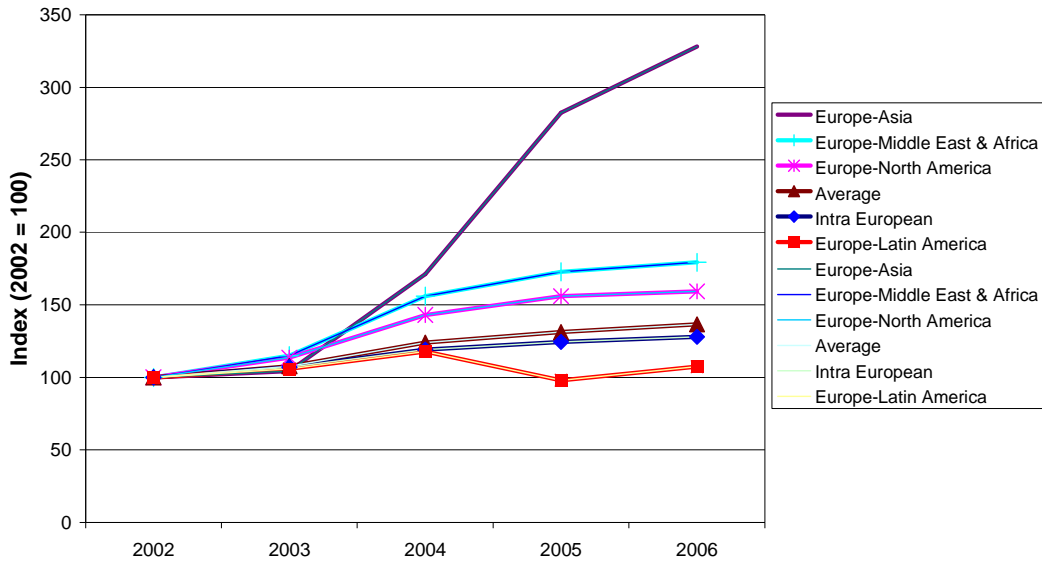
- The sample is not large enough to be statistically significant;
- The trend in capacity on some of the routes may have been affected by other factors, for example the fact that capacity on the Madrid-Miami route has been reduced further to Iberia’s decision to close its mini-hub in Miami in 2004;
- The relevant ASA for Madrid – Bogotá was very restricted in 2002, so changes in the ASA may have driven capacity growth; and
- Many of the code-share arrangements on the routes shown predate this period, so that any change in capacity due to the code-share arrangement might already have occurred before this period.

*Analysis across all routes*

7.13 We have also compared the trend in capacity across all routes in which a code-share was introduced during the years 2003, 2004 or 2005 with routes in which no code-share was introduced during the period. We selected code-shares that commenced in these three years because this enabled us to view the level of capacity before and after the introduction of the code-share and therefore to evaluate the effect that the introduction of the code-share had on capacity. Figure 7.1 shows the trend in capacity on all routes where a code-share was introduced in this period. On most of these routes, there was substantial traffic growth – particularly Europe-Asia routes; many of

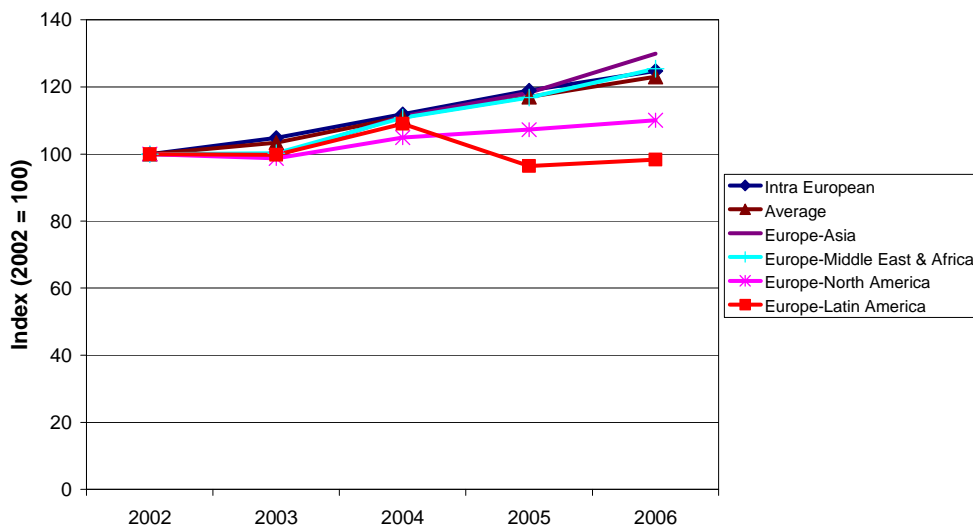
the Europe-Asia routes on which a parallel code-share was introduced during this period did not have any direct services at the start of the period.

**FIGURE 7.1 CAPACITY TREND WHERE CODE-SHARE INTRODUCED 2003-5**



7.14 Figure 7.2 shows the trend in capacity on routes with no new code-share agreement being introduced during the period (either because the same code-share agreement applied throughout, or because there was no code-share at all). In most of these markets, capacity growth was much lower on the routes on which there was no code-share agreement. The exception to this was on routes within Europe: on these routes, capacity growth was similar on the routes on which code-shares were introduced.

**FIGURE 7.2 CAPACITY TREND ON ROUTES WITH NO NEW CODE-SHARE AGREEMENT**



7.15 This analysis indicates that the introduction of code-shares has tended to lead to higher capacity, which is in line with what would have been expected to occur if code-shares worked to benefit passengers. However, this has not been the case on intra-European routes. A possible explanation for this is that the expansion of low cost carriers during this period has been disproportionately on leisure-orientated routes where there is no code-share agreement between other carriers. Another possible explanation is that code-sharing is likely to be less beneficial on intra-European routes, as there is usually no regulatory restriction which prevents both partners from operating their own services, but slot constraints may mean that it is difficult for other airlines to enter.

**Fares**

7.16 We have compared the fares available for the code-share and non-code-share routes, to determine whether there is any evidence that fares are significantly different on the routes where code-shares operate.

7.17 Ideally, the analysis would be based on the yields that airlines achieve on each route. However, this information is not publicly available for flights to and from Europe. In the USA, a large survey is undertaken of passenger journeys on domestic routes, which does include ticketed fares data, and this has been used in a number of the academic studies of code-shares. In the absence of similar data for international routes to and from Europe, we have compared the fares that airlines actually make available for a basket of trips. We collected a mixture of fares for each route, including fares for typical time sensitive (primarily business) passengers and price sensitive (primarily leisure) passengers, in order to calculate ‘sampled average’ fares for each route. Six representative fares for each airline operating on each route were collected (on a single occasion) from publicly available websites.

**TABLE 7.3 FARES SAMPLE**

Route type	Fares types	Fares collected
Long haul	Business / time sensitive fares	Business class midweek stay of approximately 3 nights, booked 14 days in advance
		Economy class midweek stay of approximately 3 nights, booked 14 days in advance
	Leisure / price sensitive fares	Business class return 7 day stay, travelling midweek, booked 28 days in advance
		Economy class return 7 day stay, travelling midweek, booked 28 days in advance
Short haul	Business / time sensitive fares	Economy class return ticket for peak leisure travel times (weekends) staying 2 weeks, booked 42 days in advance
		Economy class return ticket for off-peak travel times eg. (midweek) staying 2 weeks, booked 90 days in advance
	Leisure / price sensitive fares	Weekday day return ticket, at business travel times i.e. out around 8am, back around 5pm, booked 7 days in advance
Midweek overnight return ticket also at typical business travel times e.g. out 5pm back 5pm next day, booked 7 days in advance		
Midweek overnight return ticket also typically at business travel times e.g. out 5pm back 5pm next day, booked 21 days in advance		
	Leisure / price sensitive fares	Single ticket for shoulder travel times (eg. midday Friday) booked 28 days in advance
		Return ticket for shoulder travel times (out midday Friday back midday Sunday), booked 28 days in advance
		Return ticket for travel at off-peak times (eg. Wednesdays) booked 56 days in advance

- 7.18 Table 7.3 shows the basket of fares that we collected on each airline and route. The sample average fares that we calculated for each route were the average of each basket of fares, except that the weighting of the advance purchase leisure fares was increased, reflecting the fact that these typically form a higher proportion of tickets sold.
- 7.19 Fares per kilometre will vary between routes based on other factors including, most importantly, route length: there are significant fixed costs associated with takeoff and landing, so fares per kilometre tend to be lower on longer routes. In order to adjust for this, we normalised the fares by calculating an adjusted distance which took into account these additional costs. This normalisation was based on the output of an airline cost model, which indicated that, for a typical network carrier, takeoff and landing accounts for roughly the same costs as an additional 900 km distance (hence the costs of operating a 1800 km route are only 33% higher than the costs of operating a 900 km route). The fares shown in this section are per adjusted kilometre rather than per kilometre.
- 7.20 Our adjusted fares comparison also takes account of the extent to which there are other carriers competing on the routes, although other route-specific variations, for example restrictions within the relevant Air Service Agreement have not been considered as this information is not publicly available. We have, however, looked for evidence of whether the code-share carriers are behaving as a single carrier, in terms of price setting, or as competing carriers.

### *Comparison of fare levels*

- 7.21 We have compared the average sampled fare levels on both the long haul and the short haul routes, separately for time-sensitive (a simple average of business class and full economy fares) and for non-time-sensitive (advance purchase fares), on a fare per adjusted route km basis.
- 7.22 On the long haul routes, although time-sensitive fares per km are higher on the majority of the code-share routes, this result is not significant (five out of eight route comparisons). For non-time-sensitive fares the code-share fares are higher on three comparisons, lower on three and the same on the remaining two.
- 7.23 Looking at fares across all the routes, the difference between the code-share and non-code-share routes occurs largely on last minute and business class fares bought by passengers who are less price-sensitive. Last minute and business class fares are 10% higher on average on the code-share routes, whereas there is, on average, almost no difference in advance purchase leisure fares. This implies that airlines may be taking advantage of reduced competition on the code-share routes to increase prices for passengers who are less price-sensitive. However, again there is substantial variation between routes and so the result does not allow general conclusions to be drawn. Fares per km on these routes are compared in Table 7.4 below.

TABLE 7.4 LONG HAUL FARES (SAMPLE AVERAGES)

**Time-sensitive fare per km comparison (average of business and economy)**

Codeshare		Non-codeshare	
Average fare per km		Average fare per km	
Madrid-Santiago	0.39	0.29	Madrid-Buenos Aires
Paris-Mexico	0.44	0.31	Madrid-Bogota
Frankfurt-Toronto	0.47	0.59	Paris-Toronto
Madrid-Miami	0.41	0.36	Dublin-New York
Frankfurt-Cape Town	0.37	0.49	Paris-Johannesburg
Paris-Beirut	0.58	0.33	Paris-Tel Aviv
Amsterdam-Kuala Lumpu	0.28	0.19	Amsterdam-Bangkok
Frankfurt-Singapore	0.31	0.38	Paris-Singapore

**Non-time-sensitive fare per km comparison (advance purchase fares)**

Codeshare		Non-codeshare	
Average fare per km		Average fare per km	
Madrid-Santiago	0.15	0.12	Madrid-Buenos Aires
Paris-Mexico	0.13	0.17	Madrid-Bogota
Frankfurt-Toronto	0.16	0.22	Paris-Toronto
Madrid-Miami	0.18	0.12	Dublin-New York
Frankfurt-Cape Town	0.09	0.09	Paris-Johannesburg
Paris-Beirut	0.15	0.12	Paris-Tel Aviv
Amsterdam-Kuala Lumpu	0.10	0.10	Amsterdam-Bangkok
Frankfurt-Singapore	0.10	0.11	Paris-Singapore

7.24 There is a more significant difference on intra-European routes, shown in Table 7.5 below. On the small sample of short haul routes for which we collected fares, average fares were 60% higher on the code-share routes. We found that fares were particularly high on the Brussels-Zurich route, reflecting the lack of any competition on this route. The pattern was similar for both advance purchase and last minute tickets. The sample is too small to be conclusive but this reflects the focus on parallel code-share routes where there is no joint venture, a relatively small number of short haul routes.

TABLE 7.5 INTRA-EUROPEAN FARES (SAMPLE AVERAGES)

**Time-sensitive fare per km comparison (average of business and economy)**

Codeshares		Non-Codeshares	
Average fare per km		Average fare per km	
London-Helsinki	0.25	0.25	London-Stockholm
Paris-Madrid	0.29	0.10	London-Milan
Amsterdam-Prague	0.37	0.27	Amsterdam-Warsaw
Brussels-Zurich	0.72	0.42	Brussels-Vienna

**Non-time-sensitive fare per km comparison (advance purchase fares)**

Codeshares		Non-Codeshares	
Average fare per km		Average fare per km	
London-Helsinki	0.17	0.08	London-Stockholm
Paris-Madrid	0.10	0.07	London-Milan
Amsterdam-Prague	0.19	0.15	Amsterdam-Warsaw
Brussels-Zurich	0.39	0.23	Brussels-Vienna

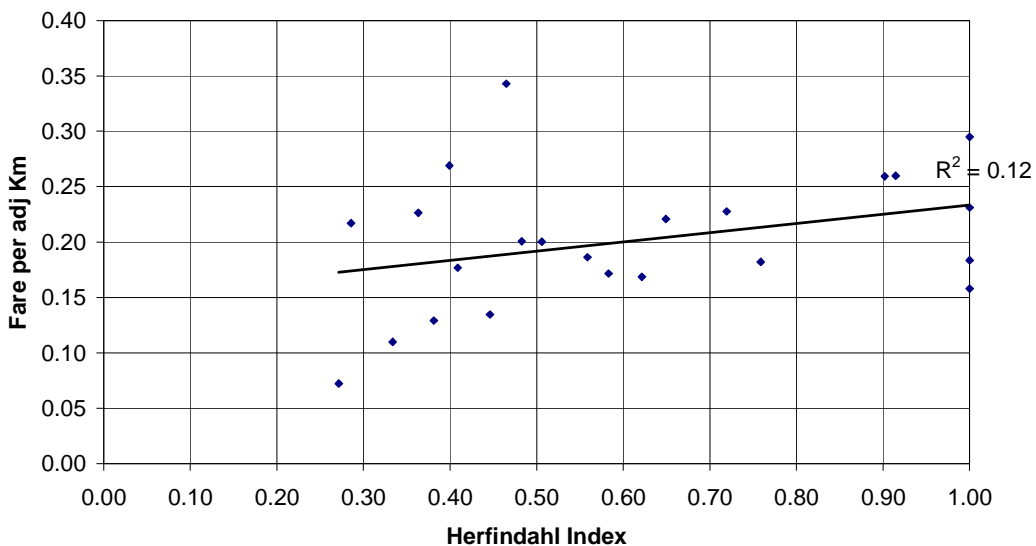
7.25 In summary, this analysis suggests that fares on intra-European routes with code-shares are significantly higher than fares on similar non-code-share routes, but that the impact of code-shares is much less clear on long haul. The intra-European fares comparison may be more useful than the long haul fares comparison, because fares on long haul routes may be affected by restrictive bilateral air services agreements and other route-specific factors. The results do not reflect a large enough sample for firm conclusions to be drawn, but do provide some evidence that code-share agreements can lead to higher fares.

*Competition analysis*

7.26 As explained above, we would expect that, if code-sharing were to lead to higher fares, this would be through reduced competition. At worst, collusion between the code-share partners would mean that they behaved as if they were a single carrier. Therefore, in addition to testing whether code-shares routes generally have higher fares, it should be more useful to investigate whether they result in higher fares than we would expect given the level of competition on the route.

7.27 Figure 7.3 below confirms the proposition that there is some relationship between average fares levels and the competitiveness of a market, measured using the Herfindahl index, on the routes that we have analysed. The Herfindahl index is a measure of market concentration, defined as the sum of the squares of the market shares of each participant in the market (in this case, we have used the number of seats flown by each airline, in comparison with seats flown by all airlines on the route, as a proxy for market share). A monopoly market has an index of one, while a highly competitive market has an index tending to zero.

**FIGURE 7.3 RELATIONSHIP BETWEEN COMPETITION AND FARE LEVELS ON EACH ROUTE**



7.28 The R-squared value, a measure of the strength of the relationship calculated using a linear regression, is low reflecting the number of other factors influencing fares on each route and the fact that the sample includes both short and long haul routes with

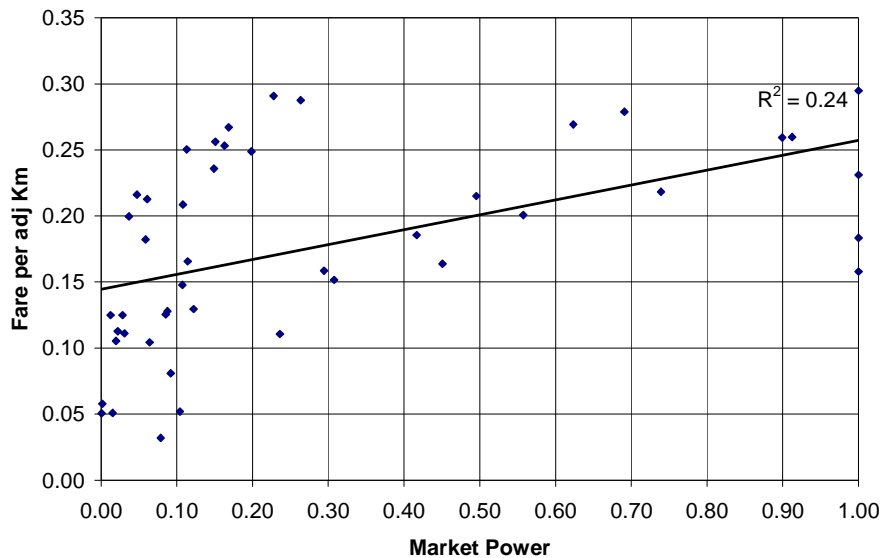
quite different characteristics. Analysis we have previously undertaken for the Commission showed a significantly stronger correlation, but this analysis used intra-EU routes only<sup>1</sup>.

- 7.29 The degree of correlation shown in Figure 7.3 above does not change significantly depending on whether it is assumed, for the calculation of the Herfindahl indices, that the code-share partners are single firms or separate firms. If code-share partners were consistently competing with each other, we would expect that the correlation would be better if the Herfindahl index was calculated on the basis that the firms were operating independently; the fact that this is not the case indicates that the carriers are not always competing. However, this result is uncertain given the low level of correlation.
- 7.30 We have also evaluated the relationship between the market power of each carrier on a route and the fare that it charges. We proxy market power using the square of its market share in terms of seats (so that the sum of the market power indices for all airlines on a route is equal to the Herfindahl index for the route, as defined above).
- 7.31 This analysis shows that there is a reasonably clear relationship between the market power of individual carriers and the fares that they levy; the R-squared value is still quite low if a linear regression is used, but again this is to be expected given the range of other characteristics which will influence fares on each route. This analysis is shown in Figure 7.4 below. This shows market power indices calculated on the assumption that code-share partners act as a single carrier on each route.
- 7.32 The key result is that the correlation is notably better if the code-share partners on each route are treated as a single carrier than as two competing carriers (R-squared value of 0.24 compared to 0.16); the reverse would have been expected if code-share partners competed in the same way as other carriers. The large majority of the code-share carriers offer fares higher than would be expected given their individual market power.

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<sup>1</sup> Transparency of airline tickets, Steer Davies Gleave, report for the European Commission May 2006.

**FIGURE 7.4 RELATIONSHIP BETWEEN MARKET POWER AND FARES CHARGED BY EACH CARRIER<sup>2</sup>**



7.33 The results of this analysis are still not conclusive and in particular, there are too many other factors affecting fares on each route that we have not been able to take into account. These include differences in bilateral air services agreements, market size, and other route-specific characteristics. For example, the time we collected data was late Autumn/Christmas: this is approaching the peak season for travel to Latin America but is not peak season for travel to Canada. However, these results do indicate that code-share agreements may result in higher fares, particularly on routes where competition from other carriers is limited.

**Case studies**

7.34 We have identified the following routes as suitable case studies, in discussion with the Commission.

***Frankfurt - Toronto (Lufthansa and Air Canada ) versus Paris - Toronto***

7.35 Both Lufthansa and Air Canada are members of the STAR alliance and natural code-share partners. Both carriers are strong in their respective home markets and appear to be weak in their partner’s market; there is no natural German market in Canada and no significant Canadian market in Germany.

7.36 To assist sales and reduce distribution costs in their respective ‘away’ markets a code-share deal is an obvious solution. Lufthansa will seek to take a great deal of traffic over Frankfurt from other European points and Air Canada will do the same from

<sup>2</sup> Note: The Brussels-Zurich and Paris-Toronto routes are excluded from this analysis as these individual routes had such a large impact on the R<sup>2</sup> that the result was distorted by including them

Ontario, the Prairies and the West.

- 7.37 In comparison the Paris market with Toronto is comparatively stronger although most of the French market in Canada is to the east in Quebec. There is no natural partner in Canada for Air France as the only international scheduled operator of size is Air Canada. Hence a code-share for the French carrier is not possible.
- 7.38 It is interesting to note that (see below), fare trends on the Frankfurt-Toronto route for the code-sharing carriers have been almost identical, which is not the case on the Paris-Toronto route.

***Amsterdam - Kuala Lumpur (KLM and Malaysian) versus Amsterdam - Bangkok***

- 7.39 Malaysian are as yet unassociated with one of the big three alliances and so can code-share with whomever they can negotiate with. Their two main longhaul competitors are Thai Airways and Singapore Airlines, both in STAR alliance. Neither of these two carriers would be permitted under the STAR alliance rules to code-share with KLM.
- 7.40 Kuala Lumpur is a far smaller market than Bangkok but the airport has invested heavily in promoting itself as a transfer hub, “the Schipol of South East Asia”. Hence, Malaysian and KLM appear to be natural code-share partners.

***London - Helsinki (BA and Finnair) versus London - Stockholm***

- 7.41 The Finnish market has historically been well served by Scandinavian carriers and in particular SAS. Other than Finnish traffic to the Far East, most natural routings out of the country fly over Sweden or Denmark. With SAS’s scale economies they are able to take traffic out of Finland at attractive fares.
- 7.42 Finnair are in oneworld while their neighbours, SAS, are in STAR. The largest partner to Finnair is BA, which has the scale and market to support their Finnish partner. The London to Stockholm route is therefore likely to remain heavily competitive, with both BA and SAS treating it as a key market.
- 7.43 Nevertheless, it should be noted that historical trends in fares for BA and Finnair on the London-Helsinki differ considerably (see below), indicating that the carriers are, to some extent at least, competing with each other.

***Brussels - Zurich (SN Brussels and Swiss) cf Brussels - Vienna***

- 7.44 SN Brussels are keen to develop scale and market presence and code-sharing is a major tactic in their strategy. Swiss have a similar philosophy as, like SN Brussels, they seek critical mass after effectively re-entering the market. Code-shares will therefore drive both carriers forward while they build scale, efficiency and market presence.
- 7.45 Austrian, the only significant international carrier based in Vienna, which, like Swiss, is a member of STAR, probably see little advantage in developing a close relationship with SN Brussels in the way that Swiss has.

**Historical fares trend analysis**

- 7.46 We also looked at historical fares trends for four case studies, using published fares information from ATPCO for the routes concerned. For consistency with the fares analysis presented above, we tracked three fares types: the cheapest fare available; full economy; and business class.
- 7.47 While it was relatively straight forward to track the cheapest fare available it was more complicated to track the full economy and business class fares as different fare classes are introduced and removed during the time series. As a consequence in order to generate a time series for full economy and business fares on some routes we have had to combine a number of different fare classes. This process therefore adds some sampling error to the data and may be a significant factor in explaining the variation in the results.
- 7.48 The tables below show, for each of the four case studies and its comparator route, the average annual change in each of the three types of fares analysed.

**TABLE 7.6 CASE STUDIES - HISTORICAL FARES TRENDS: BUSINESS CLASS FARES**

Business Class		Codeshares		Non-Codeshare	
	Airline	Fare Change - p.a 2002 to 2006	Fare Change - p.a 2002 to 2006	Airline	
Frankfurt-Toronto	Lufthansa	4.8%	4.1%	Air France	Paris-Toronto
Frankfurt-Toronto	Air Canada	4.8%	11.8%	Air Canada	Paris-Toronto
Amsterdam-Kuala Lumpur	KLM-Royal Dutch Airlines	4.3%	4.3%	KLM-Royal Dutch Airlines	Amsterdam-Bangkok
Amsterdam-Kuala Lumpur	Malaysia Airlines	0.0%	0.0%	China Airlines	Amsterdam-Bangkok
London-Helsinki	British Airways	5.4%	2.7%	British Airways	London-Stockholm
London-Helsinki	Finnair	3.7%	4.9%	SAS Scandinavian Airlines	London-Stockholm
Brussels-Zurich	SWISS	8.2%	23.3%	SN Brussels Airlines	Brussels-Vienna
			6.8%	Austrian Airlines	Brussels-Vienna

Note: Due to the availability of data for the Amsterdam to Kuala Lumpur vs Amsterdam to Bangkok case study the average fares change between 2000-2004 has been taken. Also for the Brussels to Zurich vs Brussels to Vienna case study the average fares change between 2003 - 2006 has been taken.

**TABLE 7.7 CASE STUDIES - HISTORICAL FARES TRENDS: FULL ECONOMY CLASS FARES**

Full Economy		Codeshares		Non-Codeshare	
	Airline	Fare Change - p.a 2002 to 2006	Fare Change - p.a 2002 to 2006	Airline	
Frankfurt-Toronto	Lufthansa	4.8%	4.0%	Air France	Paris-Toronto
Frankfurt-Toronto	Air Canada	4.8%	4.2%	Air Canada	Paris-Toronto
Amsterdam-Kuala Lumpur	KLM-Royal Dutch Airlines	-6.9%	-11.4%	KLM-Royal Dutch Airlines	Amsterdam-Bangkok
Amsterdam-Kuala Lumpur	Malaysia Airlines	0.0%	0.0%	China Airlines	Amsterdam-Bangkok
London-Helsinki	British Airways	2.2%	2.9%	British Airways	London-Stockholm
London-Helsinki	Finnair	4.7%	17.5%	SAS Scandinavian Airlines	London-Stockholm
Brussels-Zurich	SWISS	6.3%	5.4%	SN Brussels Airlines	Brussels-Vienna
			5.8%	Austrian Airlines	Brussels-Vienna

Note: Due to the availability of data for the Amsterdam to Kuala Lumpur vs Amsterdam to Bangkok case study the average fares change between 2000-2004 has been taken. Also for the Brussels to Zurich vs Brussels to Vienna case study the average fares change between 2003 - 2006 has been taken.

**TABLE 7.8 CASE STUDIES - HISTORICAL FARES TRENDS: CHEAPEST AVAILABLE FARES**

Cheapest Available Fare					
Codeshares			Non-Codeshare		
Airline		Fare Change - p.a 2002 to 2006	Fare Change - p.a 2002 to 2006	Airline	
Frankfurt-Toronto	Lufthansa	-4.7%	-5.4%	Air France	Paris-Toronto
Frankfurt-Toronto	Air Canada	-4.7%	-9.1%	Air Canada	Paris-Toronto
Amsterdam-Kuala Lumpur	KLM-Royal Dutch Airlines	3.6%	-2.1%	KLM-Royal Dutch Airlines	Amsterdam-Bangkok
Amsterdam-Kuala Lumpur	Malaysia Airlines	0.0%	0.0%	China Airlines	Amsterdam-Bangkok
London-Helsinki	British Airways	-7.2%	-31.7%	British Airways	London-Stockholm
London-Helsinki	Finnair	-18.2%	-0.5%	SAS Scandinavian Airlines	London-Stockholm
Brussels-Zurich	SWISS	-12.3%	-25.8%	SN Brussels Airlines	Brussels-Vienna
			-12.0%	Austrian Airlines	Brussels-Vienna

Note: Due to the availability of data for the Amsterdam to Kuala Lumpur vs. Amsterdam to Bangkok the average fares change between 2000-2004 has been taken

- 7.49 The historical fares analysis presented in the tables above shows that there is some limited evidence that code-share partners have competed less than airlines that do not have a code-share agreement in operation. It is interesting to note that on the Frankfurt to Toronto route Lufthansa and Air Canada have changed all three fare types at the same rate over the 5 years. Generally the fares increases or decreases by airlines on routes with a code-share appear more very slightly more similar than do fare changes on routes where there is no code-share agreement between the main airlines, although, with the exception of the Frankfurt-Toronto route, the differences are not particularly striking.
- 7.50 Historical fares analysis needs, in any case, to be treated with caution, as the actual fare available to customers at time of booking depends very much on the available capacity – when planes are full, cheaper booking classes are closed out, effectively increasing the price. Nevertheless, some general trends, across both code-share and non-code-share routes can be observed.
- 7.51 Fully flexible fares, as shown in Table 7.6 and Table 7.7 above have tended to increase significantly over the last few years, while the cheapest fare available has tended to decrease over time (Table 7.8). This reflects the ability of airlines to differentiate the markets they serve, with time-sensitive customers’ fares rising, while price-sensitive customers’ fares have been falling. Recent literature (Ito and Lee, 2006 – see paragraph 4.22 above) suggests that code-shares may help airlines to differentiate their markets, so these trends are consistent with this – although the fact that non-code-shares also demonstrate similar behaviour implies that it may be due to some other factor.

**Connectivity**

- 7.52 For those case studies involving long haul routes, we have also looked at connectivity compared with the comparator routes (it is not appropriate to do this for the short haul routes which are largely based on point-to-point traffic). To supplement the sample, we have therefore also added an additional route comparison, namely Frankfurt-Singapore (code-share) and Paris-Singapore (non-code-share).

7.53 Code-share agreements may benefit passengers by allowing the code-sharing partners to better co-ordinate their schedules and therefore improve the connection opportunities at hub airports. In order to test this proposition, we compared the number of possible connections at the European and non-European hub airport for the following routes:

- Frankfurt-Toronto vs. Paris (Charles De Gaulle)-Toronto;
- Amsterdam-Kuala Lumpur vs. Amsterdam-Bangkok; and
- Frankfurt-Singapore vs. Paris (Charles De Gaulle)-Toronto.

7.54 By way of example, we compared, for a sample day from the OAG schedule database, the number of daily Air France services from Charles De Gaulle leaving within 1-3 hours of the arrival of Air Canada flight from Toronto with the number of daily Lufthansa services from Frankfurt leaving within 1-3 hours of the arrival of the Air Canada flight from Toronto.

7.55 A greater number of good connections between the Lufthansa flights and the Air Canada flight would provide some evidence that the timetables have been co-ordinated to improve connection opportunities and hence of positive benefits from the code-share between the two airlines.

7.56 It should be noted that if one route has double the amount of flights compared to the comparison route then there needs to be more than double the amount of connections for there to be some evidence of additional connectivity.

7.57 Table 7.9 below shows the number of possible connections within a one to three hour window at each connecting airport.

**TABLE 7.9 CASE STUDIES – CONNECTIVITY OF CODE-SHARE AND COMPARATOR ROUTES**

Connectivity Analysis							
Airport		No. Flight per day by Foreign Airline	Number of Connections	Number of Connections	No. Flight per day by Foreign Airline	Airport	
Frankfurt-Toronto	Frankfurt	2	66	35	1	Charles De Gaulle	Paris-Toronto
Frankfurt-Toronto	Toronto	1	12	11	1	Toronto	Paris-Toronto
Amsterdam-Kuala Lumpur	Amsterdam	1	15	7	1	Amsterdam	Amsterdam-Bangkok
Amsterdam-Kuala Lumpur	Kuala Lumpur	1	15	3	1	Bangkok	Amsterdam-Bangkok
Frankfurt-Singapore	Frankfurt	2	61	27	1	Charles De Gaulle	Paris-Singapore
Frankfurt-Singapore	Singapore	1	8	8	1	Singapore	Paris-Singapore

*Note: there are significantly fewer connection possibilities at Bangkok than Kuala Lumpur airport*

7.58 The table shows that on the code-share and non-code-share routes compared there is little evidence to support the view that there will be more schedule co-ordination between code-sharing airlines. The two daily Air Canada flights from Toronto to Frankfurt have on average 33 possible connections on Lufthansa (Air Canada code-sharing partner) within the 1-3 hour window. This compares to the single daily Air Canada flight into Charles De Gaulle which has a larger number (35 compared to an average of 33) of reasonable onward connections on Air France – with whom Air Canada does not code-share. There is some evidence to support the hypothesis of increased timetable co-ordination on the Amsterdam-Kuala Lumpur and the Frankfurt-Singapore route, although the evidence is marginal.

## Conclusions

- 7.59 Based on the evidence of the capacity and cross-sectional fares analysis, as well as the fares trend analysis taken from the case studies, some tentative conclusions can be drawn.
- 7.60 In principle, we would expect parallel code-share agreements to lead to higher capacity being provided on a route, as the code-share enables airlines to attract connecting passengers; and if the airlines continued to compete for point-to-point passengers on the parallel route, there should be no impact on fares.
- 7.61 In fact, the available evidence indicates that while code-shares may have led to capacity being increased faster, this is not conclusively the case. There is stronger evidence that code-share agreements lead to higher fares for point-to-point passengers, although due to data limitations, this result must also be qualified. As explained above, this could be a consequence of collusion, but could also be a consequence of the displacement of point-to-point passengers by passengers making connecting trips.
- 7.62 Both the capacity analysis and the fares analysis points towards there being more negative implications from code-share agreements on intra-European routes than on long haul routes. This result may occur because:
- Parallel code-share agreements are less likely to expand the range of journey opportunities available on an intra-European route, because there are fewer regulatory restrictions on which airlines can operate services. Therefore, code-share agreements are less likely to lead to higher demand or higher capacity on an intra-European route.
  - Where two carriers code-share on an intra-European route, slot constraints may prevent or limit the entry of new carriers even if the code-share agreement leads to higher fares. This is more of an issue on intra-European routes than long haul routes, because airlines need to obtain more slots, at reasonably even time intervals and at both airports, in order to operate a service; for long haul services, a new entrant usually only needs to obtain one daily pair of slots.
- 7.63 However, while the evidence from the case studies does indicate that in some cases fare levels on code-shares have moved more similarly than on non-code-share routes, the evidence is slight. Furthermore, on some intra-European routes, code-sharing does not appear to have resulted in similar fares behaviour – for example on London – Helsinki, where BA and Finnair historical fares trends are significantly different.
- 7.64 Overall, therefore, the evidence points to code-shares having the potential to result in disadvantages for customers, particularly where other constraints, such as airport slots, help them to act as barriers to entry. The evidence is, however, varied, and each case needs to be considered on its own merits.

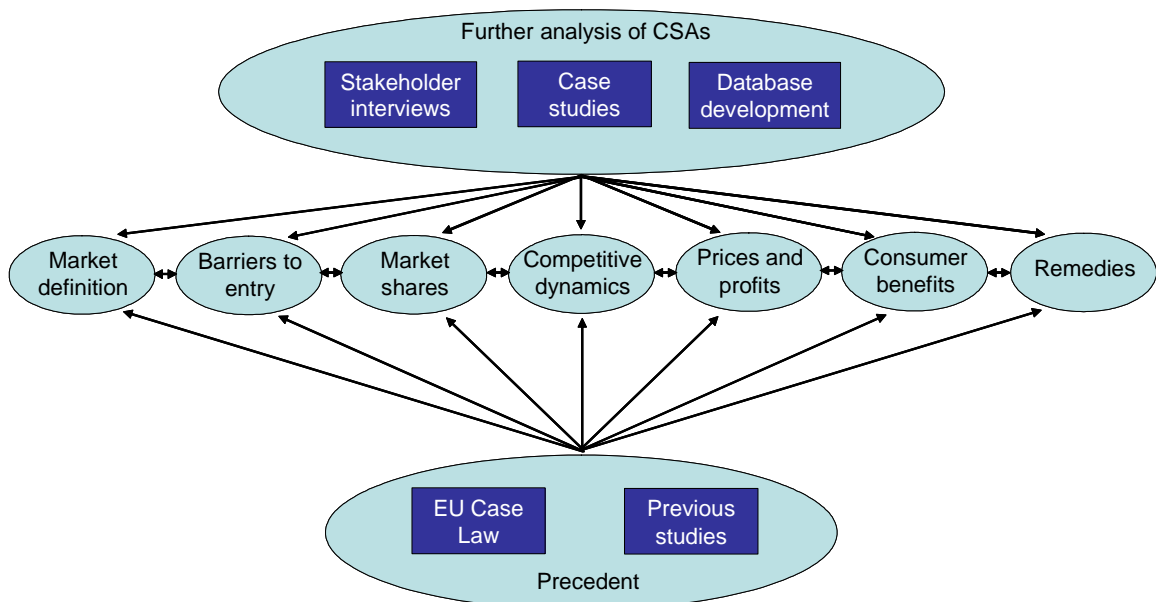


## 8. DEVELOPMENT OF COMPETITION ASSESSMENT FRAMEWORK

### Introduction

- 8.1 In developing the competition assessment framework, we have taken full account of the Commission’s established approach to determining the competitive impact of agreements between airlines (and other undertakings). This begins with the determination of the appropriate market definition and consideration of the extent of any barriers to entry. This, in turn, enables the determination of the market shares of the airlines participating in the agreement, together with those of any other operators serving the market, and consideration of the competitive dynamics likely to arise as a result of the agreement. The assessment concludes with explicit consideration of likely outcomes in terms of prices paid by passengers (and other aspects of the service provided to them) as well as airline profitability.
- 8.2 While we do not anticipate that this basic approach will need to change for the purpose of assessing code-share agreements, it will need to be developed and informed by the analysis undertaken in this study, as well as by relevant case law and the results of previous studies, as shown in Figure 8.1. In this Chapter, we describe the various elements of the assessment framework and their application to code-share agreements, having first drawn out key precedents from previous cases and academic analysis of airline agreements including code-shares.

**FIGURE 8.1 DEVELOPMENT OF COMPETITION ASSESSMENT FRAMEWORK**



- 8.3 In the remainder of this chapter, we consider each element of the Commission’s established approach to investigating competition issues in airline markets and its application to code-share agreements. For context, we first summarise the main characteristics of code-shares identified through the analysis described in previous chapters. The application of the framework to specific types of code-share is discussed in Chapter 9.

### Characteristics of code-share agreements and related airline markets

8.4 The definition and features of code-share agreements have been discussed in some detail in Chapter 3. For the purposes of the competition assessment framework, we have classified code-share agreements in terms of two basic dimensions, the geography of the relevant routes offered to passengers and the features of the commercial agreements between the airlines. In addition, in order to understand the impact of agreements on competition, it is essential to define both the markets that they affect and the characteristics of those markets. Each of these four elements is outlined below.

#### **Geographical classification of code-shares**

8.5 As described in paragraph 3.7, the underlying geography of the routes covered by code-share agreements can be classified into three major types, namely:

- Parallel operation on a trunk route;
- Unilateral operation on a trunk route; and
- Behind and beyond route (connecting to a trunk route service) .

8.6 While any particular code-share agreement may include more than one of these geographical types, we believe that the likely impacts on competition can, *prima facie*, be expected to be significantly different, so that the different cases should be considered separately.

#### **Code-share agreement features**

8.7 Code-share agreements are commercial arrangements between airlines, with a number of features, many of which are available outside of code-shares, but which are effectively provided as a “package” within a code-share agreement. These include access to capacity, pro-ration (determining the allocation of the overall ticket price between different sectors of the flight), commission payments, and coordination of various product features such as schedules, cabin service, operational handling, etc.

8.8 The features of code-share agreements are discussed in more detail from paragraph 3.14 above. Features most likely to be relevant to understanding the competitive impact include:

- Coordination of schedules and capacity (normally only allowed with anti-trust immunity);
- Cooperation with regard to pricing, selling or marketing (generally only allowed with anti-trust immunity);
- Revenue or profit sharing (normally only allowed with anti-trust immunity);
- Discriminatory access to capacity (i.e. favouring code-share partners over other airlines in relation to connecting journeys);
- Discriminatory access to competitive through fares on connecting journeys (i.e. allowing use of more competitive through fares by code-share partners than by other airlines);
- Discriminatory proration provisions (i.e. favouring code-share partners over other airlines);

- Mutual access to Frequent Flyer Programmes (especially when not available to airlines which are not code-share partners); or
- Any exclusivity agreements between the parties, for example preventing them from entering code-share agreements with other airlines.

8.9 Apart from the code-share agreement itself, there may be other related agreements which should be taken into account. These may include:

- Block-space agreements forming part of code-shares;
- Agreements providing for mapping between airlines' reservations booking classes (whether in the code-share agreement or annexes, the SPA or elsewhere);
- Revenue settlement agreements;
- Agreements on the use of the other carrier's fare levels;
- Concurrence within the Multilateral Interline Traffic Agreement (MITA) for use of other airlines' tickets – and in particular, absence of such concurrence for non-code-share partners, or otherwise unfavoured other airlines;
- Special Prorate Agreements (SPAs), and in particular any stipulations on types of fare that may be booked into any reservations booking class, or any fixed amounts payable for carriage on a particular sector in a particular booking class;
- Provisos applied within the Multilateral Proration Agreement (MPA) that may be unattractive to carriers with which the airline does not have an SPA;
- Frequent Flyer Programme agreements and Lounge Access agreements, giving mutual access to the other carrier's FFP or airport lounges, in particular if not granted to other carriers;
- Membership of an Airline Alliance; and
- existence, with anti-trust immunity or with appropriate competition remedies, of a joint venture agreement, involving sharing of revenue and/or costs on a route.

### **Elements of Commission investigation**

#### ***Market definition***

8.10 As noted above, the Commission's approach to defining relevant markets for competition purposes in the air transport sector is now well-evolved. The starting point is the origin and destination city pair.

8.11 As a basic rule, this will include all airports serving a particular city, although there may be exceptions in connection with certain classes of passenger. This basic market definition may be qualified in one or more of the following ways:

- By including services to/from other nearby airports (particularly in the case of longer haul routes);
- By including indirect routings under certain conditions (in the case of longer haul routes); or

- By including surface transport alternatives (in the case of shorter haul routes)<sup>3</sup>.
- 8.12 These qualifications can have important implications for the assessment of individual cases as, for example, they will determine whether flights operated by a low cost carrier serving secondary airports can be considered part of the relevant market. Note that these considerations may be less relevant for connecting journeys, since low cost carriers in general only compete on point-to-point journeys, and do not provide the services needed to facilitate connecting journeys.
- 8.13 Competition between airlines for non-point-to-point passengers can also be an important consideration (for example, a passenger from Columbus Ohio destined for Nice may choose from a variety of different routings involving various different airports/airlines).
- 8.14 There may also be different markets depending on the needs of the passengers, and the Commission has identified that in some cases (particularly for shorter haul routes) there may be a distinction between time-sensitive, flexibility-focused passengers and non-time-sensitive, price focused passengers. These categories do not necessarily correspond with business and leisure travel since, for example, leisure passengers taking weekend and short break holidays will wish to arrive at their holiday destination as quickly as possible.

### **Market shares and barriers to entry**

- 8.15 Once the relevant market has been defined, the next step is to identify which airlines operate in that market and what percentage of the market they have (in terms of passengers, if possible, or if not in terms of capacity). The size and type of airlines operating in the market may also be significant, for example because larger airlines may enjoy a stronger brand presence in the market or be able to deploy capacity more easily in response to a changing market environment.
- 8.16 It is also relevant to identify barriers to entry to the particular market. The principal barriers to entry which may exist are:
- **Regulatory** – i.e. whether traffic rights exist. EU liberalisation means that there are no such barriers to entry by any EU airline on any route within the EU. This may sometimes also be the case with regard to routes to/from non-member states who have concluded a “horizontal” agreement with the EU and/or a liberal air services agreement with a member state, where such an agreement provides for wider and more liberalised traffic rights. In the case of many routes between member states and non-member states, however, there are likely to be significant regulatory barriers to entry from.
  - **Capacity** – the lack of slots at congested airports (such as London Heathrow, Paris CDG and Frankfurt) will provide a serious barrier to entry to routes involving such airports, as may a shortage of terminal facilities at airports

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<sup>3</sup> Previous work by Steer Davies Gleave on air rail competition concluded that rail can compete for a significant share of the market when the total journey time is below 4 hours 30 minutes (*Air and Rail Competition and Complementarity*, Steer Davies Gleave final report to the European Commission, August 2006)

(although this is normally less serious than shortage of slots).

- **Availability of competitive through fares and attractive proration agreements** – barriers may be caused by code-share airlines offering discriminatory terms for connecting journeys, favouring code-share partners over other airlines.
- **Frequent Flyer Programme** - barriers to entry may also be caused by the existence of airlines in the market (particularly larger airlines) with a powerful FFP.

### **Competitive dynamics**

- 8.17 The competitive impact of a code-share agreement will depend to a significant extent on the characteristics described above. Consequently, the first step in the assessment will be to identify the type of agreement in question, with reference to geographical classification. Parallel operation code-shares may well raise competition issues, as may unilateral trunk route operation code-shares where the marketing carrier might be a potential competitor. In general, beyond point (connecting) code-shares are less likely to inhibit competition, particularly where they involve sectors which the marketing carrier would not be legally entitled to operate (as is normally the case), although they can sometimes have the effect of foreclosing sectors to competing airlines previously relying on feeder traffic from one of the code-share partners, particularly if they include special prorate arrangements.
- 8.18 The particular features of the agreement will also be relevant to the assessment. As a general rule, the deeper and more like an alliance the relationship, the more likely it is that competition issues may arise. On the other hand, the more a code-share agreement resembles a traditional interline agreement, the less likely it is to have any negative impact on competition. If the agreement provides for common pricing, agreement on pricing, or revenue sharing arrangements beyond the normal commission/pro-ration arrangements, then there is a strong possibility of anti-competitive effects. Similarly, mutual recognition of FFPs will be another important factor.
- 8.19 Although an agreement may not contain any express provisions on agreement on pricing and/or may expressly provide that the partners may compete on price, such competition may nevertheless be limited in practice. Short of any explicit documentary evidence of collusion, the extent of price competition can only be determined by an analysis of actual behaviour once an agreement has been in operation for some time.
- 8.20 For behind and beyond code-shares, which involve connections, the commercial terms associated with the establishment of through fares, and of the subsequent division of the revenue between the carriers operating the sectors in the itinerary (proration) may or may not be similar to those offered to non-code-share partners. When other airlines are offered terms significantly less attractive than those offered to code-share partners, there may be a negative effect on competition.
- 8.21 Definition of the market will be crucial to any assessment, because an agreement which contains apparently anti-competitive provisions might not have any significant effect on competition if the two parties to it have only a small share of the market.

Moreover, the overall structure of the market and the relative shares of different airlines must be taken into account. Parties to a code-share agreement with a combined market share of, say, 30 per cent, will enjoy different degrees of market power according to whether they compete with one or two airlines with similar shares or a larger number of smaller airlines.

- 8.22 Relevant also for these purposes is the question of existing barriers to entry, most importantly whether there are regulatory constraints (i.e. under bilateral agreements) or physical constraints (i.e. shortage of slots at the airports concerned) to new entry to the route(s) in question. If barriers to entry are high (e.g. the bilateral restricts the number of carriers on the route, or slots are not available at the airports in question), there will be little or no opportunity for new competition, while, on the other hand, if they are low, opportunities for new competition may well mitigate the anti-competitive impact of an agreement.
- 8.23 It is also necessary to consider whether the agreement itself creates barriers to entry, in the light of the nature of the airlines involved and the characteristics of the agreement. A code-share agreement will in most cases create frequency advantage for the parties on overlap routes. Further, a code-share agreement between two national carriers on an international route, particularly of the deeper kind, involving reciprocal FFPs, may create a significant disincentive for any competitor to try to compete with such a powerful presence.
- 8.24 There is a tension between the perceived competitive benefit of code-share arrangements which have permitted smaller carriers to compete and attract traffic on a global scale without having to invest in significant new capacity and routes, and the possibility that they are impeded from ever acting as true competitors with larger airlines since they are confined to operating as feeder airlines in the hub and spoke model. Offering a complementary service does not provide the same degree of effective competition as setting up a competing framework.
- 8.25 One of the main consumer benefits of code-sharing has traditionally been the provision of a seamless service of a consistent quality. However, the goal of consistent service provision may itself harm competition as it creates less of an incentive for carriers to compete on quality and instead to standardise service arrangements. Additionally, the use of exclusive or preferred providers under code-share arrangements may not result in passengers being allocated on the best price basis as they would have been under the traditional interlining system.

### ***Prices and profits***

- 8.26 An assessment of the competitive impact of a code-share agreement may be assisted by an analysis of quantitative data from historical experience in other cases. This involves reviewing the level of fares, capacity and frequencies provided by the parties to the code-share agreement, both before and after their participation in various types of code-share arrangements. Relevant also will be the position with regard to any other carriers on the route, including changes in their behaviour and exit from and entry to the route and changes in their market shares.
- 8.27 For example, where a carrier's fares are higher following its participation in a code-

share agreement and those increases cannot otherwise be explained, there is a presumption increases are arising as a result of the code-share agreement. This is even more so if both parties to the agreement indicate similar increases and fare levels.

- 8.28 As in other competition investigations, it may be appropriate to examine the profitability of airlines participating in the agreement as well as others operating in the same market. However, it is important to recognise that anti-competitive behaviour does not necessarily lead to high levels of profitability, particularly in the airline industry which has historically experienced relatively poor financial performance and has been seriously affected by external factors such as terrorist attacks and fuel price increases.

### **Final assessment**

#### ***Consumer benefits***

- 8.29 It is next appropriate to assess to what extent the agreement may benefit from the exemption provided by Article 81(3). Factors to be taken into account for such purposes are likely to include:

- Scheduling benefits (so that services are operated at regular intervals during the day);
- Assisting the development of new routes, and the operation of thin routes;
- Access to wider FFP and airport lounge benefits;
- More convenient connecting times and arrangements for making connections;
- More extensive international networks, and easier access to them;
- The resources of two carriers to deal with operational problems and disruption arising;
- Giving greater financial strength and security to small airlines; and
- Improvement of product/service quality of one of the partners.

- 8.30 It is in the nature of code-share agreements that those potentially securing the most substantive benefits for passengers might also place the greatest restriction on the commercial freedom of the airlines concerned. For example, an airline might invest in improving the service quality of its code-share partner with a view to promoting services connecting to its own flights. However, in order to secure a return on this investment, it might require some degree of exclusivity, preventing the partner from free-riding on the investment and forming commercial relationships with third parties. Such arrangements, while typically restrictive of competition, may be essential in preserving the commercial integrity of an agreement.

#### ***Remedies***

- 8.31 The Commission's approach to airline alliances and mergers has traditionally been to approve them but, where it finds that competition would be affected, subject to certain conditions or modifications (commonly known as remedies). With the new competition regime in force since 1 May 2004, it is no longer possible for parties to code-share agreements to apply to the Commission for exemption, and it is unlikely that the Commission will very often examine a code-share agreement on its own

initiative. Hence, the parties to an agreement will have to make their own competition assessment of it and, depending on the assessment's conclusions, modify it in one or more ways intended to mitigate anti-competitive effects, taking their lead from the Commission's approach in past cases.

8.32 It will therefore be relevant to consider whether the parties have undertaken any such modification or remedies, and if they are sufficient. Previous decisions by the Commission in connection with airline alliances suggest that appropriate remedies would be likely to take the form of commitments by the parties as to some or more of the following:

- divestiture of slots at congested airports forming part of the relevant market in order to assist a competitor to provide competing services;
- frequency freeze or reduction;
- special prorated agreements with new entrant competitors on terms guaranteeing equal treatment with alliance partners;
- interline and/or code-share agreements with new entrant competitors (including possibly to give access to blocked space);
- access to new entrant competitors to the airline's or airlines' FFP;
- facilitation of intermodal services;
- fare reductions on particular routes; and
- termination of agreements with other carriers.

8.33 In addition, a party may be asked to seek assurances from its government for a declaration to grant fifth freedom traffic rights and not to impose price or capacity restrictions to facilitate new entry on particular routes.

8.34 Again, however, it will be difficult to assess the effectiveness of any undertaking to modify behaviour until the agreement has been put into effect and actual outcomes can be compared with the intention behind specific remedies.

### 9. APPLICATION OF THE FRAMEWORK

#### Introduction

9.1 The purpose of this section is to explain how the competition assessment framework can be applied in practice. When faced with a particular code-share agreement whose competition impact is to be assessed, it is necessary to consider the following fundamental aspects:

- Airlines' motivation for adopting the agreement;
- The regulatory and market context in which it applies;
- The effects, both positive and negative, on customers;
- Potential negative effects on competition (such as market foreclosure, capacity reductions not related to operating efficiency, collusion or implicit collusion on price levels, and discriminatory provisions benefiting code-share partners compared with other airlines; and
- Potential positive effects on competition (such as widening available routes, or flight times, available to the public, broadening choice, and enhancing the ability of smaller airlines to provide competing services against larger network carriers).

9.2 Our proposed framework for investigating these issues with a view to understanding the impact of the agreement on competition, and the implications for further intervention by the Commission, is summarised in Figure 9.1. We suggest that this is fully consistent with the Commission's general approach to investigation of competition issues under Article 81 of the EC Treaty, and that it builds on the established approach to the assessment of airline markets in terms of explicit consideration of:

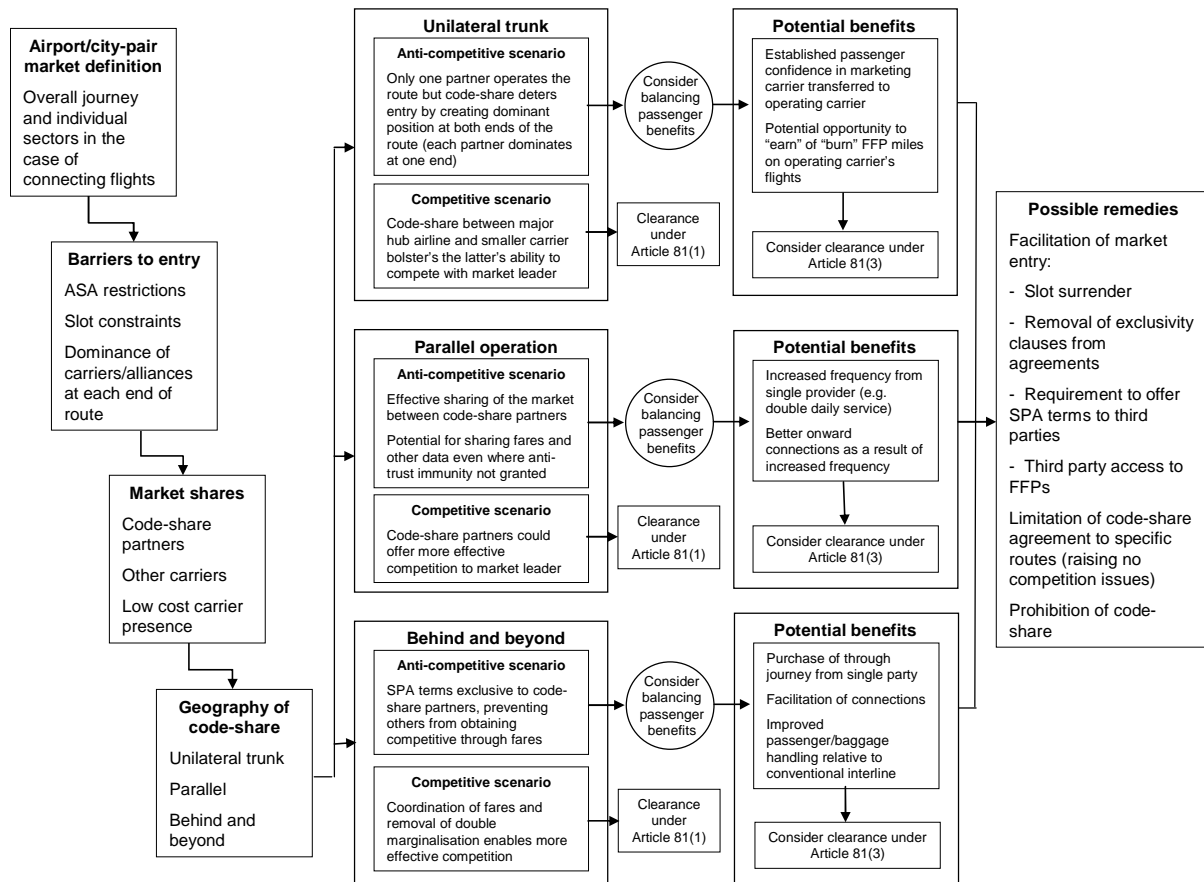
- Airport and city-pair markets;
- The extent of regulatory and other barriers to entry; and
- Market shares of individual airlines, together with the competitive dynamics between conventional carriers and, where they are present on a route, low cost airlines.

9.3 The framework also highlights the need to consider the geography of the code-share agreement before investigating its features in detail, in particular distinguishing between:

- Unilateral Trunk code-shares;
- Parallel Operation code-shares; and
- Behind and Beyond code-shares.

9.4 Consistent with the findings of previous studies of code-shares, we suggest that unilateral trunk and parallel agreements are more likely to raise competition concerns than behind and beyond operations. Nevertheless, our investigation of revenue allocation mechanisms, notably SPAs, demonstrates that these can deter new entry, and consequently the need for case-by-case investigation rather than a general presumption that particular categories of code-share are pro-competitive or benign in their effects.

FIGURE 9.1 SCHEMATIC OF APPLICATION OF COMPETITION ASSESSMENT FRAMEWORK



**Airlines' motivation for code-shares**

9.5 Before considering the impact of different types of code-share, it is useful to consider at the outset the airlines' motivation for entering into a code-share agreement. Improving market reach is the reason most cited by airlines as their motivation. Market reach in this context is the marketing presence of the airline, in terms of consumer awareness, in each of the markets served by the code-share operation.

9.6 Code-shares achieve increased market reach by the ability of the operating carrier's services to be marketed by the marketing carrier through its reservations systems, web-site and agency sales. In general, carriers do not motivate their sales forces to sell onto other carrier's services, so that marketing carriers do not necessarily actively market parallel or unilateral trunk routes operated by the other carrier. However, selling to beyond points on a code-share will be incentivised, since this also involves carriage by the marketing carrier on the connecting sector.

9.7 The regulatory and market context to be considered in relation to market reach should include:

- Regulatory restrictions on access to selling competitively in each market, both by the code-share partners and by other airlines;

- The market share of each of the airlines in each end market; and
  - Practical opportunities for potential competitors to gain a presence in the market in a cost-effective manner.
- 9.8 When a carrier improves its market reach, particularly outside its home market, this means that customers are more likely to be aware of its services through the existence of the code-share. Thus a customer may buy services from a carrier with a strong presence in his or her market, but in the process, in practice pay for the services of the code-share carrier. So long as the customer is made aware, before purchase, that the service in fact operated by a different carrier, this is generally a consumer benefit – the customer has had a service made available of which he or she would otherwise have been unaware.
- 9.9 In this context it should be noted that low cost carriers, which generally do not code-share, regard this additional market reach through code-shares as very much second best to the market reach that LCCs have achieved through direct marketing at both ends of the route. However, LCCs do not benefit from the web of relationships with the travel trade and corporates that enable traditional carriers to achieve significantly higher yields. In the absence of mergers between the code-sharing partners, the increased reach thereby achieved may be of a different kind (i.e. reaching a different market segment) from that targeted by LCCs.
- 9.10 Increased market reach for a code-sharing carrier is only likely to have anti-competitive effects if it is achieved in an exclusive or discriminatory way, thereby preventing other carriers from offering competing services. To the extent that increasing market reach enables customers to receive a service of which they would otherwise be unaware, increased market reach is likely to have, if anything, a positive effect on competition.

### **Features specific to the different geographical variants**

#### ***Unilateral trunk operation code-shares***

- 9.11 When a carrier markets a point-to-point route from its home market operated by another carrier (and which it itself does not operate), it thereby widens the offer of destinations that it, apparently, serves. The marketing airline does not receive any flown revenue for such sales, though it is likely to receive a code-share commission (which in some cases can be a significant percentage of the revenue, possibly up to 20%, though usually much lower than this). However, the carrier, while not necessarily gaining much revenue from the code-share, may be able to save significant costs since it does not need to mount any capacity to serve the destination.
- 9.12 The marketing carrier may thereby gain a number of benefits. It may be able to offer FFP miles to its passengers using the marketing flights, and if there is an FFP agreement with the operating carrier, it may be able to allow customers to redeem miles on these services as well, thereby improving the overall attractiveness of the airline, particularly to business customers. There may also be reciprocal benefits if, for example, the airline acts as operating carrier on other routes, with the other carrier marketing onto its services.

- 9.13 Regulatory conditions should play an important part of assessing the likely impact of such arrangements. In some cases, marketing code shares, often on a block space basis, are required under ASA conditions, in order to permit the operating carrier to serve the other country. In other cases, the ASA may restrict other carriers from operating on the route, in which case this kind of arrangement permits the two carriers to share the market, while mounting lower capacity than otherwise would be the case if both operated.
- 9.14 Even with more liberal ASAs, slot constraints at the relevant airports may prevent other carriers from entering the market leading to similar effects. More generally, even if regulatory conditions permit other carriers to enter, where a unilateral code-share is the only service in the market, the two carriers effectively share the market.
- 9.15 For customers, the benefits of such unilateral code shares are relatively limited, in that no new direct services, or new connections, are made available, compared with a direct purchase from the operating carrier. However, the customer may have a relationship with the marketing carrier, either in terms of confidence in its product, or more directly through membership of the FFP, in which case being able to purchase from the marketing carrier will be considered a benefit.
- 9.16 The effects on competition of such unilateral code shares are potentially serious. In cases where the operating carrier is the only carrier on the route, whether for regulatory or infrastructure reasons, or because the route is relatively thin, the effect is that the market is shared between the marketing and operating carrier. If without the code-share the market would have belonged solely to the operating carrier, this may not be considered to represent any reduction in competition (indeed the reverse). However the effect may be to foreclose the market from a third airline that might otherwise have considered mounting a competitive operation, because instead of competing against one airline with a dominant position at one end of the route, it may now need to compete against two, each with a dominant position at one of the two ends. This is particularly the case if the two carriers also cooperate on FFPs.
- 9.17 Conversely, where an operating carrier is in direct competition with another airline on the route, particularly one that has a strong market presence in one of the end markets, a unilateral code share marketed by another airline with a strong presence at this end of the route, may help to improve the competitiveness of the operating carrier on the route, so strengthening competition.

### ***Parallel operation code-shares***

- 9.18 In a parallel operation code-share, both carriers operate the same route, and both put their own codes on the other's operated flights, in addition to their own. In this situation, each carrier gains revenue from its own operated flights, and it may additionally gain code-share commission on its marketing flights, although in many cases, the carriers agree to waive this commission since it is likely to balance out. As with the unilateral code-share, while the immediate revenue benefits may be slight, each carrier is able, apparently, to offer more services, without mounting additional capacity.
- 9.19 The regulatory and market conditions can be considered in a similar way to that for

unilateral code-shares. Where regulatory constraints or infrastructure constraints (especially airport slots) prevent other carriers from accessing the market, the route is divided up between the two carriers, who have a form of cooperation agreement (i.e. the code-share). Even where there are other carriers operating, the two code-sharing carriers may have a high market share between them, and may be considered to be acting as a *bloc* even if they formally compete.

- 9.20 The benefit to customers from parallel operation code-shares comes from increased available frequency from a single provider (since either airline can sell both airlines' services). In discussions, airlines often cited routes where each operated once per day but where, in combination, they provided a double-daily service (which is of course much more attractive to business people on short-haul routes, permitting day trips).
- 9.21 A further benefit is that, by increasing the frequency on the route (on any one airline code), better connections may be provided to connecting flights that one of the airlines provides. For example, an inbound flight to carrier A's hub in the morning, operated by carrier B, with which it has a code-share, may provide good connections to A's outbound flights to destinations, whereas the inbound evening flight, operated by A, may not connect well to A's other services.
- 9.22 As with unilateral code-shares, the effect on competition is potentially serious. Where the market is restricted due to regulatory or slot constraints, the route is shared between the two carriers. With a code-share agreement in place, ensuring a level of cooperation between the parties, the opportunities for genuine competition may be limited, whereas the temptation to exploit a (joint) dominant position may be large.
- 9.23 It should be noted that many parallel operation code-shares (in liberal aviation markets at least) have been granted anti-trust immunity in one form or another, and are often operated as joint ventures. In such cases, the relevant competition authority has clearly taken the view that the close cooperation is beneficial to the market (given whatever remedies have been imposed in return for the immunity); in contrast, where anti-trust immunity has not been granted, but a parallel code-share is being operated, the assumption must be that genuine competition between the two carriers is necessary, for example on prices, yet at the same time, is compatible with the code-share agreement.
- 9.24 The difficulties for third airlines to compete in such markets may therefore be considerable. The two code-share partners may offer higher frequency between them, and may be more attractive both to customers, and to other airlines looking for services that connect to their own, compared with the non-code-share airline. In addition, where the code-sharing airlines also share FFPs, each of their offers is thereby strengthened, which again may be hard for others to compete against (third carriers may not be willing to share FFP information with the code-share partners, even when competition authorities insist on their being granted this opportunity as a competitive remedy).
- 9.25 Despite the dangers of anti-competitive effects of parallel code-shares, the consumer benefits can, as noted above, be genuine. The risk to competition is obviously lower when the two carriers concerned have a relatively low market share, but in the more usual case where the joint market share is high, it is likely that competitive remedies,

safeguards, or at least a watching brief, will be needed to ensure that these consumer benefits are achieved without disadvantages (such as higher than competitive fare levels) being imposed on customers.

### ***Behind and beyond code-shares***

- 9.26 In a behind and beyond code-share, passengers are offered a journey involving a connection on a single airline code, even though at least one sector is operated by a different carrier. In the normal situation, the trunk route carrier puts its code onto the shorter, connecting flight to points “beyond” the other carrier’s hub (e.g. Lufthansa puts its code on a domestic US flight, or Delta puts its code on an Air France European sector). Behind and beyond code-shares represent the majority of code-share operations, and have the effect of massively increasing the number of destinations served by a trunk carrier away from its home market; conversely, for the connecting carrier, passenger feed is provided to help fill its short-haul services.
- 9.27 The processes involved in a behind and beyond code-share are much more complicated than those of either unilateral or parallel operation code-shares. A behind and beyond code-share involves:
- Interlining between the two airlines;
  - The establishment of a through fare between the origin and destination;
  - Proration of the fare revenue between the two carriers; and
  - Availability of seat inventory in the appropriate booking classes on both classes.
- 9.28 These processes are discussed in some detail in Chapter 3 above, but all of them need to be considered in the context of their potential competitive impact. These are considered below, following discussion of the regulatory and market context, and of the benefits of behind and beyond code-shares for customers.
- 9.29 The regulatory context for behind and beyond code-shares is important. In many cases, the trunk carrier will require traffic rights (or at least code-share rights) to the final destination of the journey, but very often does not have traffic rights to carry “local traffic” over the connecting sector. These kinds of restrictions, usually on the basis of nationality (although this does not of course apply within the EU) prevent consolidation of the industry, which if it were to occur, might dramatically reduce the need for this type of code-share arrangement.
- 9.30 The most important aspect of the market context for considering this type of code-share is the collective market share, between origin and destination, of the carriers in question. Even when this market share is high on the particular route flown between origin and destination that they fly, there may be alternative routes via different hubs on other airlines, so that the market share between origin and destination may often be lower than is typical in “local” markets (i.e. those with direct flights between origin and destination).
- 9.31 Behind and beyond code-shares were originally conceived in response to CRS display rules that gave preference to “online” connections, i.e. those using the services of only one carrier. By putting another code on a behind-point flight, the connection from the

trunk carrier's flight could be made to appear to be "online", and hence would appear above any normal interline connections. From the customer perspective, the ability to buy connecting journeys on a code-share provides a number of advantages:

- A one-stop shop to purchase the whole journey (although it is possible to buy interline journeys via one airline, in such cases the ticketing carrier acts only as agent, whereas in a code-share journey, it is the principal for the whole transaction);
- Availability of a suitable "through" fare between origin and destination;
- Comfort that arrangements have been put in place to facilitate connections between the airlines, such as through baggage handling, procedures to handle disruption, etc.;
- Comfort that the airline from whom the ticket is purchased (i.e. the marketing carrier), with which the customer may be familiar, is willing to extend the use of its brand to the other carrier (with which the customer may not be familiar).

- 9.32 There is thus no doubt that code-shares provide benefits to customers over and above that provided purely by interlining, even though the processes that underpin interlining do, theoretically, permit almost all of the standard features of code-shares, because in practice these features are not always achieved under interlining, whereas they are guaranteed under code-sharing.
- 9.33 The competition impact of behind and beyond code-shares will of course depend on the market share of the carriers involved, and where routes via alternative hubs exist this may not be particularly high, so dampening any anti-competitive concerns. Nevertheless, behind and beyond code-shares can be associated with practices which may be discriminatory to competitors outside the code-share, and hence, potentially, damaging to competition.
- 9.34 The principal area of concern relates to the availability of suitable through fares (i.e. between origin and destination of the full connecting journey), and the associated division of the fare between the carriers transporting the passenger on the journey. When airlines code-share, they invariably create carrier-coded through fares which are competitive in the marketplace (i.e. attractive to customers). They also tend to establish a proration agreement with the partner airline that gives each airline a suitable share of the fare revenue, often through the establishment of a special prorate agreement (SPA). Although the proration methodology varies, with some airlines using straight-rate proration (based on weighted mileage), either within the MPA or specified in an SPA, while others have fixed monetary amounts, airlines will only agree to a code-share when the proration shares, however established, are attractive to them.
- 9.35 The competitive problem may arise if similar terms are not made available to other carriers outside the code-share, which operate services over which an interline journey between the same origin and destination would be possible. Carriers may not accept a through fare established by a non-code share partner (and may refuse to interline if the other carrier tries to insist its fare be accepted), leaving the other airline to "construct" a fare based on the sum of the two connecting sectors (the standard industry procedure in the absence of an available through fare). Such a constructed fare, which may need to use the IATA-established "industry" or "YY" fare, is likely to

be uncompetitive in the market place.

- 9.36 A different tactic would be for a carrier to establish favourable proration terms (via an SPA) with its code-share partner, but leave other carriers to accept the amounts provided under the industry MPA. Since the MPA tends to give the shorthaul carrier insufficient revenue in relation to its cost (often even when a proviso is established), shorthaul carriers without a favourable SPA are effectively excluded from carrying connecting traffic fed from a longhaul route on an economic basis.
- 9.37 A carrier may decide to allow its code-share partner access to the full range of its booking classes, but only make available a subset of these (presumably at higher yields) to other carriers, again preventing them from offering competitive combined interline products.
- 9.38 Finally, a carrier may simply decide to make its code-share agreement exclusive, so that the other carrier is not permitted to seek alternative partners. This obviously restricts the potential for the other carrier to make different arrangements that might add to competition between the same origin and destination.
- 9.39 In any of these cases, code-share partners with a large market share in a particular origin-destination market, may thereby prevent effective competition, with the concomitant implications for levels of capacity and price. Therefore, while behind and beyond code-shares are undoubtedly often beneficial for customers, in certain situations the behaviour of carriers within code-shares may prevent the full benefit of the arrangement being passed on to the consumer.

### **Associated and deeper inter-airline agreements**

- 9.40 Code-share agreements are often associated with or accompanied by other agreements between airlines (see 5.23 above), and it is important to take these into account for the competition assessment.
- 9.41 One very important type of associated agreement is a Frequent Flyer Programme agreement. This will allow each carrier's passengers to earn, and sometimes to redeem, FFP points on the other's services. This makes the combination of carriers much more attractive to business passengers, and hence may make it harder for competitors to break into such a market. It is for this reason that competitive remedies relating to code-shares and joint ventures often include the stipulation to allow a competitor also to share in the FFP arrangement. However, airlines regard these remedies as ineffectual, as they be unwilling to share FFP data with the code-share partners, or they may simply not have an equivalent type of scheme (this would apply to low cost carriers, in particular).
- 9.42 Membership of alliances is also intimately bound up with code-sharing. Alliances generally discourage (or prevent as a condition of membership) code-shares with members of other alliances (although pre-existing code-shares may be allowed to continue after the carrier joins the alliance). Therefore, membership of an alliance brings a type of exclusivity to code-share agreements, even when this is not specified within the agreement itself. Furthermore, alliance membership tends to require sharing of FFP mileage between members, so any of the potential negative

competition effects when code-shares are associated with FFPs will apply to code-shares with alliances.

- 9.43 Finally, joint ventures, which generally require anti-trust immunity, tend to include code-sharing as one element of the venture. JVs also include cooperation on scheduling and pricing, and hence potentially have much greater competitive effects than does code-sharing on its own.



### 10. CONCLUSIONS

- 10.1 Code sharing is a phenomenon that has grown rapidly in recent years across the industry, not least in markets served by EU-domiciled airlines. The growth rate of code-share capacity by EU-domiciled airlines is broadly in line with overall capacity growth mounted by EU airlines.
- 10.2 Given the overall rapid expansion of the industry which has resumed in recent years (following the downturn after 11 September 2001), the development of the low cost airline model and the significant fall in average fare levels across Europe, it should not be expected that airline code-shares will, in general, exhibit results that are overtly anti-competitive. In many cases, routes with code-shares have shown increasing capacity and decreasing fares, although the evidence appears to suggest that in some cases, code-share partners on parallel operated routes do not compete as much as occurs on similar routes without such arrangements.
- 10.3 In general, code-shares to behind and beyond points are seen by industry stakeholders, including user groups and the travel trade, as advantageous to customers, providing increased destinations and connectivity. Indeed, airlines commonly cite greater network extent and customer reach as their primary motivation for entering into code-share agreements. Parallel operation code-shares are perceived as potentially more of an issue, in that they may deter entry by competitors, although on relatively thin routes airlines contend that they provide better departure time (and consequent connection) opportunities for customers.
- 10.4 Code-share agreements are not, in general, stand-alone documents, and need to be considered in the light of related agreements concerning access to capacity and proration arrangements (often included in Special Prorate Agreements), as well as Frequent Flyer Programme agreements. Although SPAs and FFP agreements can and do exist outside code-shares, where code-sharing takes place, these agreements must also be considered to achieve a realistic picture of the likely effect on demand. In particular, any discriminatory terms in these agreements, applied in favour of code-share partners in preference to other airlines, need to be considered.
- 10.5 This Report has developed a framework for assessing the competitive impact of code share agreements, based on the underlying geography of the agreement (parallel operation, unilateral trunk operation or behind and beyond code-share), the features of the agreement (and importantly of associated agreements), the market definition and market characteristics. Application of this framework, which will differ according to these different circumstances, should help to identify cases where there may be potential anti-competitive effects as a result of the code-share activity.



**APPENDIX A**  
**GLOSSARY OF TERMS**



A1. GLOSSARY

Term	Meaning
Air Service Agreement (ASA)	An Air Service Agreement (also often known as a “Bilateral”) is the agreement between a pair of States, regulating air services between them. They range from very restrictive (specified capacities on specified city-pairs) to very liberal, allowing carriers from each country to fly to any destinations, and to points beyond the country. Rarely do ASAs, however, allow third country carriers to fly between them, or for non-domestic carriers to fly domestic routes (cabotage). The important exception is the EU, which under the Third Package allowed complete freedom for all EU carriers to fly anywhere within the EU.
Anti-trust immunity	Agreement from regulatory authorities that permits carriers to discuss schedules, fares and division of revenues and costs, activities normally prohibited under national and EU competition rules.
ATPCO	Airline Tariff Publishing Company. ATPCO provides a widely-used service for airlines to publish their fares to GDS systems (and to file with regulators where required).
Block space code-share	Code share where the marketing carrier pre-reserves a “block” of seats on the operating carrier’s flight (for which it will subsequently pay, at an agreed rate).
Booking class	Booking classes are the categories by which available seats (seat inventory) are held within the operating carrier’s inventory control system, and which are communicated to reservations systems to permit them to accept or reject bookings. Booking classes (designated by a single letter of the alphabet) are usually associated with particular types of fares, and are intended to correspond to particular levels of yield (revenue per passenger). There is therefore a hierarchy of booking classes, based on yield – however, this hierarchy can differ by airline.
Booking class mapping	A mapping between the booking class designators of two airlines, generally set up so that the yields in each of the “mapped” pairs of booking class designators, are similar.
Carrier code	Each airline has a two-character code (some smaller carriers only have three-character codes as the number of two-character codes is limited) by which it is known in airline-related systems. The code is used before the flight number to designate a particular flight departure time on a particular day of the week to a particular destination.
Carrier designator	Same as carrier code.
Freeflow code-share	Code share where bookings made on the marketing carrier’s code for a flight, in a given booking class, are accepted in real-time from the available seat inventory of the operating carrier, via the booking class mapping.

Frequent Flyer Programme (FFP)	A scheme whereby passengers of an airline enrol with the carrier, and are awarded (“earn”) points, or “miles”, whenever they fly with the airline. When a certain number of points or miles have been accrued by the passenger, he or she is able to redeem (“burn”) these by receiving a free flight (or alternative benefits).
Global Distribution System (GDS)	A GDS, previously known as a CRS (computer reservations system”) is a reservations system independent of any individual airline’s reservations system (and often used by travel agents). The GDS has real-time links with airlines’ individual reservations systems, to allow it to access seat capacity.
Hard block	In a block space code-share, where the commitment on the marketing carrier to reserve, and pay for, a block of seats is unconditional (regardless of how many the marketing carrier is able to sell).
Herfindahl Index	The Herfindahl index is a measure of market concentration, defined as the sum of the squares of the market shares of each participant in the market. A monopoly market has an index of one, while a highly competitive market has an index tending to zero.
Interline Service Charge (ISC)	A payment made by a carrier to another carrier, when the latter sells a passenger itinerary involving a flight on the former. Traditionally, ISC was designed to compensate the selling carrier for travel agents’ commission.
International Air Transport Association (IATA)	The trade association of international airlines, with a wide range of responsibilities, including defining common systems and processes. Historically these included fare setting, interline agreements and proration.
IATA Passenger Service Conference	The structure within IATA for discussing passenger services.
Marketing carrier	In a code-share, the carrier that puts its carrier code (and flight designator), on a flight operated by another carrier.
MITA	Multilateral Interline Traffic Agreement – this agreement, to which a very large number of airlines are party, forms the basis under which airlines are able to issue tickets for travel on itineraries involving the services of other carriers. Airlines have to agree to be in concurrence with each other airline with which they interline, in order for this agreement to take effect.
MPA	Multilateral Prorate Agreement – this agreement, to which over two hundred airlines are party, specifies the default mechanism for dividing international through fares between the carriers used on a particular itinerary. The default mechanism is straight-rate proration, but provisos can also be applied.
OAG	Official Airline Guide. This is the standard industry source for flight schedule information, based on submissions from airlines.
Origin and Destination (O&D)	Origin and Destination airports of a passenger’s complete journey (in distinction to the end points of a flown flight sector).

## Competition Impact of Airline Code-Share Agreements

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Operating carrier	In a code-share, the carrier that operates the flight.
Proration	The procedure for dividing the revenue from a passenger sold a “through fare” between the carriers on which the passenger travels. E.g., if a passenger pays a fare to travel from A to C, but his journey is from A to B on one carrier, and on B to C on another, the fare from A to C is divided between the carriers using proration. The default industry approach is to apportion the fare pro-rata to distance (known as “straight rate proration”), and this is the origin of the term. Note that there are many alternatives to straight-rate proration.
Proviso	An airline can, under the MPA, issue a proviso in relation to a particular flown sector, specifying the amount of money (or percentage of a local fare) that it requires for carrying a passenger on the sector, as part of a particular itinerary. However, provisos are not enforceable when the residual amount (through fare less proviso) is lower than a certain amount (specified in terms of USD per prorate factor mile), and in practice this limits the ability of airlines to specify the minimum revenues that they would like to achieve on particular sectors, under the MPA.
Soft block	In a block space code-share, where the commitment on the marketing carrier to reserve, and pay for, a block of seats is conditional – the marketing carrier is able to return unsold seats up to a pre-agreed number of days before the flight departs. Generally, once these seats have been returned, the remainder do need to be paid for, even if cancelled by the passengers.
Special Prorate Agreement (SPA)	An agreement between two airlines overriding the provisions of the MPA. It specifies how proration will be carried out, based on straight-rate prorations, provisos, or net rates for a given sector and booking class. When associated with a code-share agreement, it may also specify the mapping between booking classes.
Straight rate proration	The default industry approach to proration, which apportions the relevant through fare pro-rata to distance, weighted to take account of the higher costs of shorter sectors.
Ticketing carrier	The carrier issuing the ticket to the passenger. In the case of a code-share journey, this is generally, but not always, the same as the marketing carrier.
YY carrier code	Fares agreed at IATA are sometimes given a pseudo “carrier-code” of YY, to distinguish them from fares established unilaterally by airlines, which bear the airline code.

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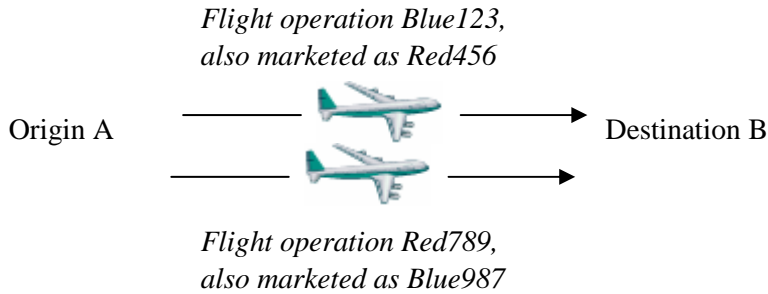


**APPENDIX B**  
**EXAMPLES OF CODE-SHARE FEATURES AND PRACTICE**



**B1. TYPES OF CODE-SHARE OPERATIONS**

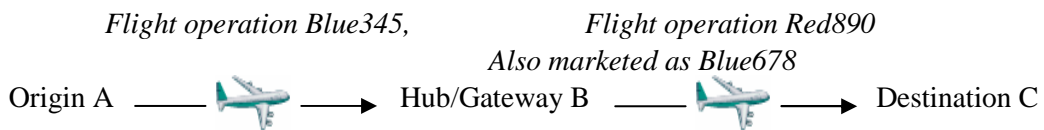
**Parallel trunk route code-share operation**



**Unilateral trunk route code-share operation**



**Behind and beyond code-share operation**



**B2. BOOKING CLASS MAPPING**

B2.1 The table below shows an example of how booking classes may be mapped between the two carriers, based on the average yields of fares in each booking class (shown in descending order of yield). For example, for Carrier Blue, F is full fare First Class, A, is discounted First Class, J is longhaul Business, D is discounted longhaul Business, C is shorthaul Business, S is full Economy, B is slightly discounted Economy, down to Q, which might be for low yield connecting traffic. The corresponding booking classes for Carrier Red are shown in the adjacent column.

<b>Carrier Blue</b>	<b>Carrier Red</b>
F	F
A	F
J	C
D	A
C	C
S	Y
B	N
K	D
V	V
Q	L
etc.	etc.

B2.2 Booking class mappings are specified either in Special Prorate Agreements, associated with the code-share agreements, or within the booking procedures annexe of the code-share agreement itself.

B2.3 In some SPAs, known as net SPAs, the operating carrier specifies particular yield requirements for each booking class, which simplifies the mapping process, since the marketing carrier simply has to decide which of its fares it wishes to allocate to each of the operating carrier’s booking classes (and then maps its own corresponding booking classes for those fares to those of the operating carrier). In other types of SPA, based on traditional proration methodology, more discussion will be needed between the airlines to ensure that the correct fares (providing the operating carrier a suitable yield after proration) can go into the correct booking class.

**B3. EXAMPLES OF CODE-SHARE JOURNEYS AND TRANSACTIONS**

**Example 1 – single sector code-share journey**

B3.1 In this example, a passenger makes a single sector journey, on either a parallel- or unilateral- trunk route operation, for example, travelling on the flight operated by Blue Airlines as Blue234, but booking on Red Airline’s corresponding marketing flight, Red567.

- B3.2 The passenger purchases a ticket from Red Airlines for, say €1,000, the price specified as “fare basis” Y2. This fare type is in Red Airline’s Y booking class. Under the code-share arrangement, this maps into Blue Airline’s S booking class. If seats are available in Blue’s S-class inventory, the booking will be accepted (this involves real-time communication between the booking systems of Blue and Red Airlines, possibly via a CRS system). The passenger is then issued a ticket by Red Airlines for flight Red567.
- B3.3 The passenger arrives at the airport and checks in (with Blue Airlines, the operating carrier) for flight Blue234. Blue Airlines collects the passenger’s ticket coupon for the flight (in practice, this may be a virtual process using electronic tickets and coupons).
- B3.4 Blue Airlines now presents the (possibly virtual) coupon for the flight to Red Airlines (via a Clearing House operated by IATA), based on the industry standard MITA rules, or a bilateral agreement between the airlines, if appropriate. In general, Red Airlines (which received the monies for the fare from the passenger) will pay Blue Airlines (the operating carrier) the face value of the ticket, with deductions as follows:
- Interline Service Charge (ISC) – to cover traditional sales commission costs paid by airlines, but may be a different amount (or absent), depending on the agreement between the airlines;
  - Code-share Commission – this is an amount, over and above ISC, which may be paid to the marketing carrier to incentivise it to sell onto the flight operated by Blue Airlines. Code-share Commission may not always be paid, depending on the agreement; or
  - As an alternative, the agreement between the airlines may be based on a net amount, different from (and generally lower than) the fare paid by the passenger, depending on the booking class into which the passenger was booked (this is more common in behind and beyond code-shares). In this case, it is likely that no code-share commission will be paid.

### **Example 2 – passenger travelling on a connecting journey**

- B3.5 In this example, the passenger makes a connecting journey, travelling from the Origin A, via a gateway destination B, to a “behind point” C. The passenger flies on Blue Airlines from A to B, and on Red Airlines from B to C. An example would be a passenger flying on British Airways from London Heathrow to Dallas, and then on American Airlines from Dallas to Albuquerque.
- B3.6 In a normal “interline” situation, the passenger would book onto flight Blue345, and then Red890. However, in a code-share, the passenger books the whole journey on Blue Airlines, firstly on flight Blue345 and secondly on (marketing) flight Blue678.
- B3.7 Whereas in the interline situation, the through fare from A to C may need to be “constructed” from the component airline fares, or on interlinable “YY” fares agreed at IATA, in the code-share case, Blue Airlines will create a fare specifically for the journey A to C (based on whatever it feels is appropriate for the market in question).

This fare may have a “fare basis” code (e.g. QAPX), requiring booking to a specific booking class (class Q in the example given).

- B3.8 In order for the passenger’s booking to be accepted, seat inventory needs to be available on both sectors of the journey. For AB sector on Blue345 (operated by Blue Airlines), the booking system simply checks whether inventory is available in Q class. For the BC sector, on Blue678, the booking system must communicate with the Red Airlines system, and check whether inventory is available in L class (the Red class that maps to Blue’s Q class) on Red Airlines’ flight Red890. The passenger will be issued a ticket (usually electronic) with coupons to cover each flight sector (again, generally in electronic format). The ticket will show the fare basis code (QAPX in this example) and the gross fare (say €1,000) for the end-to-end journey.
- B3.9 On the first flight (AB), Blue Airlines will collect the coupon (in practice an electronic process) for that sector; on the second flight, Red Airlines will collect the coupon for the BC sector. In order to calculate the amount of money owing to Red Airlines, the end-to-end fare of €1,000 must first be “prorated”, a process that occurs whenever two airlines are involved in the carriage of a passenger on a connecting journey with a through fare, whether or not a code-share is applicable.
- B3.10 The proration calculation depends on the agreements between the airlines. The default calculation is the industry-standard, the Multilateral Prorate Agreement (MPA). Under this agreement, there are two possibilities:
- Straight-rate proration, under which the fare is divided, pro-rata to distance (hence the name, “proration”); or
  - By application of a “proviso”, a provision that an airline can apply within the MPA, with certain restrictions. An airline that applies a proviso states that it must receive a minimum amount for carrying the passenger. There are various exceptions that mean that this amount can vary in certain circumstances.
- B3.11 As an alternative to the MPA, the airlines can sign a Special Prorate Agreement (SPA), which is very common for airlines that enter into code-share agreements (though not a necessary condition), but which is not restricted to code-shares. Under the SPA, the end-to-end fare can also be divided in different ways, including:
- Straight-rate proration (as per the MPA); and
  - Net rates for each booking class. In this scenario, the operating carrier on the code-share flight specifies a given amount of money it should receive for carrying the passenger booked by the marketing carrier (e.g. €200 for a passenger booked into L class, €300 for a passenger in Y class, etc.). Unlike the case of a proviso under the MPA, there are no exceptions to this rule.
- B3.12 Once the proration calculation has been undertaken, the amount of revenue due to Red Airlines for carrying the passenger on sector BC is known. There may or may not then be further payments, this time to compensate Blue Airlines for the effort in selling the seat. As with the single sector case, these may include:
- Interline Service Charge (ISC), pro rata to the proportion of the fare due to Red Airlines for its portion of the journey (BC) ; and/or

- Code-share Commission, as agreed by the carriers.

B3.13 Once these calculations are complete, the relevant revenue due to Red Airlines, less ISC and code-share commission, as applicable, is paid by Blue Airlines, via the Clearing House.



**APPENDIX C**  
**LITERATURE LIST**



**Literature List**

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## **APPENDIX D**

### **INVENTORY OF EU AIRLINES CODE-SHARE ROUTES**

Report for European Commission, DG Competition

Client Contract Number D/1520 - HT637 - Code Share Study - COMP/2006/D2/006/Si2.441659

Prepared by Steer Davies Gleave

SDG Project Reference 207016

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
Adria Airways	Slovenia	LOT Polish Airlines	Poland	Ljubljana Slovenia Athens (Intl) Greece Rome(Fiumicino) Italy	Warsaw(F. Chopin) Poland Rome(Fiumicino) Italy Genoa Italy Milan(Linate) Italy Palermo Italy Turin Italy
		Lufthansa German Airlines	Germany	Athens (Intl) Greece	Frankfurt Germany Munich(Intl) Germany
Air Austral	France	Air Mauritius	Mauritius	Mauritius	St. Denis De La Reunion Ind. Oc.
Air Berlin	Germany	NIKI	Austria	Fuerteventura Canary Is. Ibiza Spain Lanzarote Canary Is. Lisbon Portugal Malaga Spain Nuremberg Germany  Palma Mallorca Spain  Paris(Charles De Gaulle) France Tenerife(Sofia) Canary Is.	Vienna Austria Vienna Austria Vienna Austria Palma Mallorca Spain Vienna Austria Salzburg Austria Salzburg Austria Vienna Austria Salzburg Austria Vienna Austria Nuremberg Germany Vienna Austria
Air Caraibes	France	LIAT	Antigua and Barbuda	Barbados Ft. De France Martinique	Ft. De France Martinique St. Lucia(Vigie) West Indies
Air Dolomiti	Italy	Augsburg Airways	Germany	Bari Italy Bologna Italy Florence Italy Munich(Intl) Germany	Munich(Intl) Germany Munich(Intl) Germany Munich(Intl) Germany Milan (Malpensa) Italy Olbia Italy Pisa(Galileo) Italy Turin Italy
		Eurowings Luftverkehrs	Germany	Bari Italy Bologna Italy  Dusseldorf(Intl) Germany Frankfurt Germany  Munich(Intl) Germany	Munich(Intl) Germany Frankfurt Germany Munich(Intl) Germany Turin Italy Turin Italy Venice Italy Milan (Malpensa) Italy Naples(Intl) Italy Turin Italy
		Lufthansa Cityline	Germany	Bari Italy Bologna Italy  Cagliari Italy Dusseldorf(Intl) Germany Florence Italy  Frankfurt Germany  Genoa Italy Munich(Intl) Germany	Munich(Intl) Germany Frankfurt Germany Munich(Intl) Germany Munich(Intl) Germany Turin Italy Frankfurt Germany Munich(Intl) Germany Turin Italy Venice Italy Verona Italy Munich(Intl) Germany Milan (Malpensa) Italy Naples(Intl) Italy Olbia Italy Pisa(Galileo) Italy Turin Italy Venice Italy
		Lufthansa German Airlines	Germany	Bari Italy Bologna Italy Frankfurt Germany  Munich(Intl) Germany	Munich(Intl) Germany Frankfurt Germany Milan(Linate) Italy Turin Italy Venice Italy Verona Italy Milan (Malpensa) Italy Naples(Intl) Italy Pisa(Galileo) Italy Turin Italy Venice Italy
Air Europa	Spain	Air France	France	Barcelona Spain Madrid Spain Malaga Spain Paris(Charles De Gaulle) France	Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France Newcastle England UK Valencia Spain
		Continental Airlines	USA	Newark/New York(Liberty) NJ USA	Houston(G. Bush Intl) TX USA
		Conviasa	Venezuela	Caracas Venezuela	Madrid Spain
		Cubana Airlines	Cuba	Havana Cuba	Madrid Spain
		Iberia	Spain	Guayaquil Ecuador Madrid Spain	Madrid Spain Quito Ecuador
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Madrid Spain
		Portugalia	Portugal	Barcelona Spain  Bilbao Spain	Lisbon Portugal Porto Portugal Lisbon Portugal
		Travel Servis	Switzerland	Madrid Spain	Prague Czech Rep.
		Tunis Air	Tunisia	Barcelona Spain Madrid Spain	Tunis Tunisia Tunis Tunisia
Air France	France	Aeroflot Russian Airlines	Russia	Paris(Charles De Gaulle) France	Moscow(Sheremetyevo) Russian Fed.
		Aeromexico	Mexico	Paris(Charles De Gaulle) France	Mexico City(Juarez) Mexico
		Air Caledonie Internation	France	Noumea(Tontouta) New Caledonia	Tokyo(Narita) Japan
		Air Europa	Spain	Barcelona Spain Las Palmas(Gran Canaria) Canary Is. Malaga Spain Paris(Charles De Gaulle) France Paris(Orly) France	Tenerife(Sofia) Canary Is. Madrid Spain Paris(Charles De Gaulle) France Valencia Spain Sevilla Spain
		Air Mauritius	Mauritius	Paris(Charles De Gaulle) France	Mauritius
		Air Tahiti Nui	French Polnesia	Paris(Charles De Gaulle) France	Papeete French Polnesia
		Alitalia	Italy	Lyon(St. Exupery) France Milan (Malpensa) Italy Paris(Charles De Gaulle) France	Milan (Malpensa) Italy Strasbourg France Milan (Malpensa) Italy Milan(Linate) Italy Rome(Fiumicino) Italy
		Austrian Airlines	Austria	Paris(Charles De Gaulle) France	Vienna Austria
		CCM Airlines	France	Bastia Corsica France	Lyon(St. Exupery) France
		China Eastern Airlines	China	Paris(Charles De Gaulle) France	Shanghai (Pu Dong) China
		China Southern Airlines	China	Guangzhou China	Paris(Charles De Gaulle) France
		Czech Airlines	Czech Rep	Barcelona Spain Dusseldorf(Intl) Germany Frankfurt Germany	Marseille France Prague Czech Rep. Prague Czech Rep.

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Paris(Charles De Gaulle) France	Prague Czech Rep.
		Delta Air Lines	USA	Atlanta(Intl) GA USA Paris(Charles De Gaulle) France	Paris(Charles De Gaulle) France Chennai India Cincinnati(Intl) OH USA New York(Kennedy) NY USA
		Finnair	Finland	Helsinki Finland	Kuopio Finland Oulu Finland Tampere Finland Vaasa Finland
		Japan Airlines	Japan	Paris(Charles De Gaulle) France	Tokyo(Narita) Japan
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Paris(Charles De Gaulle) France
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Abu Dhabi(Intl) U.A. Emirates Bordeaux France Lyon(St. Exupery) France Nice France Paris(Charles De Gaulle) France
		Korean Air	South Korea	Paris(Charles De Gaulle) France	Seoul(Incheon Intl) Rep. of Korea
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Paris(Charles De Gaulle) France
		Middle East Airlines	Lebanon	Amman(Intl) Jordan Beirut Lebanon	Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France
		Northwest Airlines	USA	Paris(Charles De Gaulle) France	Detroit(Metro Wayne) MI USA
		Portugalia	Portugal	Paris(Charles De Gaulle) France	Porto Portugal
		Royal Air Maroc	Morocco	Casablanca(Mohammed V.) Morocco	Lyon(St. Exupery) France Toulouse France
		TAROM-Romanian Air Transp	Romania	Paris(Charles De Gaulle) France	Bucharest(Otopeni) Romania
		Tunis Air	Tunisia	Lyon(St. Exupery) France Marseille France Nice France	Tunis Tunisia Tunis Tunisia Tunis Tunisia
		Ukraine Intl Airlines	Ukraine	Paris(Charles De Gaulle) France	Kiev(Borispol) Ukraine
Air Gabon	UK	Inter Air	South Africa	Johannesburg(Intl) South Africa	Libreville Gabon
Air Malta	Malta	Qantas Airways	Australia	Singapore(Changi)	Sydney(Intl) NS Australia
Air One	Italy	Aegean Airlines	Greece	Athens (Intl) Greece	Milan(Linate) Italy Rome(Fiumicino) Italy
		Lufthansa German Airlines	Germany	Munich(Intl) Germany	Naples(Intl) Italy
Alitalia	Italy	Aeroflot Russian Airlines	Russia	Milan (Malpensa) Italy	Moscow(Sheremetyevo) Russian Fed.
		Air Alps Aviation	Austria	Ancona Italy  Bolzano/Bozen Italy Genoa Italy Milan (Malpensa) Italy  Rome(Fiumicino) Italy	Milan (Malpensa) Italy Rome(Fiumicino) Italy Rome(Fiumicino) Italy Milan (Malpensa) Italy Nice France Perugia Italy Pisa(Galileo) Italy Rimini Italy
		Air France	France	Bologna Italy  Bordeaux France Clermont-Ferrand France Lyon(St. Exupery) France  Milan (Malpensa) Italy  Paris(Charles De Gaulle) France	Lyon(St. Exupery) France Paris(Charles De Gaulle) France Rome(Fiumicino) Italy Milan (Malpensa) Italy Milan (Malpensa) Italy Venice Italy Nantes France Toulouse France Florence Italy Milan (Malpensa) Italy Milan(Linate) Italy Naples(Intl) Italy Pisa(Galileo) Italy Rome(Fiumicino) Italy Venice Italy
		Alitalia Express	Italy	Barcelona Spain Bari Italy Catania Italy London(Heathrow) England UK Milan(Linate) Italy	Rome(Fiumicino) Italy Milan(Linate) Italy Milan(Linate) Italy Milan(Linate) Italy Lamezia Terme Italy Madrid Spain Naples(Intl) Italy Palermo Italy Pantelleria Italy Reggio Calabria Italy Milan(Linate) Italy
		ALPI Eagles	Italy	Paris(Charles De Gaulle) France  Athens (Intl) Greece Barcelona Spain Bari Italy  Cagliari Italy  Catania Italy  Lamezia Terme Italy Naples(Intl) Italy  Olbia Italy Palermo Italy Reggio Calabria Italy	Venice Italy Naples(Intl) Italy Milan(Linate) Italy Verona Italy Naples(Intl) Italy Palermo Italy Venice Italy Verona Italy Naples(Intl) Italy Venice Italy Venice Italy Palermo Italy Verona Italy Venice Italy Venice Italy
		China Airlines	Taiwan	Bangkok (Intl) Thailand	Rome(Fiumicino) Italy Taipei(Chiang Kai Shek) Chinese Taipei
		Cyprus Airways	Cyprus	Larnaca Cyprus Rome(Fiumicino) Italy	Milan (Malpensa) Italy Larnaca Cyprus
		Czech Airlines	Czech Rep	Milan (Malpensa) Italy Rome(Fiumicino) Italy	Prague Czech Rep. Prague Czech Rep.
		Delta Air Lines	USA	Atlanta(Intl) GA USA	Baltimore(Intl) MD USA Boston(Intl) MA USA Charleston SC USA Chicago(O'Hare) IL USA Ft. Lauderdale(Intl) FL USA Greensboro/H.Pt/Win-Salem NC USA Kansas City(Intl) MO USA Miami(Intl) FL USA Minneapolis/St. Paul(Intl) MN USA Salt Lake City UT USA San Antonio TX USA San Diego(Intl) CA USA San Francisco(Intl) CA USA Tulsa OK USA

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Boston(Intl) MA USA New York(Kennedy) NY USA	West Palm Beach(Intl) FL USA Cincinnati(Intl) OH USA Milan (Malpensa) Italy Venice Italy Washington(Dulles Intl) DC USA Salt Lake City UT USA New York(Kennedy) NY USA
		Japan Airlines	Japan	Newark/New York(Liberty) NJ USA Rome(Fiumicino) Italy	Tokyo(Narita) Japan Tokyo(Narita) Japan
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Rome(Fiumicino) Italy
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Milan (Malpensa) Italy Milan(Linate) Italy Rome(Fiumicino) Italy
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Rome(Fiumicino) Italy
		Meridiana	Italy	Cagliari Italy	Rome(Fiumicino) Italy
		Portugalia	Portugal	Lisbon Portugal	Milan (Malpensa) Italy Porto Portugal Porto Portugal
		Qatar Airways	Qatar	Milan (Malpensa) Italy Doha(Intl) Qatar	Rome(Fiumicino) Italy
		SN Brussels Airlines	Belgium	Brussels Belgium	Milan (Malpensa) Italy Rome(Fiumicino) Italy Venice Italy
		TAROM-Romanian Air Transp	Romania	Milan (Malpensa) Italy Rome(Fiumicino) Italy	Bucharest(Otopeni) Romania Bucharest(Otopeni) Romania
		Varig S.A.	Brazil	Sao Paulo(Intl) SP Brazil	Milan (Malpensa) Italy
ALPI Eagles	Italy	Alitalia	Italy	Bari Italy Cagliari Italy Catania Italy Milan(Linate) Italy Naples(Intl) Italy Rome(Fiumicino) Italy	Milan(Linate) Italy Venice Italy Rome(Fiumicino) Italy Naples(Intl) Italy Venice Italy Palermo Italy Venice Italy Verona Italy
		Itali Airlines	Italy	Nice France	Venice Italy
Austrian Airlines	Austria	Aeroflot Russian Airlines	Russia	Moscow(Sheremetyevo) Russian Fed.	Vienna Austria
		Air Baltic	Latvia	Riga Latvia	Vienna Austria
		Air Dolomiti	Italy	Bari Italy Munich(Intl) Germany	Vienna Austria Vienna Austria
		Air France	France	Paris(Charles De Gaulle) France	Vienna Austria
		Air Moldova	Moldova	Chisinau Moldova	Vienna Austria
		Augsburg Airways	Germany	Frankfurt Germany	Linz Austria
		Bulgaria Air	Bulgaria	Sofia Bulgaria Varna Bulgaria	Vienna Austria Vienna Austria
		Central Connect AI		Ostrava Czech Rep.	Vienna Austria
		Contactair And CO	Germany	Munich(Intl) Germany	Vienna Austria
		Croatia Airlines	Croatia	Dubrovnik Croatia Pula Croatia	Vienna Austria Zadar Croatia Zagreb Croatia Zagreb Croatia
				Split Croatia Vienna Austria	Vienna Austria Zagreb Croatia
		Egyptair	Egypt	Cairo Egypt	Vienna Austria
		El Al Israel Airlines	Israel	Tel Aviv(Ben Gurion) Israel	Vienna Austria
		Eurolot SA	Poland	Krakow(Balice Intl) Poland Vienna Austria	Vienna Austria Warsaw(F. Chopin) Poland
		Eurowings Luftverkehrs	Germany	Berlin(Tegel) Germany Dusseldorf(Intl) Germany Frankfurt Germany Munich(Intl) Germany Stuttgart(Echterdingen) Germany	Vienna Austria Vienna Austria Linz Austria Vienna Austria Vienna Austria
		Georgian Airways	Georgia	Tbilisi Georgia	Vienna Austria
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Vienna Austria
		Job Air	Burkina Faso	Ostrava Czech Rep.	Vienna Austria
		Lauda Air Luftfahrt	Austria	Zakynthos Greece	Graz Austria Salzburg Austria
		LOT Polish Airlines	Poland	Krakow(Balice Intl) Poland Vienna Austria	Vienna Austria Warsaw(F. Chopin) Poland
		Lufthansa Cityline	Germany	Berlin(Tegel) Germany Dusseldorf(Intl) Germany Frankfurt Germany	Vienna Austria Vienna Austria Linz Austria Vienna Austria Vienna Austria Vienna Austria
		Lufthansa German Airlines	Germany	Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany Stuttgart(Echterdingen) Germany	Vienna Austria Vienna Austria Linz Austria Vienna Austria Vienna Austria
				Berlin(Tegel) Germany Dusseldorf(Intl) Germany Frankfurt Germany	Vienna Austria Vienna Austria Linz Austria Vienna Austria Vienna Austria
				Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany	Vienna Austria Vienna Austria
		Malaysia Airlines	Malaysia	Vienna Austria	Kuala Lumpur(Intl) Malaysia
		MAT-Macedonian Airlines	Macedonia	Skopje Macedonia	Vienna Austria
		Royal Jordanian	Jordan	Amman(Intl) Jordan	Vienna Austria
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Copenhagen(Intl) Denmark	Vienna Austria
		Slovak Airlines	Slovakia	Brussels Belgium	Bratislava Slovakia
		Spanair	Spain	Madrid Spain	Vienna Austria
		SWISS	Switzerland	Vienna Austria	Zurich Switzerland
		SWISS European Air	Switzerland	Vienna Austria	Zurich Switzerland
		Syrian Arab Airlines	Syria	Damascus Syria	Vienna Austria
		TAROM-Romanian Air Transp	Romania	Bucharest(Otopeni) Romania	Vienna Austria
		Ukraine Intl Airlines	Ukraine	Kiev(Borispol) Ukraine Odessa Ukraine	Vienna Austria Vienna Austria
Blue Panorama Airlines	Italy	Cubana Airlines	Cuba	Havana Cuba Rome(Fiumicino) Italy	Verona Italy Havana Cuba
BMI British Midland	UK	Air Canada	Canada	Manchester England UK	Toronto(Pearson Intl) ON Canada
		Air One	Italy	Rome(Fiumicino) Italy	Milan(Linate) Italy
		Eurowings Luftverkehrs	Germany	Dusseldorf(Intl) Germany London(Heathrow) England UK	Manchester England UK Stuttgart(Echterdingen) Germany
		Lufthansa Cityline	Germany	Dusseldorf(Intl) Germany Edinburgh Scotland UK London(Heathrow) England UK	Manchester England UK Frankfurt Germany Stuttgart(Echterdingen) Germany
		Lufthansa German Airlines	Germany	Edinburgh Scotland UK	Frankfurt Germany
		Transaero Airlines	Russia	Moscow(Domodovovo) Russian Fed.	London(Heathrow) England UK
		United Exp/Trans	USA	Oklahoma City(Rogers) Oklahoma USA	Chicago(O'Hare) IL USA
British Airways	UK	Finnair	Finland	Helsinki Finland	London(Heathrow) England UK
		Iberia	Spain	Barcelona Spain	London(Heathrow) England UK

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Bilbao Spain London(Heathrow) England UK	Munich(Intl) Germany London(Heathrow) England UK Madrid Spain
		Qantas Airways	Australia	Auckland New Zealand Bangkok (Intl) Thailand Brisbane QL Australia London(Heathrow) England UK Melbourne(Intl) VI Australia Perth WA Australia Singapore(Changi)	Sydney(Intl) NS Australia London(Heathrow) England UK Sydney(Intl) NS Australia Cairns QL Australia Singapore(Changi) Melbourne(Intl) VI Australia Perth WA Australia Singapore(Changi) Sydney(Intl) NS Australia Sydney(Intl) NS Australia Sydney(Intl) NS Australia Sydney(Intl) NS Australia
		SN Brussels Airlines	Belgium	Birmingham England UK Bristol (Intl) England UK Brussels Belgium	Brussels Belgium Brussels Belgium Glasgow(Intl) Scotland UK London(Gatwick) England UK London(Heathrow) England UK Manchester England UK
Bulgaria Air	Bulgaria	Aeroflot Russian Airlines	Russia	Sofia Bulgaria	Moscow(Sheremetyevo) Russian Fed.
		Air France	France	Paris(Charles De Gaulle) France	Sofia Bulgaria
		Alitalia	Italy	Milan (Malpensa) Italy Rome(Fiumicino) Italy	Sofia Bulgaria Sofia Bulgaria
		Austrian Airlines	Austria	Sofia Bulgaria Varna Bulgaria	Vienna Austria Vienna Austria
		Czech Airlines	Czech Rep	Prague Czech Rep.	Sofia Bulgaria
		El Al Israel Airlines	Israel	Sofia Bulgaria	Tel Aviv(Ben Gurion) Israel
		Hemus Air	Bulgaria	Dubai U.A. Emirates	Sofia Bulgaria
		SN Brussels Airlines	Belgium	Brussels Belgium	Sofia Bulgaria
CCM Airlines	France	Air France	France	Ajaccio Corsica France Bastia Corsica France Calvi Corsica France Figari France	Lille France Nantes France Paris(Orly) France Strasbourg France Toulouse France Lille France Nantes France Paris(Orly) France Strasbourg France Paris(Orly) France Paris(Orly) France
Cyprus Airways	Cyprus	El Al Israel Airlines	Israel	Larnaca Cyprus	Tel Aviv(Ben Gurion) Israel
		Gulf Air	Bahrain/United Arab Emirates/	Dubai U.A. Emirates Larnaca Cyprus	Bahrain Bahrain
Czech Airlines	Czech Rep	Aeroflot Russian Airlines	Russia	Prague Czech Rep.	Moscow(Sheremetyevo) Russian Fed.
		Aerosvit Airlines	Ukraine	Kiev(Borispol) Ukraine	Prague Czech Rep.
		Air France	France	Paris(Charles De Gaulle) France	Prague Czech Rep.
		Alitalia	Italy	Milan (Malpensa) Italy Rome(Fiumicino) Italy	Prague Czech Rep. Prague Czech Rep.
		Bulgaria Air	Bulgaria	Prague Czech Rep.	Sofia Bulgaria
		Croatia Airlines	Croatia	Prague Czech Rep.	Zagreb Croatia
		Finnair	Finland	Helsinki Finland	Prague Czech Rep.
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Prague Czech Rep.
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Prague Czech Rep.
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Prague Czech Rep.
		Pulkovo Aviation Enterprn	Russia	Prague Czech Rep.	St. Petersburg(Pulkovo) Russian Fed.
		SN Brussels Airlines	Belgium	Brussels Belgium	Prague Czech Rep.
		SWISS	Switzerland	Prague Czech Rep.	Zurich Switzerland
		Turkish Airlines	Turkey	Istanbul (Ataturk) Turkey	Prague Czech Rep.
dba	Germany	Germania Fluggesellschaft	Germany	Moscow(Domodedovo) Russian Fed.	Munich(Intl) Germany
Estonian Air	Estonia	Air Baltic	Latvia	Riga Latvia Tallinn Estonia	Tallinn Estonia Tallinn Estonia Vilnius Lithuania
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Stockholm(Arlanda) Sweden	Tallinn Estonia
Eurofly	Italy	Air One	Italy	Bari Italy Rome(Fiumicino) Italy	Milan(Linate) Italy Milan(Linate) Italy
Eurowings Luftverkehrs	Germany	germanwings	Germany	Cologne/Bonn(Intl) Germany	Berlin(Schoenefeld) Germany
Finnair	Finland	Aeroflot Russian Airlines	Russia	Helsinki Finland	Moscow(Sheremetyevo) Russian Fed.
		British Airways	UK	Helsinki Finland	London(Heathrow) England UK
		City Airline	Sweden	Gothenburg(Landvetter) Sweden	Helsinki Finland
		Czech Airlines	Czech Rep	Helsinki Finland	Prague Czech Rep.
		Finncomm Airlines	Finland	Dusseldorf(Intl) Germany Hamburg(Fuhlsbuettel) Germany Helsinki Finland	Helsinki Finland Helsinki Finland Oslo Norway Stuttgart(Echterdingen) Germany
		flyLAL	Lithuania	Helsinki Finland	Vilnius Lithuania
		Iberia	Spain	Stockholm(Arlanda) Sweden	Madrid Spain
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Helsinki Finland
		Pulkovo Aviation Enterpri	Russia	Helsinki Finland	St. Petersburg(Pulkovo) Russian Fed.
		SN Brussels Airlines	Belgium	Brussels Belgium	Helsinki Finland
		Ukraine Intl Airlines	Ukraine	Helsinki Finland	Kiev(Borispol) Ukraine
Finncomm Airlines	Finland	Golden Air Flyg Ab	Sweden	Helsinki Finland	Ivalo Finland
Flybe British European	UK	ScotAirways	UK	Edinburgh Scotland UK	London(City) England UK
FlyNordic	Sweden	Norwegian Air Shuttle	Norway	Stockholm(Arlanda) Sweden	Oslo Norway
Hemus Air	Bulgaria	TAROM-Romanian Air Transp	Romania	Bucharest(Otopeni) Romania	Sofia Bulgaria
Iberia	Spain	Air Atlantia Icelandic	Iceland	Caracas Venezuela	Tenerife(Norte) Canary Is.
		Air Caledonie	France	Cancun Mexico	Madrid Spain
		American Airlines	USA	Madrid Spain Managua Nicaragua Miami(Intl) FL USA	Miami(Intl) FL USA Miami(Intl) FL USA Panama City(Intl) Panama San Pedro Sula Honduras
		Audeli	Spain	Barcelona Spain	Bogota Colombia Buenos Aires(Pistarin) BA Argentina Chicago(O'Hare) IL USA Guayaquil Ecuador Johannesburg(Intl) South Africa Mexico City(Juarez) Mexico Miami(Intl) FL USA Quito Ecuador Rio De Janeiro(Intl) RJ Brazil San Jose(Santamaria) Costa Rica Santiago(Intl) Chile Sao Paulo(Intl) SP Brazil

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Brussels Belgium	Santiago De Compostela Spain
				Caracas Venezuela	Barcelona Spain
				Montevideo Uruguay	Tenerife(Norte) Canary Is.
				San Juan(Intl) PR USA	Barcelona Spain
					Barcelona Spain
					Bogota Colombia
					London(Heathrow) England UK
					London(Heathrow) England UK
					Madrid Spain
					Manchester England UK
					Manchester England UK
					Prague Czech Rep.
					Prague Czech Rep.
					Tel Aviv(Ben Gurion) Israel
					Tel Aviv(Ben Gurion) Israel
					Madrid Spain
					Stockholm(Arlanda) Sweden
					Madrid Spain
					Alicante Spain
					London(Gatwick) England UK
					Malaga Spain
					London(Heathrow) England UK
					Panama City(Intl) Panama
					San Jose(Santamaría) Costa Rica
					Santiago(Intl) Chile
					Santiago(Intl) Chile
					Miami(Intl) FL USA
					Cancun Mexico
					Miami(Intl) FL USA
					Agadir Morocco
					Casablanca(Mohammed V.) Morocco
					Barcelona Spain
					Casablanca(Mohammed V.) Morocco
					Marrakech Morocco
					Laayoune Morocco
					Madrid Spain
					Marrakech Morocco
					Ouarzazate Morocco
					Marrakech Morocco
					Madrid Spain
					Brussels Belgium
					Madrid Spain
					Copenhagen(Intl) Denmark
					Madrid Spain
					Barcelona Spain
					Geneva Switzerland
					Zurich Switzerland
					Zurich Switzerland
					Madrid Spain
					Damascus Syria
					Madrid Spain
					Guatemala City Guatemala
					Miami(Intl) FL USA
					Managua Nicaragua
					Miami(Intl) FL USA
					San Salvador El Salvador
					Miami(Intl) FL USA
					San Jose(Santamaría) Costa Rica
					Panama City(Intl) Panama
					Miami(Intl) FL USA
					San Pedro Sula Honduras
					Miami(Intl) FL USA
					Monterrey Mexico
					Mexico City(Juarez) Mexico
					Amsterdam Netherlands
					Paris(Charles De Gaulle) France
					Amsterdam Netherlands
					Beijing(Capital) China
					Amsterdam Netherlands
					Larnaca Cyprus
					Paphos Cyprus
					Amsterdam Netherlands
					Prague Czech Rep.
					Amsterdam Netherlands
					Nairobi(Intl) Kenya
					Dubai U.A. Emirates
					Nairobi(Intl) Kenya
					Amsterdam Netherlands
					Kuala Lumpur(Intl) Malaysia
					Amsterdam Netherlands
					Budapest Hungary
					Amsterdam Netherlands
					Detroit(Metro Wayne) MI USA
					Memphis TN USA
					Minneapolis/St. Paul(Intl) MN USA
					Newark/New York(Liberty) NJ USA
					Amsterdam Netherlands
					Kiev(Borispol) Ukraine
					Amsterdam Netherlands
					Kiev(Borispol) Ukraine
					Warsaw(F. Chopin) Poland
					Ljubljana Slovenia
					Warsaw(F. Chopin) Poland
					Moscow(Sheremetyevo) Russian Fed.
					Warsaw(F. Chopin) Poland
					Kiev(Borispol) Ukraine
					Warsaw(F. Chopin) Poland
					Munich(Intl) Germany
					Wroclaw Poland
					Munich(Intl) Germany
					Wroclaw Poland
					Krakow(Balice Intl) Poland
					Vienna Austria
					Warsaw(F. Chopin) Poland
					Vienna Austria
					Warsaw(F. Chopin) Poland
					Minsk(Intl 2) Belarus
					Warsaw(F. Chopin) Poland
					Munich(Intl) Germany
					Wroclaw Poland
					Tel Aviv(Ben Gurion) Israel
					Warsaw(F. Chopin) Poland
					Dusseldorf(Intl) Germany
					Katowice Poland
					Warsaw(F. Chopin) Poland
					Munich(Intl) Germany
					Warsaw(F. Chopin) Poland
					Wroclaw Poland
					Dusseldorf(Intl) Germany
					Katowice Poland
					Warsaw(F. Chopin) Poland
					Frankfurt Germany
					Warsaw(F. Chopin) Poland
					Gdansk Poland
					Munich(Intl) Germany
					Warsaw(F. Chopin) Poland
					Munich(Intl) Germany
					Warsaw(F. Chopin) Poland
					Wroclaw Poland
					Dusseldorf(Intl) Germany
					Warsaw(F. Chopin) Poland
					Frankfurt Germany
					Warsaw(F. Chopin) Poland
					Munich(Intl) Germany
					Warsaw(F. Chopin) Poland
					Budapest Hungary
					Warsaw(F. Chopin) Poland
					Copenhagen(Intl) Denmark
					Warsaw(F. Chopin) Poland
					Brussels Belgium
					Warsaw(F. Chopin) Poland
					Istanbul (Ataturk) Turkey
					Warsaw(F. Chopin) Poland
					Krakow(Balice Intl) Poland
					Vienna Austria
					Warsaw(F. Chopin) Poland
					Vienna Austria
					Rome(Fiumicino) Italy
					Dusseldorf(Intl) Germany
					Frankfurt Germany
					Vienna Austria
					Frankfurt Germany
					Montreal(P.E. Trudeau) QC Canada
					Toronto(Pearson Intl) ON Canada
					Beijing(Capital) China
					Shenyang China
					Dalian China
					Beijing(Capital) China
					Beijing(Capital) China
					Shanghai (Pu Dong) China
					Beijing(Capital) China
					Munich(Intl) Germany
					Bangalore India
					Frankfurt Germany
					Delhi India
					Frankfurt Germany
					Mumbai India
					Frankfurt Germany
					Auckland New Zealand
					Los Angeles(Intl) CA USA
					Frankfurt Germany
					Tokyo(Narita) Japan
					Berlin(Tegel) Germany
					Vienna Austria
					Cologne/Bonn(Intl) Germany
					Vienna Austria
					Dusseldorf(Intl) Germany
					Vienna Austria
					Frankfurt Germany
					Vienna Austria
					Hamburg(Fuhlsbuettel) Germany
					Vienna Austria
					Hanover Germany
					Vienna Austria
					Munich(Intl) Germany
					Vienna Austria

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		BMI British Midland	UK	Stuttgart(Echterdingen) Germany	Vienna Austria
				Dublin Ireland	London(Heathrow) England UK
				Glasgow(Intl) Scotland UK	Manchester England UK
				London(Heathrow) England UK	Manchester England UK
		BMI Regional	UK	Glasgow(Intl) Scotland UK	Manchester England UK
				London(Heathrow) England UK	Manchester England UK
		Braathens ASA	Norway	Dusseldorf(Intl) Germany	Oslo Norway
				Frankfurt Germany	Oslo Norway
		Cirrus Airlines	Germany	Cologne/Bonn(Intl) Germany	Leipzig/Halle Germany
				Dusseldorf(Intl) Germany	Zurich Switzerland
				Frankfurt Germany	Milan(Linate) Italy
		Croatia Airlines	Croatia	Frankfurt Germany	Zagreb Croatia
				Munich(Intl) Germany	Zagreb Croatia
		Eurolot SA	Poland	Munich(Intl) Germany	Poznan Poland
					Warsaw(F. Chopin) Poland
					Wroclaw Poland
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Frankfurt Germany
					Munich(Intl) Germany
		LOT Polish Airlines	Poland	Dusseldorf(Intl) Germany	Warsaw(F. Chopin) Poland
				Frankfurt Germany	Warsaw(F. Chopin) Poland
				Munich(Intl) Germany	Warsaw(F. Chopin) Poland
		Qatar Airways	Qatar	Doha(Intl) Qatar	Frankfurt Germany
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Copenhagen(Intl) Denmark	Frankfurt Germany
					Munich(Intl) Germany
				Dusseldorf(Intl) Germany	Oslo Norway
				Frankfurt Germany	Gothenburg(Landvetter) Sweden
					Oslo Norway
				Stockholm(Arlanda) Sweden	Dusseldorf(Intl) Germany
					Frankfurt Germany
					Hamburg(Fuhlsbuettel) Germany
		Singapore Airlines	Singapore	Frankfurt Germany	Singapore(Changi)
		South African Airways	South Africa	Cape Town(Intl) South Africa	Frankfurt Germany
				Frankfurt Germany	Johannesburg(Intl) South Africa
		Spanair	Spain	Frankfurt Germany	Madrid Spain
		SWISS	Switzerland	Berlin(Tegel) Germany	Zurich Switzerland
				Dusseldorf(Intl) Germany	Zurich Switzerland
				Frankfurt Germany	Zurich Switzerland
				Hamburg(Fuhlsbuettel) Germany	Zurich Switzerland
				Hanover Germany	Zurich Switzerland
				Munich(Intl) Germany	Zurich Switzerland
				Sao Paulo(Intl) SP Brazil	Santiago(Intl) Chile
		SWISS European Air	Switzerland	Berlin(Tegel) Germany	Zurich Switzerland
				Dusseldorf(Intl) Germany	Zurich Switzerland
				Frankfurt Germany	Zurich Switzerland
				Hamburg(Fuhlsbuettel) Germany	Zurich Switzerland
				Hanover Germany	Zurich Switzerland
				Munich(Intl) Germany	Zurich Switzerland
		TAP Air Portugal	Portugal	Frankfurt Germany	Lisbon Portugal
				Lisbon Portugal	Munich(Intl) Germany
		Thai Airways Intl	Thailand	Bangkok (Intl) Thailand	Frankfurt Germany
					Munich(Intl) Germany
		Tyrolean Airways	Austria	Berlin(Tegel) Germany	Vienna Austria
				Cologne/Bonn(Intl) Germany	Vienna Austria
				Dusseldorf(Intl) Germany	Vienna Austria
				Frankfurt Germany	Vienna Austria
				Hamburg(Fuhlsbuettel) Germany	Vienna Austria
				Hanover Germany	Vienna Austria
				Munich(Intl) Germany	Vienna Austria
				Stuttgart(Echterdingen) Germany	Vienna Austria
		United Airlines	USA	Frankfurt Germany	Chicago(O'Hare) IL USA
					San Francisco(Intl) CA USA
					Washington(Dulles Intl) DC USA
					Chicago(O'Hare) IL USA
				Munich(Intl) Germany	Munich(Intl) Germany
					Washington(Dulles Intl) DC USA
		US Airways	USA	Frankfurt Germany	Philadelphia(Intl) PA USA
		Varig S.A.	Brazil	Frankfurt Germany	Rio De Janeiro(Intl) RJ Brazil
					Sao Paulo(Intl) SP Brazil
					Munich(Intl) Germany
					Sao Paulo(Intl) SP Brazil
Luxair-Luxembourg Airline	Luxembourg	Tyrolean Airways	Austria	Luxembourg	Vienna Austria
MALEV Hungarian Airlines	Hungary	Aeroflot Russian Airlines	Russia	Budapest Hungary	Moscow(Sheremetyevo) Russian Fed.
		Aerosvit Airlines	Ukraine	Budapest Hungary	Kiev(Borispol) Ukraine
		Air Europa	Spain	Budapest Hungary	Madrid Spain
		Air France	France	Budapest Hungary	Paris(Charles De Gaulle) France
		Alitalia	Italy	Budapest Hungary	Milan (Malpensa) Italy
		Czech Airlines	Czech Rep	Budapest Hungary	Prague Czech Rep.
		Finnair	Finland	Budapest Hungary	Helsinki Finland
		Hainan Airlines	China	Beijing(Capital) China	Shanghai (Pu Dong) China
		Iberia	Spain	Barcelona Spain	Madrid Spain
				Malaga Spain	Madrid Spain
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Budapest Hungary
		LOT Polish Airlines	Poland	Budapest Hungary	Warsaw(F. Chopin) Poland
		Moldavian Airlines	Moldova	Budapest Hungary	Chisinau Moldova
		Montenegro Airlines	Yugoslavia	Budapest Hungary	Podgorica Serbia & Montenegro
		SN Brussels Airlines	Belgium	Brussels Belgium	Budapest Hungary
		SWISS	Switzerland	Budapest Hungary	Zurich Switzerland
		TAP Air Portugal	Portugal	Budapest Hungary	Lisbon Portugal
		TAROM-Romanian Air Transp	Romania	Budapest Hungary	Bucharest(OTopeni) Romania
Malmo Aviation	Sweden	SN Brussels Airlines	Belgium	Brussels Belgium	Gothenburg(Landvetter) Sweden
				Stockholm(Bromma) Sweden	Brussels Belgium
Norwegian Air Shuttle	Norway	FlyNordic	Sweden	Stockholm(Arlanda) Sweden	Oslo Norway
		Sterling	Denmark	Alicante Spain	Oslo Norway
				Copenhagen(Intl) Denmark	Oslo Norway
				Malaga Spain	Oslo Norway
				Montpellier France	Oslo Norway
				Nice France	Oslo Norway
				Rome(Ciampino) Italy	Oslo Norway
Olympic Airways	Greece	Cyprus Airways	Cyprus	Athens (Intl) Greece	Larnaca Cyprus
					Paphos Cyprus
					Thessaloniki Greece
				Larnaca Cyprus	Thessaloniki Greece
		Czech Airlines	Czech Rep	Prague Czech Rep.	Thessaloniki Greece
		Gulf Air	Bahrain/United Arab Emirates/C	Bahrain	Singapore(Changi)
Portugalia	Portugal	Aerienne Europeene	France	Bordeaux France	Lisbon Portugal
		Air France	France	Paris(Charles De Gaulle) France	Porto Portugal
		Alitalia	Italy	Lisbon Portugal	Milan (Malpensa) Italy
				Rome(Fiumicino) Italy	Lisbon Portugal

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Lisbon Portugal
		Spanair	Spain	Barcelona Spain	Lisbon Portugal
		TAP Air Portugal	Portugal	Faro Portugal	Lisbon Portugal
				Lisbon Portugal	Porto Portugal
SAS Scandinavian Airlines	Denmark/Norway/Sweden	Aeal-Spanair Link	Spain	Barcelona Spain Madrid Spain	Sevilla Spain Bilbao Spain
		Air Baltic	Latvia	Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden	Vilnius Lithuania Riga Latvia Vilnius Lithuania
		Air One	Italy	Copenhagen(Intl) Denmark	Rome(Fiumicino) Italy
		Austrian Airlines	Austria	Copenhagen(Intl) Denmark Oslo Norway	Vienna Austria Vienna Austria
		Blue1	Finland	Copenhagen(Intl) Denmark  Stockholm(Arlanda) Sweden	Helsinki Finland Tampere Finland Turku Finland Helsinki Finland Tampere Finland Turku Finland
		Carpatair	Romania	Copenhagen(Intl) Denmark	Vilnius Lithuania
		Cimber Air	Denmark	Copenhagen(Intl) Denmark	Norrkoping Sweden Wroclaw Poland
		Estonian Air	Estonia	Stockholm(Arlanda) Sweden	Tallinn Estonia
		Gestion Aerea Ejec	Spain	Barcelona Spain Madrid Spain	Sevilla Spain Bilbao Spain Valencia Spain
		Icelandair	Iceland	Oslo Norway Reykjavik(Intl) Iceland	Stockholm(Arlanda) Sweden Oslo Norway
		LOT Polish Airlines	Poland	Copenhagen(Intl) Denmark	Warsaw(F. Chopin) Poland
		Lufthansa German Airlines	Germany	Copenhagen(Intl) Denmark  Frankfurt Germany  Munich(Intl) Germany Stockholm(Arlanda) Sweden	Frankfurt Germany Munich(Intl) Germany Gothenburg(Landvetter) Sweden Oslo Norway Oslo Norway Dusseldorf(Intl) Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany
		Moldavian Airlines	Moldova	Copenhagen(Intl) Denmark	Vilnius Lithuania
		Skyways	Sweden	Copenhagen(Intl) Denmark  Stockholm(Arlanda) Sweden	Karlstad Sweden Norrkoping Sweden Orebro Sweden Borlange/Falun Sweden Karlstad Sweden Kristianstad Sweden
		Spanair	Spain	Alicante Spain  Barcelona Spain  Copenhagen(Intl) Denmark  La Coruna Spain Madrid Spain  Malaga Spain  Stockholm(Arlanda) Sweden	Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden Copenhagen(Intl) Denmark Malaga Spain Sevilla Spain Madrid Spain Palma Mallorca Spain Madrid Spain Bilbao Spain Jerez De La Frontera Spain Tenerife(Sofia) Canary Is. Valencia Spain Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden Barcelona Spain Madrid Spain Palma Mallorca Spain
		SWISS	Switzerland	Bangkok (Intl) Thailand Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden	Singapore(Changi) Zurich Switzerland Zurich Switzerland
		SWISS European Air	Switzerland	Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden	Zurich Switzerland Zurich Switzerland
		Tyrolean Airways	Austria	Copenhagen(Intl) Denmark Oslo Norway	Vienna Austria Vienna Austria
		Wideroes Flyveselskap	Norway	Aberdeen Scotland UK Bergen Norway Copenhagen(Intl) Denmark  Gothenburg(Landvetter) Sweden	Stavanger Norway Copenhagen(Intl) Denmark Stavanger Norway Trondheim Norway Oslo Norway
SATA International	Portugal	TAP Air Portugal	Portugal	Funchal Madeira Portugal  Horta Faial Is. Azores Portugal Lisbon Portugal	Lisbon Portugal Porto Portugal Lisbon Portugal Ponta Delgada Azores Portugal Terceira Azores Portugal
SkyEurope Airlines	Hungary	Sterling	Denmark	Budapest Hungary	Copenhagen(Intl) Denmark
Skyways	Sweden	Golden Air Flyg Ab	Sweden	Stockholm(Bromma) Sweden	Visby Sweden
SN Brussels Airlines	Belgium	Alitalia	Italy	Brussels Belgium	Milan (Malpensa) Italy Milan(Linate) Italy Rome(Fiumicino) Italy
		Audeli	Spain	Brussels Belgium	Madrid Spain
		BA Connect	UK	Brussels Belgium	Manchester England UK
		British Airways	UK	Brussels Belgium	London(Heathrow) England UK Manchester England UK
		Bulgaria Air	Bulgaria	Brussels Belgium	Sofia Bulgaria
		Cyprus Airways	Cyprus	Brussels Belgium	Larnaca Cyprus
		Czech Airlines	Czech Rep	Brussels Belgium	Prague Czech Rep.
		El Al Israel Airlines	Israel	Brussels Belgium	Tel Aviv(Ben Gurion) Israel
		Finnair	Finland	Brussels Belgium	Helsinki Finland
		Iberia	Spain	Barcelona Spain Brussels Belgium	Brussels Belgium Madrid Spain
		LOT Polish Airlines	Poland	Brussels Belgium	Warsaw(F. Chopin) Poland
		MALEV Hungarian Airlines	Hungary	Brussels Belgium	Budapest Hungary
		Malmo Aviation	Sweden	Stockholm(Bromma) Sweden	Brussels Belgium
		Royal Air Maroc	Morocco	Brussels Belgium	Casablanca(Mohammed V.) Morocco
		TAP Air Portugal	Portugal	Brussels Belgium	Lisbon Portugal
		TAROM-Romanian Air Transp	Romania	Brussels Belgium	Bucharest(Otopeni) Romania
		Virgin Express	Belgium	Bari Italy Brussels Belgium	Brussels Belgium Naples(Intl) Italy
Spanair	Spain	Lufthansa German Airlines	Germany	Dusseldorf(Intl) Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany	Palma Mallorca Spain Madrid Spain Madrid Spain

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Copenhagen(Intl) Denmark	Madrid Spain
		SWISS	Switzerland	Barcelona Spain	Zurich Switzerland
		SWISS European Air	Switzerland	Madrid Spain	Zurich Switzerland
		TAP Air Portugal	Portugal	Barcelona Spain	Lisbon Portugal
				Lisbon Portugal	Madrid Spain
Sterling Blue	UK	Iberia	Spain	Copenhagen(Intl) Denmark	Madrid Spain
SWISS	Switzerland	Adria Airways	Slovenia	Ljubljana Slovenia	Zurich Switzerland
		Air Canada	Canada	Delhi India	Zurich Switzerland
		Air Dolomiti	Italy	Basel Switzerland	Munich(Intl) Germany
		Air France	France	Paris(Charles De Gaulle) France	Geneva Switzerland
		Air Nostrum	Turkey	Barcelona Spain	Basel Switzerland
					Geneva Switzerland
					Zurich Switzerland
		American Airlines	USA	New York(Kennedy) NY USA	Zurich Switzerland
		Augsburg Airways	Germany	Basel Switzerland	Munich(Intl) Germany
		Austrian Airlines	Austria	Vienna Austria	Zurich Switzerland
		Blue1	Finland	Helsinki Finland	Zurich Switzerland
		Cirrus Airlines	Germany	Dresden Germany	Zurich Switzerland
		Contact Air	Germany	Basel Switzerland	Dusseldorf(Intl) Germany
					Munich(Intl) Germany
				Geneva Switzerland	Stuttgart(Echterdingen) Germany
		Croatia Airlines	Croatia	Zagreb Croatia	Zurich Switzerland
		Czech Airlines	Czech Rep	Prague Czech Rep.	Zurich Switzerland
		El Al Israel Airlines	Israel	Geneva Switzerland	Tel Aviv(Ben Gurion) Israel
				Tel Aviv(Ben Gurion) Israel	Zurich Switzerland
		Eurowings Luftverkehrs	Germany	Basel Switzerland	Munich(Intl) Germany
				Berlin(Tegel) Germany	Zurich Switzerland
				Dusseldorf(Intl) Germany	Geneva Switzerland
					Zurich Switzerland
				Frankfurt Germany	Zurich Switzerland
				Munich(Intl) Germany	Zurich Switzerland
		Finnair	Finland	Helsinki Finland	Zurich Switzerland
		Iberia	Spain	Barcelona Spain	Geneva Switzerland
				Geneva Switzerland	Madrid Spain
				Madrid Spain	Zurich Switzerland
		Japan Airlines	Japan	Tokyo(Narita) Japan	Zurich Switzerland
		Lufthansa Cityline	Germany	Basel Switzerland	Munich(Intl) Germany
				Berlin(Tegel) Germany	Zurich Switzerland
				Dusseldorf(Intl) Germany	Geneva Switzerland
					Zurich Switzerland
				Frankfurt Germany	Zurich Switzerland
				Hamburg(Fuhlsbuettel) Germany	Zurich Switzerland
				Munich(Intl) Germany	Zurich Switzerland
		Lufthansa German Airlines	Germany	Basel Switzerland	Munich(Intl) Germany
				Berlin(Tegel) Germany	Zurich Switzerland
				Dusseldorf(Intl) Germany	Geneva Switzerland
					Zurich Switzerland
				Frankfurt Germany	Zurich Switzerland
				Hamburg(Fuhlsbuettel) Germany	Zurich Switzerland
				Munich(Intl) Germany	Zurich Switzerland
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Zurich Switzerland
		MAT-Macedonian Airlines	Macedonia	Skopje Macedonia	Zurich Switzerland
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Copenhagen(Intl) Denmark	Zurich Switzerland
				Oslo Norway	Zurich Switzerland
				Stockholm(Arlanda) Sweden	Zurich Switzerland
		SN Brussels Airlines	Belgium	Brussels Belgium	Geneva Switzerland
		Spanair	Spain	Barcelona Spain	Zurich Switzerland
				Madrid Spain	Zurich Switzerland
		Styrian Spirit	Austria	Graz Austria	Zurich Switzerland
				Krakow(Balice Intl) Poland	Zurich Switzerland
				Salzburg Austria	Zurich Switzerland
		TAP Air Portugal	Portugal	Geneva Switzerland	Lisbon Portugal
					Porto Portugal
					Zurich Switzerland
		Thai Airways Intl	Thailand	Bangkok (Intl) Thailand	Zurich Switzerland
		Tyrolean Airways	Austria	Basel Switzerland	Vienna Austria
				Vienna Austria	Zurich Switzerland
		Ukraine Intl Airlines	Ukraine	Kiev(Borispol) Ukraine	Zurich Switzerland
		United Airlines	USA	Washington(Dulles Intl) DC USA	Zurich Switzerland
TAP Air Portugal	Portugal	Aerocondor	Portugal	Funchal Madeira Portugal	Porto Santo Madeira Portugal
		Air One	Italy	Rome(Fiumicino) Italy	Venice Italy
		BMI British Midland	UK	Leeds/Bradford England UK	London(Heathrow) England UK
		Lufthansa German Airlines	Germany	Frankfurt Germany	Lisbon Portugal
					Munich(Intl) Germany
					Porto Portugal
					Munich(Intl) Germany
		Portugalia	Portugal	Lisbon Portugal	Porto Portugal
		SATA International	Portugal	Funchal Madeira Portugal	Lisbon Portugal
					Porto Portugal
				Horta Faial Is. Azores Portugal	Lisbon Portugal
				Lisbon Portugal	Ponta Delgada Azores Portugal
					Porto Portugal
					Terceira Azores Portugal
		SN Brussels Airlines	Belgium	Brussels Belgium	Porto Portugal
		SWISS	Switzerland	Lisbon Portugal	Zurich Switzerland
				Porto Portugal	Zurich Switzerland
		TACV Cabo Verde Airlines	Cape Verde	Lisbon Portugal	Sal Cape Verde
		Varig S.A.	Brazil	Recife PE Brazil	Petrolina PE Brazil
				Rio De Janeiro(Intl) RJ Brazil	Lisbon Portugal
				Sao Paulo(Intl) SP Brazil	Lisbon Portugal
TAROM-Romanian Air Trans Romania		Air France	France	Paris(Charles De Gaulle) France	Bucharest(Otopeni) Romania
		Air Moldova	Moldova	Chisinau Moldova	Bucharest(Otopeni) Romania
		Alitalia	Italy	Milan (Malpensa) Italy	Bucharest(Otopeni) Romania
					Timisoara Romania
				Rome(Fiumicino) Italy	Bucharest(Otopeni) Romania
		Austrian Airlines	Austria	Bucharest(Otopeni) Romania	Vienna Austria
				Sibiu Romania	Vienna Austria
		Czech Airlines	Czech Rep	Bucharest(Otopeni) Romania	Prague Czech Rep.
		Hemus Air	Bulgaria	Bucharest(Otopeni) Romania	Sofia Bulgaria
		LOT Polish Airlines	Poland	Bucharest(Otopeni) Romania	Warsaw(F. Chopin) Poland
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Bucharest(Otopeni) Romania
		Syrian Arab Airlines	Syria	Aleppo Syria	Bucharest(Otopeni) Romania
					Damascus Syria

Parallel Code-shares involving EU-Domiciled Carriers

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
Travel Servis	Switzerland	Air Europa	Spain	Damascus Syria	Bucharest(Otopeni) Romania
Virgin Express	Belgium	SN Brussels Airlines	Belgium	Prague Czech Rep.	Madrid Spain
				Brussels Belgium	Madrid Spain

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
Adria Airways	Slovenia	Air One	Italy	Alghero Italy Bari Italy Catania Italy Rome(Fiumicino) Italy	Rome(Fiumicino) Italy Rome(Fiumicino) Italy Rome(Fiumicino) Italy Genoa Italy Palermo Italy Turin Italy
		LOT Polish Airlines	Poland	Munich(Intl) Germany Vienna Austria	Warsaw(F. Chopin) Poland Warsaw(F. Chopin) Poland
Aegean Airlines	Greece	Air One	Italy	Athens (Intl) Greece Catania Italy Rome(Fiumicino) Italy	Naples(Intl) Italy Rome(Fiumicino) Italy Lamezia Terme Italy Trieste Italy Venice Italy
		TAP Air Portugal	Portugal	Frankfurt Germany Lisbon Portugal Rome(Fiumicino) Italy	Lisbon Portugal Munich(Intl) Germany Lisbon Portugal
Air Austral	France	Air Mauritius	Mauritius	Mauritius	St. Pierre De La Reunion Ind. Oc.
Air Berlin	Germany	NIKI	Austria	Frankfurt Germany Funchal Maderia Portugal Ibiza Spain Las Palmas(Gran Canaria) Canary Is. Linz Austria London(Stansted) England UK Paris(Charles De Gaulle) France Rome(Fiumicino) Italy Salzburg Austria Vienna Austria	Vienna Austria Vienna Austria Salzburg Austria Vienna Austria Palma Mallorca Spain Vienna Austria Vienna Austria Vienna Austria Vienna Austria Zurich Switzerland
Air Dolomiti	Italy	Adam Air	Indonesia	Stuttgart(Echterdingen) Germany	Turin Italy
		Contactair And CO	Germany	Stuttgart(Echterdingen) Germany	Turin Italy
		Eurowings Luftverkehrs	Germany	Frankfurt Germany	Pisa(Galileo) Italy
		Lufthansa Cityline	Germany	Frankfurt Germany	Pisa(Galileo) Italy
		Lufthansa German Airlines	Germany	Frankfurt Germany	Pisa(Galileo) Italy
		Sky Gate Intl	Jordan	Stuttgart(Echterdingen) Germany	Turin Italy
Air Europa	Spain	Aerienne Europeene	France	Barcelona Spain Lyon(St. Exupery) France	Bordeaux France Brussels Belgium
		Air France	France	Barcelona Spain  Bilbao Spain Bordeaux France Lyon(St. Exupery) France Madrid Spain Paris(Charles De Gaulle) France Paris(Orly) France	Bordeaux France Lyon(St. Exupery) France Paris(Charles De Gaulle) France Madrid Spain Madrid Spain Toulouse France Vigo Spain Valladolid Spain
		Continental Airlines	USA	Houston(G.Bush Intl) TX USA Newark/New York(Liberty) NJ USA San Antonio TX USA	Madrid Spain Madrid Spain Newark/New York(Liberty) NJ USA
		Cubana Airlines	Cuba	Madrid Spain Santiago Cuba	Santiago Cuba Havana Cuba
		Portugalia	Portugal	La Coruna Spain Lisbon Portugal   Madrid Spain Malaga Spain	Lisbon Portugal Madrid Spain Pamplona Spain Porto Portugal Valencia Spain Valladolid Spain Porto Portugal Lisbon Portugal
Air France	France	Aeromexico	Mexico	Acapulco Mexico Cancun Mexico Guadalajara Mexico Leon/Guanajuato Mexico Mexico City(Juarez) Mexico	Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico Merida Mexico Miami(Intl) FL USA Monterrey Mexico Puerto Vallarta Mexico
		Air Caledonie Internation	France	Osaka(Kansai Intl) Japan	Noumea(Tortouta) New Caledonia
		Air Europa	Spain	Alicante Spain Barcelona Spain   Fuerteventura Canary Is. Ibiza Spain  Lanzarote Canary Is.  Las Palmas(Gran Canaria) Canary Is.  Madrid Spain	Paris(Orly) France Lanzarote Canary Is. Menorca Spain Palma Mallorca Spain Santa Cruz La Palma Canary Is. Madrid Spain Barcelona Spain Madrid Spain Madrid Spain Tenerife(Sofia) Canary Is. Lanzarote Canary Is. Tenerife(Sofia) Canary Is. Palma Mallorca Spain Paris(Orly) France Santiago De Compostela Spain Tenerife(Norte) Canary Is. Tenerife(Sofia) Canary Is. Madrid Spain Palma Mallorca Spain Palma Mallorca Spain Tenerife(Norte) Canary Is.
		Air Seychelles	Seychelles	Paris(Charles De Gaulle) France	Mahe Is. Seychelles
		Alitalia	Italy	Ancona Italy  Bari Italy  Brindisi Italy  Catania Italy  Marseille France Milan (Malpensa) Italy  Rome(Fiumicino) Italy	Milan (Malpensa) Italy Rome(Fiumicino) Italy Milan (Malpensa) Italy Rome(Fiumicino) Italy Milan (Malpensa) Italy Rome(Fiumicino) Italy Milan (Malpensa) Italy Rome(Fiumicino) Italy Lamezia Terme Italy Nice France Palermo Italy Trieste Italy Lamezia Terme Italy Nice France Palermo Italy Trieste Italy
		Austrian Airlines	Austria	Lyon(St. Exupery) France	Vienna Austria

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		CCM Airlines	France	Ajaccio Corsica France Bastia Corsica France Calvi Corsica France Figari France	Lyon(St. Exupery) France Marseille France Nice France Marseille France Nice France Lyon(St. Exupery) France Marseille France Nice France Marseille France Nice France
		City Jet	Ireland	Malaga Spain	Dublin Ireland
		Continental Airlines	USA	Austin(Bergstrom Intl) TX USA Cleveland(Intl) OH USA Corpus Christi TX USA Dallas/Ft. Worth(Intl) TX USA Houston(G.Bush Intl) TX USA Lake Charles LA USA Oklahoma City(Rogers) Oklahoma USA	Houston(G.Bush Intl) TX USA Newark/New York(Liberty) NJ USA Houston(G.Bush Intl) TX USA Houston(G.Bush Intl) TX USA McAllen TX USA Midland/Odessa TX USA Houston(G.Bush Intl) TX USA Houston(G.Bush Intl) TX USA
		Czech Airlines	Czech Rep	Barcelona Spain Cologne/Bonn(Intl) Germany Hamburg(Fuhlsbuettel) Germany Hanover Germany Luxembourg Marseille France Munich(Intl) Germany Prague Czech Rep.	Prague Czech Rep. Prague Czech Rep. Prague Czech Rep. Prague Czech Rep. Prague Czech Rep. Prague Czech Rep. Prague Czech Rep. Berlin(Tegel) Germany Stuttgart(Echterdingen) Germany
		Delta Air Lines	USA	Atlanta(Intl) GA USA  Austin(Bergstrom Intl) TX USA Charlottesville VA USA Cincinnati(Intl) OH USA  Columbia SC USA Des Moines IA USA Greensboro/H.Pt/Win-Salem NC USA Los Angeles(Intl) CA USA  Memphis TN USA Monterrey Mexico Nashville(Intl) TN USA New Orleans(Intl) LA USA New York(Kennedy) NY USA Orlando(Intl) FL USA Pittsburgh(Intl) PA USA	Boise ID USA Charleston WV USA Greenville/Spartanburg SC USA Honolulu Oahu HI USA Minneapolis/St. Paul(Intl) MN USA Nice France Peoria IL USA Reno NV USA Richmond/Wmbg VA USA Syracuse NY USA Atlanta(Intl) GA USA Cincinnati(Intl) OH USA Chicago(O'Hare) IL USA Cleveland(Intl) OH USA Ft. Wayne IN USA Oklahoma City(Rogers) Oklahoma USA Atlanta(Intl) GA USA Cincinnati(Intl) OH USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Honolulu Oahu HI USA Cincinnati(Intl) OH USA Atlanta(Intl) GA USA Cincinnati(Intl) OH USA Atlanta(Intl) GA USA Nice France Atlanta(Intl) GA USA Cincinnati(Intl) OH USA
		Finnair	Finland	Helsinki Finland Paris(Charles De Gaulle) France	Jyvaskyla Finland Turku Finland Helsinki Finland
		Japan Airlines	Japan	Fukuoka Japan Nagoya(Intl) Japan Osaka(Itami) Japan Paris(Charles De Gaulle) France Sapporo(Chitose) Japan	Nagoya(Intl) Japan Osaka(Kansai Intl) Japan Sapporo(Chitose) Japan Tokyo(Narita) Japan Tokyo(Narita) Japan Nagoya(Intl) Japan Osaka(Kansai Intl) Japan
		Kenya Airways	Kenya	Paris(Charles De Gaulle) France	Nairobi(Intl) Kenya
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands  Aruba Jakarta(Intl) Indonesia	Aruba Bahrain Billund Denmark Curacao Neth. Antilles Glasgow(Intl) Scotland UK Humberside England UK Jakarta(Intl) Indonesia Kuala Lumpur(Intl) Malaysia Marseille France Norwich England UK Teeside England UK Toulouse France Curacao Neth. Antilles Kuala Lumpur(Intl) Malaysia
		Luxair-Luxembourg Airline	Luxembourg	Paris(Charles De Gaulle) France	Luxembourg
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Lyon(St. Exupery) France
		Portugalia	Portugal	Clermont-Ferrand France Funchal Maderia Portugal Lisbon Portugal  Lyon(St. Exupery) France Marseille France Nice France	Lisbon Portugal Porto Portugal Lisbon Portugal Lyon(St. Exupery) France Marseille France Nice France Toulouse France Porto Portugal Porto Portugal Porto Portugal
		Qantas Airways	Australia	Adelaide SA Australia Brisbane QL Australia  Cairns QL Australia Darwin NT Australia Melbourne(Intl) VI Australia Perth WA Australia Singapore(Changi)	Singapore(Changi) Cairns QL Australia Darwin NT Australia Singapore(Changi) Singapore(Changi) Singapore(Changi) Singapore(Changi) Singapore(Changi) Sydney(Intl) NS Australia
		Royal Air Maroc	Morocco	Bordeaux France Casablanca(Mohammed V.) Morocco	Casablanca(Mohammed V.) Morocco Marseille France Nantes France

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Marseille France	Nice France Strasbourg France Marrakech Morocco
		Sterling Blue	UK	Billund Denmark	Paris(Charles De Gaulle) France
		Styrian Spirit	Austria	Paris(Charles De Gaulle) France	Salzburg Austria
		Taca Intl Airlines	El Salvador	San Pedro Sula Honduras San Salvador El Salvador	San Salvador El Salvador Guatemala City Guatemala
		TAM Linhas Aereas	Brazil	Brasilia DF Brazil Curitiba PR Brazil Fortaleza CE Brazil  Rio De Janeiro(Intl) RJ Brazil  Sao Paulo(Intl) SP Brazil	Goiania GO Brazil Porto Alegre RS Brazil Natal RN Brazil Sao Paulo(Intl) SP Brazil Recife PE Brazil Tancredo (Neves) MG Brazil Curitiba PR Brazil Goiania GO Brazil Natal RN Brazil Porto Alegre RS Brazil Recife PE Brazil Rio De Janeiro(Intl) RJ Brazil Salvador BA Brazil
		Tunis Air	Tunisia	Bordeaux France Djerba Tunisia  Toulouse France Tunis Tunisia	Tunis Tunisia Nice France Tunis Tunisia Tunis Tunisia Nantes France
Air Gabon	UK	Inter Air	South Africa	Brazzaville Congo Johannesburg(Intl) South Africa	Cotonou Benin Cotonou Benin
Air Malta	Malta	Qantas Airways	Australia	Bangkok (Intl) Thailand  London(Heathrow) England UK   Melbourne(Intl) VI Australia	London(Heathrow) England UK Sydney(Intl) NS Australia Melbourne(Intl) VI Australia Singapore(Changi) Sydney(Intl) NS Australia Singapore(Changi)
Air One	Italy	Adria Airways	Slovenia	Rome(Fiumicino) Italy	Ljubljana Slovenia
		Aegean Airlines	Greece	Athens (Intl) Greece	Heraklion Greece Rhodes Greece Rhodes Greece
		Croatia Airlines	Croatia	Rome(Fiumicino) Italy Dubrovnik Croatia  Rome(Fiumicino) Italy	Rome(Fiumicino) Italy Zagreb Croatia Split Croatia Zagreb Croatia Zagreb Croatia
		Darwin Airline	Switzerland	Split Croatia Cagliari Italy Lugano Switzerland Rome(Fiumicino) Italy	Lugano Switzerland Olbia Italy Lugano Switzerland
		Lufthansa German Airlines	Germany	Dusseldorf(Intl) Germany Frankfurt Germany Rome(Fiumicino) Italy	Rome(Fiumicino) Italy Milan(Linate) Italy Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany
		TAP Air Portugal	Portugal	Barcelona Spain Bologna Italy  Faro Portugal Funchal Maderia Portugal Lisbon Portugal  Milan (Malpensa) Italy  Milan(Linate) Italy Rome(Fiumicino) Italy	Lisbon Portugal Lisbon Portugal Zagreb Croatia Lisbon Portugal Lisbon Portugal Milan (Malpensa) Italy Porto Portugal Venice Italy Zagreb Croatia Faro Portugal Porto Portugal Lisbon Portugal Lisbon Portugal Porto Portugal
Airlinair	France	Air France	France	Paris(Orly) France	Perpignan France
Alitalia	Italy	Aeromexico	Mexico	Madrid Spain Mexico City(Juarez) Mexico  New York(Kennedy) NY USA Paris(Charles De Gaulle) France	Mexico City(Juarez) Mexico Cancun Mexico Miami(Intl) FL USA Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico
		Air Alps Aviation	Austria	Ancona Italy Bolzano/Bozen Italy  Olbia Italy	Olbia Italy Milan (Malpensa) Italy Olbia Italy Milan (Parma) Italy Rimini Italy Milan (Parma) Italy
		Air China	China	Rome(Fiumicino) Italy	Beijing(Capital) China
		Air France	France	Aberdeen Scotland UK Clermont-Ferrand France  Oslo Norway Paris(Charles De Gaulle) France	Paris(Charles De Gaulle) France Lyon(St. Exupery) France Nantes France Paris(Charles De Gaulle) France Bordeaux France Genoa Italy Nantes France Southampton England UK Turin Italy Verona Italy Lyon(St. Exupery) France Marseille France Toulouse France
		ALPI Eagles	Italy	Alghero Italy  Barcelona Spain Bari Italy  Brindisi Italy Bucharest(Otopeni) Romania Catania Italy Naples(Intl) Italy  Olbia Italy  Timisoara Romania Tirana Albania	Bologna Italy Venice Italy Venice Italy Olbia Italy Venice Italy Venice Italy Venice Italy Venice Italy Venice Italy Nice France Olbia Italy Palermo Italy Venice Italy Venice Italy Venice Italy
		China Airlines	Taiwan	Rome(Fiumicino) Italy	Taipei(Chiang Kai Shek) Chinese Taipei

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		City Airline	Sweden	Gothenburg(Landvetter) Sweden	Milan (Malpensa) Italy
		Continental Airlines	USA	Aguadilla PR USA Cleveland(Intl) OH USA Denver(Intl) CO USA Newark/New York(Liberty) NJ USA	Newark/New York(Liberty) NJ USA Newark/New York(Liberty) NJ USA Newark/New York(Liberty) NJ USA Houston(G.Bush Intl) TX USA Los Angeles(Intl) CA USA Mexico City(Juarez) Mexico Phoenix(Intl) AZ USA Portland OR USA San Francisco(Intl) CA USA San Jose(Santamaria) Costa Rica Seattle/Tacoma(Intl) WA USA
		Croatia Airlines	Croatia	Rome(Fiumicino) Italy	Split Croatia Zagreb Croatia
		Czech Airlines	Czech Rep	Bologna Italy Prague Czech Rep.	Prague Czech Rep. Venice Italy
		Delta Air Lines	USA	Albany GA USA Albany NY USA Albuquerque NM USA Allentown PA USA Atlanta(Intl) GA USA	Atlanta(Intl) GA USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Asheville NC USA Austin(Bergstrom Intl) TX USA Birmingham AL USA Boise ID USA Brunswick(Glynco) GA USA Buffalo(Intl) NY USA Charlotte NC USA Chattanooga TN USA Cleveland(Intl) OH USA Columbia SC USA Columbus(G.T. Regional) MS USA Columbus(Intl) OH USA Dallas/Ft. Worth(Intl) TX USA Dayton(Intl) OH USA Denver(Intl) CO USA Des Moines IA USA Detroit(Metro Wayne) MI USA Dothan AL USA El Paso TX USA Evansville IN USA Fayetteville NC USA Florence SC USA Ft. Walton Beach FL USA Gainesville FL USA Greenville/Spartanburg SC USA Guatemala City Guatemala Hartford(Bradley Intl) CT USA Houston(G.Bush Intl) TX USA Houston(Hobby) TX USA Huntsville/Decatur AL USA Indianapolis IN USA Jackson-Evers(Intl) MS USA Jacksonville(Intl) FL USA Knoxville TN USA Las Vegas(Intl) NV USA Little Rock AR USA Long Is. MacArthur NY USA Los Angeles(Intl) CA USA Louisville KY USA Lynchburg VA USA Macon GA USA Melbourne FL USA Memphis TN USA Milan (Malpensa) Italy Milwaukee WI USA Mobile AL USA Montgomery AL USA Myrtle Beach SC USA Nashville(Intl) TN USA New York(Kennedy) NY USA Newark/New York(Liberty) NJ USA Norfolk/Va.Bch/Wmbg VA USA Oklahoma City(Rogers) Oklahoma USA Omaha NE USA Ontario CA USA Orlando(Intl) FL USA Panama City FL USA Pensacola FL USA Philadelphia(Intl) PA USA Phoenix(Intl) AZ USA Pittsburgh(Intl) PA USA Portland OR USA Providence RI USA Raleigh/Durham NC USA Reno NV USA Richmond/Wmbg VA USA Rome(Fiumicino) Italy Sacramento(Metro) CA USA Santa Ana(J.Wayne) CA USA Savannah/Hilton Head GA USA Seattle/Tacoma(Intl) WA USA Shreveport LA USA St. Louis(Intl) MO USA Syracuse NY USA Tampa(Intl) FL USA Tri-City Airport TN USA Tucson AZ USA Valdosta GA USA Venice Italy Washington (Reagan Nat'l) DC USA Washington(Dulles Intl) DC USA Westchester County NY USA Wilmington NC USA Atlanta(Intl) GA USA New York(Kennedy) NY USA
				Augusta GA USA Baltimore(Intl) MD USA	

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Boston(Intl) MA USA	Baltimore(Intl) MD USA Ft. Lauderdale(Intl) FL USA Las Vegas(Intl) NV USA Los Angeles(Intl) CA USA Orlando(Intl) FL USA Salt Lake City UT USA San Francisco(Intl) CA USA Tampa(Intl) FL USA Washington (Reagan Nat'l) DC USA Atlanta(Intl) GA USA Salt Lake City UT USA Chicago(O'Hare) IL USA Dallas/Ft. Worth(Intl) TX USA Las Vegas(Intl) NV USA Los Angeles(Intl) CA USA New York(Kennedy) NY USA Newark/New York(Liberty) NJ USA Phoenix(Intl) AZ USA Portland OR USA Rome(Fiumicino) Italy San Diego(Intl) CA USA San Francisco(Intl) CA USA Seattle/Tacoma(Intl) WA USA Cincinnati(Intl) OH USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA New York(Kennedy) NY USA New York(Kennedy) NY USA Atlanta(Intl) GA USA Boston(Intl) MA USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Cincinnati(Intl) OH USA New York(Kennedy) NY USA New York(Kennedy) NY USA New York(Kennedy) NY USA New York(Kennedy) NY USA Atlanta(Intl) GA USA Chicago(O'Hare) IL USA Las Vegas(Intl) NV USA Los Angeles(Intl) CA USA Orlando(Intl) FL USA Rochester NY USA Salt Lake City UT USA San Diego(Intl) CA USA San Francisco(Intl) CA USA Seattle/Tacoma(Intl) WA USA St. Louis(Intl) MO USA Tampa(Intl) FL USA West Palm Beach(Intl) FL USA New York(Kennedy) NY USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA Atlanta(Intl) GA USA New York(Kennedy) NY USA Salt Lake City UT USA
				Charleston WV USA Chicago(O'Hare) IL USA Cincinnati(Intl) OH USA	
				Cleveland(Intl) OH USA Columbus GA USA Daytona Beach FL USA Detroit(Metro Wayne) MI USA Ft. Lauderdale(Intl) FL USA Ft. Myers(Sw Fl Regional) FL USA	
				Grand Rapids MI USA Gulfport/Biloxi MS USA Houston(G.Bush Intl) TX USA Indianapolis IN USA Jacksonville(Intl) FL USA Melbourne FL USA Nashville(Intl) TN USA New Orleans(Intl) LA USA New York(Kennedy) NY USA	
				Norfolk/Va.Bch/Wmbg VA USA Portland ME USA Roanoke VA USA Sarasota/Bradenton FL USA Toledo OH USA Washington (Reagan Nat'l) DC USA Washington(Dulles Intl) DC USA	
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Trieste Italy
		KLM-Royal Dutch Airlines	Netherlands	Bonaire Neth. Antilles Lima Peru	Amsterdam Netherlands Amsterdam Netherlands Bonaire Neth. Antilles
		Korean Air	South Korea	Rome(Fiumicino) Italy	Seoul(Incheon Intl) Rep. of Korea
		Luxair-Luxembourg Airline	Luxembourg	Luxembourg	Milan (Malpensa) Italy Turin Italy Luxembourg
		MALEV Hungarian Airlines	Hungary	Bologna Italy Budapest Hungary	Budapest Hungary Venice Italy
		Portugalia	Portugal	Bologna Italy	Lisbon Portugal
		Qatar Airways	Qatar	Doha(Intl) Qatar	Milan (Malpensa) Italy
		SN Brussels Airlines	Belgium	Bologna Italy Brussels Belgium	Brussels Belgium Florence Italy Genoa Italy Turin Italy
		TAROM-Romanian Air Transp	Romania	Cluj Romania	Milan (Malpensa) Italy
ALPI Eagles	Italy	Alitalia	Italy	Athens (Intl) Greece Barcelona Spain Bari Italy Brindisi Italy Cagliari Italy Milan (Malpensa) Italy Rome(Fiumicino) Italy	Rome(Fiumicino) Italy Rome(Fiumicino) Italy Rome(Fiumicino) Italy Rome(Fiumicino) Italy Venice Italy Lamezia Terme Italy
		Itali Airlines	Italy	Pescara Italy	Venice Italy
Austrian Airlines	Austria	Adria Airways	Slovenia	Ljubljana Slovenia	Vienna Austria
		Air Central	Japan	Sendai Japan Tokyo(Narita) Japan	Tokyo(Narita) Japan Nagoya(Intl) Japan
		Air Dolomiti	Italy	Bari Italy Bratislava Slovakia Vienna Austria	Verona Italy Munich(Intl) Germany Verona Italy
		Air New Zealand	New Zealand	Auckland New Zealand  Christchurch New Zealand  Melbourne(Intl) VI Australia Sydney(Intl) NS Australia	Melbourne(Intl) VI Australia Singapore(Changi) Sydney(Intl) NS Australia Melbourne(Intl) VI Australia Sydney(Intl) NS Australia Wellington New Zealand Wellington New Zealand
		Air Nippon	Japan	Fukuoka Japan Tokyo(Narita) Japan	Tokyo(Narita) Japan Nagoya(Intl) Japan
		All Nippon Airways	Japan	Nagoya(Intl) Japan Osaka(Itami) Japan Sapporo(Chitose) Japan	Tokyo(Narita) Japan Tokyo(Narita) Japan Tokyo(Narita) Japan
		Augsburg Airways	Germany	Graz Austria	Munich(Intl) Germany
		Contactair And CO	Germany	Graz Austria	Munich(Intl) Germany Stuttgart(Echterdingen) Germany
		Croatia Airlines	Croatia	Dubrovnik Croatia Split Croatia	Zagreb Croatia Zagreb Croatia



Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Dusseldorf(Intl) Germany Florence Italy Frankfurt Germany Graz Austria Hamburg(Fuhlsbuettel) Germany London(Heathrow) England UK Manchester England UK Munich(Intl) Germany Rome(Fiumicino) Italy	Berlin(Tegel) Germany London(Heathrow) England UK Newcastle England UK Frankfurt Germany Geneva Switzerland Graz Austria Leipzig/Halle Germany London(City) England UK Lyon(St. Exupery) France Nuremberg Germany Pisa(Galileo) Italy Turin Italy Munich(Intl) Germany London(Heathrow) England UK Manchester England UK Munich(Intl) Germany Munich(Intl) Germany Turin Italy Frankfurt Germany
		Lufthansa German Airlines	Germany	Athens (Intl) Greece Birmingham England UK Bologna Italy Bremen Germany Budapest Hungary Cologne/Bonn(Intl) Germany Dresden Germany Dubai U. A. Emirates Dusseldorf(Intl) Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany London(Heathrow) England UK Manchester England UK Munich(Intl) Germany Rome(Fiumicino) Italy	Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany London(Heathrow) England UK Frankfurt Germany Frankfurt Germany Berlin(Tegel) Germany London(Heathrow) England UK Berlin(Tegel) Germany Geneva Switzerland Graz Austria Leipzig/Halle Germany London(Heathrow) England UK Lyon(St. Exupery) France Manchester England UK Nuremberg Germany Pisa(Galileo) Italy Turin Italy London(Heathrow) England UK Manchester England UK Munich(Intl) Germany Munich(Intl) Germany Turin Italy Frankfurt Germany
		Qatar Airways	Qatar	Doha(Intl) Qatar	London(Heathrow) England UK Manchester England UK
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Birmingham England UK Copenhagen(Intl) Denmark Gothenburg(Landvetter) Sweden London(Heathrow) England UK Manchester England UK Oslo Norway Stockholm(Arlanda) Sweden	Copenhagen(Intl) Denmark London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Oslo Norway Stavanger Norway Oslo Norway Copenhagen(Intl) Denmark Edinburgh Scotland UK London(Heathrow) England UK Manchester England UK
		Sky West Airlines	USA	Appleton WI USA Cedar Rapids/Iowa City IA USA Chicago(O'Hare) IL USA Cincinnati(Intl) OH USA Cleveland(Intl) OH USA Colorado Springs CO USA Columbus(Intl) OH USA Des Moines IA USA Detroit(Metro Wayne) MI USA Fargo ND USA Ft. Wayne IN USA Grand Rapids MI USA Green Bay WI USA Lincoln NE USA Madison(Dane County) WI USA Milwaukee WI USA Moline IL USA Saginaw MI USA Wichita KS USA	Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Dayton(Intl) OH USA Kansas City(Intl) MO USA Omaha NE USA Peoria IL USA Pittsburgh(Intl) PA USA Salt Lake City UT USA Springfield IL USA Springfield MO USA Tulsa OK USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA
		South African Airways	South Africa	Cape Town(Intl) South Africa Johannesburg(Intl) South Africa	London(Heathrow) England UK London(Heathrow) England UK
		Tyrolean Airways	Austria	Brussels Belgium Graz Austria Innsbruck Austria Klagenfurt Austria Linz Austria London(Heathrow) England UK Salzburg Austria	Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria
		United Airlines	USA	Anchorage(Intl) AK USA Atlanta(Intl) GA USA Charlotte NC USA Chicago(O'Hare) IL USA	Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Orlando(Intl) FL USA Philadelphia(Intl) PA USA Pittsburgh(Intl) PA USA Portland OR USA Richmond/Wmbg VA USA Sacramento(Metro) CA USA Salt Lake City UT USA

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					San Antonio TX USA San Diego(Intl) CA USA San Francisco(Intl) CA USA San Jose CA USA Santa Ana(J.Wayne) CA USA Seattle/Tacoma(Intl) WA USA St. Louis(Intl) MO USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Dallas/Ft. Worth(Intl) TX USA Dayton(Intl) OH USA Denver(Intl) CO USA Des Moines IA USA Detroit(Metro Wayne) MI USA Grand Rapids MI USA Harrisburg(Intl) PA USA Hartford(Bradley Intl) CT USA Kansas City(Intl) MO USA Los Angeles(Intl) CA USA Minneapolis/St. Paul(Intl) MN USA Newark/New York(Liberty) NJ USA Omaha NE USA Washington (Reagan Nat'l) DC USA Washington(Dulles Intl) DC USA
		United Exp/Awac	USA	Cedar Rapids/Iowa City IA USA Chicago(O'Hare) IL USA	Chicago(O'Hare) IL USA Des Moines IA USA Springfield MO USA Chicago(O'Hare) IL USA
		United Exp/Skywest	USA	Milwaukee WI USA Appleton WI USA Cedar Rapids/Iowa City IA USA Chicago(O'Hare) IL USA	Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Cincinnati(Intl) OH USA Des Moines IA USA Detroit(Metro Wayne) MI USA Kansas City(Intl) MO USA Omaha NE USA Peoria IL USA Pittsburgh(Intl) PA USA Springfield IL USA Springfield MO USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA
		United Exp/Trans	USA	Chicago(O'Hare) IL USA	Madison(Dane County) WI USA Richmond/Wmbg VA USA St. Louis(Intl) MO USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA
		United for TED	USA	Chicago(O'Hare) IL USA Las Vegas(Intl) NV USA	Phoenix(Intl) AZ USA Chicago(O'Hare) IL USA Los Angeles(Intl) CA USA San Francisco(Intl) CA USA Chicago(O'Hare) IL USA
British Airways	UK	Air Nostrum	Turkey	Orlando(Intl) FL USA Almeria Spain Ibiza Spain La Coruna Spain London(Gatwick) England UK Madrid Spain	Madrid Spain Barcelona Spain London(Heathrow) England UK Menorca Spain Murcia Spain Pamplona Spain Santander Spain
		American Airlines	USA	Albuquerque NM USA Atlanta(Intl) GA USA Austin(Bergstrom Intl) TX USA	Dallas/Ft. Worth(Intl) TX USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Dallas/Ft. Worth(Intl) TX USA Miami(Intl) FL USA Dallas/Ft. Worth(Intl) TX USA Manchester England UK St. Louis(Intl) MO USA Miami(Intl) FL USA Calgary AB Canada Fayetteville(Regional) AR USA Portland OR USA San Antonio TX USA San Diego(Intl) CA USA St. Louis(Intl) MO USA Tampa(Intl) FL USA Tulsa OK USA
				Belize City(Intl) Belize Birmingham AL USA Boston(Intl) MA USA Cancun Mexico Chicago(O'Hare) IL USA	Chicago(O'Hare) IL USA Dallas/Ft. Worth(Intl) TX USA Miami(Intl) FL USA Calgary AB Canada Cancun Mexico El Paso TX USA Kansas City(Intl) MO USA Las Vegas(Intl) NV USA McAllen TX USA Memphis TN USA New Orleans(Intl) LA USA Oklahoma City(Rogers) Oklahoma USA Palm Springs CA USA San Antonio TX USA San Diego(Intl) CA USA San Jose(Santamaria) Costa Rica St. Louis(Intl) MO USA Tucson AZ USA Tulsa OK USA
				Cincinnati(Intl) OH USA Colorado Springs CO USA Curacao Neth. Antilles Dallas/Ft. Worth(Intl) TX USA	Chicago(O'Hare) IL USA Dallas/Ft. Worth(Intl) TX USA Miami(Intl) FL USA Calgary AB Canada Cancun Mexico El Paso TX USA Kansas City(Intl) MO USA Las Vegas(Intl) NV USA McAllen TX USA Memphis TN USA New Orleans(Intl) LA USA Oklahoma City(Rogers) Oklahoma USA Palm Springs CA USA San Antonio TX USA San Diego(Intl) CA USA San Jose(Santamaria) Costa Rica St. Louis(Intl) MO USA Tucson AZ USA Tulsa OK USA



Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Jakarta(Intl) Indonesia	Penang Malaysia Seoul(Incheon Intl) Rep. of Korea Surabaya Indonesia Hong Kong(Intl) China
		Comair	South Africa	Cape Town(Intl) South Africa	Durban(Intl) South Africa Johannesburg(Intl) South Africa Johannesburg(Intl) South Africa George South Africa
		Eastern Australia	Australia	Cannberra AC Australia	Sydney(Intl) NS Australia
		Finnair	Finland	Copenhagen(Intl) Denmark Gothenburg(Landvetter) Sweden	Helsinki Finland Copenhagen(Intl) Denmark Helsinki Finland Oslo Norway Manchester England UK Oslo Norway Manchester England UK
		Iberia	Spain	Barcelona Spain	Ibiza Spain Jerez De La Frontera Spain Valencia Spain Madrid Spain Madrid Spain London(Heathrow) England UK Madrid Spain Lanzarote Canary Is. Lima Peru London(Heathrow) England UK Madrid Spain Malaga Spain San Sebastian Spain
		Japan Airlines	Japan	Fukuoka Japan Nagoya(Intl) Japan Osaka(Itami) Japan Tokyo(Narita) Japan	Tokyo(Narita) Japan Tokyo(Narita) Japan Tokyo(Narita) Japan Seoul(Incheon Intl) Rep. of Korea
		Jetconnect	New Zealand	Melbourne(Intl) VI Australia Sydney(Intl) NS Australia	Wellington New Zealand Wellington New Zealand
		Lan Airlines	Chile	Buenos Aires(Pistarmi) BA Argentina	Santiago(Intl) Chile
		Qantas Airways	Australia	Adelaide SA Australia	Melbourne(Intl) VI Australia Singapore(Changi) Sydney(Intl) NS Australia Brisbane QL Australia Los Angeles(Intl) CA USA Melbourne(Intl) VI Australia Darwin NT Australia Melbourne(Intl) VI Australia Sydney(Intl) NS Australia Cairns QL Australia Singapore(Changi) Darwin NT Australia Cannberra AC Australia Christchurch New Zealand Sydney(Intl) NS Australia Darwin NT Australia Singapore(Changi) Singapore(Changi) Sydney(Intl) NS Australia Melbourne(Intl) VI Australia Launceston TS Australia Melbourne(Intl) VI Australia Los Angeles(Intl) CA USA Melbourne(Intl) VI Australia Wellington New Zealand Perth WA Australia Darwin NT Australia Sydney(Intl) NS Australia Cannberra AC Australia Wellington New Zealand
		SN Brussels Airlines	Belgium	Brussels Belgium	Newcastle England UK
Bulgaria Air	Bulgaria	Hemus Air	Bulgaria	Beirut Lebanon	Dubai U.A. Emirates Sofia Bulgaria
		LOT Polish Airlines	Poland	Sofia Bulgaria	Warsaw(F. Chopin) Poland
		MALEV Hungarian Airlines	Hungary	Bourgas Bulgaria Budapest Hungary	Budapest Hungary Sofia Bulgaria Varna Bulgaria
CCM Airlines	France	Air France	France	Ajaccio Corsica France	Clermont-Ferrand France Geneva Switzerland Quimper France Clermont-Ferrand France Geneva Switzerland Strasbourg France Lille France Nantes France Strasbourg France
				Bastia Corsica France Calvi Corsica France	
				Figari France	
Cirrus Airlines	Germany	Air Moldova	Moldova	Frankfurt Germany	Chisinau Moldova
City Airline	Sweden	MALEV Hungarian Airlines	Hungary	Budapest Hungary	Gothenburg(Landvetter) Sweden
Czech Airlines	Czech Rep	Aerienne Europeene	France	Mulhouse France	Paris(Charles De Gaulle) France
		Air France	France	Lyon(St. Exupery) France	Prague Czech Rep.
		Air Malta	Malta	Malta	Prague Czech Rep.
		Korean Air	South Korea	Seoul(Incheon Intl) Rep. of Korea	Prague Czech Rep.
dba	Germany	Germania Fluggesellschaft	Germany	Moscow(Domododovo) Russian Fed.	Berlin(Tegel) Germany Dusseldorf(Intl) Germany
Eurofly	Italy	Air One	Italy	Milan(Linate) Italy	Naples(Intl) Italy
		British Airways	UK	London(Heathrow) England UK	Milan(Linate) Italy
Eurowings Luftverkehrs	Germany	germanwings	Germany	Cologne/Bonn(Intl) Germany	Barcelona Spain
Finnair	Finland	British Airways	UK	Stockholm(Arlanda) Sweden	London(Heathrow) England UK
		Qantas Airways	Australia	Bangkok (Intl) Thailand Brisbane QL Australia Darwin NT Australia	Sydney(Intl) NS Australia Singapore(Changi) Brisbane QL Australia Singapore(Changi)
		Sun-Air	USA	Billund Denmark	Helsinki Finland
Flybe British European	UK	Continental Airlines	USA	Birmingham England UK Newark/New York(Liberty) NJ USA	Newark/New York(Liberty) NJ USA Glasgow(Intl) Scotland UK Manchester England UK
Hemus Air	Bulgaria	Viaggio Air	Bulgaria	Sofia Bulgaria	Vienna Austria
Iberia	Spain	American Airlines	USA	Atlanta(Intl) GA USA Boston(Intl) MA USA	Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Chicago(O'Hare) IL USA Dallas/Ft. Worth(Intl) TX USA Denver(Intl) CO USA Houston(G.Bush Intl) TX USA Las Vegas(Intl) NV USA Los Angeles(Intl) CA USA Miami(Intl) FL USA Minneapolis/St. Paul(Intl) MN USA New Orleans(Intl) LA USA New York(Kennedy) NY USA Orlando(Intl) FL USA Philadelphia(Intl) PA USA Washington (Reagan Nat'l) DC USA	Detroit(Metro Wayne) MI USA Phoenix(Intl) AZ USA San Diego(Intl) CA USA San Francisco(Intl) CA USA Seattle/Tacoma(Intl) WA USA St. Louis(Intl) MO USA Chicago(O'Hare) IL USA Miami(Intl) FL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA San Juan(Intl) PR USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Los Angeles(Intl) CA USA San Francisco(Intl) CA USA San Juan(Intl) PR USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA
	American Eagle	USA		Boston(Intl) MA USA Chicago(O'Hare) IL USA Cleveland(Intl) OH USA Detroit(Metro Wayne) MI USA Minneapolis/St. Paul(Intl) MN USA St. Louis(Intl) MO USA Washington (Reagan Nat'l) DC USA	New York(Kennedy) NY USA Atlanta(Intl) GA USA Philadelphia(Intl) PA USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA New York(Kennedy) NY USA Chicago(O'Hare) IL USA New York(Kennedy) NY USA
	Avianca	Colombia		Armenia Colombia Barranquilla Colombia Bogota Colombia Bucaramanga Colombia Cali Colombia	Bogota Colombia Bogota Colombia Cali Colombia Cartagena Colombia Medellin(Cordova) Colombia Pereira Colombia Bogota Colombia Madrid Spain
	British Airways	UK		Aberdeen Scotland UK Bangkok (Intl) Thailand Barcelona Spain Birmingham England UK Budapest Hungary Dubai U.A. Emirates Edinburgh Scotland UK Glasgow(Intl) Scotland UK London(Gatwick) England UK London(Heathrow) England UK	London(Heathrow) England UK London(Heathrow) England UK Birmingham England UK London(Gatwick) England UK Madrid Spain London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Madrid Spain London(Heathrow) England UK Madrid Spain Montreal(P.E. Trudeau) QC Canada Nairobi(Intl) Kenya Newcastle England UK Oslo Norway Singapore(Changi) Toronto(Pearson Intl) ON Canada Vancouver(Intl) BC Canada Warsaw(F. Chopin) Poland
	Cathay Pacific Airways	Hong Kong		Amsterdam Netherlands	Hong Kong(Intl) China
	Comair	South Africa		Cape Town(Intl) South Africa Durban(Intl) South Africa Harare Zimbabwe Johannesburg(Intl) South Africa	Johannesburg(Intl) South Africa Johannesburg(Intl) South Africa Johannesburg(Intl) South Africa Pt. Elizabeth South Africa Victoria Falls Zimbabwe
	Finnair	Finland		Amsterdam Netherlands Barcelona Spain Brussels Belgium Copenhagen(Intl) Denmark Dusseldorf(Intl) Germany Frankfurt Germany Geneva Switzerland Helsinki Finland Stockholm(Arlanda) Sweden	Helsinki Finland Helsinki Finland Helsinki Finland Brussels Belgium Helsinki Finland Helsinki Finland Helsinki Finland Copenhagen(Intl) Denmark Kuopio Finland Madrid Spain Oulu Finland Vaasa Finland Helsinki Finland
	flyLAL	Lithuania		Brussels Belgium Frankfurt Germany	Vilnius Lithuania Vilnius Lithuania
	GB Air	UK		Faro Portugal Ibiza Spain Lanzarote Canary Is. Las Palmas(Gran Canaria) Canary Is. London(Gatwick) England UK Malaga Spain Manchester England UK	London(Gatwick) England UK London(Gatwick) England UK London(Gatwick) England UK Manchester England UK Las Palmas(Gran Canaria) Canary Is. Menorca Spain Murcia Spain Palma Mallorca Spain Sevilla Spain Tenerife(Norte) Canary Is. Tenerife(Sofia) Canary Is. Valencia Spain London(Gatwick) England UK Manchester England UK Tenerife(Sofia) Canary Is.
	Japan Airlines	Japan		Amsterdam Netherlands	Tokyo(Narita) Japan
	LACSA	Costa Rica		Managua Nicaragua San Jose(Santamaria) Costa Rica San Pedro Sula Honduras San Salvador El Salvador	San Jose(Santamaria) Costa Rica Guatemala City Guatemala San Jose(Santamaria) Costa Rica San Jose(Santamaria) Costa Rica
	Lan Airlines	Chile		Antofagasta Chile Cordoba CD Argentina Easter Is. Chile Mendoza MD Argentina Punta Arenas Chile Santiago(Intl) Chile	Santiago(Intl) Chile Santiago(Intl) Chile Santiago(Intl) Chile Santiago(Intl) Chile Santiago(Intl) Chile Puerto Montt Chile
	MALEV Hungarian Airlines	Hungary		Budapest Hungary	Frankfurt Germany

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					Madrid Spain Munich(Intl) Germany Rome(Fiumicino) Italy Zurich Switzerland Budapest Hungary
		Mexicana De Aviacion	Mexico	Malaga Spain Acapulco Mexico Cancun Mexico Guadalajara Mexico Guatemala City Guatemala Mexico City(Juarez) Mexico	Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico Mexico City(Juarez) Mexico Merida Mexico Monterrey Mexico Oaxaca Mexico Puerto Vallarta Mexico Veracruz Mexico
		Royal Air Maroc	Morocco	Barcelona Spain Casablanca(Mohammed V.) Morocco	Tangier Morocco Fez Morocco Oujda Morocco Valencia Spain
		Royal Jordanian	Jordan	Amman(Intl) Jordan	Barcelona Spain Madrid Spain
		SN Brussels Airlines	Belgium	Bilbao Spain Brussels Belgium	Brussels Belgium Copenhagen(Intl) Denmark Gothenburg(Landvetter) Sweden Hamburg(Fuhlsbuettel) Germany Sevilla Spain
		Sterling Blue	UK	Barcelona Spain	Copenhagen(Intl) Denmark
		SWISS	Switzerland	Budapest Hungary Nuremberg Germany Vienna Austria Warsaw(F. Chopin) Poland	Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland
		SWISS European Air	Switzerland	Zurich Switzerland	Budapest Hungary
		Syrian Arab Airlines	Syria	Barcelona Spain	Damascus Syria
		Taca Intl Airlines	El Salvador	Guatemala City Guatemala	San Pedro Sula Honduras San Salvador El Salvador San Salvador El Salvador San Jose(Santamaria) Costa Rica
		TAROM-Romanian Air Transp	Romania	San Jose(Santamaria) Costa Rica San Pedro Sula Honduras	San Jose(Santamaria) Costa Rica
		Transport Aereos Mercosur	Paraguay	Barcelona Spain Madrid Spain	Bucharest(Otopeni) Romania Bucharest(Otopeni) Romania
		Ukraine Intl Airlines	Ukraine	Asuncion Paraguay Barcelona Spain	Sao Paulo(Intl) SP Brazil Kiev(Borispol) Ukraine Lviv(Snilow) Ukraine Madrid Spain
Icelandair	Iceland	Austrian Airlines	Austria	Kiev(Borispol) Ukraine	Vienna Austria
KLM-Royal Dutch Airlines	Netherlands	Aerienne Europeene	France	Reykjavik(Intl) Iceland Amsterdam Netherlands	Clermont-Ferrand France Strasbourg France
		Airlinair	France	Paris(Charles De Gaulle) France	Eindhoven Netherlands
		Alitalia	Italy	Rome(Fiumicino) Italy	Thessaloniki Greece
		China Southern Airlines	China	Amsterdam Netherlands	Guangzhou China
		Continental Airlines	USA	Milan (Malpensa) Italy	Miami(Intl) FL USA
		European Air Express	Germany	Amsterdam Netherlands	Muenster Germany
		Expressjet/CO Express	USA	Aguascalientes Mexico Amarillo TX USA Atlanta(Intl) GA USA Bakersfield CA USA Birmingham AL USA  Brownsville TX USA Chicago(O'Hare) IL USA Chihuahua Mexico  Cincinnati(Intl) OH USA Cleveland(Intl) OH USA  Columbus(Intl) OH USA Fayetteville(Regional) AR USA Grand Rapids MI USA Greenville/Spartanburg SC USA Houston(G.Bush Intl) TX USA Kansas City(Intl) MO USA  Los Cabos Mexico  Lubbock(P. Smith Intl) TX USA Manchester (Boston Regional) NH USA Memphis TN USA Milwaukee WI USA Mobile AL USA Monclova Mexico Monterrey Mexico  Morelia Mexico Newark/New York(Liberty) NJ USA Norfolk/Va.Bch/Wmbg VA USA Omaha NE USA  Palm Springs CA USA Phoenix(Intl) AZ USA Pittsburgh(Intl) PA USA Puebla Mexico Raleigh/Durham NC USA  Saltito Mexico  San Luis Potosi Mexico  Savannah/Hilton Head GA USA Tampico Mexico Torreon Mexico  Tucson AZ USA Veracruz Mexico	Cincinnati(Intl) OH USA Asheville NC USA Monterrey Mexico Oaxaca Mexico Baltimore(Intl) MD USA Chihuahua Mexico Huntsville/Decatur AL USA Mexico City(Juarez) Mexico Charleston WV USA Montgomery AL USA Harlingen TX USA Houston(G.Bush Intl) TX USA Lubbock(P. Smith Intl) TX USA Newark/New York(Liberty) NJ USA Baltimore(Intl) MD USA Monclova Mexico Veracruz Mexico Lubbock(P. Smith Intl) TX USA Laredo TX USA Aguascalientes Mexico Corpus Christi TX USA Louisville KY USA Pensacola FL USA Louisville KY USA Burlington VT USA Ixtapa/Zihuatanejo Mexico Morelia Mexico Saltillo Mexico Killeen Gray AAF TX USA Ft. Walton Beach FL USA Knoxville TN USA Lake Charles LA USA Phoenix(Intl) AZ USA Houston(G.Bush Intl) TX USA Puebla Mexico Durango Mexico Leon/Guanajuato Mexico Aguascalientes Mexico Puerto Vallarta Mexico Burlington VT USA Greensboro/H.PtWin-Salem NC USA Detroit(Metro Wayne) MI USA Durango Mexico Manchester (Boston Regional) NH USA Brownsville TX USA Des Moines IA USA Lake Charles LA USA Memphis TN USA Newark/New York(Liberty) NJ USA Montreal(P.E. Trudeau) QC Canada Raleigh/Durham NC USA Chattanooga TN USA Fayetteville(Regional) AR USA Tampico Mexico Louisville KY USA

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Villahermosa Mexico	Pittsburgh(Intl) PA USA West Palm Beach(Intl) FL USA Colorado Springs CO USA West Palm Beach(Intl) FL USA
		Horizon Air	USA	Seattle/Tacoma(Intl) WA USA Walla Walla WA USA	Pasco WA USA Seattle/Tacoma(Intl) WA USA
		Kenya Airways	Kenya	Nairobi(Intl) Kenya	Johannesburg(Intl) South Africa
		KLM City Hopper	Netherlands	Amsterdam Netherlands	Luxembourg
		Malaysia Airlines	Malaysia	Adelaide SA Australia Auckland New Zealand Brisbane QL Australia Kuala Lumpur(Intl) Malaysia	Kuala Lumpur(Intl) Malaysia Kuala Lumpur(Intl) Malaysia Kuala Lumpur(Intl) Malaysia Melbourne(Intl) VI Australia Perth WA Australia Sydney(Intl) NS Australia
		Meridiana	Italy	Amsterdam Netherlands	Florence Italy
		Northwest Airlines	USA	Amsterdam Netherlands	Boston(Intl) MA USA Mumbai India Seattle/Tacoma(Intl) WA USA
		Portugalia	Portugal	Amsterdam Netherlands	Porto Portugal
LOT Polish Airlines	Poland	Augsburg Airways	Germany	Munich(Intl) Germany	Poznan Poland
		Eurowings Luftverkehrs	Germany	Frankfurt Germany Krakow(Balice Intl) Poland	Katowice Poland Munich(Intl) Germany
		Lufthansa Cityline	Germany	Frankfurt Germany Krakow(Balice Intl) Poland Munich(Intl) Germany	Katowice Poland Munich(Intl) Germany Poznan Poland
		Lufthansa German Airlines	Germany	Frankfurt Germany Krakow(Balice Intl) Poland Munich(Intl) Germany	Katowice Poland Munich(Intl) Germany Poznan Poland
Lufthansa German Airlines	Germany	Adria Airways	Slovenia	Frankfurt Germany Ljubljana Slovenia	Ljubljana Slovenia Munich(Intl) Germany
		Aeal-Spanair Link	Spain	Alicante Spain Asturias Spain Barcelona Spain  Fuerteventura Canary Is. Ibiza Spain Jerez De La Frontera Spain Lanzarote Canary Is. Las Palmas(Gran Canaria) Canary Is. Madrid Spain  Malaga Spain	Barcelona Spain Madrid Spain Asturias Spain Las Palmas(Gran Canaria) Canary Is. Palma Mallorca Spain Sevilla Spain Tenerife(Norte) Canary Is. Vigo Spain Madrid Spain Madrid Spain Madrid Spain Madrid Spain Madrid Spain Alicante Spain Palma Mallorca Spain Santiago De Compostela Spain Tenerife(Norte) Canary Is. Valencia Spain Vigo Spain Barcelona Spain Madrid Spain
		Aegean Airlines	Greece	Dusseldorf(Intl) Germany Frankfurt Germany Munich(Intl) Germany Thessaloniki Greece	Thessaloniki Greece Thessaloniki Greece Thessaloniki Greece Stuttgart(Echterdingen) Germany
		Air Canada	Canada	Edmonton(Intl) AB Canada Frankfurt Germany Munich(Intl) Germany	Frankfurt Germany Calgary AB Canada Toronto(Pearson Intl) ON Canada
		Air Central	Japan	Niigata Japan Tokyo(Narita) Japan	Nagoya(Intl) Japan Nagoya(Intl) Japan Sendai Japan
		Air China	China	Beijing(Capital) China  Chengdu China  Dalian China Frankfurt Germany Guangzhou China  Hangzhou China Nanjing China Shanghai (Pu Dong) China	Xi An(Xiayang) China Xiamen China Beijing(Capital) China Shanghai (Pu Dong) China Munich(Intl) Germany Shenyang China Beijing(Capital) China Hangzhou China Wenzhou China Beijing(Capital) China Beijing(Capital) China Wenzhou China
		Air Dolomiti	Italy	Bari Italy	Verona Italy Vienna Austria
		Air New Zealand	New Zealand	Auckland New Zealand	Christchurch New Zealand Hong Kong(Intl) China San Francisco(Intl) CA USA Singapore(Changi) Los Angeles(Intl) CA USA
		Air Nippon	Japan	Fukuoka Japan  Kagoshima Japan Miyazaki Japan Nagoya(Intl) Japan  Sapporo(Chitose) Japan Tokyo(Haneda) Japan Tokyo(Narita) Japan	Nagoya(Intl) Japan Osaka(Kansai Intl) Japan Tokyo(Narita) Japan Nagoya(Intl) Japan Nagoya(Intl) Japan Nagasaki Japan Okinawa Japan Sendai Japan Nagoya(Intl) Japan Osaka(Kansai Intl) Japan Nagoya(Intl) Japan
		Air One	Italy	Bari Italy  Bologna Italy Brindisi Italy Catania Italy  Genoa Italy  Lamezia Terme Italy	Milan(Linate) Italy Rome(Fiumicino) Italy Turin Italy Venice Italy Lamezia Terme Italy Milan(Linate) Italy Genoa Italy Milan(Linate) Italy Pisa(Galileo) Italy Rome(Fiumicino) Italy Naples(Intl) Italy Palermo Italy Turin Italy Venice Italy

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Milan(Linate) Italy	Lamezia Terme Italy Lampedusa Italy Naples(Intl) Italy Palermo Italy Pantelleria Italy Pescara Italy Reggio Calabria Italy Trieste Italy Turin Italy Pisa(Galileo) Italy Turin Italy Venice Italy Genoa Italy Lamezia Terme Italy Lampedusa Italy Milan(Linate) Italy Palermo Italy Pantelleria Italy Trieste Italy Turin Italy Venice Italy
		All Nippon Airways	Japan	Fukuoka Japan Miyazaki Japan Nagoya(Intl) Japan	Osaka(Kansai Intl) Japan Nagoya(Intl) Japan Kagoshima Japan Niigata Japan Okinawa Japan Sendai Japan Tokyo(Narita) Japan Okinawa Japan Nagoya(Intl) Japan Tokyo(Narita) Japan Osaka(Kansai Intl) Japan
		Blue1	Finland	Tokyo(Haneda) Japan Hamburg(Fuhlsbuettel) Germany Helsinki Finland	Helsinki Finland Berlin(Tegel) Germany
		BMI British Midland	UK	Aberdeen Scotland UK Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Edinburgh Scotland UK Glasgow(Intl) Scotland UK Hanover Germany Inverness Scotland UK Leeds/Bradford England UK London(Heathrow) England UK	London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Milan(Linate) Italy Naples(Intl) Italy Teesside England UK Venice Italy London(Heathrow) England UK
		BMI Regional	UK	Aberdeen Scotland UK Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Edinburgh Scotland UK Glasgow(Intl) Scotland UK Hanover Germany Inverness Scotland UK Leeds/Bradford England UK London(Heathrow) England UK Paris(Charles De Gaulle) France	London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Teesside England UK London(Heathrow) England UK
		Braathens ASA	Norway	Oslo Norway	Berlin(Tegel) Germany
		Cimber Air	Denmark	Billund Denmark Cologne/Bonn(Intl) Germany Copenhagen(Intl) Denmark	Munich(Intl) Germany Copenhagen(Intl) Denmark Nuremberg Germany
		Cirrus Airlines	Germany	Billund Denmark Brno Czech Rep. Dresden Germany Erfurt Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Heringsdorf Germany Kiel Germany London(City) England UK Mannheim Germany Nuremberg Germany Saarbruecken Germany Stuttgart(Echterdingen) Germany Westerland (Sylt) Germany	Frankfurt Germany Munich(Intl) Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany Skopje Macedonia Leipzig/Halle Germany Mannheim Germany Saarbruecken Germany Berlin(Tempelhof) Germany Munich(Intl) Germany Berlin(Tempelhof) Germany Saarbruecken Germany Zurich Switzerland Berlin(Tempelhof) Germany Zurich Switzerland Berlin(Tempelhof) Germany
		Croatia Airlines	Croatia	Dubrovnik Croatia Frankfurt Germany Munich(Intl) Germany	Frankfurt Germany Split Croatia Split Croatia
		EuroLOT SA	Poland	Berlin(Tegel) Germany Frankfurt Germany Gdansk Poland	Warsaw(F. Chopin) Poland Poznan Poland Wroclaw Poland Hamburg(Fuhlsbuettel) Germany
		Gestion Aerea Ejec	Spain	Palma Mallorca Spain	Barcelona Spain
		Jat Airways	Serbia-Montenegro	Belgrade Serbia & Montenegro	Berlin(Schoenfeld) Germany Berlin(Tegel) Germany Dusseldorf(Intl) Germany Stuttgart(Echterdingen) Germany
		LOT Polish Airlines	Poland	Berlin(Tegel) Germany Frankfurt Germany Gdansk Poland Hamburg(Fuhlsbuettel) Germany	Warsaw(F. Chopin) Poland Gdansk Poland Krakow(Balice Intl) Poland Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany Warsaw(F. Chopin) Poland
		Luxair-Luxembourg Airline	Luxembourg	Luxembourg	Berlin(Tegel) Germany Munich(Intl) Germany
		Mexicana De Aviacion	Mexico	Veracruz Mexico	Mexico City(Juarez) Mexico

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		Qatar Airways	Qatar	Doha(Intl) Qatar	Munich(Intl) Germany
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Copenhagen(Intl) Denmark	Berlin(Tegel) Germany Dusseldorf(Intl) Germany Hamburg(Fuhlsbuettel) Germany Hanover Germany Stuttgart(Echterdingen) Germany Madrid Spain Jerez De La Frontera Spain Berlin(Tegel) Germany Berlin(Tegel) Germany
		Singapore Airlines	Singapore	La Coruna Spain Madrid Spain Oslo Norway Stockholm(Arlanda) Sweden	Singapore(Changi) Singapore(Changi) Singapore(Changi) Singapore(Changi) Singapore(Changi) Sydney(Intl) NS Australia
		Spanair	Spain	Alicante Spain  Barcelona Spain  Bari Italy Brindisi Italy Catania Italy Fuerteventura Canary Is. Ibiza Spain La Coruna Spain Lamezia Terme Italy Lanzarote Canary Is. Las Palmas(Gran Canaria) Canary Is. Madrid Spain  Malaga Spain  Milan(Linate) Italy  Munich(Intl) Germany Naples(Intl) Italy Palermo Italy  Rome(Fiumicino) Italy Tenerife(Sofia) Canary Is.	Barcelona Spain Madrid Spain Asturias Spain Las Palmas(Gran Canaria) Canary Is. Palma Mallorca Spain Sevilla Spain Tenerife(Norte) Canary Is. Vigo Spain Rome(Fiumicino) Italy Milan(Linate) Italy Milan(Linate) Italy Madrid Spain Madrid Spain Turin Italy Madrid Spain Madrid Spain Asturias Spain Bilbao Spain Jerez De La Frontera Spain Palma Mallorca Spain Santiago De Compostela Spain Tenerife(Norte) Canary Is. Tenerife(Sofia) Canary Is. Valencia Spain Vigo Spain Barcelona Spain Madrid Spain Naples(Intl) Italy Palermo Italy Valencia Spain Turin Italy Pisa(Galileo) Italy Turin Italy Turin Italy Malaga Spain
		SWISS	Switzerland	Nuremberg Germany Santiago(Intl) Chile Sao Paulo(Intl) SP Brazil	Zurich Switzerland Zurich Switzerland Zurich Switzerland
		SWISS European Air	Switzerland	Nuremberg Germany Stuttgart(Echterdingen) Germany	Zurich Switzerland Zurich Switzerland
		TAP Air Portugal	Portugal	Funchal Madeira Portugal	Frankfurt Germany
		Thai Airways Intl	Thailand	Bangkok (Intl) Thailand	Brisbane QL Australia Melbourne(Intl) VI Australia Perth WA Australia Sydney(Intl) NS Australia Phuket Thailand
		Titan Airways	UK	Perth WA Australia Inverness Scotland UK Teesside England UK	London(Heathrow) England UK London(Heathrow) England UK
		Tyrolean Airways	Austria	Dresden Germany Dusseldorf(Intl) Germany  Frankfurt Germany  Leipzig/Halle Germany Nuremberg Germany	Vienna Austria Graz Austria Linz Austria Salzburg Austria Innsbruck Austria Klagenfurt Austria Salzburg Austria Vienna Austria Vienna Austria
		United Airlines	USA	Honolulu Oahu HI USA	Los Angeles(Intl) CA USA San Francisco(Intl) CA USA
		US Airways	USA	Charlotte NC USA Munich(Intl) Germany	Frankfurt Germany Philadelphia(Intl) PA USA
		Varig S.A.	Brazil	Cologne/Bonn(Intl) Germany Porto Alegre RS Brazil Rio De Janeiro(Intl) RJ Brazil	Sao Paulo(Intl) SP Brazil Sao Paulo(Intl) SP Brazil Munich(Intl) Germany
MALEV Hungarian Airlines	Hungary	Carpatair	Romania	Budapest Hungary	Cluj Romania
		Czech Airlines	Czech Rep	Dusseldorf(Intl) Germany	Prague Czech Rep.
		Hainan Airlines	China	Budapest Hungary	Beijing(Capital) China
		Iberia	Spain	Barcelona Spain  Bilbao Spain Frankfurt Germany Madrid Spain  Rome(Fiumicino) Italy	Frankfurt Germany Rome(Fiumicino) Italy Madrid Spain Madrid Spain Munich(Intl) Germany Sevilla Spain Madrid Spain
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Newcastle England UK
		Oit Ostfriesische Lufttra	Germany	Budapest Hungary	Debrecen Hungary
		Pulkovo Aviation Enterpri	Russia	Budapest Hungary	St. Petersburg(Pulkovo) Russian Fed.
Munich Airlines	Germany	Eurofly	Italy	Bermuda Atlantic Ocean	Milan (Malpensa) Italy Munich(Intl) Germany
Olympic Airways	Greece	Aerosvit Airlines	Ukraine	Athens (Intl) Greece  Kiev(Borispol) Ukraine	Kiev(Borispol) Ukraine Odessa Ukraine Thessaloniki Greece
		Air Malta	Malta	Athens (Intl) Greece	Malta
		Cyprus Airways	Cyprus	Larnaca Cyprus Paphos Cyprus	Paphos Cyprus Thessaloniki Greece
		Czech Airlines	Czech Rep	Athens (Intl) Greece	Prague Czech Rep.
		Gulf Air	Bahrain/United Arab Emirates/	Athens (Intl) Greece Bahrain Singapore(Changi)	Bahrain Sydney(Intl) NS Australia Sydney(Intl) NS Australia

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
Portugalia	Portugal	Aerienne Europeene	France	Bordeaux France	Clermont-Ferrand France Porto Portugal
		Air Europa	Spain	Barcelona Spain  Budapest Hungary Fuerteventura Canary Is. Ibiza Spain Lanzarote Canary Is.  Las Palmas(Gran Canaria) Canary Is. Madrid Spain  Palma Mallorca Spain Rome(Fiumicino) Italy	Ibiza Spain Menorca Spain Palma Mallorca Spain Madrid Spain Madrid Spain Madrid Spain Barcelona Spain Madrid Spain Madrid Spain Palma Mallorca Spain Santiago De Compostela Spain Tenerife(Norte) Canary Is. Tenerife(Sofia) Canary Is. Warsaw(F. Chopin) Poland Valencia Spain Madrid Spain
		Air France	France	Athens (Intl) Greece Paris(Charles De Gaulle) France   Stockholm(Arlanda) Sweden	Paris(Charles De Gaulle) France Copenhagen(Intl) Denmark Hamburg(Fuhlsbuettel) Germany Lisbon Portugal Oslo Norway Warsaw(F. Chopin) Poland Paris(Charles De Gaulle) France
		Air Luxor	Portugal	Dublin Ireland	Faro Portugal Lisbon Portugal
		Alitalia	Italy	Budapest Hungary Milan (Malpensa) Italy	Milan (Malpensa) Italy Warsaw(F. Chopin) Poland
		Alitalia Express	Italy	Dusseldorf(Intl) Germany Milan (Malpensa) Italy  Munich(Intl) Germany	Milan (Malpensa) Italy Stuttgart(Echterdingen) Germany Vienna Austria Milan (Malpensa) Italy
		Regional Airlines	Morocco	Casablanca(Mohammed V.) Morocco	Lisbon Portugal
		Spanair	Spain	Madrid Spain	Copenhagen(Intl) Denmark
SAS Scandinavian Airlines	Denmark/Norway/Sweden	Air Baltic	Latvia	Amsterdam Netherlands Berlin(Tegel) Germany Brussels Belgium Cologne/Bonn(Intl) Germany Copenhagen(Intl) Denmark Dublin Ireland  Dusseldorf(Intl) Germany  Hamburg(Fuhlsbuettel) Germany  Helsinki Finland  London(Gatwick) England UK  London(Heathrow) England UK Manchester England UK Milan (Malpensa) Italy Munich(Intl) Germany Oslo Norway  Paris(Charles De Gaulle) France Riga Latvia  Tallinn Estonia Vienna Austria	Riga Latvia Vilnius Lithuania Riga Latvia Riga Latvia Riga Latvia Riga Latvia Vilnius Lithuania Riga Latvia Vilnius Lithuania Riga Latvia Vilnius Lithuania Riga Latvia Vilnius Lithuania Riga Latvia Riga Latvia Riga Latvia Vilnius Lithuania Riga Latvia Vilnius Lithuania Riga Latvia Berlin(Tegel) Germany Tallinn Estonia Vilnius Lithuania Vilnius Lithuania
		Air Canada	Canada	St. Johns NL Canada Toronto(Pearson Intl) ON Canada	Halifax(Intl) NS Canada London(Heathrow) England UK
		Austrian Airlines	Austria	Gothenburg(Landvetter) Sweden Helsinki Finland Stockholm(Arlanda) Sweden Zagreb Croatia	Vienna Austria Vienna Austria Vienna Austria Vienna Austria
		Blue1	Finland	Amsterdam Netherlands Athens (Intl) Greece Barcelona Spain Brussels Belgium Budapest Hungary Copenhagen(Intl) Denmark  Dublin Ireland Gothenburg(Landvetter) Sweden Helsinki Finland  Paris(Charles De Gaulle) France Rome(Fiumicino) Italy Stockholm(Arlanda) Sweden	Helsinki Finland Helsinki Finland Helsinki Finland Helsinki Finland Helsinki Finland Oulu Finland Vaasa Finland Helsinki Finland Helsinki Finland Kuopio Finland London(Stansted) England UK Nice France Oslo Norway Oulu Finland Rovaniemi Finland Vaasa Finland Warsaw(F. Chopin) Poland Zurich Switzerland Helsinki Finland Helsinki Finland Oulu Finland Vaasa Finland
		BMI British Midland	UK	Copenhagen(Intl) Denmark  London(Heathrow) England UK	Edinburgh Scotland UK Glasgow(Intl) Scotland UK Edinburgh Scotland UK
		BMI Regional	UK	Copenhagen(Intl) Denmark	Edinburgh Scotland UK Glasgow(Intl) Scotland UK
		Carpatair	Romania	Dusseldorf(Intl) Germany Oslo Norway	Vilnius Lithuania Vilnius Lithuania
		Cimber Air	Denmark	Basel Switzerland Bergen Norway Billund Denmark Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden	Copenhagen(Intl) Denmark Billund Denmark Oslo Norway Bucharest(Otopeni) Romania Billund Denmark
		City Airline	Sweden	Birmingham England UK Gothenburg(Landvetter) Sweden	Gothenburg(Landvetter) Sweden Lulea Sweden Lyon(St. Exupery) France

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					Manchester England UK Visby Sweden Zurich Switzerland
		Estonian Air	Estonia	Copenhagen(Intl) Denmark Oslo Norway	Tallinn Estonia Tallinn Estonia
		Icelandair	Iceland	Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden	Reykjavik(Intl) Iceland Reykjavik(Intl) Iceland
		JetX	Philippines	Copenhagen(Intl) Denmark Dublin Ireland London(Gatwick) England UK Manchester England UK Milan (Malpensa) Italy Oslo Norway Paris(Charles De Gaulle) France Riga Latvia	Riga Latvia Riga Latvia Riga Latvia Riga Latvia Riga Latvia Riga Latvia Riga Latvia Berlin(Tegel) Germany
		Lufthansa German Airlines	Germany	Abu Dhabi(Intl) U.A. Emirates  Alexandria(Borg El Arab) Egypt Atlanta(Intl) GA USA Bergen Norway Cairo Egypt Dallas/Ft. Worth(Intl) TX USA Dubai U.A. Emirates Dusseldorf(Intl) Germany Florence Italy Frankfurt Germany  Geneva Switzerland Gothenburg(Landvetter) Sweden  Hamburg(Fuhlsbuettel) Germany Helsinki Finland Marseille France Munich(Intl) Germany  Turin Italy  Vienna Austria	Bahrain Dubai U.A. Emirates Frankfurt Germany Kuwait Frankfurt Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Gothenburg(Landvetter) Sweden Munich(Intl) Germany Helsinki Finland Kuwait Larnaca Cyprus Los Angeles(Intl) CA USA Muenster Germany Portland OR USA San Francisco(Intl) CA USA Stavanger Norway Venice Italy Munich(Intl) Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany Oslo Norway Munich(Intl) Germany Munich(Intl) Germany Bordeaux France Lyon(St. Exupery) France Milan (Malpensa) Italy Naples(Intl) Italy Nice France Nuremberg Germany Sarajevo Bosnia & Herzegovina Toulouse France Frankfurt Germany Munich(Intl) Germany Munich(Intl) Germany
		Moldavian Airlines	Moldova	Dusseldorf(Intl) Germany Oslo Norway	Vilnius Lithuania Vilnius Lithuania
		Skyways	Sweden	Arvidsjaur Sweden Copenhagen(Intl) Denmark Gothenburg(Landvetter) Sweden Hemavan Sweden  Karlstad Sweden Norrkoping Sweden Stockholm(Arlanda) Sweden	Stockholm(Arlanda) Sweden Linkoping Sweden Sundsvall(Harnosand) Sweden Storuman(Gunnarn) Sweden Vilhelmina Sweden Linkoping Sweden Orebro Sweden Halmstad Sweden Hemavan Sweden Jonkoping Sweden Kramfors Sweden Linkoping Sweden Lycksele Sweden Oskarshamn Sweden Storuman(Gunnarn) Sweden Trollhattan Sweden Vilhelmina Sweden Visby Sweden Vilhelmina Sweden
		Tyrolean Airways	Austria	Storuman(Gunnarn) Sweden Gothenburg(Landvetter) Sweden Helsinki Finland Stockholm(Arlanda) Sweden Zagreb Croatia	Vienna Austria Vienna Austria Vienna Austria Vienna Austria
		United Airlines	USA	Chicago(O'Hare) IL USA Cincinnati(Intl) OH USA Los Angeles(Intl) CA USA Newark/New York(Liberty) NJ USA  Seattle/Tacoma(Intl) WA USA	San Francisco(Intl) CA USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Los Angeles(Intl) CA USA San Francisco(Intl) CA USA San Francisco(Intl) CA USA
		Varig S.A.	Brazil	Copenhagen(Intl) Denmark	Sao Paulo(Intl) SP Brazil
		Wideroes Flyveselskap	Norway	Bergen Norway Bergen Norway  Copenhagen(Intl) Denmark Newcastle England UK Stavanger Norway  Stockholm(Arlanda) Sweden	Bergen Norway Edinburgh Scotland UK Newcastle England UK Oslo(Torp) Norway Oslo(Torp) Norway Stavanger Norway Oslo(Torp) Norway Stockholm(Arlanda) Sweden Bergen Norway Oslo(Torp) Norway Trondheim Norway
SATA International	Portugal	TAP Air Portugal	Portugal	Lisbon Portugal	Pico Is. Azores Portugal
SN Brussels Airlines	Belgium	Air Malta	Malta	Brussels Belgium	Malta
		Alitalia	Italy	Milan(Linate) Italy	Palermo Italy
		American Airlines	USA	Brussels Belgium  Chicago(O'Hare) IL USA	Chicago(O'Hare) IL USA New York(Kennedy) NY USA Austin(Bergstrom Intl) TX USA Denver(Intl) CO USA Houston(G. Bush Intl) TX USA

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		Croatia Airlines	Croatia	Brussels Belgium	Miami(Intl) FL USA
		Etiihad Airways	Tanzania	Abu Dhabi(Intl) U.A. Emirates	Split Croatia Zagreb Croatia
		flyLAL	Lithuania	Brussels Belgium	Brussels Belgium Toronto(Pearson Intl) ON Canada
		Hainan Airlines	China	Brussels Belgium	Vilnius Lithuania Beijing(Capital) China Shanghai (Pu Dong) China
		LOT Polish Airlines	Poland	Brussels Belgium Krakow(Balice Intl) Poland	Krakow(Balice Intl) Poland Warsaw(F. Chopin) Poland
		Sun-Air	USA	Aarhus Denmark Billund Denmark	Brussels Belgium Brussels Belgium
		SWISS	Switzerland	Basel Switzerland Brussels Belgium	Brussels Belgium Zurich Switzerland
		SWISS European Air	Switzerland	Brussels Belgium	Basel Switzerland Zurich Switzerland
		Ukraine Intl Airlines	Ukraine	Brussels Belgium	Kiev(Borispol) Ukraine
Spanair	Spain	Air Baltic	Latvia	Barcelona Spain	Riga Latvia
		Austrian Airlines	Austria	Barcelona Spain Larnaca Cyprus Malaga Spain Palma Mallorca Spain Prague Czech Rep. Salzburg Austria Vienna Austria	Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Linz Austria Vilnius Lithuania
		BMI British Midland	UK	Alicante Spain Dublin Ireland London(Heathrow) England UK	London(Heathrow) England UK London(Heathrow) England UK Madrid Spain Palma Mallorca Spain
		BMI Regional	UK	Manchester England UK	London(Heathrow) England UK
		Estonian Air	Estonia	Barcelona Spain	Tallinn Estonia
		JetX	Philippines	Barcelona Spain	Riga Latvia
		LOT Polish Airlines	Poland	Barcelona Spain Madrid Spain	Warsaw(F. Chopin) Poland Warsaw(F. Chopin) Poland
		Lufthansa German Airlines	Germany	Barcelona Spain	Dusseldorf(Intl) Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany Stuttgart(Echterdingen) Germany
				Bilbao Spain	Dusseldorf(Intl) Germany Frankfurt Germany
				Bremen Germany Dusseldorf(Intl) Germany Frankfurt Germany	Frankfurt Germany Madrid Spain Cologne/Bonn(Intl) Germany Munich(Intl) Germany Oslo Norway Palma Mallorca Spain
				Leipzig/Halle Germany Lisbon Portugal Madrid Spain Malaga Spain Munich(Intl) Germany	Frankfurt Germany Munich(Intl) Germany Munich(Intl) Germany Frankfurt Germany Bratislava Slovakia Milan (Malpensa) Italy Palma Mallorca Spain
				Stuttgart(Echterdingen) Germany Venice Italy Vilnius Lithuania	Frankfurt Germany Frankfurt Germany Frankfurt Germany
		SWISS	Switzerland	Barcelona Spain Malaga Spain Palma Mallorca Spain	Geneva Switzerland Zurich Switzerland Zurich Switzerland
		SWISS European Air	Switzerland	Barcelona Spain Malaga Spain Palma Mallorca Spain	Geneva Switzerland Geneva Switzerland Zurich Switzerland
		TAP Air Portugal	Portugal	Barcelona Spain Faro Portugal Funchal Madeira Portugal	Funchal Madeira Portugal Lisbon Portugal Lisbon Portugal Madrid Spain Porto Portugal
				Lisbon Portugal	Porto Portugal
		Thai Airways Intl	Thailand	Bangkok (Intl) Thailand Phuket Thailand Rome(Fiumicino) Italy	Madrid Spain Bangkok (Intl) Thailand Madrid Spain
		Tyrolean Airways	Austria	Barcelona Spain Linz Austria Malaga Spain Palma Mallorca Spain Prague Czech Rep. Salzburg Austria Vienna Austria	Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Graz Austria Innsbruck Austria Klagenfurt Austria Vilnius Lithuania
		US Airways	USA	Barcelona Spain Madrid Spain	Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA
		Varig S.A.	Brazil	Sao Paulo(Intl) SP Brazil	Madrid Spain
SWISS	Switzerland	Air Canada	Canada	Montreal(P.E. Trudeau) QC Canada Toronto(Pearson Intl) ON Canada	Toronto(Pearson Intl) ON Canada Zurich Switzerland
		Air Dolomiti	Italy	Berne Switzerland Geneva Switzerland	Munich(Intl) Germany Munich(Intl) Germany
		American Airlines	USA	Dallas/Ft. Worth(Intl) TX USA	Zurich Switzerland
		Augsburg Airways	Germany	Berne Switzerland Geneva Switzerland	Munich(Intl) Germany Munich(Intl) Germany
		Austrian Airlines	Austria	Geneva Switzerland	Vienna Austria
		Contact Air	Germany	Basel Switzerland	Frankfurt Germany
		Darwin Airline	Switzerland	Berne Switzerland	London(City) England UK
		Eurowings Luftverkehrs	Germany	Basel Switzerland Frankfurt Germany Geneva Switzerland	Frankfurt Germany Geneva Switzerland Munich(Intl) Germany
		Lufthansa Cityline	Germany	Basel Switzerland Frankfurt Germany Geneva Switzerland	Frankfurt Germany Geneva Switzerland Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany
		Lufthansa German Airlines	Germany	Basel Switzerland Frankfurt Germany	Frankfurt Germany Geneva Switzerland Los Angeles(Intl) CA USA

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Geneva Switzerland	Sao Paulo(Intl) SP Brazil
				Munich(Intl) Germany	Hamburg(Fuhlsbuettel) Germany
					Munich(Intl) Germany
					Shanghai (Pu Dong) China
		Malaysia Airlines	Malaysia	Kuala Lumpur(Intl) Malaysia	Zurich Switzerland
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Geneva Switzerland
		Qantas Airways	Australia	Bangkok (Intl) Thailand	Sydney(Intl) NS Australia
		Qatar Airways	Qatar	Doha(Intl) Qatar	Zurich Switzerland
		SAS Scandinavian Airlines	Denmark/Norway/Sweden	Copenhagen(Intl) Denmark	Geneva Switzerland
				Stockholm(Arlanda) Sweden	Geneva Switzerland
		Tyrolean Airways	Austria	Geneva Switzerland	Vienna Austria
		United Airlines	USA	Honolulu Oahu HI USA	Los Angeles(Intl) CA USA
TAP Air Portugal	Portugal	Aegean Airlines	Greece	Athens (Intl) Greece	Rome(Fiumicino) Italy
				Frankfurt Germany	Thessaloniki Greece
				Munich(Intl) Germany	Thessaloniki Greece
		Air One	Italy	Barcelona Spain	Turin Italy
				Bari Italy	Rome(Fiumicino) Italy
				Cagliari Italy	Rome(Fiumicino) Italy
				Catania Italy	Rome(Fiumicino) Italy
				Rome(Fiumicino) Italy	Genoa Italy
					Lamezia Terme Italy
					Palermo Italy
					Pisa(Galileo) Italy
					Trieste Italy
					Turin Italy
		Austrian Airlines	Austria	Barcelona Spain	Vienna Austria
				Brussels Belgium	Vienna Austria
				Faro Portugal	Vienna Austria
				Funchal Maderia Portugal	Vienna Austria
				Graz Austria	Vienna Austria
				Innsbruck Austria	Vienna Austria
				Klagenfurt Austria	Vienna Austria
				Linz Austria	Vienna Austria
				Lisbon Portugal	Vienna Austria
				Milan (Malpensa) Italy	Vienna Austria
				Salzburg Austria	Vienna Austria
				Vienna Austria	Zurich Switzerland
		BMI British Midland	UK	Aberdeen Scotland UK	London(Heathrow) England UK
				Belfast(City) N.Ireland UK	London(Heathrow) England UK
				Dublin Ireland	London(Heathrow) England UK
				Edinburgh Scotland UK	London(Heathrow) England UK
				Glasgow(Intl) Scotland UK	London(Heathrow) England UK
				London(Heathrow) England UK	Manchester England UK
		Croatia Airlines	Croatia	Dubrovnik Croatia	Frankfurt Germany
				Frankfurt Germany	Split Croatia
					Zagreb Croatia
				London(Gatwick) England UK	Split Croatia
				Zagreb Croatia	Paris(Charles De Gaulle) France
					Zurich Switzerland
		LOT Polish Airlines	Poland	Amsterdam Netherlands	Warsaw(F. Chopin) Poland
				Frankfurt Germany	Warsaw(F. Chopin) Poland
				Warsaw(F. Chopin) Poland	Brussels Belgium
					Milan (Malpensa) Italy
					Zurich Switzerland
		Lufthansa German Airlines	Germany	Athens (Intl) Greece	Frankfurt Germany
				Bremen Germany	Munich(Intl) Germany
				Budapest Hungary	Frankfurt Germany
				Cologne/Bonn(Intl) Germany	Munich(Intl) Germany
				Dresden Germany	Frankfurt Germany
				Dusseldorf(Intl) Germany	Munich(Intl) Germany
				Faro Portugal	Frankfurt Germany
				Frankfurt Germany	Berlin(Tegel) Germany
					Bucharest(Otopeni) Romania
					Hamburg(Fuhlsbuettel) Germany
					Hanover Germany
					Helsinki Finland
					Hong Kong(Intl) China
					Leipzig/Halle Germany
					Nuremberg Germany
					Prague Czech Rep.
					Riga Latvia
					Singapore(Changi)
					Stuttgart(Echterdingen) Germany
					Zagreb Croatia
				Hamburg(Fuhlsbuettel) Germany	Munich(Intl) Germany
				Hanover Germany	Munich(Intl) Germany
				Helsinki Finland	Munich(Intl) Germany
				Hong Kong(Intl) China	Munich(Intl) Germany
				Leipzig/Halle Germany	Munich(Intl) Germany
				Muenster Germany	Frankfurt Germany
					Munich(Intl) Germany
				Munich(Intl) Germany	Berlin(Tegel) Germany
					Bucharest(Otopeni) Romania
					Nuremberg Germany
					Porto Portugal
					Prague Czech Rep.
					Stuttgart(Echterdingen) Germany
					Zagreb Croatia
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Zurich Switzerland
		SATA International	Portugal	Amsterdam Netherlands	Ponta Delgada Azores Portugal
				Frankfurt Germany	Ponta Delgada Azores Portugal
				Funchal Maderia Portugal	Ponta Delgada Azores Portugal
					Zurich Switzerland
				Lisbon Portugal	Santa Maria Azores Portugal
				London(Gatwick) England UK	Ponta Delgada Azores Portugal
				Madrid Spain	Ponta Delgada Azores Portugal
				Porto Portugal	Ponta Delgada Azores Portugal
		SN Brussels Airlines	Belgium	Birmingham England UK	Brussels Belgium
				Brussels Belgium	Berlin(Tempelhof) Germany

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					Gothenburg(Landvetter) Sweden Hamburg(Fuhlsbuettel) Germany Oslo Norway Prague Czech Rep. Strasbourg France
		Spanair	Spain	Alicante Spain Barcelona Spain  Bilbao Spain Fuerteventura Canary Is. Ibiza Spain La Coruna Spain Lanzarote Canary Is.  Las Palmas(Gran Canaria) Canary Is.  Madrid Spain          Malaga Spain  Tenerife(Norte) Canary Is. Tenerife(Sofia) Canary Is.	Barcelona Spain Madrid Spain Asturias Spain Bilbao Spain Granada Spain Ibiza Spain La Coruna Spain Menorca Spain Palma Mallorca Spain Santiago De Compostela Spain Sevilla Spain Valencia Spain Vigo Spain Madrid Spain Madrid Spain Madrid Spain Madrid Spain Barcelona Spain Madrid Spain Barcelona Spain Madrid Spain Asturias Spain Granada Spain Jerez De La Frontera Spain Menorca Spain Palma Mallorca Spain San Sebastian Spain Santiago De Compostela Spain Tenerife(Norte) Canary Is. Tenerife(Sofia) Canary Is. Valencia Spain Vigo Spain Barcelona Spain Madrid Spain Barcelona Spain Barcelona Spain
		TACV Cabo Verde Airlines	Cape Verde	Lisbon Portugal Porto Portugal	Praia(F. Mendes) Cape Verde Sal Cape Verde
		Thai Airways Intl	Thailand	Bangkok (Intl) Thailand	Frankfurt Germany Zurich Switzerland
		Turkish Airlines	Turkey	Istanbul (Ataturk) Turkey	Lisbon Portugal
		Ukraine Intl Airlines	Ukraine	Kiev(Borispol) Ukraine	Lisbon Portugal
		United Airlines	USA	Amsterdam Netherlands Brussels Belgium Chicago(O'Hare) IL USA  Frankfurt Germany London(Heathrow) England UK  Los Angeles(Intl) CA USA Munich(Intl) Germany Newark/New York(Liberty) NJ USA  Washington(Dulles Intl) DC USA	Washington(Dulles Intl) DC USA Washington(Dulles Intl) DC USA Amsterdam Netherlands Frankfurt Germany San Francisco(Intl) CA USA Chicago(O'Hare) IL USA San Francisco(Intl) CA USA London(Heathrow) England UK Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Chicago(O'Hare) IL USA Los Angeles(Intl) CA USA San Francisco(Intl) CA USA Frankfurt Germany London(Heathrow) England UK Zurich Switzerland
		US Airways	USA	Atlanta(Intl) GA USA Boston(Intl) MA USA  Charlotte NC USA Dallas/Ft. Worth(Intl) TX USA Denver(Intl) CO USA Detroit(Metro Wayne) MI USA Frankfurt Germany Houston(G.Bush Intl) TX USA Lisbon Portugal Los Angeles(Intl) CA USA Miami(Intl) FL USA Newark/New York(Liberty) NJ USA Orlando(Intl) FL USA Philadelphia(Intl) PA USA Washington (Reagan Nat'l) DC USA	Philadelphia(Intl) PA USA Lisbon Portugal Philadelphia(Intl) PA USA Newark/New York(Liberty) NJ USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Philadelphia(Intl) PA USA Pittsburgh(Intl) PA USA Philadelphia(Intl) PA USA San Francisco(Intl) CA USA Philadelphia(Intl) PA USA
		Varig S.A.	Brazil	Brasilia DF Brazil  Curitiba PR Brazil  Florianopolis SC Brazil Rio De Janeiro(Intl) RJ Brazil    Salvador BA Brazil  Sao Paulo(Intl) SP Brazil  Tancredo (Neves) MG Brazil	Rio De Janeiro(Intl) RJ Brazil Sao Paulo(Intl) SP Brazil Chapeco SC Brazil Rio De Janeiro(Intl) RJ Brazil Chapeco SC Brazil Boa Vista RR Brazil Chapeco SC Brazil Florianopolis SC Brazil Maceio AL Brazil Manaus AM Brazil Petrolina PE Brazil Porto Alegre RS Brazil Vitoria ES Brazil Aracaju SE Brazil Maceio AL Brazil Belo Horizonte(Pamphula) MG Brazil Curitiba PR Brazil Iguassu Falls PR Brazil Rio De Janeiro(Intl) RJ Brazil Sao Paulo(Intl) SP Brazil
TAROM-Romanian Air Trans Romania		Aeroflot Russian Airlines	Russia	Bucharest(Otopeni) Romania	Moscow(Sheremetyevo) Russian Fed.
		Austrian Airlines	Austria	Iasi Romania Timisoara Romania Vienna Austria	Vienna Austria Vienna Austria Toronto(Pearson Intl) ON Canada
Virgin Atlantic Airways	UK	Air China	China	London(Heathrow) England UK	Beijing(Capital) China
		Continental Airlines	USA	Newark/New York(Liberty) NJ USA	London(Gatwick) England UK
		Singapore Airlines	Singapore	London(Heathrow) England UK	Singapore(Changi)

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Marketing Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Manchester England UK	Singapore(Changi)

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name		
Aeroflot Russian Airlines	Russia	Adria Airways	Slovenia	Ljubljana Slovenia	Moscow(Sheremetyevo) Russian Fed.		
		Air France	France	Paris(Charles De Gaulle) France	Moscow(Sheremetyevo) Russian Fed.		
		Air Malta	Malta	Malta	Moscow(Sheremetyevo) Russian Fed.		
		Alitalia	Italy	Milan (Malpensa) Italy	Moscow(Sheremetyevo) Russian Fed.		
		Austrian Airlines	Austria	Moscow(Sheremetyevo) Russian Fed.	Vienna Austria		
		Bulgaria Air	Bulgaria	Sofia Bulgaria	Moscow(Sheremetyevo) Russian Fed.		
		Cyprus Airways	Cyprus	Larnaca Cyprus	Moscow(Sheremetyevo) Russian Fed.		
		Czech Airlines	Czech Rep	Cork Ireland	Prague Czech Rep.		
				Dublin Ireland	Prague Czech Rep.		
				Edinburgh Scotland UK	Prague Czech Rep.		
				Karlovy Vary Czech Rep.	Moscow(Sheremetyevo) Russian Fed.		
				Prague Czech Rep.	Manchester England UK		
					Moscow(Sheremetyevo) Russian Fed.		
				Samara Russian Fed.	Prague Czech Rep.		
				Estonian Air	Moscow(Sheremetyevo) Russian Fed.	Tallinn Estonia	
		Finnair	Helsinki Finland	Moscow(Sheremetyevo) Russian Fed.			
		LOT Polish Airlines	Moscow(Sheremetyevo) Russian Fed.	Warsaw(F. Chopin) Poland			
		MALEV Hungarian Airlines	Budapest Hungary	Moscow(Sheremetyevo) Russian Fed.			
		Slovak Airlines	Bratislava Slovakia	Moscow(Sheremetyevo) Russian Fed.			
Aerolineas Argentinas	Argentina	Air Plus Comet	Spain	Buenos Aires(Pistarini) BA Argentina	London(Gatwick) England UK		
				London(Gatwick) England UK	Madrid Spain		
				Paris(Charles De Gaulle) France	Buenos Aires(Pistarini) BA Argentina		
				Madrid Spain	Madrid Spain		
Aeromexico	Mexico	Air Europa	Spain	Cancun Mexico	Madrid Spain		
		Air France	France	Amsterdam Netherlands	Paris(Charles De Gaulle) France		
				Barcelona Spain	Paris(Charles De Gaulle) France		
				Paris(Charles De Gaulle) France	Frankfurt Germany		
					London(Heathrow) England UK		
					Lyon(St. Exupery) France		
					Mexico City(Juarez) Mexico		
					Nice France		
					Rome(Fiumicino) Italy		
					Toulouse France		
		Alitalia	Italy	Miami(Intl) FL USA	Milan (Malpensa) Italy		
				New York(Kennedy) NY USA	Milan (Malpensa) Italy		
				Paris(Charles De Gaulle) France	Rome(Fiumicino) Italy		
				Rome(Fiumicino) Italy	Madrid Spain		
					New York(Kennedy) NY USA		
		Czech Airlines	Czech Rep	New York(Kennedy) NY USA	Prague Czech Rep.		
				Paris(Charles De Gaulle) France	Prague Czech Rep.		
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Madrid Spain		
					Paris(Charles De Gaulle) France		
Aerorepublica	Colombia	Air Plus Comet	Spain	Bogota Colombia	Madrid Spain		
Aerosvit Airlines	Ukraine	Czech Airlines	Czech Rep	Kiev(Borispol) Ukraine	Prague Czech Rep.		
				Odessa Ukraine	Prague Czech Rep.		
		Estonian Air	Estonia	Kiev(Borispol) Ukraine	Tallinn Estonia		
				Simferopol Ukraine	Tallinn Estonia		
		LOT Polish Airlines	Poland	Kiev(Borispol) Ukraine	Warsaw(F. Chopin) Poland		
				Odessa Ukraine	Warsaw(F. Chopin) Poland		
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Kiev(Borispol) Ukraine		
					Odessa Ukraine		
Air Baltic	Latvia	Austrian Airlines	Austria	Riga Latvia	Vienna Austria		
		SAS Scandinavian Airlines	Denmark	Copenhagen(Intl) Denmark	Klaipeda/Palanga Lithuania		
		Tyrolean Airways	Austria	Riga Latvia	Vienna Austria		
Air Canada	Canada	Austrian Airlines	Austria	Vienna Austria	Toronto(Pearson Intl) ON Canada		
		LOT Polish Airlines	Poland	London(Heathrow) England UK	Krakow(Balice Intl) Poland		
				Toronto(Pearson Intl) ON Canada	Krakow(Balice Intl) Poland		
				Warsaw(F. Chopin) Poland	Toronto(Pearson Intl) ON Canada		
				Lufthansa German Airlines	Germany	Frankfurt Germany	Toronto(Pearson Intl) ON Canada
						Munich(Intl) Germany	Vancouver(Intl) BC Canada
							Montreal(P.E. Trudeau) QC Canada
							Nuremberg Germany
							Zurich Switzerland
				SWISS	Switzerland	Montreal(P.E. Trudeau) QC Canada	Zurich Switzerland
		Tyrolean Airways	Austria	Frankfurt Germany	Klagenfurt Austria		
					Salzburg Austria		
Air China	China	Air Dolomiti	Italy	Munich(Intl) Germany	Leipzig/Halle Germany		
					Stuttgart(Echterdingen) Germany		
		Alitalia	Italy	Milan (Malpensa) Italy	Shanghai (Pu Dong) China		
		Augsburg Airways	Germany	Frankfurt Germany	Munich(Intl) Germany		
				Leipzig/Halle Germany	Munich(Intl) Germany		
					Hanover Germany		
					Nuremberg Germany		
					Stuttgart(Echterdingen) Germany		
					Frankfurt Germany		
				Austrian Airlines	Austria	Beijing(Capital) China	Vienna Austria
						Shanghai (Pu Dong) China	Vienna Austria
				Contactair And CO	Germany	Leipzig/Halle Germany	Munich(Intl) Germany
						Munich(Intl) Germany	Nuremberg Germany
							Stuttgart(Echterdingen) Germany
				Eurowings Luftverkehrs	Germany	Cologne/Bonn(Intl) Germany	Frankfurt Germany
				Dusseldorf(Intl) Germany	Frankfurt Germany		
				Frankfurt Germany	Hanover Germany		
					Leipzig/Halle Germany		
					Munich(Intl) Germany		
					Nuremberg Germany		
					Stuttgart(Echterdingen) Germany		
				Hanover Germany	Munich(Intl) Germany		
				Munich(Intl) Germany	Cologne/Bonn(Intl) Germany		
					Dusseldorf(Intl) Germany		
					Nuremberg Germany		
					Stuttgart(Echterdingen) Germany		
		Finnair	Finland	Guangzhou China	Helsinki Finland		
				Helsinki Finland	Beijing(Capital) China		
					Shanghai (Pu Dong) China		
		Lufthansa Cityline	Germany	Cologne/Bonn(Intl) Germany	Frankfurt Germany		
					Munich(Intl) Germany		
				Dusseldorf(Intl) Germany	Frankfurt Germany		
					Munich(Intl) Germany		
				Frankfurt Germany	Hamburg(Fuhsbuettel) Germany		
					Hanover Germany		
					Leipzig/Halle Germany		
					Munich(Intl) Germany		
					Nuremberg Germany		
					Stuttgart(Echterdingen) Germany		

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Hanover Germany Leipzig/Halle Germany Munich(Intl) Germany	Munich(Intl) Germany Munich(Intl) Germany Berlin(Tegel) Germany Nuremberg Germany Stuttgart(Echterdingen) Germany
		Lufthansa German Airlines	Germany	Barcelona Spain Bilbao Spain Cologne/Bonn(Intl) Germany Dusseldorf(Intl) Germany Frankfurt Germany Guangzhou China Hamburg(Fuhsbuettel) Germany Hanover Germany Leipzig/Halle Germany Madrid Spain Munich(Intl) Germany	Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Munich(Intl) Germany Beijing(Capital) China Berlin(Tegel) Germany Hamburg(Fuhsbuettel) Germany Hanover Germany Leipzig/Halle Germany Madrid Spain Munich(Intl) Germany Nuremberg Germany Sao Paulo(Intl) SP Brazil Shanghai (Pu Dong) China Stuttgart(Echterdingen) Germany Frankfurt Germany Munich(Intl) Germany Munich(Intl) Germany Munich(Intl) Germany Munich(Intl) Germany Beijing(Capital) China Berlin(Tegel) Germany Nuremberg Germany Shanghai (Pu Dong) China Stuttgart(Echterdingen) Germany
		SAS Scandinavian Airlines	Denmark	Copenhagen(Intl) Denmark	Beijing(Capital) China Shanghai (Pu Dong) China
		Virgin Atlantic Airways	UK	London(Heathrow) England UK	Shanghai (Pu Dong) China
Air India	India	Air France	France	Paris(Charles De Gaulle) France	Berlin(Tegel) Germany Delhi India Frankfurt Germany
		Austrian Airlines	Austria	Delhi India	Vienna Austria
		Lufthansa German Airlines	Germany	Amsterdam Netherlands Bangalore India Delhi India Denver(Intl) CO USA Detroit(Metro Wayne) MI USA Dusseldorf(Intl) Germany Frankfurt Germany	Frankfurt Germany Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Berlin(Tegel) Germany Chennai India Chicago(O'Hare) IL USA Hyderabad India Los Angeles(Intl) CA USA Lyon(St. Exupery) France Munich(Intl) Germany Stuttgart(Echterdingen) Germany Washington(Dulles Intl) DC USA Zurich Switzerland Frankfurt Germany Zurich Switzerland
		SWISS	Switzerland	Mumbai India	Frankfurt Germany Zurich Switzerland
Air Luxor	Portugal	Portugal	Portugal	Funchal Maderia Portugal	Lisbon Portugal
Air Mauritius	Mauritius	Air France	France	Paris(Charles De Gaulle) France	Mauritius
		Austrian Airlines	Austria	Mauritius	Vienna Austria
		LTU International Airways	Germany	Dusseldorf(Intl) Germany Mauritius	Mauritius Munich(Intl) Germany
Air Moldova	Moldova	Austrian Airlines	Austria	Chisinau Moldova	Vienna Austria
		TAROM-Romanian Air Transp	Romania	Chisinau Moldova	Bucharest(Topeni) Romania
Air New Zealand	New Zealand	Austrian Airlines	Austria	Kuala Lumpur(Intl) Malaysia London(Heathrow) England UK Melbourne(Intl) VI Australia Singapore(Changi) Sydney(Intl) NS Australia	Sydney(Intl) NS Australia Vienna Austria Vienna Austria Singapore(Changi) Vienna Austria Vienna Austria
		BMI British Midland	UK	Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Dublin Ireland Edinburgh Scotland UK Glasgow(Intl) Scotland UK Leeds/Bradford England UK London(Heathrow) England UK	London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK Teeside England UK
		Eurowings Luftverkehrs	Germany	Brussels Belgium	Frankfurt Germany
		Lufthansa Cityline	Germany	Brussels Belgium Dusseldorf(Intl) Germany Frankfurt Germany Hamburg(Fuhsbuettel) Germany Munich(Intl) Germany	Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Munich(Intl) Germany Berlin(Tegel) Germany Hamburg(Fuhsbuettel) Germany Munich(Intl) Germany Vienna Austria Munich(Intl) Germany Berlin(Tegel) Germany Vienna Austria
		Lufthansa German Airlines	Germany	Brussels Belgium Dusseldorf(Intl) Germany Frankfurt Germany	Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Munich(Intl) Germany Berlin(Tegel) Germany Hamburg(Fuhsbuettel) Germany London(Heathrow) England UK Los Angeles(Intl) CA USA Munich(Intl) Germany San Francisco(Intl) CA USA Singapore(Changi) Vienna Austria



Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Warsaw(F. Chopin) Poland	Zurich Switzerland
Armavia	Armenia	Air France	France	Paris(Charles De Gaulle) France	Yerevan Armenia
Atlantis European Airways	Armenia	Austrian Airlines	Austria	Yerevan Armenia	Vienna Austria
		Czech Airlines	Czech Rep	Yerevan Armenia	Prague Czech Rep.
Avianca	Colombia	Iberia	Spain	Alicante Spain	Madrid Spain
				Barcelona Spain	Madrid Spain
				Bilbao Spain	Madrid Spain
				La Coruna Spain	Madrid Spain
				Las Palmas(Gran Canaria) Canary Is.	Madrid Spain
				Madrid Spain	Asturias Spain
					Palma Mallorca Spain
					Pamplona Spain
					Paris(Orly) France
					Santiago De Compostela Spain
					Sevilla Spain
					Tenerife(Norte) Canary Is.
					Valencia Spain
					Vigo Spain
				Malaga Spain	Madrid Spain
				San Sebastian Spain	Madrid Spain
Azerbaijan Airlines	Azerbaijan	Austrian Airlines	Austria	Baku (Heydar Aliyev) Azerbaijan	Vienna Austria
Belavia	Belarus	Austrian Airlines	Austria	Minsk(Intl 2) Belarus	Vienna Austria
		Czech Airlines	Czech Rep	Minsk(Intl 2) Belarus	Prague Czech Rep.
		LOT Polish Airlines	Poland	Minsk(Intl 2) Belarus	Warsaw(F. Chopin) Poland
China Eastern Airlines	China	Air Europa	Spain	Madrid Spain	Beijing(Capital) China
					Shanghai (Pu Dong) China
		Air France	France	Paris(Charles De Gaulle) France	Beijing(Capital) China
					Shanghai (Pu Dong) China
China Southern Airlines	China	Air France	France	Guangzhou China	Paris(Charles De Gaulle) France
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Barcelona Spain
					Beijing(Capital) China
					Berlin(Tegel) Germany
					Chengdu China
					Copenhagen(Intl) Denmark
					Frankfurt Germany
					Hanover Germany
					Johannesburg(Intl) South Africa
					Lima Peru
					Lisbon Portugal
					London(Heathrow) England UK
					Madrid Spain
					Milan (Malpensa) Italy
					Munich(Intl) Germany
					Sao Paulo(Intl) SP Brazil
					Shanghai (Pu Dong) China
					Stockholm(Arlanda) Sweden
				Hamburg(Fuhsbuettel) Germany	Amsterdam Netherlands
				Paris(Charles De Gaulle) France	Amsterdam Netherlands
				Rome(Fiumicino) Italy	Amsterdam Netherlands
Continental Airlines	USA	Aerienne Europeene	France	Biarritz France	Paris(Charles De Gaulle) France
		Air Europa	Spain	Barcelona Spain	Madrid Spain
				Madrid Spain	Palma Mallorca Spain
				Malaga Spain	Madrid Spain
		Air France	France	Biarritz France	Paris(Charles De Gaulle) France
				Bordeaux France	Paris(Charles De Gaulle) France
				Paris(Charles De Gaulle) France	Dubai U.A. Emirates
					Lyon(St. Exupery) France
					Marseille France
					Montpellier France
					Nantes France
					Nice France
					Porto Portugal
					Strasbourg France
					Toulouse France
					Vienna Austria
		Flybe British European	UK	Belfast(City) N.Ireland UK	Birmingham England UK
					London(Gatwick) England UK
					Edinburgh Scotland UK
					Glasgow(Intl) Scotland UK
					London(Gatwick) England UK
					London(Gatwick) England UK
		KLM City Hopper	Netherlands	Amsterdam Netherlands	Amsterdam Netherlands
					Berlin(Tegel) Germany
					Billund Denmark
					Birmingham England UK
					Bologna Italy
					Bordeaux France
					Bremen Germany
					Bristol (Intl) England UK
					Brussels Belgium
					Budapest Hungary
					Cardiff Wales UK
					Cologne/Bonn(Intl) Germany
					Copenhagen(Intl) Denmark
					Dusseldorf(Intl) Germany
					Edinburgh Scotland UK
					Frankfurt Germany
					Geneva Switzerland
					Glasgow(Intl) Scotland UK
					Gothenburg(Landvetter) Sweden
					Hamburg(Fuhsbuettel) Germany
					Hanover Germany
					Humberside England UK
					Leeds/Bradford England UK
					London(City) England UK
					Luxembourg
					Lyon(St. Exupery) France
					Maastricht Netherlands
					Manchester England UK
					Marseille France
					Munich(Intl) Germany
					Newcastle England UK
					Nice France
					Norwich England UK
					Nuremberg Germany
					Oslo(Torp) Norway

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					Prague Czech Rep. Riga Latvia Stavanger Norway Stuttgart(Echterdingen) Germany Tallinn Estonia Teeside England UK Toulouse France Trondheim Norway Venice Italy Vienna Austria Zurich Switzerland
		KLM Cityhopper	Netherlands	Aberdeen Scotland UK Amsterdam Netherlands	Amsterdam Netherlands Berlin(Tegel) Germany Billund Denmark Birmingham England UK Bologna Italy Bordeaux France Bremen Germany Bristol (Intl) England UK Brussels Belgium Budapest Hungary Cardiff Wales UK Cologne/Bonn(Intl) Germany Copenhagen(Intl) Denmark Dusseldorf(Intl) Germany Edinburgh Scotland UK Frankfurt Germany Geneva Switzerland Glasgow(Intl) Scotland UK Hamburg(Fuhsbuettel) Germany Hanover Germany Humberside England UK Leeds/Bradford England UK London(City) England UK Luxembourg Lyon(St. Exupery) France Maastricht Netherlands Manchester England UK Marseille France Munich(Intl) Germany Newcastle England UK Nice France Norwich England UK Nuremberg Germany Oslo Norway Oslo(Torp) Norway Prague Czech Rep. Riga Latvia Stavanger Norway Stuttgart(Echterdingen) Germany Tallinn Estonia Teeside England UK Toulouse France Trondheim Norway Venice Italy Vienna Austria Zurich Switzerland
				Bergen Norway Gothenburg(Landvetter) Sweden	Amsterdam Netherlands Amsterdam Netherlands
		KLM-Royal Dutch Airlines	Netherlands	Aberdeen Scotland UK Abuja Nigeria  Accra Ghana Addis Ababa Ethiopia Almaty Kazakhstan Amman(Intl) Jordan Amsterdam Netherlands	Amsterdam Netherlands Amsterdam Netherlands Kano Nigeria Amsterdam Netherlands Amsterdam Netherlands Amsterdam Netherlands Amsterdam Netherlands Abu Dhabi(Intl) U.A. Emirates Bahrain Bergen Norway Berlin(Tegel) Germany Billund Denmark Birmingham England UK Bologna Italy Bordeaux France Bremen Germany Bristol (Intl) England UK Brussels Belgium Bucharest(Otopeni) Romania Budapest Hungary Cardiff Wales UK Cologne/Bonn(Intl) Germany Copenhagen(Intl) Denmark Damman Saudi Arabia Dar Es Salaam Tanzania Doha(Intl) Qatar Dubai U.A. Emirates Edinburgh Scotland UK Entebbe/Kampala Uganda Frankfurt Germany Geneva Switzerland Glasgow(Intl) Scotland UK Gothenburg(Landvetter) Sweden Hamburg(Fuhsbuettel) Germany Hanover Germany Helsinki Finland Humberside England UK Istanbul (Ataturk) Turkey Kano Nigeria Khartoum Sudan Kilimanjaro Tanzania Kuwait Lagos Nigeria Leeds/Bradford England UK Lisbon Portugal London(City) England UK Luxembourg Lyon(St. Exupery) France

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					Maastricht Netherlands Manchester England UK Marseille France Milan (Malpensa) Italy Munich(Intl) Germany Nairobi(Intl) Kenya Newcastle England UK Nice France Norwich England UK Nuremberg Germany Oslo Norway Oslo(Torp) Norway Prague Czech Rep. Riga Latvia Rome(Fiumicino) Italy Stavanger Norway Stockholm(Arlanda) Sweden Stuttgart(Echterdingen) Germany Tallinn Estonia Teeside England UK Toulouse France Trondheim Norway Venice Italy Vienna Austria Warsaw(F. Chopin) Poland Zurich Switzerland
				Dammam Saudi Arabia Dusseldorf(Intl) Germany Khartoum Sudan Kilimanjaro Tanzania	Doha(Intl) Qatar Amsterdam Netherlands Addis Ababa Ethiopia Dar Es Salaam Tanzania
		Sterling Blue	UK	Amsterdam Netherlands Billund Denmark Copenhagen(Intl) Denmark	Billund Denmark London(Gatwick) England UK London(Gatwick) England UK
		Virgin Atlantic Airways	UK	Boston(Intl) MA USA London(Gatwick) England UK London(Heathrow) England UK	London(Heathrow) England UK Orlando(Intl) FL USA Miami(Intl) FL USA San Francisco(Intl) CA USA
				Los Angeles(Intl) CA USA Manchester England UK New York(Kennedy) NY USA Newark/New York(Liberty) NJ USA Washington(Dulles Intl) DC USA	London(Heathrow) England UK Orlando(Intl) FL USA London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK
Conviasa	Venezuela	Air Europa	Spain	Caracas Venezuela	Madrid Spain
Croatia Airlines	Croatia	Air One	Italy	Bari Italy Catania Italy Rome(Fiumicino) Italy	Rome(Fiumicino) Italy Rome(Fiumicino) Italy Genoa Italy Palermo Italy Turin Italy
		Alitalia	Italy	Milan (Malpensa) Italy	Zagreb Croatia
		Augsburg Airways	Germany	Dusseldorf(Intl) Germany Munich(Intl) Germany	Munich(Intl) Germany Zagreb Croatia
		Austrian Airlines	Austria	Copenhagen(Intl) Denmark Dubrovnik Croatia Gothenburg(Landvetter) Sweden Helsinki Finland Oslo Norway Prague Czech Rep. Split Croatia Stockholm(Arlanda) Sweden Vienna Austria	Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Zagreb Croatia
		Czech Airlines	Czech Rep	Prague Czech Rep.	Split Croatia Zagreb Croatia
		Eurowings Luftverkehrs	Germany	Munich(Intl) Germany	Zagreb Croatia
		LOT Polish Airlines	Poland	Warsaw(F. Chopin) Poland	Zagreb Croatia
		Lufthansa Cityline	Germany	Dusseldorf(Intl) Germany Munich(Intl) Germany	Munich(Intl) Germany Berlin(Tegel) Germany Hamburg(Fuhlsbuettel) Germany Zagreb Croatia
		Lufthansa German Airlines	Germany	Dusseldorf(Intl) Germany Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany	Munich(Intl) Germany Zagreb Croatia Munich(Intl) Germany Berlin(Tegel) Germany Zagreb Croatia
		SN Brussels Airlines	Belgium	Brussels Belgium	Dubrovnik Croatia
		TAP Air Portugal	Portugal	Bologna Italy Frankfurt Germany Lisbon Portugal	Zagreb Croatia Lisbon Portugal London(Gatwick) England UK Zagreb Croatia Zurich Switzerland Lisbon Portugal
		Tyrolean Airways	Austria	Paris(Charles De Gaulle) France Copenhagen(Intl) Denmark Dubrovnik Croatia Gothenburg(Landvetter) Sweden Helsinki Finland Oslo Norway Prague Czech Rep. Split Croatia Stockholm(Arlanda) Sweden Vienna Austria	Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Zagreb Croatia
Cubana Airlines	Cuba	Air Europa	Spain	Havana Cuba	Madrid Spain
Delta Air Lines	USA	Air France	France	Atlanta(Intl) GA USA Bangalore India Boston(Intl) MA USA Buenos Aires(Pistarini) BA Argentina Douala Cameroon Los Angeles(Intl) CA USA Niamey Niger Ouagadougou Burkina Faso Paris(Charles De Gaulle) France	Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France Santiago(Intl) Chile Paris(Charles De Gaulle) France Papeete French Polynesia Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France Chicago(O'Hare) IL USA Cincinnati(Intl) OH USA Delhi India Detroit(Metro Wayne) MI USA Hanoi Vietnam Ho Chi Minh City Vietnam Houston(G.Bush Intl) TX USA Los Angeles(Intl) CA USA

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
					Miami(Intl) FL USA New York(Kennedy) NY USA Newark/New York(Liberty) NJ USA Philadelphia(Intl) PA USA Pisa(Galileo) Italy San Francisco(Intl) CA USA Washington(Dulles Intl) DC USA Paris(Charles De Gaulle) France
		Alitalia	Italy	Yaounde(Nsimalon) Cameroon Boston(Intl) MA USA	Milan (Malpensa) Italy Rome(Fiumicino) Italy Milan (Malpensa) Italy Chicago(O'Hare) IL USA Pisa(Galileo) Italy Milan (Malpensa) Italy Milan (Malpensa) Italy Rome(Fiumicino) Italy Milan (Malpensa) Italy New York(Kennedy) NY USA Milan (Malpensa) Italy
		Alitalia Express	Italy	Washington(Dulles Intl) DC USA	Milan (Malpensa) Italy
		Czech Airlines	Czech Rep	Milan (Malpensa) Italy	Pisa(Galileo) Italy
				Frankfurt Germany Munich(Intl) Germany New York(Kennedy) NY USA Newark/New York(Liberty) NJ USA	Prague Czech Rep. Prague Czech Rep. Prague Czech Rep. Prague Czech Rep.
Egyptair	Egypt	Austrian Airlines	Austria	Cairo Egypt Copenhagen(Intl) Denmark Oslo Norway Stockholm(Arlanda) Sweden	Vienna Austria Vienna Austria Vienna Austria Vienna Austria
		Olympic Airways	Greece	Alexandria(EI Nozha) Egypt	Athens (Intl) Greece
		Sterling Blue	UK	Cairo Egypt	Copenhagen(Intl) Denmark
		SWISS	Switzerland	Cairo Egypt	Zurich Switzerland
El Al Israel Airlines	Israel	Austrian Airlines	Austria	Tel Aviv(Ben Gurion) Israel	Vienna Austria
		Bulgaria Air	Bulgaria	Sofia Bulgaria	Tel Aviv(Ben Gurion) Israel
		Cyprus Airways	Cyprus	Larnaca Cyprus	Tel Aviv(Ben Gurion) Israel
		Iberia	Spain	Barcelona Spain Madrid Spain	Tel Aviv(Ben Gurion) Israel Barcelona Spain Tel Aviv(Ben Gurion) Israel
		LOT Polish Airlines	Poland	Krakow(Balice Intl) Poland Tel Aviv(Ben Gurion) Israel	Tel Aviv(Ben Gurion) Israel Warsaw(F. Chopin) Poland
		SN Brussels Airlines	Belgium	Brussels Belgium	Tel Aviv(Ben Gurion) Israel
		SWISS	Switzerland	Tel Aviv(Ben Gurion) Israel	Zurich Switzerland
Etihad Airways	Tanzania	BMI British Midland	UK	Aberdeen Scotland UK Amsterdam Netherlands Belfast(City) N.Ireland UK Dublin Ireland Edinburgh Scotland UK Glasgow(Intl) Scotland UK Leeds/Bradford England UK London(Heathrow) England UK	London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK Teeside England UK
flyLAL	Lithuania	Finnair	Finland	Helsinki Finland	Vilnius Lithuania
		Iberia	Spain	Barcelona Spain	Brussels Belgium Frankfurt Germany Madrid Spain Madrid Spain
Georgian Airways	Georgia	Austrian Airlines	Austria	Tbilisi Georgia	Vienna Austria
		Tyrolean Airways	Austria	Tbilisi Georgia	Vienna Austria
Gulf Air	Bahrain/United Arab Emirates/Cyprus Airways	Cyprus Airways	Cyprus	Bahrain	Dubai U.A. Emirates Larnaca Cyprus Larnaca Cyprus
				Dubai U.A. Emirates	Larnaca Cyprus
Hahn Air	Germany	Styrian Spirit	Austria	Salzburg Austria	Zurich Switzerland
Inter Air	South Africa	Air Austral	France	Johannesburg(Intl) South Africa	St. Denis De La Reunion Ind. Oc.
		Air Gabon	UK	Johannesburg(Intl) South Africa	Libreville Gabon
Iran Air	Iran	Air France	France	Paris(Charles De Gaulle) France	Tehran(Mehrabad Intl) Iran
		Alitalia	Italy	Milan (Malpensa) Italy	Tehran(Mehrabad Intl) Iran
		Austrian Airlines	Austria	Tehran(Mehrabad Intl) Iran	Vienna Austria
Japan Airlines	Japan	Aerienne Europeene	France	Hamburg(Fuhsbuettel) Germany Paris(Charles De Gaulle) France	Paris(Charles De Gaulle) France Munich(Intl) Germany
		Air France	France	Paris(Charles De Gaulle) France	Berlin(Tegel) Germany Copenhagen(Intl) Denmark Dusseldorf(Intl) Germany Hamburg(Fuhsbuettel) Germany Munich(Intl) Germany Osaka(Kansai Intl) Japan Prague Czech Rep. Tokyo(Narita) Japan Warsaw(F. Chopin) Poland Paris(Charles De Gaulle) France
		Alitalia	Italy	Milan (Malpensa) Italy Osaka(Kansai Intl) Japan Rome(Fiumicino) Italy	Tokyo(Narita) Japan Milan (Malpensa) Italy Tokyo(Narita) Japan
		Brit Air	France	Dusseldorf(Intl) Germany Hamburg(Fuhsbuettel) Germany	Paris(Charles De Gaulle) France Paris(Charles De Gaulle) France
		British Airways	UK	Hamburg(Fuhsbuettel) Germany London(Heathrow) England UK	London(Heathrow) England UK Stuttgart(Echterdingen) Germany
		Finnair	Finland	Amsterdam Netherlands Frankfurt Germany	Helsinki Finland Helsinki Finland
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Frankfurt Germany
		SWISS	Switzerland	Geneva Switzerland Tokyo(Narita) Japan Vienna Austria	Zurich Switzerland Zurich Switzerland Zurich Switzerland
		SWISS European Air	Switzerland	Vienna Austria Zurich Switzerland	Zurich Switzerland Geneva Switzerland
Jat Airways	Serbia-Montenegro	Air France	France	Belgrade Serbia & Montenegro	Paris(Charles De Gaulle) France
		Alitalia	Italy	Belgrade Serbia & Montenegro	Milan (Malpensa) Italy
		Austrian Airlines	Austria	Belgrade Serbia & Montenegro	Vienna Austria
		Czech Airlines	Czech Rep	Belgrade Serbia & Montenegro	Prague Czech Rep.
		Eurowings Luftverkehrs	Germany	Belgrade Serbia & Montenegro	Dusseldorf(Intl) Germany Munich(Intl) Germany
		Lufthansa Cityline	Germany	Belgrade Serbia & Montenegro	Dusseldorf(Intl) Germany Munich(Intl) Germany
		Lufthansa German Airlines	Germany	Belgrade Serbia & Montenegro	Frankfurt Germany Munich(Intl) Germany
		Tyrolean Airways	Austria	Belgrade Serbia & Montenegro	Vienna Austria
Kenya Airways	Kenya	KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Nairobi(Intl) Kenya
Korean Air	South Korea	Air France	France	Paris(Charles De Gaulle) France	Seoul(Incheon Intl) Rep. of Korea

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		Alitalia	Italy	Rome(Fiumicino) Italy	Milan (Malpensa) Italy
		Czech Airlines	Czech Rep	Amsterdam Netherlands	Prague Czech Rep.
				Barcelona Spain	Prague Czech Rep.
				Copenhagen(Intl) Denmark	Prague Czech Rep.
				Dusseldorf(Intl) Germany	Prague Czech Rep.
				Edinburgh Scotland UK	Prague Czech Rep.
				Frankfurt Germany	Prague Czech Rep.
				Hamburg(Fuhlsbuettel) Germany	Prague Czech Rep.
				London(Heathrow) England UK	Prague Czech Rep.
				Madrid Spain	Prague Czech Rep.
				Manchester England UK	Prague Czech Rep.
				Munich(Intl) Germany	Prague Czech Rep.
				Oslo Norway	Prague Czech Rep.
				Prague Czech Rep.	Berlin(Tegel) Germany
					London(Stansted) England UK
					Warsaw(F. Chopin) Poland
					Zurich Switzerland
				Stockholm(Arlanda) Sweden	Prague Czech Rep.
LAM-Linhas Aereas De Moca	Mozambique	TAP Air Portugal	Portugal	Lisbon Portugal	Maputo Mozambique
Lan Airlines	Chile	Iberia	Spain	Madrid Spain	Santiago(Intl) Chile
LIAT	Antigua and Barbuda	Air Caraibes	France	Ft. De France Martinique	St. Lucia(Vigie) West Indies
Libyan Arab Airlines	Libya	Air Malta	Malta	Malta	Tripoli Libya
		Austrian Airlines	Austria	Tripoli Libya	Vienna Austria
		Lufthansa German Airlines	Germany	Frankfurt Germany	Tripoli Libya
		SWISS	Switzerland	Benghazi Libya	Zurich Switzerland
				Tripoli Libya	Zurich Switzerland
Malaysia Airlines	Malaysia	Austrian Airlines	Austria	Kuala Lumpur(Intl) Malaysia	Vienna Austria
		BMI British Midland	UK	Belfast(Intl) N.Ireland UK	London(Heathrow) England UK
				London(Heathrow) England UK	Aberdeen Scotland UK
					Dublin Ireland
					Edinburgh Scotland UK
					Glasgow(Intl) Scotland UK
					Leeds/Bradford England UK
					Manchester England UK
					Teeside England UK
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Bergen Norway
					Brussels Belgium
					Copenhagen(Intl) Denmark
					Gothenburg(Landvetter) Sweden
					Helsinki Finland
					Kuala Lumpur(Intl) Malaysia
					Oslo Norway
					Oslo(Torp) Norway
					Stavanger Norway
					Stockholm(Arlanda) Sweden
					Kuala Lumpur(Intl) Malaysia
MAT-Macedonian Airlines	Macedonia	Lauda Air Luftfahrt	Austria	Vienna Austria	Vienna Austria
Mexicana De Aviacion	Mexico	Austrian Airlines	Austria	Skopje Macedonia	Vienna Austria
		Iberia	Spain	Barcelona Spain	Mexico City(Juarez) Mexico
				Madrid Spain	Mexico City(Juarez) Mexico
		Lufthansa German Airlines	Germany	Frankfurt Germany	Mexico City(Juarez) Mexico
Middle East Airlines	Lebanon	Air France	France	Beirut Lebanon	Paris(Charles De Gaulle) France
Montenegro Airlines	Yugoslavia	Adria Airways	Slovenia	Ljubljana Slovenia	Podgorica Serbia & Montenegro
		Austrian Airlines	Austria	Podgorica Serbia & Montenegro	Vienna Austria
		MALEV Hungarian Airlines	Hungary	Budapest Hungary	Podgorica Serbia & Montenegro
Northwest Airlines	USA	Air France	France	Paris(Charles De Gaulle) France	Detroit(Metro Wayne) MI USA
		KLM City Hopper	Netherlands	Amsterdam Netherlands	Billund Denmark
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Atlanta(Intl) GA USA
					Billund Denmark
					Chicago(O'Hare) IL USA
					Houston(G. Bush Intl) TX USA
					Los Angeles(Intl) CA USA
					New York(Kennedy) NY USA
					Newark/New York(Liberty) NJ USA
					San Francisco(Intl) CA USA
					Washington(Dulles Intl) DC USA
		Privatair SA	Switzerland	Amsterdam Netherlands	Houston(G. Bush Intl) TX USA
Oman Aviation	Oman	SWISS	Switzerland	Dubai U.A. Emirates	Muscat Oman
				Muscat Oman	Zurich Switzerland
Pulkovo Aviation Enterpri	Russia	Austrian Airlines	Austria	St. Petersburg(Pulkovo) Russian Fed.	Vienna Austria
		Czech Airlines	Czech Rep	St. Petersburg(Pulkovo) Russian Fed.	Prague Czech Rep.
		Finnair	Finland	Helsinki Finland	St. Petersburg(Pulkovo) Russian Fed.
		LOT Polish Airlines	Poland	Kaliningrad Russian Fed.	Warsaw(F. Chopin) Poland
				St. Petersburg(Pulkovo) Russian Fed.	Warsaw(F. Chopin) Poland
		Norwegian Air Shuttle	Nonway	St. Petersburg(Pulkovo) Russian Fed.	Oslo Norway
		SAS Scandinavian Airlines	Denmark	Copenhagen(Intl) Denmark	St. Petersburg(Pulkovo) Russian Fed.
				Stockholm(Arlanda) Sweden	St. Petersburg(Pulkovo) Russian Fed.
		SN Brussels Airlines	Belgium	Brussels Belgium	St. Petersburg(Pulkovo) Russian Fed.
Qantas Airways	Australia	Air France	France	Paris(Charles De Gaulle) France	Singapore(Changi)
		BA Connect	UK	Birmingham England UK	Frankfurt Germany
				Bristol (Intl) England UK	Frankfurt Germany
				Frankfurt Germany	Manchester England UK
		British Airways	UK	Aberdeen Scotland UK	London(Heathrow) England UK
				Amsterdam Netherlands	London(Heathrow) England UK
				Bangkok (Intl) Thailand	London(Heathrow) England UK
					Sydney(Intl) NS Australia
				Copenhagen(Intl) Denmark	London(Heathrow) England UK
				Dusseldorf(Intl) Germany	London(Heathrow) England UK
				Edinburgh Scotland UK	London(Heathrow) England UK
				Frankfurt Germany	London(Heathrow) England UK
				Geneva Switzerland	London(Heathrow) England UK
				Glasgow(Intl) Scotland UK	London(Heathrow) England UK
				Hamburg(Fuhlsbuettel) Germany	London(Heathrow) England UK
				London(Heathrow) England UK	Berlin(Tegel) Germany
					Lyon(St. Exupery) France
					Manchester England UK
					Melbourne(Intl) VI Australia
					Munich(Intl) Germany
					Newcastle England UK
					Nice France
					Oslo Norway
					Singapore(Changi)
					Sydney(Intl) NS Australia
					Vienna Austria
					Warsaw(F. Chopin) Poland
				Melbourne(Intl) VI Australia	Singapore(Changi)
				Paris(Charles De Gaulle) France	London(Heathrow) England UK

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Singapore(Changi) Stockholm(Arlanda) Sweden	Sydney(Intl) NS Australia London(Heathrow) England UK
		Finnair	Finland	Bangkok (Intl) Thailand Helsinki Finland	Helsinki Finland Singapore(Changi) Singapore(Changi)
		SWISS	Switzerland	Bangkok (Intl) Thailand Frankfurt Germany Singapore(Changi)	Singapore(Changi) Zurich Switzerland Zurich Switzerland Zurich Switzerland
Qatar Airways	Qatar	Augsburg Airways BMI British Midland	Germany UK	Munich(Intl) Germany Aberdeen Scotland UK Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Dublin Ireland Edinburgh Scotland UK Glasgow(Intl) Scotland UK Leeds/Bradford England UK London(Heathrow) England UK	Geneva Switzerland London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Teesside England UK
		BMI Regional	UK	Aberdeen Scotland UK Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Edinburgh Scotland UK Glasgow(Intl) Scotland UK Leeds/Bradford England UK London(Heathrow) England UK	London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Teesside England UK
		Eurowings Luftverkehrs Lufthansa Cityline	Germany Germany	Frankfurt Germany Geneva Switzerland	Geneva Switzerland Frankfurt Germany Munich(Intl) Germany
		Lufthansa German Airlines	Germany	Bahrain Doha(Intl) Qatar Frankfurt Germany Geneva Switzerland New York(Kennedy) NY USA Newark/New York(Liberty) NJ USA Washington(Dulles Intl) DC USA	Doha(Intl) Qatar Frankfurt Germany Frankfurt Germany Kuwait Geneva Switzerland Houston(G.Bush Intl) TX USA Kuwait New York(Kennedy) NY USA Washington(Dulles Intl) DC USA Munich(Intl) Germany Munich(Intl) Germany Frankfurt Germany Munich(Intl) Germany
Royal Air Maroc	Morocco	Air France Arctic Air	France Norway	Casablanca(Mohammed V.) Morocco Agadir Morocco	Lyon(St. Exupery) France Amsterdam Netherlands Brussels Belgium Marrakech Morocco Milan (Malpensa) Italy Marrakech Morocco Marrakech Morocco Toulouse France Marrakech Morocco Marrakech Morocco Marseille France Marrakech Morocco Lille France London(Gatwick) England UK Lyon(St. Exupery) France Marrakech Morocco Marrakech Morocco Marseille France Oujda Morocco Milan (Malpensa) Italy Mulhouse France Nantes France Nice France Paris(Orly) France
		Iberia	Spain	Alicante Spain Barcelona Spain Bilbao Spain Casablanca(Mohammed V.) Morocco Madrid Spain	Madrid Spain Casablanca(Mohammed V.) Morocco Marrakech Morocco Madrid Spain Madrid Spain Valencia Spain Marrakech Morocco Palma Mallorca Spain Santiago De Compostela Spain Sevilla Spain Tangier Morocco Valencia Spain
		SN Brussels Airlines	Belgium	Brussels Belgium	Casablanca(Mohammed V.) Morocco
Royal Jordanian	Jordan	Austrian Airlines	Austria	Amman(Intl) Jordan Copenhagen(Intl) Denmark Stockholm(Arlanda) Sweden	Vienna Austria Vienna Austria Vienna Austria
		Cyprus Airways	Cyprus	Amman(Intl) Jordan	Larnaca Cyprus
Saudi Arabian Airlines	Saudi Arabia	Air France Cyprus Airways	France Cyprus	Paris(Charles De Gaulle) France Jeddah Saudi Arabia Larnaca Cyprus	Riyadh Saudi Arabia Larnaca Cyprus Riyadh Saudi Arabia
Shanghai Airlines	China	Lufthansa German Airlines	Germany	Dusseldorf(Intl) Germany Frankfurt Germany Munich(Intl) Germany	Frankfurt Germany Berlin(Tegel) Germany Hamburg(Fuhlsbuettel) Germany Shanghai (Pu Dong) China Shanghai (Pu Dong) China
Singapore Airlines	Singapore	Austrian Airlines Eurowings Luftverkehrs	Austria Germany	Singapore(Changi) Bremen Germany Cologne/Bonn(Intl) Germany Dresden Germany Dusseldorf(Intl) Germany Frankfurt Germany	Vienna Austria Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Geneva Switzerland Hanover Germany Leipzig/Halle Germany Lyon(St. Exupery) France Marseille France Nuremberg Germany Paderborn Germany Prague Czech Rep.

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Friedrichshafen Germany Muenster Germany Nice France	Stuttgart(Echterdingen) Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany
		LOT Polish Airlines	Poland	Amsterdam Netherlands Frankfurt Germany Warsaw(F. Chopin) Poland	Warsaw(F. Chopin) Poland Warsaw(F. Chopin) Poland Zurich Switzerland
		Lufthansa Cityline	Germany	Bilbao Spain Bremen Germany Brussels Belgium Cologne/Bonn(Intl) Germany Dresden Germany Dusseldorf(Intl) Germany Frankfurt Germany	Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Geneva Switzerland Gothenburg(Landvetter) Sweden Hamburg(Fuhsbuettel) Germany Hanover Germany Leipzig/Halle Germany Lyon(St. Exupery) France Marseille France Munich(Intl) Germany Nice France Nuremberg Germany Paderborn Germany Prague Czech Rep. Stuttgart(Echterdingen) Germany Toulouse France
				Friedrichshafen Germany Madrid Spain Muenster Germany Paris(Charles De Gaulle) France Vienna Austria	Frankfurt Germany Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany
		Lufthansa German Airlines	Germany	Barcelona Spain Bilbao Spain Bremen Germany Brussels Belgium Cologne/Bonn(Intl) Germany Copenhagen(Intl) Denmark Dresden Germany Dusseldorf(Intl) Germany Frankfurt Germany	Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Berlin(Tegel) Germany Geneva Switzerland Gothenburg(Landvetter) Sweden Hamburg(Fuhsbuettel) Germany Hanover Germany Helsinki Finland Leipzig/Halle Germany Lyon(St. Exupery) France Madrid Spain Marseille France Munich(Intl) Germany Nice France Nuremberg Germany Oslo Norway Paderborn Germany Prague Czech Rep. Singapore(Changi) Stuttgart(Echterdingen) Germany Toulouse France Vienna Austria
				Friedrichshafen Germany Malaga Spain Muenster Germany Paris(Charles De Gaulle) France Stockholm(Arlanda) Sweden	Frankfurt Germany Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany
		Virgin Atlantic Airways	UK	Boston(Intl) MA USA London(Heathrow) England UK Manchester England UK Washington(Dulles Intl) DC USA	London(Heathrow) England UK Miami(Intl) FL USA Orlando(Intl) FL USA London(Heathrow) England UK
South African Airways	South Africa	Lufthansa German Airlines	Germany	Cape Town(Intl) South Africa Frankfurt Germany	Frankfurt Germany Johannesburg(Intl) South Africa
SriLankan Airlines	Sri Lanka	BMI British Midland	UK	Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Dublin Ireland Edinburgh Scotland UK Glasgow(Intl) Scotland UK Leeds/Bradford England UK London(Heathrow) England UK	London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK Teeside England UK London(Heathrow) England UK
				Paris(Charles De Gaulle) France	London(Heathrow) England UK
Syrian Arab Airlines	Syria	Cyprus Airways	Cyprus	Damascus Syria	Larnaca Cyprus
		Hemus Air	Bulgaria	Sofia Bulgaria	Damascus Syria
		Iberia	Spain	Barcelona Spain	Damascus Syria
TACV Cabo Verde Airlines	Cape Verde	TAP Air Portugal	Portugal	Lisbon Portugal	Sal Cape Verde
Thai Airways Intl	Thailand	Austrian Airlines	Austria	Bangkok (Intl) Thailand	Vienna Austria
		Eurowings Luftverkehrs	Germany	Munich(Intl) Germany	Amsterdam Netherlands
		Lufthansa Cityline	Germany	Amsterdam Netherlands	Munich(Intl) Germany
		Lufthansa German Airlines	Germany	Amsterdam Netherlands Bangkok (Intl) Thailand	Munich(Intl) Germany Frankfurt Germany Kuala Lumpur(Intl) Malaysia Munich(Intl) Germany
		SWISS	Switzerland	Bangkok (Intl) Thailand	Zurich Switzerland
		TAP Air Portugal	Portugal	Frankfurt Germany Lisbon Portugal	Lisbon Portugal Zurich Switzerland
Transaero Airlines	Russia	BMI British Midland	UK	Moscow(Domodedovo) Russian Fed.	London(Heathrow) England UK
Tunis Air	Tunisia	Air France	France	Lyon(St. Exupery) France Marseille France Nice France	Tunis Tunisia Tunis Tunisia Tunis Tunisia
Turkish Airlines	Turkey	Czech Airlines	Czech Rep	Istanbul (Ataturk) Turkey	Prague Czech Rep.
		LOT Polish Airlines	Poland	Istanbul (Ataturk) Turkey	Warsaw(F. Chopin) Poland
Ukraine Intl Airlines	Ukraine	Air France	France	Paris(Charles De Gaulle) France	Kiev(Borispol) Ukraine
		Austrian Airlines	Austria	Donetsk Ukraine Kiev(Borispol) Ukraine Odessa Ukraine Tripoli Libya	Vienna Austria Vienna Austria Vienna Austria Vienna Austria

Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
		Finnair	Finland	Copenhagen(Intl) Denmark Helsinki Finland	Helsinki Finland Kiev(Borispol) Ukraine
		KLM-Royal Dutch Airlines	Netherlands	Amsterdam Netherlands	Kiev(Borispol) Ukraine
		Tyrolean Airways	Austria	Dnepropetrovsk Ukraine Geneva Switzerland Kharkov Ukraine Lviv(Shilov) Ukraine	Vienna Austria Vienna Austria Vienna Austria Vienna Austria
United Airlines	USA	Air Dolomiti	Italy	Ancona Italy Bologna Italy Bratislava Slovakia Frankfurt Germany Genoa Italy Munich(Intl) Germany	Munich(Intl) Germany Munich(Intl) Germany Munich(Intl) Germany Verona Italy Munich(Intl) Germany Naples(Intl) Italy Trieste Italy Turin Italy Verona Italy
		Austrian Airlines	Austria	Amman(Intl) Jordan Innsbruck Austria Linz Austria London(Heathrow) England UK New York(Kennedy) NY USA Sarajevo Bosnia & Herzegovina Tbilisi Georgia Vienna Austria Washington(Dulles Intl) DC USA	Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Skopje Macedonia Zurich Switzerland Vienna Austria
		BMI British Midland	UK	Aberdeen Scotland UK  Amsterdam Netherlands Belfast(City) N.Ireland UK Brussels Belgium Dublin Ireland Edinburgh Scotland UK  Glasgow(Intl) Scotland UK  Leeds/Bradford England UK London(Heathrow) England UK  Manchester England UK Mumbai India Paris(Charles De Gaulle) France	London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Manchester England UK Nice France Teeside England UK Chicago(O'Hare) IL USA London(Heathrow) England UK London(Heathrow) England UK
		BMI Regional	UK	Aberdeen Scotland UK  Amsterdam Netherlands Brussels Belgium Edinburgh Scotland UK  Glasgow(Intl) Scotland UK  Leeds/Bradford England UK London(Heathrow) England UK  Paris(Charles De Gaulle) France	London(Heathrow) England UK Manchester England UK London(Heathrow) England UK London(Heathrow) England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Manchester England UK London(Heathrow) England UK Belfast(City) N.Ireland UK Manchester England UK Teeside England UK London(Heathrow) England UK
		LOT Polish Airlines	Poland	Amsterdam Netherlands Brussels Belgium  Chicago(O'Hare) IL USA Krakow(Balice Intl) Poland  London(Heathrow) England UK  New York(Kennedy) NY USA  Newark/New York(Liberty) NJ USA  Paris(Charles De Gaulle) France Warsaw(F. Chopin) Poland	Warsaw(F. Chopin) Poland Krakow(Balice Intl) Poland Warsaw(F. Chopin) Poland Warsaw(F. Chopin) Poland Chicago(O'Hare) IL USA Warsaw(F. Chopin) Poland Krakow(Balice Intl) Poland Warsaw(F. Chopin) Poland Krakow(Balice Intl) Poland Warsaw(F. Chopin) Poland Krakow(Balice Intl) Poland Warsaw(F. Chopin) Poland Warsaw(F. Chopin) Poland Zurich Switzerland
		Lufthansa German Airlines	Germany	Abu Dhabi(Intl) U.A. Emirates Abuja Nigeria Accra Ghana Addis Ababa Ethiopia Alexandria(EI Nozha) Egypt Amsterdam Netherlands Ashgabat Turkmenistan Asmara Eritrea Atlanta(Intl) GA USA Bangalore India Belgrade Serbia & Montenegro  Birmingham England UK Bologna Italy  Bordeaux France Boston(Intl) MA USA Bratislava Slovakia Brussels Belgium  Budapest Hungary  Cairo Egypt Cape Town(Intl) South Africa Cologne/Bonn(Intl) Germany Copenhagen(Intl) Denmark Dallas/Ft. Worth(Intl) TX USA Delhi India Denver(Intl) CO USA Detroit(Metro Wayne) MI USA Doha(Intl) Qatar  Dusseldorf(Intl) Germany  Frankfurt Germany	Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Frankfurt Germany Munich(Intl) Germany Munich(Intl) Germany Frankfurt Germany Frankfurt Germany Berlin(Tegel) Germany Hamburg(Fuhsbuettel) Germany Frankfurt Germany Munich(Intl) Germany Frankfurt Germany Frankfurt Germany London(Heathrow) England UK Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Frankfurt Germany Kuwait Chicago(O'Hare) IL USA London(Heathrow) England UK Newark/New York(Liberty) NJ USA Alexandria(Borg El Arab) Egypt Baku (Heydar Aliyev) Azerbaijan



Non-Parallel Code-shares when the EU-Domiciled Carriers is the Operating Carrier

Marketing Carrier Name	Marketing Carrier Country	Operator Carrier Name	Operator Carrier Country	Origin Name	Destination Name
				Nice France Paris(Charles De Gaulle) France Prague Czech Rep. Rome(Fiumicino) Italy Venice Italy Vienna Austria Warsaw(F. Chopin) Poland	Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland
		SWISS European Air	Switzerland	Belgrade Serbia & Montenegro Berlin(Tegel) Germany Bucharest(Otopeni) Romania Budapest Hungary Dusseldorf(Intl) Germany Hamburg(Fuhlsbuettel) Germany Hanover Germany Milan (Malpensa) Italy Nice France Paris(Charles De Gaulle) France Prague Czech Rep. Rome(Fiumicino) Italy Venice Italy Vienna Austria Warsaw(F. Chopin) Poland	Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland Zurich Switzerland
		TAP Air Portugal	Portugal	Amsterdam Netherlands Dakar Senegal Faro Portugal Frankfurt Germany Funchal Madeira Portugal Lisbon Portugal  London(Heathrow) England UK  Newark/New York(Liberty) NJ USA	Lisbon Portugal Lisbon Portugal Lisbon Portugal Lisbon Portugal Lisbon Portugal Maputo Mozambique Porto Portugal Sal Cape Verde Lisbon Portugal Porto Portugal Lisbon Portugal Porto Portugal
		Tyrolean Airways	Austria	Frankfurt Germany  Graz Austria Innsbruck Austria Klagenfurt Austria Linz Austria London(Heathrow) England UK Salzburg Austria Sarajevo Bosnia & Herzegovina Tbilisi Georgia Vienna Austria	Innsbruck Austria Klagenfurt Austria Salzburg Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Vienna Austria Skopje Macedonia Zurich Switzerland
Universal Airlines	Guyana	Icelandair	Iceland	New York(Kennedy) NY USA	Pt. of Spain Trinidad
Ural Airlines	Russia	Austrian Airlines	Austria	Ekaterinburg Russian Fed.	Vienna Austria
		Czech Airlines	Czech Rep	Prague Czech Rep.	Ekaterinburg Russian Fed.
US Airways	USA	Lufthansa German Airlines	Germany	Boston(Intl) MA USA Charlotte NC USA Frankfurt Germany	Munich(Intl) Germany Munich(Intl) Germany Philadelphia(Intl) PA USA
Varig S.A.	Brazil	Alitalia	Italy	Sao Paulo(Intl) SP Brazil	Milan (Malpensa) Italy
		Lufthansa German Airlines	Germany	Dusseldorf(Intl) Germany Frankfurt Germany	Frankfurt Germany Hamburg(Fuhlsbuettel) Germany Munich(Intl) Germany Sao Paulo(Intl) SP Brazil Stuttgart(Echterdingen) Germany
		Spanair	Spain	Alicante Spain Barcelona Spain Bilbao Spain Madrid Spain  Malaga Spain	Madrid Spain Madrid Spain Madrid Spain Madrid Spain Palma Mallorca Spain Valencia Spain Vigo Spain Madrid Spain
		TAP Air Portugal	Portugal	Faro Portugal Fortaleza CE Brazil Funchal Madeira Portugal Lisbon Portugal  Rio De Janeiro(Intl) RJ Brazil  Sao Paulo(Intl) SP Brazil	Lisbon Portugal Lisbon Portugal Lisbon Portugal Natal RN Brazil Porto Portugal Recife PE Brazil Salvador BA Brazil Lisbon Portugal Porto Portugal Lisbon Portugal Porto Portugal

## CONTROL SHEET

Project/Proposal Name: COMPETITION IMPACT OF AIRLINE CODE-SHARE AGREEMENTS

Document Title: Final Report

Client Contract/Project Number: D/1520 - HT637 - Code share study - COMP/2006/D2/006/Si2.441659

SDG Project/Proposal Number: 207016

## ISSUE HISTORY

**Issue No. 1**                      **Date 4 Jan 2007**                      **Draft v03b**

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