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Regional Differences in International Airline Operating Economics: 2008 and 2009

Approved by the Secretary General
and published under his authority

International Civil Aviation Organization

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Chapter 1

INTRODUCTION

1.1 This circular has been prepared pursuant to ICAO Assembly Resolution A37-20, Appendix G, which requests the Council to instruct the Secretary General to issue periodically “a study on regional differences in the level of international air transport operating costs, analysing how differences in operations and input prices may affect their levels and the impact that changes in costs may have on air transport tariffs”. This study on *Regional Differences in International Airline Operating Economics: 2008 and 2009* succeeds the study which covered the years 2006 and 2007 and was published in 2010 (Circular 327-AT/189) and five previous studies covering the years 1992 to 2005. Prior to that, similar studies were published annually under the title *Regional Differences in Fares, Rates and Costs for International Air Transport*, which covered the years 1976 to 1992. The studies are now published biennially, although data have continued to be collected and analysed on an annual basis. This circular focuses on the years 2008 and 2009 and makes some comparisons with 2007, the last year for which data are available in Circular 327-AT/189.

1.2 For 17 international route groups, comprising all international routes, passenger, freight and mail revenue yield data are presented in Chapter 2 for scheduled services. With reference to the same route groups, regional differences in the costs related to the scheduled service passenger yields are presented in Chapter 3. The major causes of regional differences in costs are identified in Chapter 4. In Chapters 2 and 3, the 2009 results are compared with those for 2007.

1.3 The sources of data used in the study are given in Appendix 1, together with information on the sample sizes on which revenue and cost data are based. The method of analysis used in the study is presented in Appendix 2, together with information on the margins of uncertainty, a factor which should be borne in mind when considering the results of studies of this nature. The questionnaires and information on responses appear in Appendix 3.

1.4 Unless indicated otherwise, all references to “cents” in this circular mean “U.S. cents” and all references to “dollars” mean “U.S. dollars”.

Chapter 2

LEVELS OF UNIT REVENUES

Passenger traffic

2.1 Estimates of average unit passenger revenues for scheduled services in 2008 and 2009 by route group are presented in Table 2-1.

2.2 Column 1 of Table 2-1 shows the average (weighted) revenue per passenger-kilometre (yield) for scheduled passenger traffic on each route group for 2008 and 2009. These data are considered representative of all airlines operating on the particular route group and also include estimates for non-reporting airlines. The data are presented without distinction to class of travel or fare type. Thus, they represent the overall weighted average for all individual routes on all route groups and for all fare types. The overall average yield (excluding incidental revenues) was estimated at 9.91 cents for 2008 and 8.79 cents for 2009. However, the route group averages vary from a high of 15.0 cents in local Africa to a low of 7.5 cents on routes across the North/Mid-Pacific in 2008 and from a high of 13.5 cents to a low of 6.6 cents on the same route groups in 2009. Due to inadequate representation in reporting, three route groups: between and within Central America and the Caribbean, local South America, and local Middle East are not included in this analysis, although their estimates are included in the worldwide totals for both years.

2.3 On a worldwide basis, the estimated average yield for scheduled services at 8.79 cents in 2009 showed a decrease of some 8 per cent from the level in 2007. Comparable data by route group between 2007 and 2009 are available for 14 individual route groups. Except for one (between North America and Central America/Caribbean), all of them showed decreases, ranging from a decline of some 13 per cent for routes across the North Atlantic to almost 2 per cent for routes between North America/Central America/Caribbean and South America (Figure 2-1).

2.4 The changes in yields experienced between 2007 and 2009 reflect the strengthening of the U.S. dollar (mainly in 2008) against most other world currencies, especially the currencies of countries in Europe and Asia/Pacific. The relative change between 2007 and 2009 would, in many cases, be significantly lower if expressed in the national currencies of the airlines concerned. A brief evaluation of this effect is given in Chapter 3 (paragraphs 3.11 and 3.12).

2.5 The analyses in paragraphs 2.2 to 2.4 relate only to the average unit revenues for all airlines combined on each route group. There can be wide variations around these averages shown among individual airlines. In the case of passenger services, the variation in yields for each route group for 2008 and 2009 is shown in Tables 2-2 and 2-3, respectively. For a few route groups, the unit revenues for individual airlines do not vary much from the route group average (for example, for routes between North America and Central America/Caribbean, within North America and across the South Pacific). However, on most route groups, the unit revenues differ significantly among airlines, reflecting differing route structures and traffic mix, among other factors.

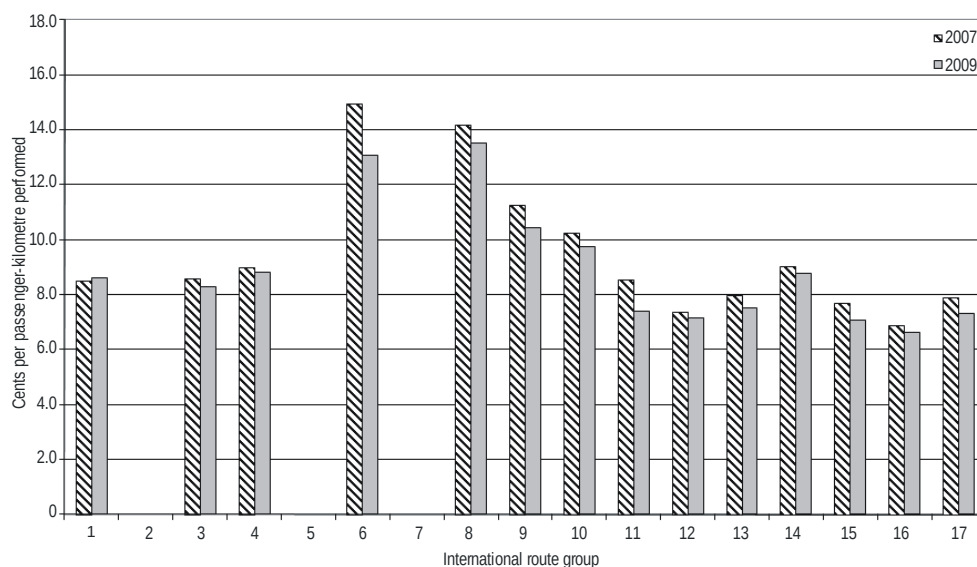
Freight and mail traffic

2.6 Average reported unit freight and mail revenues for the years 2008 and 2009 by international route group are presented in Table 2-4. It has to be borne in mind that the average unit revenues may not be for the same set of airlines for both years for each of the route groups. The reason is that the availability of data is limited and dependent upon the reporting of air carriers whose composition may differ from year to year.

Table 2-1. Estimated average unit passenger revenues for scheduled services by international route group¹: 2008 and 2009

Route group ²	Revenue (cents) per passenger-kilometre ³		Load factors (percentage points)	
	(1)		(2)	
	2008	2009	2008	2009
1. Between North America and Central America/Caribbean	9.4	8.6	77	78
2. Between and within Central America and the Caribbean	—	—	—	—
3. Between Canada, Mexico and the United States	9.2	8.3	76	75
4. Between North America/Central America/Caribbean and South America	9.6	8.8	76	75
5. Local South America	—	—	—	—
6. Local Europe	14.8	13.1	73	73
7. Local Middle East	—	—	—	—
8. Local Africa	15.0	13.5	61	62
9. Between Europe and Middle East	12.0	10.4	73	70
10. Between Europe/Middle East and Africa	10.6	9.7	73	73
11. North Atlantic	8.7	7.4	79	80
12. Mid-Atlantic	7.8	7.2	82	81
13. South Atlantic	8.4	7.5	80	79
14. Local Asia/Pacific	9.8	8.8	70	72
15. Between Europe/Middle East/Africa and Asia/Pacific	8.1	7.1	77	77
16. North and Mid-Pacific	7.5	6.6	79	79
17. South Pacific	7.9	7.3	76	78

1. Data, where presented, are considered representative for all airlines operating in the route group concerned. The representative nature of the data is described in Appendix 1, and the margins of uncertainty to be taken into account are discussed in Appendix 2. For routes between and within Central America and the Caribbean, in local South America and in local Middle East the representation was inadequate to justify separate presentation, but the data have been included in the world averages.
2. More detailed definition of the route groups may be found in Appendix 3 on the reverse of the questionnaire.
3. These figures do not generally include such incidental operating revenues as may be attributed to international passenger traffic. On individual route groups incidental operating revenues not included may represent up to an additional 7 and 8 per cent for 2008 and 2009, respectively, over the average revenue quoted.



- | | | |
|------------------------------|-----------------------|-------------------------|
| 1. North-Central America | 7. Middle East | 13. South Atlantic |
| 2. Central America/Caribbean | 8. Africa | 14. Asia/Pacific |
| 3. North America | 9. Europe-Middle East | 15. Europe-Asia/Pacific |
| 4. North-South America | 10. Europe-Africa | 16. North/Mid-Pacific |
| 5. South America | 11. North Atlantic | 17. South Pacific |
| 6. Europe | 12. Mid-Atlantic | |

Figure 2-1. Comparison of unit passenger revenues: 2007 and 2009

Table 2-2. Variation in scheduled passenger yield among airlines: 2008

Route group (short title)	Average revenue (cents) per passenger-kilometre (all airlines from Table 2-1)	Number of airlines in this analysis	Revenue (cents) per passenger-kilometre for individual airlines																								
			2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	24 to 25		
			to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	to 25	
			Number of airlines																								
1. North-Central America	9.4	8	1	0	0	1	1	4	1																		
2. Central America/Caribbean	—	—																									
3. North America	9.2	9				2	0	6	1																		
4. North-South America	9.6	8	1	0	0	0	1	2	2	1	1																
5. South America	—	—																									
6. Europe	14.8	37		1	2	0	1	0	1	2	0	3	3	1	2	3	1	5	1	3	1	1	1	1	1	4 ¹	
7. Middle East	—	—																									
8. Africa	15.0	5								1	2	0	0	1	0	0	0	1									
9. Europe-Middle East	12.0	23					1	2	3	1	4	3	3	0	0	0	0	0	0	2	0	0	0	0	0	1 ²	
10. Europe-Africa	10.6	22			2	1	0	0	5	2	2	2	2	2	0	2	1	0	0	0	0	0	0	0	0	1 ³	
11. North Atlantic	8.7	26			2	3	9	7	3	2																	
12. Mid-Atlantic	7.8	9	1	0	0	1	1	2	1	1	2																
13. South Atlantic	8.4	10			1	0	2	3	2	1	0	1															
14. Asia/Pacific	9.8	23				4	2	3	5	2	4	1	0	1	1												
15. Europe-Asia/Pacific	8.1	34			4	8	3	7	5	4	1	1	1														
16. North/Mid-Pacific	7.5	18		2	3	1	5	5	0	1	0	1															
17. South Pacific	7.9	4			1	1	1	1																			

1. In the range of 25-26 (1), 28-29 (1), 30-31 (1) and 35-36 (1).

2. In the range of 25-25 (1).

3. In the range of 30-31 (1).



Table 2-3. Variation in scheduled passenger yield among airlines: 2009

Route group (short title)			Average revenue (cents) per passenger-kilometre (all airlines from Table 2-1)	Number of airlines in this analysis	Revenue (cents) per passenger-kilometre for individual airlines																								
					2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	24 to 25		
					to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	to 25	
Number of airlines in this analysis					Number of airlines																								
1.	North-Central America	8.6	7				1	3	2	1																			
2.	Central America/Caribbean	—	—																										
3.	North America	8.3	8							2	5	1																	
4.	North-South America	8.8	11				2	2	2	2	1																		
5.	South America	—	—																										
6.	Europe	13.1	36				3	0	2	0	4	2	4	6	2	2	2	0	2	1	1	0	1	0	1	1 ¹			
7.	Middle East	—	—																										
8.	Africa	13.5	6								1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1			
9.	Europe-Middle East	10.4	22						3	5	2	2	4	2	2	0	1	0	0	0	0	0	0	0	0	1 ²			
10.	Europe-Africa	9.7	21				3	1	2	2	6	1	0	1	3	1	0	0	0	0	0	0	0	0	0	1			
11.	North Atlantic	7.4	25		1	1	3	11	5	4																			
12.	Mid-Atlantic	7.2	9				3	2	3	0	0	0	1																
13.	South Atlantic	7.5	11				2	2	2	4	1																		
14.	Asia/Pacific	8.8	24				2	2	2	5	8	1	2	2															
15.	Europe-Asia/Pacific	7.1	36		2	3	6	10	5	4	2	2	1	1															
16.	North/Mid-Pacific	6.6	19			4	2	9	3	0	0	1																	
17.	South Pacific	7.3	6			1	2	1	2																				

1. In the range of 26 to 27.

2. In the range of 28 to 29.



2.7 Column 1 of Table 2-4 shows the overall average revenue per tonne-kilometre performed for all (whether carried on passenger, combination or all-freight aircraft) scheduled freight traffic on each route group. The variation among route group averages ranges from a high of 79.9 cents on routes within Europe to a low of 23.3 cents on routes across the North Atlantic in 2008 and from a high of 66.3 cents to a low of 17.5 cents on the same route groups in 2009. Comparing the figures of 2007 and 2009, 12 of the route groups experienced decreases and 3 showed increases (no data available for 2 route groups).

2.8 Columns 2 and 3 of Table 2-4 show the average revenue per tonne-kilometre performed for scheduled freight traffic carried on passenger and combination aircraft and on all-freight aircraft, respectively. For the majority of route groups for which data are available, due to the large cargo capacity offered at competitive rates on wide-body passenger and combination aircraft (for example, on routes across the North/Mid-Pacific), the freight yields of passenger and combination aircraft are lower than those of all-freight aircraft. This reflects the fact that, depending on the mix of traffic, the freight cost basis on combination aircraft may allow much lower rates to be offered than those on pure freight services.

2.9 Column 4 of Table 2-4 shows the average revenue per tonne-kilometre performed for airmail traffic on each route group. The route group averages range from a high of 77.1 cents on routes within Africa to a low of 27.9 cents on those over the North Atlantic in 2008 and from a high of 62.4 cents for routes within Europe to a low of 23.2 cents for routes between Europe/Middle East/Africa and Asia/Pacific in 2009. Between 2007 and 2009, unit mail revenues increased on 4 out of 13 route groups for which there are data available and decreased on the remaining 9 route groups. Unit mail revenues in general still remain somewhat higher than unit freight revenues on the majority of route groups for which data are available.

2.10 The variation among individual airlines in freight revenue per tonne-kilometre for scheduled services for each route group for 2008 and 2009 is shown in Tables 2-5 and 2-6, respectively. For a few route groups, the unit revenues for individual airlines do not vary much from the route group average (for example, on routes across the North, Mid- and South Atlantic). However, as with passenger traffic, the unit revenues on most route groups differ significantly among airlines.

Table 2-4. Reported average unit freight and mail revenues by international route group, scheduled services: 2008 and 2009¹

Route group (short title)	Freight revenue (cents) per tonne-kilometre performed						Mail revenue (cents) per tonne-kilometre performed	
	Overall		Passenger and combination aircraft		All-freight aircraft		Overall	
	(1)		(2)		(3)		(4)	
	2008	2009	2008	2009	2008	2009	2008	2009
1. North-Central America	36.1	23.6	36.1	23.6	—	—	32.4	27.6
2. Central America/Caribbean	—	—	—	—	—	—	—	—
3. North America	45.5	29.3	45.5	29.3	—	—	57.0	53.8
4. North-South America	47.5	34.7	47.5	34.7	—	—	33.8	33.0
5. South America	48.8	46.1	48.8	46.1	—	—	—	26.8
6. Europe	79.9	66.3	78.1	65.2	89.2	72.2	69.5	62.4
7. Middle East	32.6	—	32.6	—	—	—	—	—
8. Africa	54.2	43.9	49.7	43.9	84.2	—	77.1	54.7
9. Europe-Middle East	26.9	24.0	26.9	21.8	—	41.3	34.1	46.4
10. Europe-Africa	30.6	26.8	30.6	25.2	—	73.1	42.8	37.7
11. North Atlantic	23.3	17.5	23.3	17.5	—	—	27.9	27.8
12. Mid-Atlantic	31.6	24.7	31.6	24.7	—	—	36.1	—
13. South Atlantic	30.3	23.8	30.3	23.8	—	—	31.1	31.4
14. Asia/Pacific	44.8	33.0	42.9	34.7	48.7	29.4	43.0	34.1
15. Europe-Asia/Pacific	26.4	20.8	25.5	20.6	28.0	21.1	30.1	23.2
16. North/Mid-Pacific	24.6	19.7	24.3	19.9	24.8	19.6	36.3	34.7
17. South Pacific	28.2	20.8	28.2	20.8	—	—	33.8	43.6

1. Data represent only carriers for which substantive information was available and are only presented where they include two or more carriers. The representative nature of the data is described in Appendix 1.

Table 2-5. Variation in scheduled freight yield among airlines: 2008

Route group (short title)	Average revenue (cents) per tonne- kilometre (all airlines from Table 2-4)	Number of airlines in this analysis	Revenue (cents) per tonne-kilometre for individual airlines																
			0 to 10	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	100 to 110	110 to 120	120 to 130	130 to 140	140 to 150	150 to 160	160 and over
			Number of airlines																
1. North-Central America	36.1	6		4	1	0		0	0	0	0	0	1						
2. Central America/Caribbean	—	—																	
3. North America	45.5	7		1	5	0	0	0	0	0	0	0	1						
4. North-South America	47.5	9		5	2	0	1	0	0	0	0	1							
5. South America	48.8	2				1	0	1											
6. Europe	79.9	26		1	2	2	0	3	2	1	3	1	1	0	1	1	4	4 ¹	
7. Middle East	32.6	2		1	0	0	0	0	0	0	1								
8. Africa	54.2	4				2	0	1	0	0	0	0	0	1					
9. Europe-Middle East	26.9	20		1	5	2	3	1	3	2	0	0	1	0	1	0	0	1 ²	
10. Europe-Africa	30.6	20		2	4	4	3	2	1	2	1	1							
11. North Atlantic	23.3	26	1	7	10	7	0	1											
12. Mid-Atlantic	31.6	9	1	1	3	3	1												
13. South Atlantic	30.3	10		2	6	1	0	1											
14. Asia/Pacific	44.8	24		1	2	4	3	7	3	3	1								
15. Europe-Asia/Pacific	26.4	35		4	21	4	4	0	2										
16. North/Mid-Pacific	24.6	19	1	3	11	4													
17. South Pacific	28.2	4			3	0	0	1											

1. In the range of 160-170 (1), 240-250 (1), 250-260 (1) and 380-390 (1).
2. In the range of 360-370 (1).



Table 2-6. Variation in scheduled freight yield among airlines: 2009

Route group (short title)	Average revenue (cents) per tonne- kilometre (all airlines from Table 2-4)	Number of airlines in this analysis	Revenue (cents) per tonne-kilometre for individual airlines																	
			0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	
			to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	and
			10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	over	
1. North-Central America	23.6	4	1	3																
2. Central America/Caribbean	—	—																		
3. North America	29.3	6		3	2	1														
4. North-South America	34.7	9	1	1	6	0	1													
5. South America	46.1	5	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1 ¹	
6. Europe	66.3	22		2	2	3	1	2	1	2	1	1	1	1	2	0	1	0	4 ²	
7. Middle East	—	—																		
8. Africa	43.9	4				1	2	1												
9. Europe-Middle East	24.0	20		3	6	2	2	3	0	1	0	0	0	0	0	0	1	0	2 ³	
10. Europe-Africa	26.8	17		4	5	3	1	1	1	1	1	0	0	0	0	0	0	0	1 ⁴	
11. North Atlantic	17.5	25	1	14	8	1	1													
12. Mid-Atlantic	24.7	8		1	7															
13. South Atlantic	23.8	11		4	7															
14. Asia/Pacific	33.0	24		2	5	5	3	7	0	0	1	0	1							
15. Europe-Asia/Pacific	20.8	36	1	8	21	4	0	1	0	0	0	0	0	1						
16. North/Mid-Pacific	19.7	21	1	8	9	1	1	0	1											
17. South Pacific	20.8	6		1	2	0	2	0	1											

1. In the range of 210-220.
2. In the range of 160-170 (1), 170-180 (1), 260-270 (1) and 290-300 (1).
3. In the range of 170-180 (1) and 200-210 (1).
4. In the range of 165-170.



Chapter 3

REGIONAL DIFFERENCES IN SCHEDULED PASSENGER UNIT REVENUES AND RELATED COSTS

Overall financial results by international route group

3.1 Selected operational data and estimated financial results for the years 2008 and 2009, overall and by route group, are presented in Table 3-1.

3.2 Column 1 of Table 3-1 shows that the number of scheduled airlines operating jet services in each route group ranged from a low of 14 on the South Pacific route group to a high of 198 serving routes within Europe in 2008 and from a low of 15 to a high of 190 on the same route groups in 2009. It should be noted that the propeller aircraft operations of these airlines are excluded from the study, as are the operations of some 110 small international airlines which operated exclusively propeller-driven aircraft both in 2008 and 2009. Together these operations with propeller aircraft represented about 0.4 per cent of world international seat-kilometres both in 2008 and 2009, with their highest representations in any single route group being some 20 and 16 per cent within Central America/Caribbean in 2008 and 2009, respectively, and around 3 per cent both in 2008 and 2009 within Africa.

3.3 All operational data included in columns 3 to 5 of Table 3-1 have a significant effect on unit operating costs (see Chapter 4), and the world unit cost is also affected by the geographical traffic composition presented in column 2. There are considerable differences among route groups in the volume of traffic, the average length of flight stages, the average number of seats per aircraft and the average passenger load factor.

3.4 Financial results are presented in columns 6 to 8. It should be borne in mind that the revenue figures do not generally take into account incidental operating revenues. Incidental revenues (which may be directly attributed to passenger traffic) include revenues from passengers paying less than 25 per cent of the normal applicable fare, commissions received on sales of transportation on other carriers, "no-show" and cancellation fees (expenses incurred against these revenue items are however included in the cost figures shown in column 7). Incidental revenues also include, on a net basis, capacity equalization payments arising from pooled and/or joint services as well as from the sale of own capacity to other carriers. Revenues accruing from the provision of services other than for air transportation (such as service and maintenance sales or handling services for third parties) and the corresponding costs are excluded from all figures presented in this study. An analysis of reported incidental revenue data on this basis for 2008 and 2009 indicates that for international routes as a whole, relevant incidental revenues not included in Table 3-1 might have been about 0.40 and 0.38 cents per passenger-kilometre in 2008 and 2009, respectively. If these relevant incidental revenues had been added to the estimated worldwide unit revenue, they would have increased the estimated worldwide unit revenue from 9.91 to 10.31 cents per passenger-kilometre in 2008 and from 8.79 to 9.17 cents per passenger-kilometre in 2009, this being about 4 per cent for each year. For individual route groups, the passenger-related incidental operating revenues may represent as much as almost an additional 7 and 8 per cent over the average revenue in 2008 and 2009, respectively. In further analysis, however, they have not been included since no attempt has been made to estimate them for all airlines (reporting and non-reporting) due to the uncertainty of the extent they can be attributed to the carriage of passengers on passenger and combination aircraft.

3.5 The average (weighted) operating cost — attributable to the carriage of passengers on passenger and combination aircraft — per passenger-kilometre for all international routes was 10.55 cents and 9.37 cents (column 7) in 2008 and 2009, respectively (for further details on the way passenger costs have been derived, see paragraph 10 of

Appendix 2). The figures for individual route groups range from a high of 15.7 cents on routes within Europe to a low of 8.6 cents on routes across the Pacific and Mid-Atlantic in 2008 and from a high of 14.2 cents on routes within Europe to a low of 7.2 cents on routes across the North/Mid-Pacific in 2009. These estimated costs include such items as depreciation and sales commission paid (which are sometimes accounted for differently) but exclude costs attributable to the carriage of freight and mail.

3.6 The ratio of passenger revenues to passenger costs (column 8) for international routes as a whole is estimated at 0.94 for both 2008 and 2009, with the ratios for individual route groups varying from 0.80 to 1.10 for 2008 and from 0.75 to 1.05 in 2009. Taking into account the relevant incidental revenues associated with international passenger traffic and the margins of uncertainty in estimated revenues and costs (discussed in Appendix 2), the revenue/cost ratio for all international passenger traffic is estimated to be between 0.91 and 0.97 in 2008 and between 0.90 and 0.98 in 2009.

3.7 The components of the total passenger costs are presented in Table 3-2. The primary breakdown is between "aircraft operating costs" (i.e. those directly attributable to the operation of aircraft on each route group) and "other operating costs". All the itemized data carry relatively wide margins of uncertainty and should be regarded as indicative only. Nevertheless, it appears that most of the individual items vary significantly among route groups.

3.8 The variations in revenue/cost ratios among airlines in 2008 and 2009 are shown in Table 3-3. On most route groups, the ratios vary significantly among the airlines, and the average revenue/cost ratios do not therefore adequately portray the economics of the operations. The revenue/cost ratios of individual carriers ranged from less than 0.7 to greater than 1.3 on 2 out of 14 route groups in the analysis in 2008 and 3 out of 14 route groups in the analysis in 2009, while ratios ranging from 0.7 to 1.3 were observed on 7 route groups both in 2008 and 2009.

Comparison of results for 2009 with those for 2007

3.9 An overall comparison between data for 2009 and corresponding data for 2007 shows a decrease of about 0.5 per cent in the estimated passenger cost per available seat-kilometre, from 7.11 cents to 7.07 cents. Since the worldwide average load factor at 75.4 per cent in 2009 showed a deterioration of about 1 percentage point, as compared to 2007, the cost per passenger-kilometre shows an increase of about 0.8 per cent, from 9.30 cents to 9.37 cents (see column 7 of Table 3-1). Unit revenues (excluding incidental operating revenues) showed a decrease of 7.6 per cent, from 9.51 cents per passenger-kilometre in 2007 to 8.79 cents in 2009 (see column 6 of Table 3-1). As a result, the overall revenue/cost ratio decreased from 1.02 in 2007 to 0.94 in 2009.

3.10 Between 2007 and 2009, 8 out of 14 route groups for which comparable data were available showed increases in average costs per passenger-kilometre ranging from about 1 per cent on routes across the Mid-Atlantic to almost 8 per cent for those between North America/Central America/Caribbean and South America. Decreases ranging from some 5 per cent (routes within Africa) to less than 1 per cent (on routes within Europe and across the South Pacific) were experienced on the remaining 6 route groups (Figure 3-1).

3.11 As with the revenue figures discussed in Chapter 2, the comparison of unit costs between 2007 and 2009 has been affected in some cases by a change in the value of the U.S. dollar against other world currencies. Within the Americas, where most fares and rates are transacted in U.S. dollars, the changes in yields generally reflect market changes. Similarly, changes in unit costs in the Americas to a large extent reflect the general change in costs, as well as some operational changes, since the greater part of costs are generally borne in U.S. dollars.