

# Opening Up Aviation Services in Africa

## Implementing Air Transport Liberalization – Benefits & Opportunities



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## Executive Summary

### Introduction

1. The World Bank's Africa Infrastructure Country Diagnostics (AICD) study<sup>1</sup> provides analysis of infrastructure gaps, including for aviation, where lack of airline competition and the development of regional airport hubs are noted as important constraints. The Programme for Infrastructure Development in Africa (PIDA), a continent wide programme, builds on this analysis and has identified a number of priority projects (PIDA Priority Action Plan -PAP)<sup>2</sup> which, if implemented would help interconnect, integrate and transform the continent. These include a number of projects that relate to the aviation sector.
2. A recent study commissioned by the Infrastructure Consortium for Africa (ICA) Transport Sector Platform<sup>3</sup> highlighted both the potential for private sector participation in Africa, as well as a number of issues that constrain or discourage involvement.
3. This study aims to build on this foundation work and assist African stakeholders in addressing the next steps in promoting efficient African aviation services. The overall objective is to contribute to addressing the barriers to the expansion of effective aviation services across Africa through analysis and targeted interventions in support of relevant PIDA - PAP projects. Specifically, the study assesses the Yamoussoukro Decision implementation, and West Africa Air Transport and Central Africa Air Transport Hubs.
4. The study is divided into two phases:
  - Phase 1: African aviation review; and
  - Phase 2: Demonstrating the benefits of liberalisation and identification of targeted changes to facilitate it.
5. Phase 1 included analysis and consultation activities in order to review recent developments, assess the current situation and identify key issues under the two main areas of work:
  - Assistance to further implement the Yamoussoukro Decision and address the associated barriers to developing the African airline industry; and
  - Review the case and scope for establishing regional aviation hubs in Western and possibly Central Africa.
6. The output of Phase 1 identified the focus for Phase 2, which included specific actions within the Yamoussoukro area of the study. After delivering the Phase 1 Review Report, the project team agreed methodology for Phase 2 with the ICA, which included:
  - Demonstrating the benefits of liberalisation for the consumer, the airlines, and the economy;
  - Developing a framework for estimating quantified potential improvements to domestic and intra-African routes, and undertaking an airline costs an route economics analysis for these routes;

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<sup>1</sup> Africa infrastructure Country Diagnostics (AICD) study- Africa's Infrastructure: A Time for Transformation; World Bank et al

<sup>2</sup> Programme for Infrastructure Development in Africa – Priority Action Plan [www.au-pida.org](http://www.au-pida.org)

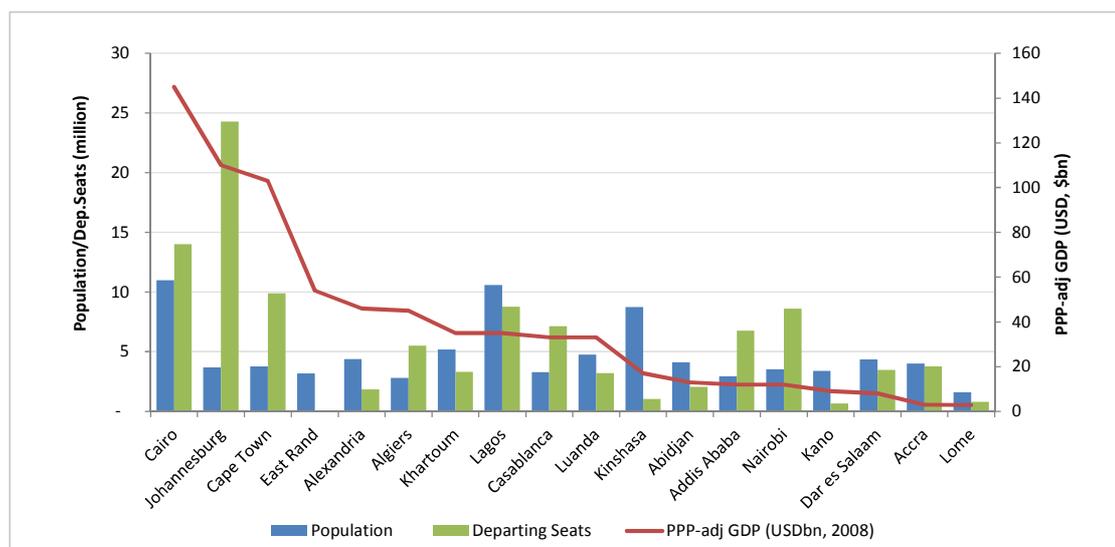
<sup>3</sup> Assessment of the potential for private participation in the maritime and air transport sectors in Africa, Steer Davies Gleave, 2012

- Further engagement with stakeholders via a forum suggested by the ICA (the African Aviation Summit 2014, held in Addis Ababa, Ethiopia, as well as at the ICA Annual Meeting 2014 in Cape Town);
  - A high level infrastructure review of major infrastructure issues at West African airports; and
  - A consideration of targeted, incremental, legal and administrative changes which might facilitate liberalisation and competition. These would be actions or changes that are possible within the context of existing regulations.
7. This Final Report is the final Phase 2 project deliverable from Steer Davies Gleave for the study to assist in the Opening Up of Aviation Services in Africa. In undertaking this work Steer Davies Gleave was supported by aviation law experts Clyde & Co.
  8. This Final Report includes our findings from Phase 1 of the study, as submitted in the Review Report at the end of Phase 1, as well as our findings from Phase 2 of the study, undertaken in line with the agreed methodology outlined in the section above. We include as a final chapter our overview of the issues covered and a proposed action plan for the ICA for further dissemination of the study findings and engagement with stakeholders in roles with influence in the African aviation context.

#### **Africa: a demographic and economic overview**

9. Africa's population is growing rapidly. The current high population growth rate began in the second half of the 20th century, when the number of people on the continent almost quadrupled from 230 million to 811 million. By 2010 this number reached one billion and if current demographic trends persist, Africa's population will be 1.4 billion in 2025 and 1.9 billion by 2050.
10. The size and rate of expansion of a country or city's population, its wealth and trade activity are all indicators of the level of aviation activity that might be expected. Cities with a large population and GDP and high airline capacity (seats) may indicate a potential location for a viable hub. Our review of population, GDP and departing seats for the top 18 African cities by PPP-adjusted GDP (2008 data) found that Nairobi and Addis Ababa, two existing hubs in Eastern Africa, display a relatively high level of departing seats compared to population levels. Lagos in West Africa has a relatively high population and number of departing seats however does not operate as a hub to the same extent that, say, Lomé in Togo does, despite Lomé having very low levels of departing seats and population. See the Figure E.1 below.

Figure E.1: African cities: GDP, Population and departing Seats



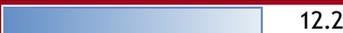
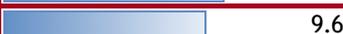
Source: OAG, PwC Global city rankings 2008, Steer Davies Gleave analysis

### Overview of air transport policy in selected African States

#### *Legal frameworks in place*

11. In order to understand the legal framework and the level of liberalisation on paper, a number of key African States were selected for a desktop review of their aviation policies and legislative context, in order to provide an overall impression of the level of liberalisation of air services in the States considered.
12. The Air Services Agreement Projector (ASAP) is an analytical tool devised by the World Trade Organisation (WTO) that analyses bilateral Air Services Agreements (ASAs) in order to assess their level of liberalisation. The WTO has devised indices that give an indication of the level of liberalisation of any given ASA and of the air transport policy of a particular State. The Weighted Air Liberalization Index (WALI) is a synthetic measure of the level of liberalisation of the air transport policy of a given Signatory. It is calculated as an average of the indices of all the air service agreements concluded by that Signatory, weighted by the respective traffic they cover and ranges between zero for the most restrictive, and fifty, for the most open. The Standard WALI for selected African states is shown in Table E.1, along with the number of bilateral ASAs for each State. We have also included a number of non-African states as a comparator.

Table E.1: Air Liberalisation Index and Number of ASAs for selected African and non-African States

Signatory	Standard weighting	Number of Bilateral ASAs
	closed <-----> open	
Egypt	 7	41
South Africa	 11.6	54
Nigeria	 12.4	20
Ghana	 12.2	26
Zambia	 10.4	13
Senegal	 9.6	21
Ivory Coast	 6.8	22
Ethiopia	 11.6	18
Kenya	 7.7	27
Tanzania	 11.4	23
Dem Rep Congo	 8.7	12
France	 13.6	63
UK	 14.3	96
Turkey	 11.3	52
Argentina	 16.1	33
Indonesia	 14.3	26

Source: World Trade Organisation, Steer Davies Gleave analysis

13. The higher the WALI index, the more open a State's ASAs are. Whilst the non-African countries show more liberalised ASAs, there is not a significant gap between them and the more open African countries, such as Nigeria, Ghana and Ethiopia. It must be noted that, as a multilateral agreement, the Common Aviation Area in Europe is not included in the analysis. If it were, the scores for the UK and France would be significantly higher.

*Relevant international aviation treaties*

14. Two key treaties/decisions in Africa relating to liberalisation in the aviation market are the Yamoussoukro Decision and the ECOWAS Treaty.
15. The objective of the Yamoussoukro Decision (YD) is defined under Article 2, Scope of Application, as the gradual liberalisation of scheduled and non-scheduled intra-African air transport services. The Abuja Treaty, which formally entered into force on 12 May 1994, is recognised as the legal basis for the YD. Of the 54 African states, 44 have signed and formally ratified the Abuja Treaty and as a result became parties to the YD. The other 10 states (Djibouti, Equatorial Guinea, Eritrea, Gabon, Madagascar, Mauritania, Morocco, Somalia, South Africa, and Swaziland) cannot be considered parties.
16. In theory, therefore, signatory States should have a liberalised air transport market in operation both within and between them. In practice, however, this is not the case. All sources confirmed that Yamoussoukro had not been implemented, or had only been partly implemented, and indeed whilst we are aware that Yamoussoukro is cited on occasion in bilateral ASAs, it is not, in practice, taken into account during negotiations for air traffic rights.

17. The 1975 Treaty establishing the Economic Community of West African States (ECOWAS) States (revised in 1993) includes a chapter on co-operation in transport, communications and tourism. We understand that the Fifth Freedom rights granted to airlines as part of this treaty has led to a high concentration of triangular and multi-stop flights being operated in Western and Central Africa compared to the rest of the continent.

#### **Stakeholder Comments**

18. Stakeholders commented on three key components of the Air Services Agreements: ownership, Fifth Freedom rights and designations of carriers by States.

##### *Ownership issues*

19. Issues of ownership are the most significant concern for African States and airlines, particularly fastjet, which is deemed a Tanzanian carrier under Tanzanian law but is not majority owned by African nationals. Under the YD, the carrier must be effectively controlled by the nationals of one, or in the case of multinational airlines, several, state parties. This issue became important immediately when fastjet attempted to launch operations to other countries, for example, South Africa. Whilst under Tanzanian law fastjet is a Tanzanian carrier, other countries do not accept the designation because, under their own national legislation, designation requires ownership (or majority ownership) by Tanzanian nationals. Fastjet has therefore formed local partnerships in each country, such as South Africa, taking minority equity stakes, to obtain the route rights it seeks to operate.
20. It should be noted that this issue would not be resolved even if the YD were fully implemented, since YD includes a requirement for ownership by the relevant country's nationals.
21. The EAC commented that, in their current drafting of region-wide air transport liberalisation legislation, the only outstanding issue is that of ownership. African carriers have significant concerns about well-financed non-African airlines, such as those based in the Gulf, entering and dominating African markets, should ownership restrictions be relaxed.

##### *Fifth Freedom rights*

22. The YD allows the multilateral exchange of up to Fifth Freedom air traffic rights between any African YD party state using a simple notification procedure. However a number of stakeholders, including Kenya Airways, reported issues concerning the granting of Fifth Freedom rights. They theorised that other major sub-Saharan African airlines (such as South African Airways, Rwanda Air and Ethiopian Airways) would experience similar issues.

##### *Designations of carriers by States*

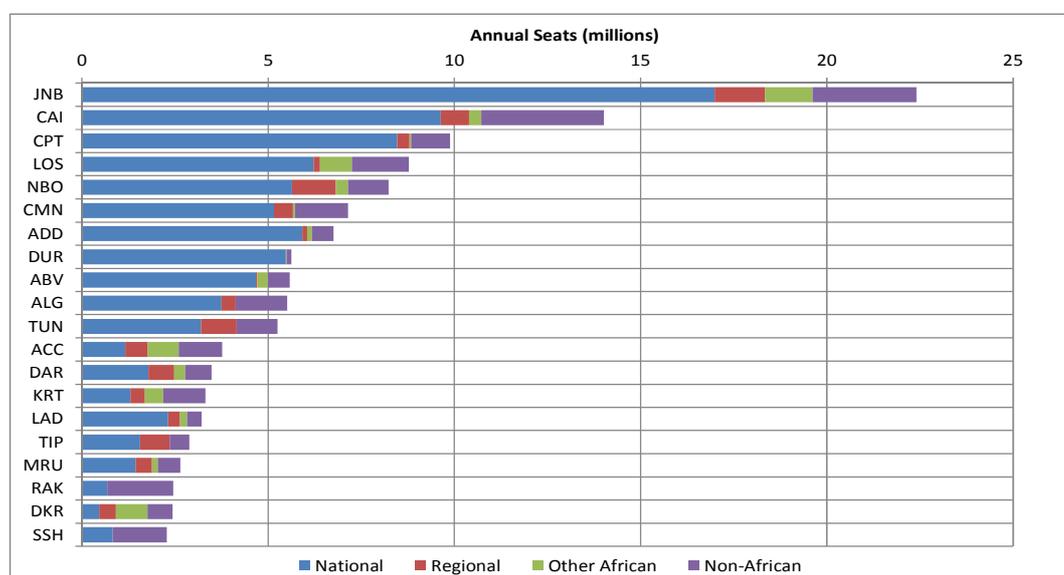
23. Under the YD there is no limit on the number of carriers a State Party can designate, as long as the carriers meet the eligibility requirements. This seems to give rise to the possibility of State A refusing to designate a carrier wishing to commence operations to State B, say in a situation where there is protectionist behaviour towards a state carrier that has already been designated.
24. This demonstrates that, even if the YD were fully implemented, its provisions do not really constitute an Open Skies arrangement, relying very much on governmental involvement and enthusiasm to foster freedom of access for eligible airlines. The evidence shows that such enthusiasm is often absent.

## Aviation in Africa: supply & demand

### Air Services

25. The continent's 20 biggest airports account for nearly 60% of total traffic in Africa over September 2012 - August 2013. With 22.4 million departing seats over the period, Johannesburg airport is the largest in Africa and approximately 60% larger than the next largest airport, Cairo. Cape Town and Durban in South Africa also figure in the top 10, which includes Lagos, Nairobi, Casablanca, Addis Ababa, Abuja and Algiers. The mix of domestic, intra-regional, inter-regional and intercontinental traffic varies greatly.
26. Some interesting variations between airports are observed in the balance of local and reciprocal carriers operating the different types of route. For example, 86% of international capacity at Addis Ababa is provided by Ethiopian carriers compared to 3% for Ghanaian carriers at Accra, while at Johannesburg South African carriers offer a larger proportion of the regional capacity (70%) than reciprocal carriers do; just over half (53%) of the intra-African capacity; and only a small proportion (15%) of intercontinental capacity. See Figure E.2 below.

Figure E.2: Traffic (departing seats) at top 20 airports, by carrier



Source: OAG (Sep 2012-Aug 2013), Steer Davies Gleave analysis. Airport code key below.

Airport	Airport name	Airport	Airport name
JNB	Johannesburg O.R. Tambo Int	TUN	Tunis
CAI	Cairo	ACC	Accra
CPT	Cape Town	DAR	Dar Es Salaam
LOS	Lagos	KRT	Khartoum
NBO	Nairobi Jomo Kenyatta Int Apt	LAD	Luanda
CMN	Casablanca Mohammed V Apt	TIP	Tripoli

Airport	Airport name	Airport	Airport name
ADD	Addis Ababa	MRU	Mauritius
DUR	Durban King Shaka Int Apt	RAK	Marrakech
ABV	Abuja	DKR	Dakar
ALG	Algiers	SSH	Sharm El-Sheikh

27. Differences are also noted in the extent to which triangular routings are utilised in the four African regions. Triangular routings are found to be more prevalent in Western & Central Africa, reflecting the low levels of traffic, the lack of a dominant airline with a central hub, and the existence of Firth Freedom traffic rights (granted to airlines in the region under the ECOWAS treaty).

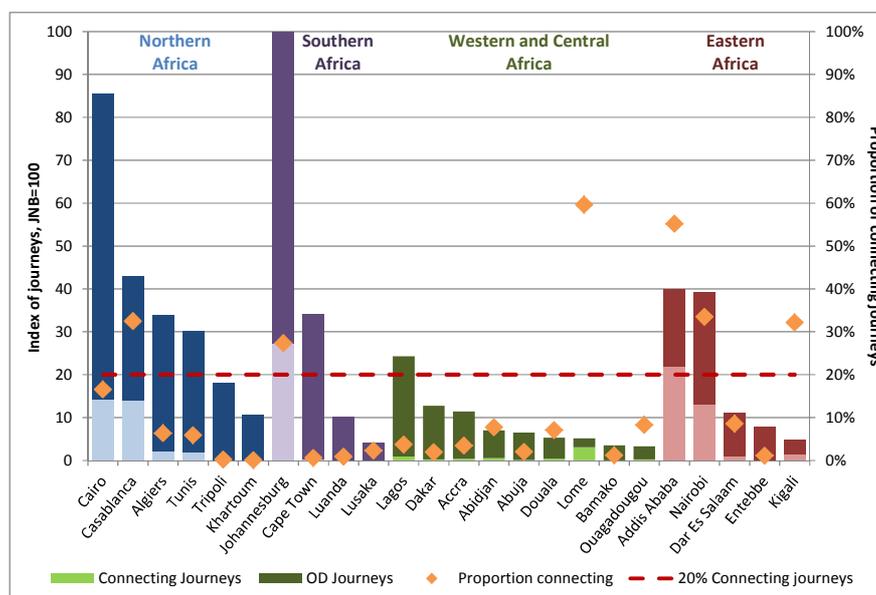
*Gaps in connectivity*

28. Analysis of travellers’ itineraries demonstrates the low level of connectivity at several important African airports including Entebbe, Accra and Lagos, where a high proportion of indirect journeys (via other airports) are undertaken. The low level of inter-regional connectivity across the continent is also revealed, with as few as 31% of journeys between Northern and Southern Africa found to be direct.

*Hubs*

29. The extent to which some of Africa’s busiest airports act as hubs for connecting passengers is also examined. As shown in Figure E.3 below Northern, Southern and Eastern Africa all have sizeable airports where the proportion of journeys connecting there approaches or exceeds 20% (Heathrow c.35%, Amsterdam c.50%).

**Figure E.3: Connecting journeys at key African airports**



Source: MIDT, Steer Davies Gleave analysis

30. Cairo, Casablanca, Johannesburg, Addis Ababa and Nairobi all act as hubs. Lomé is the only airport in Western & Central Africa that might be characterised as a hub with 60% of journeys

making onward connections. Lomé, however, is small compared with busier airports in the region, like Lagos, and considerably smaller than hubs in other regions.

### *Fifth Freedom Rights*

- The figure below shows the air routes operated under Fifth Freedom rights across Africa (Sept 12 – Aug 13, twice or more a week frequencies, more than 50k two-way seats annually). The colours used signify the number of airlines operating a particular Fifth Freedom route. The map shows that Fifth Freedom rights are exercised widely in Western & Central Africa.

**Figure E.4: Fifth Freedom route in operation in Africa, 2012**



Source: MIDT, OAG, Steer Davies Gleave analysis

### *Fleet*

- Africa’s low level of connectivity is further revealed in the relatively small size of the African airlines’ fleets. Despite representing 15% of the world’s population, African airlines operate only 5.5% of the world’s commercial passenger and freighter aircraft, thereby having the lowest level of aircraft per capita of any world region. The average age of these fleets is found to be the oldest of any world region (17 years vs 13 years for the global average), and their aircraft mix tends to involve smaller than average aircraft.

### **Other barriers to the development of aviation in Africa**

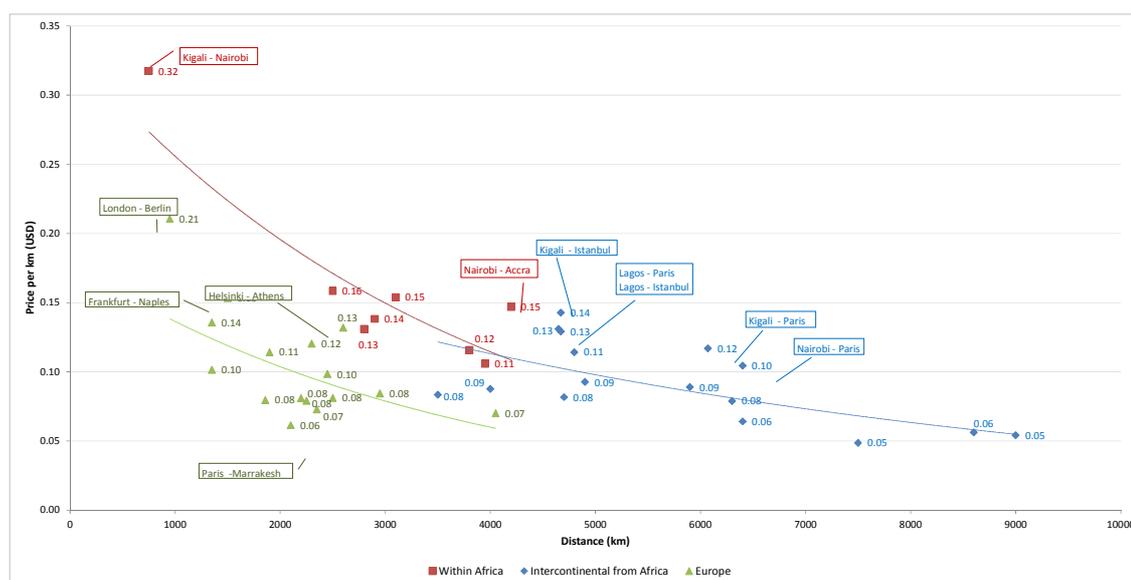
- There are a number of other barriers to the development of aviation in Africa beyond those already discussed (population, wealth, legislation and policy).

### *Fares*

- A number of stakeholders (including fastjet, the EAC, EAC-CASSOA, Arik Air and Kenya Airways) commented that the level of aviation ticket fares in Africa is higher than seen in other, more liberalised markets, such as the European Union.

35. We have analysed fares from several national and international routes taking in account both direct and stop-over (to a maximum of three) flights. The comparison has been undertaken for 26 routes, using publicly available fares data on kayak.co.uk.
36. For the routes analysed, the average intra-European fare price per km is approximately a third lower than the average intra-African fare. There are a number of drivers of this difference:
  - High levels of taxes, fees and charges in African States, investigated in more detail in the following section, Taxes, fees and charges;
  - Higher operational costs in Africa; and
  - Increased competition as a result of market liberalisation resulting in lower ticket prices in Europe.

Figure E.5: Fares analysis: price per km (USD) vs distance



Source: kayak.co.uk Steer Davies Gleave analysis

### Operating costs

37. Both stakeholders and the literature consulted have commented on the high operational costs that airlines face in Africa.
38. Fastjet confirmed that fuel prices are approximately 20-30% higher in Africa than other parts of the world, and estimated lease costs to be about 20% higher than in Europe. Arik Air also stated that financing for aircraft leases was more expensive in Africa than other parts of the world, particularly in Nigeria, due to the continent or country risk applied by the banks. The high operating costs for airlines in Africa are also acknowledged by the Economist, Reuters, Financial Times (Mango Aviation Services quote), CAPA and ICAO.
39. This issue is examined in further detail in our airline costs and route economics section.

### Competition

40. The absence of any serious competition between carriers on many African routes is keeping fares high. Arik Air stated that on some West African routes, loadings of only 50% were required for profit, due to the high fares that they are able to charge.

41. The EAC stated that the region's dependence on bilateral Air Service Agreements (ASAs) meant that the aviation market was still artificially restricted, and that local operators were protected regardless of their performance.
42. In cases where competition has been introduced, it has resulted in lower fares. On the Johannesburg-Lusaka route (for which South African Airways had been the only carrier for over 10 years), designating the South African low-cost carrier, Kulula, as the Zambian carrier reduced fares by 33-38 percent and increased passengers by 38 percent.
43. Fastjet entered the Southern African market in 2012 with a low fares policy. The impact of these low fares on the domestic market has been to increase the size of the market (by 20%, according to some sources including the EAC). Interestingly, fastjet confirmed that 38% of their passengers in their first year of operation in Tanzania are first time flyers.

#### *Taxes, Fees and Charges*

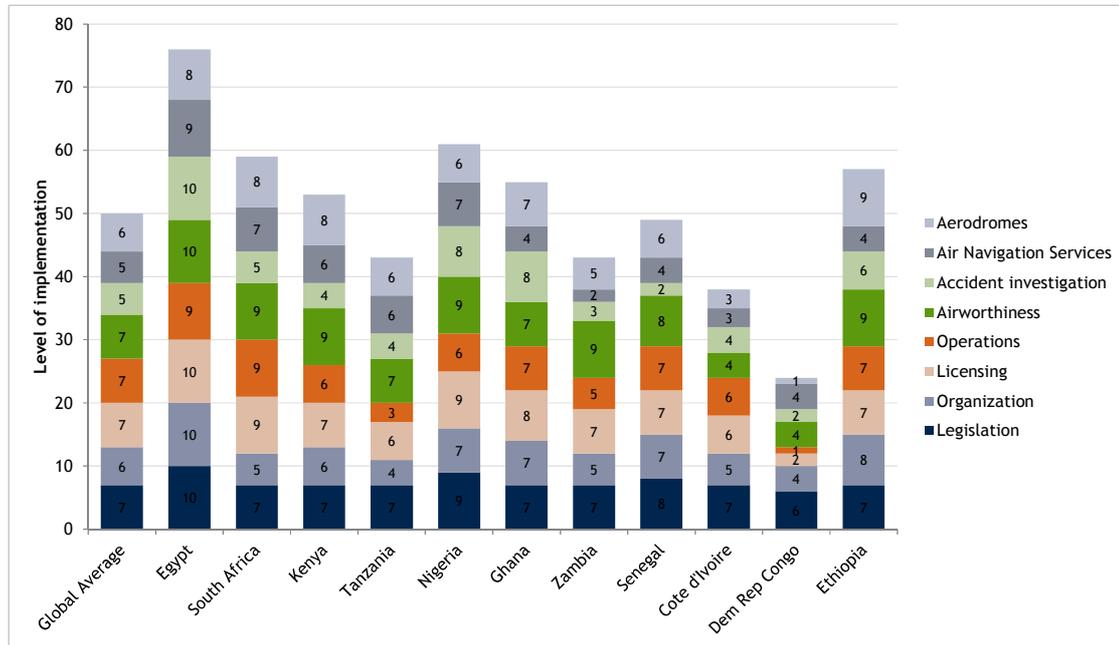
44. Aviation is seen by many African governments as a high revenue industry; aviation tax collection is inexpensive and convenient for Governments to raise funds. Most of the service providers are monopoly providers and without proper regulatory oversight of them coupled with lack of transparency and consultation has resulted in the setting of high Taxes, Fees and Charges (TFCs). The effect of this is market distortion, damage to the commercial viability of carriers, limitation to growth, and diverted finance.
45. Taxes, fares and charges (passenger) at 15 African airports and at 5 other airports around the world, have been analysed for comparison purposes. Looking at the departure tax for regional international flights only (i.e. excluding the security, service, safety and other charges), the average of the African airports reviewed is 30% higher when compared to non-African airports reviewed. Total TFCs at African airports are 8% higher on average than non-African counterparts. This difference becomes more pronounced when living conditions and the economy are factored into account.
46. Concern over high TFCs at African airports and the potential for more airports to reduce TFCs for regional (i.e. intra -African) flights was noted by a number of stakeholders including EAC, EAC-CASSOA and fastjet. The EAC commented that up to 60% of the ticket price is taxes and that tackling the problem of high TFCs would be their next focus, if they succeeded with their current attempts to liberalise the air transport market. The EAC considered that Governments are open to this discussion and that they are considering double tax treaties between States for departure tax.

#### **Aviation safety in Africa**

47. Safety oversight and consumer confidence in aviation safety in Africa has long been an issue for African airlines. According to a World Bank study, the high accident rate in Sub-Saharan Africa is primarily a result of poor safety standards and lax supervision.
48. The accident rate is the International Civil Aviation Organization's (ICAO) primary indicator of aggregate safety in the global air transport sector. In Africa in 2012, the accident rate (no. of accidents per million departures) is, at 5.3, the highest among all the UN regions. At 3% of all scheduled commercial departures, Africa accounts for the lowest percentage of global traffic volumes, but the highest accident rate.
49. ICAO also audits the implementation of its Standard Recommended Practices and Procedures through its Universal Safety Oversight Audit Programme (USOAP). The aggregate USOAP

effective implementation level for Africa is 44% compared to the World average of 61%. Figure E.6 compares the level of implementation of 12 selected African countries to the global average.

Figure E.6: ICAO level in USOAP implementation



Source: ICAO Safety Audit Information, Steer Davies Gleave analysis

*European Aviation Safety Agency (EASA) activities in Africa*

- 50. Under its mandate for international cooperation, EASA assists States that want to adopt European regulation and/or international safety standards. Its international cooperation for technical activity is focused on supporting the EU Civil Aviation Cooperation projects and the International Cooperation Forum (IFC), working with CAAs and regional organisations to promote air safety.

*Abuja Declaration on aviation safety in Africa*

- 51. The 2012 Abuja Declaration<sup>4</sup> on aviation safety in Africa includes a Plan of Action and High Level Safety Targets for African Union states. The African Civil Aviation Commission (AFCAC) has been directed to establish effective monitoring and reporting mechanisms for the Declaration, other resolutions and regional initiatives.

*Stakeholder comments*

- 52. Aviation safety in Africa is a central concern for stakeholders, although they noted that the situation had been improving.
- 53. Airlines recognise the paramount importance of safe operations, with some airlines consulted seeing the need to contract their maintenance operations to renowned European firms rather than undertaking it themselves or using a local provider. The increased expense was

<sup>4</sup> Abuja Declaration on Aviation Safety in Africa, African Union, July 2012

considered worth it to ensure a link to the respected "brand" and associated safety standards of these established European companies.

54. We understand that the EAC and East Africa Community Civil Aviation Safety and Security Oversight Agency's (CASSOA) progress in harmonising aviation safety regulations is the most developed of all African Regional Economic Communities. The EAC noted compliance with safety regulations as an issue. CASSOA is not an enforcement agency, but exists to standardise and harmonise aviation regulations and revisions across the EAC States. CASSOA adheres to ICAO standards, and ICAO Annexes 1-19 (excluding Annex 9) have been harmonised, including all security Annexes. The CAAs of EAC Member States are major shareholders.

#### *Infrastructure*

55. The availability and quality of aviation infrastructure varies across Africa. In the North, East, and South, established hubs such as Cairo, Addis Abba, Nairobi and Johannesburg, provide airlines with sufficient infrastructure to develop their operations from these airports. In Western Africa, whilst some airports (Lagos, Lomé) do provide important connectivity, infrastructure issues prevent their development into fully operational hubs.
56. Our review of the key characteristics of some of the main airports in Western Africa indicates that terminal capacity is a key issue in hindering the development of aviation in Western Africa, both at present and in the near-term future. All of the airports reviewed are either already undertaking, or are planning to undertake significant capacity enhancement projects in the form of refurbishing existing facilities, or building new greenfield developments with a view to providing sufficient capacity to accommodate anticipated strong growth. We note that none of the airports report pressing runway capacity constraints, although constraints are apparent on taxiways, aprons and stands. The economic justification for some of the newly constructed airports is not clear, where in many cases existing capacity might be better utilised by rescheduling to prevent the simultaneous arrival of more flights than the airport can process .
57. Concerns have been raised around the availability of fuel, especially at inland airports, reflecting broader energy supply issues in the region, while further concerns also surround the provision of suitable hubbing facilities. Users highlight that as well as sufficient passenger capacity, airports should offer adequate terminal connectivity to facilitate convenient and reliable transfers.
58. The majority of stakeholders consulted concluded that Lagos, Nigeria, is the most appropriate location for an aviation hub in West Africa, due to the size of the economy, population of Nigeria and level of intercontinental traffic as compared to the other options, Accra (Ghana) and Lomé (Togo). However safety issues and the lack of infrastructure do not make it an immediately attractive choice, and stakeholders acknowledged the attraction of alternatives such as Accra or Lomé for airlines wishing to hub in West Africa.

#### **Availability of finance**

59. Airlines require access to finance both for working capital and, particularly, to obtain aircraft. With some exceptions, the banking system in much of sub-Saharan Africa is not well capitalised and national banks are not in a strong position to provide the long-term financing required for aircraft purchase or long-term aircraft leases. The small size of most African airlines and the many difficulties in developing and operating airlines in many African countries mean that many financial institutions are unwilling to invest in African airlines or,

where they do invest, charge higher rates than would be charged to airlines in other parts of the world.

#### *Aircraft leasing*

60. Airfinance Journal reports that the number of African airlines using operating or finance leases is still relatively low, at around 40%. However it is growing as lessors have shown an increasing willingness to lend to African carriers.

#### *Export Credit Agencies*

61. As commercial debt has become increasingly difficult for airlines to access, the use of export credit agencies (ECAs), balance sheet funding and in some cases manufacturer provided finance (particularly through leases) has become more common.
62. While commercial banks are generally prepared to offer airlines ECA financing, the standard ECA product guarantees only 85% of the total transaction. This leaves 15% of the financing exposed, which banks are often unwilling to provide alone. Development banks are therefore increasingly being used as a method of bridging this funding gap. Set against this are new rules and legislation brought in by the 2011 Aircraft Sector Understanding (ASU) which requires each ECA to classify its buyers/borrowers into one of eight risk categories, based on their senior unsecured credit ratings.
63. The new ASU raises the export credit premium for all buyers/borrowers, whether airline or lessor. However, the ASU drafters added requirements to reduce this risk. Export credit for higher risk airlines comes with more strings attached which will naturally suppress the availability or at the very least raise the cost of finance to weaker African carriers. The ASU also creates greater incentives to adopt the Cape Town Convention, described below.

#### *Cape Town Convention*

64. The Convention on International Interests in Mobile Equipment and its related Aircraft Protocol, collectively called the Cape Town Convention, came into force for aircraft in April 2006. It creates an international registry of security interests in aircraft and spells out creditor rights, thereby eliminating much of the uncertainty about how creditors might fare in a local jurisdiction after an air carrier's default or insolvency. The airlines of any country that adopts the Cape Town Convention, making it the law of their own land, qualify for a discount of up to 10% on their export credit premium.
65. Although the Cape Town Convention therefore appears to provide strong incentives for improvement in local law to the benefit of aircraft lessors and financiers, thereby helping to lower lease cost rates, our discussions with stakeholders have raised doubts as to its effectiveness in practice. Even in countries where the Convention is in force, it is still necessary for a lessor suffering a default to get a local court to endorse its seizure of the aircraft asset. Therefore the Cape Town Convention, while a helpful measure, does not circumvent the need for a strong legal system to underpin ownership rights.

#### *Costs of aircraft finance*

66. Our discussions with stakeholders on issues relating to costs of aircraft finance led us to understand that there was an appreciation in the industry that it took longer to reach financial close on an aircraft leasing deal than it would in developed nations and that this ultimately added to the cost of the transaction. It was the strength of local law, and the attitude of local

Courts, which determined the effective level of security available to lessors, rather than the country's adherence to the Cape Town Convention itself.

67. In developed nations, dry lease monthly rental rates tend to be below 1% of the aircraft's market value and we understand the larger and more successful African carriers such as Kenyan Airways, Ethiopian Airlines and South African Airways are able to negotiate similar lease rates. However for carriers in less developed aviation markets, or those perceived to be higher risk, the target monthly lease rate would typically be 1.25% to 1.5% of the aircraft's market value with the potential to go as high as 2%. In addition, deposits would tend to be higher in African countries, with an additional two- to three months' payment being held to cover any potential default risk.

#### **African airline costs and route economics**

68. There are multiple reasons for the poor route economics of flights in Africa. To quantify the extent of their impact, we have analysed the economics of certain typical intra-African routes. A number of routes were chosen to cover a variety of distances, geographies and economic contexts. In order to compare and contrast African costs and fares, we analysed a similar set of routes in UK/Europe and in India.
69. Our analysis shows that for both shorter routes (<2 hours flight time) and longer routes (2-7 hours flight time), costs and fares in Africa are typically:
- 1.5-2.0 times those in Europe; and
  - 2.5-3.0 times higher than those in India.
70. We would expect that, given levels of economic development, fares in Africa would be similar to those in India and certainly should not be higher than those in Europe. The relationship between Africa, India and Europe at a cost, rather than fare level, is more extreme, because the benchmark Indian and European airlines are low cost, whereas no major African low cost carriers exist.

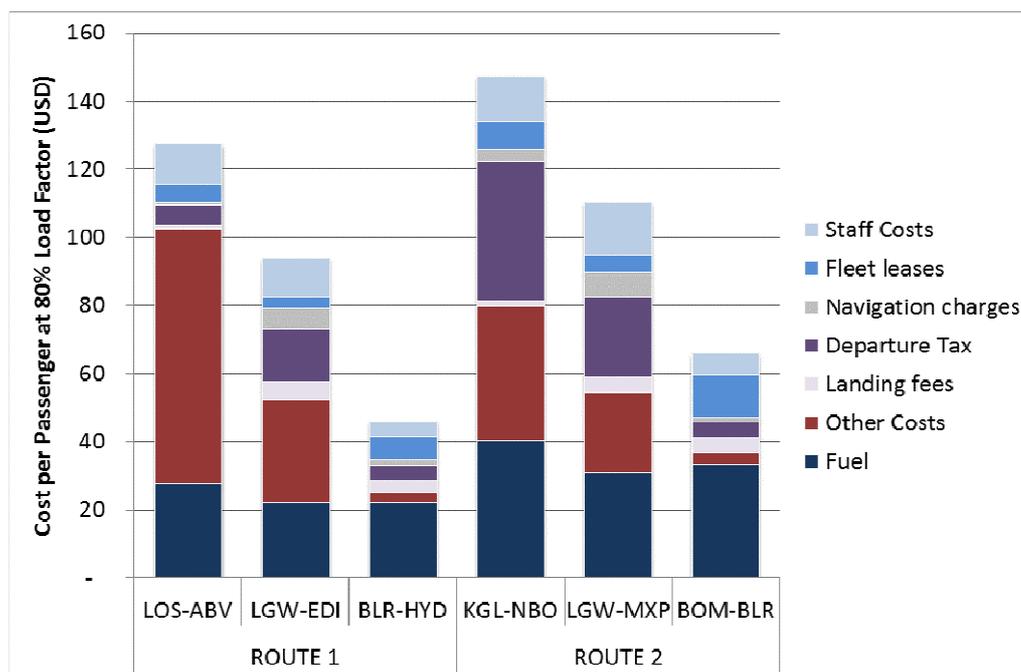
#### *Load factors*

71. It was observed that low load factors are a major factor in the disparity between African, and European and Indian route economics:
- EasyJet has an average load factor of 89%;
  - SpiceJet has an average load factor of 74%; and
  - Ethiopian Airlines has an average load factor of 60%.
72. We analysed the effect of increasing the load factors to levels comparable to those observed in UK/Europe and India. Applying a comparable load factor of 80% to African routes could result in significantly lower route unit costs.

#### *Cost breakdown*

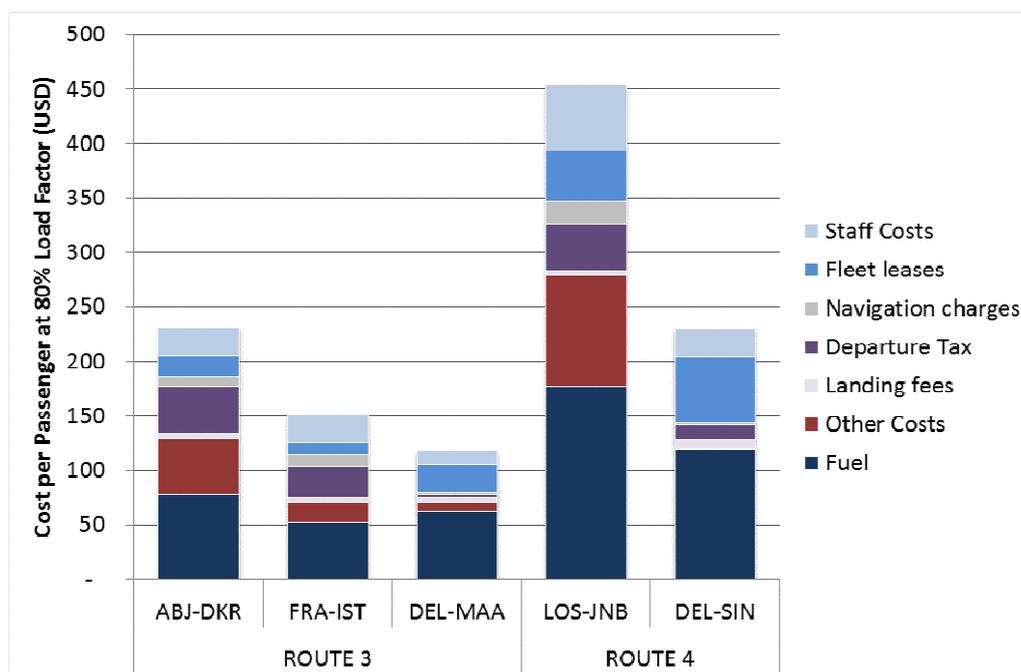
73. Besides load factors, there are a number of other reasons for the high costs for African carriers, as can be seen in Figure E.7 and Figure E.8:
- Higher fuel costs due to poor infrastructure, on an average 20% higher than Europe/India;
  - Higher airport taxes at some airports, on average 25% higher than Europe/India;
  - Higher staff costs; and
  - Higher "other" costs (maintenance, commercial costs), on average 50% higher than Europe/India.

Figure E.7: Breakdown of route costs, normalised at 80% load factor (shorter routes, less than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

Figure E.8: Breakdown of route costs, normalised at 80% load factor (longer routes, more than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

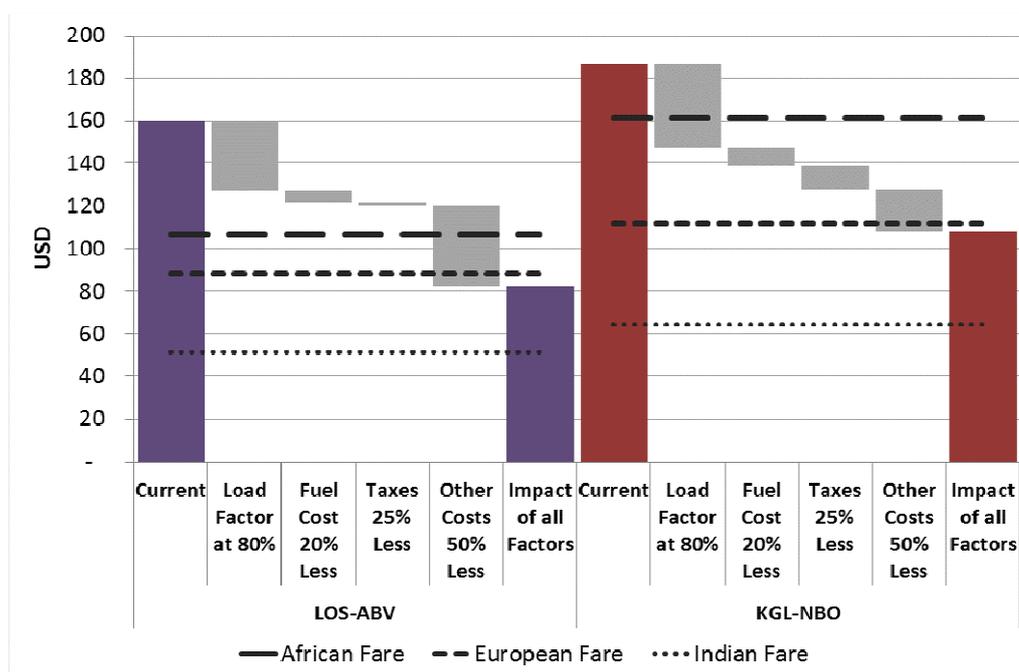
*Breaking the cycle of high costs*

74. There is a vicious circle between high costs, high fares and low load factors:

- High fares lead to low demand;

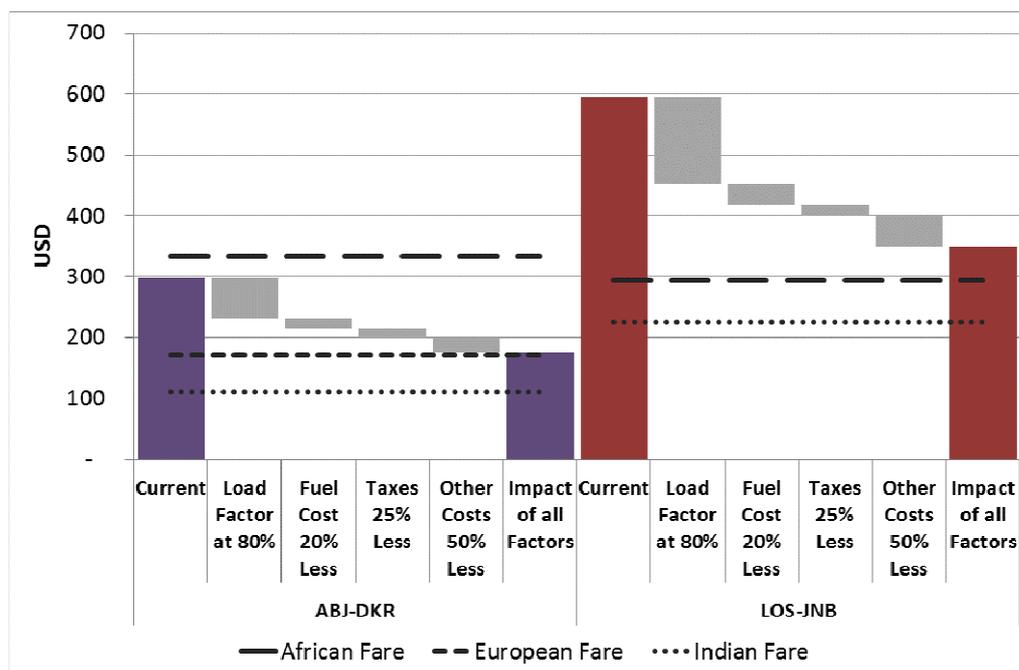
- Low demand leads to higher unit costs from less efficient use of aircraft and, especially, lower load factors; and
  - This in turn causes fares to rise, to cover the cost high base.
75. We analysed the impact of adjusting the cost base of African carriers to be in line with European carriers by:
- Increasing the load factor to 80%;
  - Reducing the Fuel costs by 20%;
  - Reducing airport and navigation taxes by 25%; and
  - Reducing other costs by 50%.
76. In terms of load factors, assuming the current load factor of 60%, a 40% increase in volume would lead to an 80% load factor, in line with those achieved in India and Europe.

Figure E.9: Impact of adjusting the cost base of African carriers (shorter routes, less than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

Figure E.10: Impact of adjusting the cost base of African carriers (longer routes, more than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

77. As demonstrated in Figure E.9 and Figure E.10, an increase in the load factor to 80% has the largest impact in reduction of costs. Further measures to reduce fuel costs through improved infrastructure, taxes through government actions (e.g. regional discounts on airport charges) and ‘other’ costs, through economies of scale and competitive pressure would bring African costs down to be in line with European fare levels, though Indian fares remain lower still. This could essentially break the vicious circle between high costs and low load factors.
78. Our route cost analysis provides one solution to break down these barriers to aviation. This lies in a combined effort to reduce external costs, such as fuel and airport charges, via the provision of improved infrastructure and government intervention on the taxation regime (e.g. potential regional discounts on airport charges and taxes), and the improving of airline efficiency in terms of efficient utilisation of aircraft and potentially the reduction of fares to achieve higher load factors. With this the vicious circle of high costs and low load factors could be broken, resulting in an affordable, cost-efficient aviation offer.

### Liberalisation – the legal context

79. Liberalisation brings with it economic and social advantages that are expected to benefit African nations, their communities, and their airlines. In addition to the benefits to consumers and the air transport industry, liberalisation would likely provide significant benefits to the economy as a whole, with increases in GDP seen in those countries removing restrictions. One of the key industries likely to benefit would be the tourism industry, which is closely linked with the air transport industry and which provides a large range of employment opportunities. In turn, there would be a multiplier effect stemming from the aviation and tourism sectors into other economic sectors, such as lodging, food and beverage, and domestic transportation.
80. The benefits of liberalisation and cooperation between neighbouring markets can be seen from examining the European air transport liberalisation experience. Following liberalisation, European air traffic boomed: scheduled routes increased by nearly 75%, the number of total

flights increased by 88%, and the number of seats offered to consumers more than doubled<sup>5</sup>. Competition on routes grew: the number of international scheduled routes with three or more carriers increased by more than 250%<sup>6</sup>. These dramatic changes resulted in lower ticket prices, with published normal economy airfares decreasing by 5% and published promotional fares by 30%, while overall average ticket prices fell by more than 15%<sup>7</sup>. Studies have found that the expansion of air services increased European GDP by 4% from 1996-2006<sup>8</sup>.

81. Liberalisation has benefitted developing nations as well, including Chile, which has seen air traffic increase at rates significantly higher than regional and world averages since air transport liberalisation took place in 1979. Indeed, the Chilean national carrier (LAN) embraced competitive strategies and actually increased its market share<sup>9</sup>. In Costa Rica, air transport liberalisation has seen tourist arrivals quadruple over 20 years and the number of air carriers serving country has almost tripled<sup>10</sup>. In Brazil, start-ups of low-cost carriers such as GOL Airlines are prospering in a liberalised commercial environment - this success has led to more routes and lower fares which have in turn opened up new markets in this very large country with a history of air transport difficulties<sup>11</sup>.

#### *Potential benefits in Africa*

82. Similar benefits in terms of fare and time savings, connectivity improvements, as well as broader economic benefits, would likely accompany liberalisation in Africa. Currently, the highly-regulated regional aviation market between many African countries limits competition, restricts flight frequency, and results in high ticket prices. This contributes to the restriction of overall economic growth in those nations.
83. It is important, however, to note that there are currently a number of successful liberalisation regimes in Africa:
- South Africa liberalised its domestic air travel in the early 2000s and the creation of low-cost, no-frills airlines has resulted in the domestic air transport market growing by more than 50% in only four years.
  - Liberalisation was adopted by Egypt in the 1980s. Since then international traffic and tourist arrival numbers increased an average of 8-11% per year. Egyptair, the national carrier, has maintained its position of a 30% share in international passenger traffic by adopting competitive strategies.
  - In 2005, the East African Community (Kenya, Tanzania, Uganda) agreed to harmonise aviation policies and regulations and extend full privileges to each other's airlines with great success - this has been extended to Burundi and Rwanda upon those nations joining the Community in 2007<sup>12</sup>.
  - The agreement of a more liberal air market between South Africa and Kenya in the early 2000s led to 69% rise in passenger traffic.

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<sup>5</sup> ICAO Information Paper, p.12

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Oxford Economic Forecasting/Air Transport Action Group, 2005, Economic and Social Benefits of Air Transport

<sup>9</sup> Ibid.

<sup>10</sup> Ibid. p. 14

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

- Permitting a low cost carrier service between South Africa and Zambia (Johannesburg-Lusaka) resulted in a 38% reduction in discount fares and 38% increase in passenger traffic<sup>13</sup>.
- Ethiopia's pursuit of more liberal bilaterals (on a reciprocal basis) has contributed to the success of Ethiopian Airlines. In addition, Ethiopians benefit from 10-21% lower fares on intra-African routes with more liberal bilaterals, and 35-38% higher frequencies (compared to restricted intra-Africa routes)<sup>14</sup>.
- The 2006 Morocco-EU open skies agreement led to 160% rise in traffic and the number of routes operating between points in the EU and points in Morocco increasing from 83 in 2005 to 309 in 2013<sup>15</sup>.

84. While we have reviewed the likely benefits of liberalisation, removing restrictions on national air transport industries will bring with it many concerns for African nations with long traditions of support for national carriers. Liberalisation in the United States and Europe has led to a number of national carriers struggling to adjust (e.g. Malev, Swissair, Olympic Airways); however others have adapted and thrived by borrowing from the low-cost business models of their new competitors. National carriers can be competitive early on in a decreased regulatory environment through alliances and mergers.

#### **Liberalisation in Africa: a gradual change**

85. We consider a number of targeted, incremental, legal and administrative changes which might facilitate liberalisation and competition in the air transport market in Africa. These would be actions or changes that are possible within the context of existing regulations.

#### *Scope of change*

86. A key driver of the ongoing inertia in achieving liberalisation is the varying level of air transport development across the African continent and the perceived negative impact liberal market access rules could have on certain local interests (the underdeveloped institutional and supervisory mechanisms required for implementation of the Yamoussoukro Decision are of concern but do not appear to be the main issue).

87. Efforts to progress liberalisation at REC level, and the bilateral ASAs which are generally compliant with the Yamoussoukro Decision's principles (such as a number of those entered into by Ethiopia) demonstrate that a lack of pan-African dispute resolution and competition rules need not be a barrier to market access reform.

88. Proposal: focus on market reform at REC level or on bilateral ASA bases. Suggested starting points could include:

- the East Africa Community Civil Aviation Safety and Security Oversight Agency (CASSOA), which exists to standardise and harmonise aviation regulations and revisions across the EAC States. The CAAs of EAC Member States are major shareholders (see chapter 6, paragraphs 6.48 and 6.49 for further information).
- The West African Economic and Monetary Union (WAEMU)
- Banjul Accord Group

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<sup>13</sup> Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision, prepared for IATA in partnership with AFCAC and AFRAA by InterVISTAS Consulting Ltd, July 2014

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

### *Ownership and Control*

89. The Yamoussoukro Decision requires that the designated carrier be effectively controlled by a State Party, abandoning the traditional nationality of ownership requirement in favour of designation of carriers that are (inter alia) legally established and have their headquarters, central administration and principal place of business in the designating state. This very liberal stance on issues of ownership could make the effective implementation of the YD difficult, at least in the short term - particularly in the context of general concerns that well-funded overseas (and more particularly Gulf) carriers or investors might dominate local markets.
90. We propose that the use of multilateral agreements is encouraged at a regional or sub-regional level (either through existing Regional Economic Communities (RECs) or smaller groups of like-minded States Party). These agreements would largely replicate the provisions of the Yamoussoukro Decision save that a designated airline would have to be majority owned and effectively controlled by one or more contracting States or their nationals. Such arrangements might import an EU-type ownership requirement. Alternatively, develop a standard form bilateral ASA that is compliant with YD in all areas save that ownership of a designated carrier should be one or more of the signatory States.
91. Suggested starting point: the COMESA air transport liberalisation programme.

### *Fifth Freedom rights*

92. Unrestricted access to 5th freedom traffic rights on an intra-African basis under the Yamoussoukro Decision may be overly ambitious, at least in the short term. We therefore suggest that gradual releases of restrictions of fifth freedom rights is encouraged, including:
  - Regional liberalisation of 5th freedom traffic rights.
  - Apply transitional measures e.g. 5<sup>th</sup> freedom traffic rights for a two year period.
  - Limitations to the number of routes where 5<sup>th</sup> freedom rights are offered (possibly similar to that under the first and second EU liberalisation packages, with access initially limited to larger routes (in terms of annual traffic)).
93. Suggested starting point for discussions are the BAG and WEAMU States, to confirm implementation mechanism and success levels, and then communication to COMESA and EAC.

### *Designation*

94. Under the YD, States could limit the number of designations to one carrier only – which does not encourage competitive behaviour. We therefore propose a requirement to designate up to 3 carriers, subject to them meeting the eligibility criteria under Art.6.9 of the Yamoussoukro Decision.

### **Conclusion and Action Plan**

95. While this Final Report represents the formal output of the study, it is clear that in order to make practical progress in the implementation of the recommendations, further engagement with stakeholders is required.
96. We propose that the next steps following this study should be targeted discussions with key decision makers. We assess that the activity in this area has reached the point where the analysis and conclusions reached, along with the stakeholder views gathered to date, can be presented and used to facilitate further discussion amongst decision makers. The presentation would allow stakeholders to understand where progress in liberalising the air transport market

in Africa might be achieved, both in a geographical sense (i.e. the States or RECs most receptive of potential changes) and legislatively or administratively (i.e. the areas of development, whether that be in designation, ownership and control, fifth freedoms, or others, where success is most likely to be reached).

97. Taking these factors into account, we therefore propose a two-pronged approach for any future engagement with stakeholders:
  - Support progress on aviation matters at REC level; and
  - Engage with national governments in the context of infrastructure funding through their finance ministries.
98. Firstly, we suggest that it would be useful to facilitate working sessions with individual RECs (or groups of RECs such as the COMESA/EAC/SADC tripartite). In order to fit in with the work underway within the RECs, we would suggest that the RECs be invited to host the relevant sessions, but that the ICA members be invited to fund them, allowing the ICA Secretariat a role as well as an opportunity to promote the findings of this study. It would be important to ensure the invitation of representatives of the constituent national governments, as well as, potentially, pan-African organisations including the AUC and AFCAC and some airline representatives. The exact format and invitation list would need to be agreed with the hosting REC, and there is likely to be a trade-off between a smaller, more focused meeting and a larger gathering which may have more acceptance among stakeholders.
99. The second prong of the approach would be for ICA to facilitate a meeting with African finance ministers or senior officials. This might form part of a wider discussion on the funding of infrastructure projects more generally, but would include a focused session on aviation. In this session, the ICA Secretariat would set out the desire of its members to fund aviation-related projects across Africa, including airport upgrades, fuel pipelines and aircraft financing. It could also, assuming that ICA members are supportive of the approach, stipulate conditions which would apply to such financing, which might include the requirement to liberalise access to international air routes (including in relation to airline ownership) and streamlining administrative procedures for airlines and other industry members. As part of this session, it might be appropriate to present the findings of this study in terms of the benefits of liberalisation and practical steps to achieve it.
100. If both prongs of the approach were successful, there might then be an opportunity to link up the two processes, bringing together finance officials with national and REC aviation officials, to try to reach agreement on the next steps of the process, and in particular to influence the processes already underway within the RECs.

# 1 Introduction

## Context

- 1.1 The World Bank's Africa Infrastructure Country Diagnostics (AICD) study<sup>16</sup> provides analysis of infrastructure gaps, including for aviation, where lack of airline competition and the development of regional airport hubs are noted as important constraints. The Programme for Infrastructure Development in Africa (PIDA), a continent wide programme, builds on this analysis and has identified a number of priority projects (PIDA Priority Action Plan -PAP)<sup>17</sup> which, if implemented would help interconnect, integrate and transform the continent. These include a number of projects that relate to the aviation sector.
- 1.2 A recent study commissioned by the Infrastructure Consortium for Africa (ICA) Transport Sector Platform<sup>18</sup> highlighted both the potential for private sector participation in Africa, as well as a number of issues that constrain or discourage involvement. One of the conclusions reached during stakeholder discussions on the study's findings is that a close alignment between further work and PIDA/PAP should be encouraged to facilitate infrastructure investment/development.
- 1.3 This study aims to build on this foundation work and assist African stakeholders in addressing the next steps in promoting efficient African aviation services.

## This study

- 1.4 This study's overall objective is to contribute to addressing the barriers to the expansion of effective aviation services across Africa through analysis and targeted interventions in support of relevant PIDA – PAP projects. Specifically, the study assessed the Yamoussoukro Decision implementation, and West Africa Air Transport and Central Africa Air Transport Hubs.
- 1.5 The Yamoussoukro Declaration of 1998 (formalised as the Yamoussoukro Decision (YD) of the following year and given legal force under the 1991 Abuja Treaty) attempts to liberalise airline route access in intra-African aviation and has only been partially successful.
- 1.6 While there is support for liberalisation of aviation market access through the YD, in practice only partial implementation has been achieved to date across the continent. Market access for airlines is often restricted to promoting national carriers, resulting in inefficient services, low seat utilisation and high air fares. Where the YD has been implemented, this has generally been under the auspices of the regional economic organisations such as the West African

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<sup>16</sup> Africa infrastructure Country Diagnostics (AICD) study – Africa's Infrastructure: A Time for Transformation; World Bank et al

<sup>17</sup> Programme for Infrastructure Development in Africa – Priority Action Plan [www.au-pida.org](http://www.au-pida.org)

<sup>18</sup> Assessment of the potential for private participation in the maritime and air transport sectors in Africa, Steer Davies Gleave, 2012

Economic and Monetary Union (WAEMU) and the Central African Economic and Monetary Union (CEMAC), but only within the territories of the region, not between different regions. Even within these economic regions, YD implementation has only been partial, with bureaucratic hurdles still in place for airlines wishing to operate new international routes.

- 1.7 While major regional hubs exist in South Africa (Johannesburg), North Africa (Cairo, Casablanca) and East Africa (Nairobi and Addis Ababa), none of the major airports in West or Central Africa (such as Lagos, Abuja, Accra, Abidjan or Kinshasa) fulfil this role, which requires the airport to be a convenient point for connections using airline services with allow passengers to travel to airport destinations which themselves are not directly connected.
- 1.8 This study seeks to assist in addressing the issues discussed above and offer potential solutions to support the relevant PIDA PAP aviation projects.
- 1.9 The study is divided into two phases:
- Phase 1: African aviation review; and
  - Phase 2: Demonstrating the benefits of liberalisation and identification of targeted changes to facilitate it.
- 1.10 Phase 1 included analysis and consultation activities in order to review recent developments, assess the current situation and identify key issues under the two main areas of work:
- Assistance to implement more fully the Yamoussoukro Decision and address the associated barriers to developing the African airline industry; and
  - Review the case and scope for establishing regional aviation hubs in Western and possibly Central Africa.
- 1.11 The output of Phase 1 identified the focus for Phase 2, which included specific actions within the Yamoussoukro area of the study. After delivering the Phase 1 Review Report, the project team agreed methodology for Phase 2 with the ICA, which included:
- Demonstrating the benefits of liberalisation for the consumer, the airlines, and the economy;
  - Developing a framework for estimating quantified potential improvements to domestic and intra-African routes, and undertaking an airline costs an route economics analysis for these routes;
  - Further engagement with stakeholders via a forum suggested by the ICA (the African Aviation Summit 2014, held in Addis Ababa, Ethiopia, as well as at the ICA Annual Meeting 2014 in Cape Town);
  - A high level infrastructure review of major infrastructure issues at West African airports;
  - A consideration of targeted, incremental, legal and administrative changes which might facilitate liberalisation and competition. These would be actions or changes that are possible within the context of existing regulations.

### **This document**

- 1.12 This Final Report is the final Phase 2 project deliverable from Steer Davies Gleave for the study to assist in the opening up of Aviation Services in Africa. Steer Davies Gleave was supported by aviation law experts Clyde & Co.
- 1.13 This Final Report includes our findings from Phase 1 of the study, as submitted in the Review Report at the end of Phase 1, as well as our findings from Phase 2 of the study, undertaken in line with the agreed methodology outlined in the section above. We include as a final chapter

our overview of the issues covered and a proposed action plan for the ICA for further dissemination of the study findings and engagement with stakeholders in roles with influence in the African aviation context.

1.14 The rest of this document is structured as follows:

- **Chapter 2:** provides an overview of our methodology, including a list of stakeholders consulted to date;
- **Chapter 3:** provides a brief overview of the African demographic and economic situation in the context of aviation development;
- **Chapter 4:** provides an overview of the bilateral air services agreements in Africa, the status of implementation of the Yamoussoukro Decision, and a discussion of the key issues surrounding the granting of air transport rights in Africa;
- **Chapter 5:** provides an overview of the air transport market in Africa, using flights and passenger movements data and an analysis of the aircraft fleet in operation in Africa;
- **Chapter 6:** includes an overview of other barriers to the development of the aviation market in Africa, including fares, taxes fees and charges, safety, infrastructure (with a focus on West African airports) and the availability of finance;
- **Chapter 7:** reports the results of our analysis into airline route costs and economics in Africa. This chapter covers two key issues: high airline fares and low load factors, and their correlation to high costs for airlines. We include a number of proposed solutions to breaking this relationship.
- **Chapter 8:** outlines the potential economic and social benefits of a liberalised air transport market to the African continent, drawing on experiences to date in the European Union and in developing nations such as Chile, Brazil and Costa Rica. We propose a number of smaller developments that may be possible within the current legal framework that will keep the air transport market in Africa moving towards liberalisation, drawing on the some good examples in the RECs in this area. We focus on options available in areas of concern raised by stakeholders: competition and dispute resolution, ownership and control, fifth freedom rights, and air carrier designation.
- **Chapter 9:** we conclude the report and present our action plan for the ICA to further disseminate the learnings of the study with the aim of producing tangible developments in the liberalisation of the air transport market in Africa.

1.15 We also provide two appendices:

- **Appendix A:** Air Services Agreements and aviation policy: State by State analysis for 12 selected States; and
- **Appendix B:** Bibliography.

## 2 Methodology

### Introduction

- 2.1 During Phase I of the Study, we reviewed the available literature, the aviation policies of key African countries, provided an analysis of flight operations and passenger flows to/from and within Africa over the year to August 2013, and consulted with stakeholders including airlines, airports, national and international aviation authorities and financiers.
- 2.2 Our approach to each of these areas is outlined below.

### Literature Review

- 2.3 We built up a bibliography at the start of the project, which was extended through discussions with ICA members and other stakeholders during the course of the study. The reports reviewed include publications by the International Civil Aviation Organisation (ICAO), the World Bank (including Charles Schlumberger's key study<sup>19</sup>), African Union, the Economic Community of West African States (ECOWAS), the International Finance Corporation (IFC), and Africa Infrastructure Country Diagnostics (AICD).
- 2.4 Sources for news and industry updates include the Economist (Gulliver), the Financial Times, Reuters, Airwise, CAPA Centre for Aviation, Inspiratia and other industry newsletters.
- 2.5 A full Bibliography of the source documents used throughout this study is provided as Appendix B.

### Review of African countries' aviation policies

- 2.6 We reviewed the aviation policies and legislation of a number of key African States in order to understand their legal framework and the level of airline and air route liberalisation in practice. The analysis included an overview of the state of the market (whether market access is regulated/limited), restrictions to airline ownership, and key bilateral Air Service Agreements and their restrictions.

### Schedule and passenger movement analysis

- 2.7 We reviewed both flight schedules and passenger booking data in order to understand the air services currently operated in Africa (we used the Official Airline Guide (OAG) database and Market Intelligence Data Tapes (MIDT) data for passenger journeys to/from/via Africa covering September 2012-August 2013).

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<sup>19</sup> Open Skies for Africa, World Bank, 2010

- 2.8 We analysed the OAG database, which contains airlines, frequencies and seat capacities of scheduled services across the globe. We have used this data to set out the types of domestic, short-haul (intra-regional) international, inter-regional international and intercontinental services operated by African and other airlines across the continent. As part of this analysis we have examined the application of "triangular" routings which are generally used by airlines when point to point demand is insufficient and in the absence of a suitable hubbing opportunity.
- 2.9 We have also analysed MIDT, which contains passenger booking data collected by Computer Reservations Systems (CRS) and contains passengers' full itineraries including origin, transfer points and final destination, as well as the airlines used, their capacity and seat load factor. While not all bookings pass through CRSs, in particular bookings made on some low cost and other carriers' own websites, it is likely that in Africa a large majority of bookings do use the CRS channels, especially those involving multiple flight sectors.
- 2.10 In order to understand the gaps in connectivity, we used MIDT to analyse the end-to-end journeys made by passengers, which identified where passengers have to use connecting services (often via inconvenient connection points) in order to complete their journeys, or, alternatively, make use of triangular routeings, which are extensively used by airlines in Africa to link airports with relatively low density passenger flows.

### **Airline costs and route economics**

- 2.11 There are multiple reasons for the poor route economics of flights in Africa. To quantify the extent of their impact, we have analysed the economics of certain typical intra-African routes.
- 2.12 A summary of the methodology applied and sources of data are provided below (details and the results can be found in chapter 7). We estimated individual route costs by:
- Taking actual overall operating costs published by selected African airlines, obtained from their latest financial statements.
  - Allocating the operating costs to selected routes, allowing for suitable aircraft type and route characteristics.
  - Information from OAG was used to obtain the numbers of seats/available seat kilometres and flights. For cases where this information was not available from OAG we used airline financial statements;
  - Aircraft leasing costs were obtained from the Ascend Flightglobal world aircraft fleet database;
  - Landing, departure and navigation charges were obtained from IATA published values and checked against individual airport websites for consistency; and
  - Fuel costs were obtained from estimates based on the US Energy Information Administration and benchmarked against costs published by IATA.
- 2.13 These are then compared with actual fares available in the market (web search).
- 2.14 In order to compare and contrast African costs and fares, we analysed a similar set of routes in UK/Europe and in India, using operating costs published by the airlines in the most recent financial statements.

## Stakeholder consultation

- 2.15 We undertook an extensive stakeholder programme: the stakeholders were suggested by the project team and augmented by the ICA Steering Group, and additional suggestions were made during the course of the interview programme.
- 2.16 In each case an introductory email and telephone contact was made inviting participation in the study. If this was agreed a draft agenda of key themes for the discussion was shared with the stakeholder. Most of the interviews took place by telephone with a smaller number on a face to face basis.
- 2.17 We found that international aviation bodies and airlines tended to express the most interest in participating. National regulatory bodies and other government organisations were, in general, not as responsive. We note this experience mirrors the general frustrations expressed by delegates (particularly African airlines) at the 2012 Aviation Outlook Africa Conference, in the "...lack of Government policymakers in attendance and their lack of interest in understanding of promoting an industry that is vital to a nation's health"<sup>20</sup>.

### Conference and meeting attendance

- 2.18 Throughout the course of the project, the project team attended a number of conferences and meetings in Africa:
- Modern Airports Africa, Nairobi, Kenya, 19/20 November 2013;
  - African Aviation Summit 2014 & 23rd Annual 'Air Finance for Africa' Conference Addis Ababa, Ethiopia, 9-11 June, 2014; and
  - 10<sup>th</sup> ICA Annual Meeting, Cape Town, South Africa, 25-27 November 2014.

#### *Modern Airports Africa*

- 2.19 The Modern Airports Africa conference in Nairobi was well attended with about 80 registered delegates, although some speakers and delegates were not available to attend at late notice. We were able to arrange side meetings with a number of key stakeholders, including the East African Commission (EAC), the EAC Civil Aviation Civil Aviation Safety and Security Oversight Agency (CASSOA), Kenya Airports Authority, Kenya Airways and the Ghana Airports Company Ltd. We also obtained a number of additional contacts to consult.

#### *African Aviation Summit 2014 & 23rd Annual 'Air Finance for Africa' Conference*

- 2.20 The African Aviation Summit 2014 & 23rd Annual 'Air Finance for Africa' Conference was organised by African Aviation, a specialist African aviation consultancy and advisory company. The conference was organised by Mr. Nick Fadugba, founder and Chief Executive Officer of African Aviation Services Limited and Aviation Business Publications Limited, and former Secretary General of the African Airlines' Association (AFRAA). It was held at the Sheraton Hotel, Addis Ababa, Ethiopia, from 9-11 June, 2014. Mr. Fadugba chaired the conference.
- 2.21 The conference was well attended with nearly 200 registered delegates from Africa and around the world, although some speakers and delegates were not available. His Excellency, Dr Mulatu Teshome, President of the Federal Democratic Republic of Ethiopia officially opened the conference, Dr Elham Mahmoud Ahmed Ibrahim, Commissioner for Infrastructure

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<sup>20</sup> Why Africa keeps stalling on take off, Athena Aviation, 2013

& Energy, African Union Commission was the Conference Patron and Mr Workneh Gebeyehu, Minister of Transport, Ethiopia delivered the Keynote Address to Conference participants.

- 2.22 The Steer Davies Gleave project team presented in the final slot on the first day of the conference. The team presented the work undertaken on the project to date on day 1 of the conference: **Implementing Air Transport Liberalisation in Africa; Benefits and Opportunities**.
- 2.23 The presentation was well received, with a substantial question and answer session following the main presentation. There was considerable interest in the route economics comparisons, including discussion of the relationship of low load factors and high fares and how to break out of this cycle.
- 2.24 In relation to the proposed regulatory measures to achieve liberalisation, it was unfortunate that there were not many representatives present from national regulatory bodies, or national governments, nor indeed many from airlines, in contrast to expectations beforehand based on the suggested conference programme and delegates. Therefore, it was not possible to hold a constructive debate on the proposed regulatory measures with the most relevant audience.

#### *10<sup>th</sup> ICA Annual Meeting*

- 2.25 The project team were invited to present the outputs of the study and proposals for next steps at the 10<sup>th</sup> Annual Meeting of the Infrastructure Consortium for Africa, jointly organised by AfDB and the Republic of South Africa and held at the Taj Hotel, Cape Town, South Africa. There were a number of meetings arranged over the week; the project team presented at the following:
- The ICA African Stakeholders' meeting on 12<sup>th</sup> November 2014;
  - The ICA Members meeting on 13<sup>th</sup> November 2014.
- 2.26 Across the two meetings, the project team engaged with the following stakeholders:
- Dr. Elham M. A. Ibrahim, Commissioner Infrastructure and Energy, African Union Commission;
  - Mr Adama Deen, Head of Infrastructure Programs and Projects, NEPAD;
  - Dr John Tambi, Transport Infrastructure Expert, NEPAD;
  - Mr Amos Marawa, Director, COMESA-EAC-SADC Tripartite;
  - Mr Eric Ntagengerwa, Senior Transport Economist, EAC;
  - Ms Mapolao Rosemary Mokoena, SADC;
  - Mr Alex Rugamba, Director, African Development Bank Group; and
  - Mr Tetsuya Fukunaga, TICAD Advisor, Development Bank of South Africa.

- 2.27 A summary of the discussion points raised following the presentations is provided in chapter 9.

#### **List of stakeholders**

- 2.28 In addition to the list of stakeholders engaged with at the 10<sup>th</sup> Annual ICA Meeting, the following stakeholders were interviewed during the course of the project:

#### **Airlines**

- Fastjet, 14 November 2013;
- Kenya Airways, 20 November 2013; and
- Arik Air, 29 November 2013.

### **Airports and Aviation Authorities**

- Kenya Airports Authority, 18 November 2013;
- Ghana Airports Company Limited, 20 November 2013; and
- Wilson Airport (KAA), 20 November 2013.

### **International Organisations**

- The New Partnership for Africa's Development (NEPAD), 15 November 2013
- East Africa Community, 19 November 2013;
- East Africa Community Civil Aviation Safety and Security Oversight Agency, 19 November 2013;
- ECOWAS, 23 December 2013; and
- IATA, written response only, 22 November 2013.

### **Financing and leasing organisations**

- World Bank, 1 November 2013
- Dubai Aerospace, 27 November 2013; and
- African Frontier Capital, 6 November 2013.

## 3 Africa: a demographic and economic overview

### Summary

Africa's population is growing rapidly. The current high population growth rate began in the second half of the 20th century, when the number of people on the continent almost quadrupled from 230 million to 811 million. By 2010 this number reached one billion and if current demographic trends persist, Africa's population will be 1.4 billion in 2025 and 1.9 billion by 2050.

In this chapter we provide an overview of some of the major African States in terms of population, wealth, trade and aviation activity. The size and rate of expansion of a country's population, its wealth and trade activity are all indicators of the level of aviation activity that might be expected in that country.

We also review population, GDP and departing seats for the top 18 African cities by PPP-adjusted GDP (2008 data). Cities with a high population, GDP and seats may indicate a potential location for a viable hub. We find that Nairobi and Addis Ababa, two existing hubs in Eastern Africa, display a relatively high level of departing seats compared to population levels. Lagos in West Africa has a relatively high population and number of departing seats however does not operate as a hub to the same extent that, say, Lomé in Togo does, despite Lomé having very low levels of departing seats and population.

### Introduction

- 3.1 In this chapter we provide a brief overview of the current demographic and economic situation in Africa: population, economic growth, trade and propensity to fly.
- 3.2 Whilst making definitive statements about the state of a market is difficult, these factors provide a high level insight into the maturity and attractiveness of a country or region for aviation activity and investment. Any judgement about the likelihood of success for a hub, or local market for aviation transport is uncertain without supporting qualitative information and further context (such as an understanding of the safety regime or willingness of the government to facilitate aviation growth). However a number of insights can be drawn based on the consistent appearance of specific nations within the top and bottom of the metrics described in this report.
- 3.3 An overview of other factors affecting aviation in Africa, such as safety, fares, taxes and market liberalisation is provided in chapters 4 and 5.

## **Africa overview**

- 3.4 Table 3.1 provides an overview of some of the major African States in terms of population, wealth, trade and aviation activity. The size and rate of expansion of a country's population, its wealth and trade activity are all indicators of the level of aviation activity that might be expected in that country.
- 3.5 Africa's population is growing rapidly. The current high population growth rate began in the second half of the 20th century, when the number of people on the continent almost quadrupled from 230 million to 811 million. By 2010 this number reached one billion and if current demographic trends persist, Africa's population will be 1.4 billion in 2025 and 1.9 billion by 2050.
- 3.6 With 169 million people in 2012, Nigeria is, by a significant margin, the most populous country in Africa. Nigeria's high average annual growth rate of approximately +2.8% (over 2008-2012) has also been a significant driver of Africa's overall high population growth. The rate of population expansion in Nigeria is expected to continue, with +2.7% average annual growth rate expected until 2025.
- 3.7 Of particular note in Table 3.1 are those countries with high population, wealth and/or growth indicators but low or lower than average levels of aviation activity, for example Nigeria and Angola.

Table 3.1: Africa: key country overview

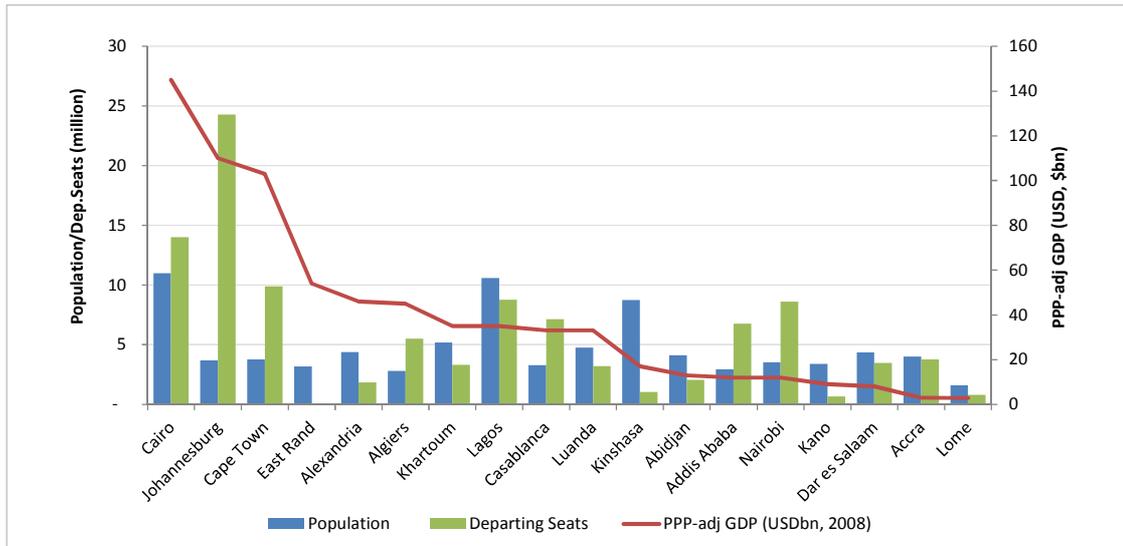
Country	Population, m, 2012	Population Growth 2012-2025	GNI PPP per capita, 2012	Trade (Imports and Exports, to World, Rank in group, 2012)	Departing Seats	Propensity to fly
Nigeria	168.8	2.7%	14.3	2	19,868,437	0.12
Ethiopia	91.7	2.4%	12.4	11	8,064,722	0.09
Congo, Dem. Rep.	65.7	2.6%	5.6	13	1,937,127	0.03
South Africa	51.2	0.5%	218.6	1	44,753,564	0.87
Tanzania	47.8	2.9%	33.3	9	6,862,870	0.14
Kenya	43.2	2.5%	40.8	7	11,887,386	0.28
Algeria	38.5	1.5%	-	3	9,598,299	0.25
Sudan	37.2	2.3%	54.6	12	4,113,009	0.11
Uganda	36.3	3.2%	31.4	17	1,917,299	0.05
Morocco	32.5	1.1%	156.2	5	13,075,251	0.40
Ghana	25.4	1.9%	76.5	6	4,780,841	0.19
Mozambique	25.2	2.4%	40.5	15	2,855,014	0.11
Madagascar	22.3	2.8%	42.6	22	2,027,181	0.09
Cameroon	21.7	2.4%	106.9	14	2,744,682	0.13
Angola	20.8	3.0%	263.7	4	5,473,978	0.26
Côte d'Ivoire	19.8	2.2%	98.8	8	2,053,828	0.10
Niger	17.2	4.0%	37.9	23	770,191	0.04
Burkina Faso	16.5	2.8%	91.7	20	1,161,835	0.07
Mali	14.9	3.2%	78.1	21	1,168,170	0.08
Zambia	14.1	3.3%	115.1	10	2,364,270	0.17
Senegal	13.7	2.7%	139.9	16	2,501,899	0.18
Zimbabwe	13.7	2.4%	-	18	2,908,258	0.21
Chad	12.4	3.0%	106.0	19	301,541	0.02
Rwanda	11.5	2.6%	-	25	1,838,274	0.16
Guinea	11.5	2.4%	85.6	24	608,079	0.05
Togo	6.6	2.4%	138.5	26	775,990	0.12

Source: World Bank, World Trade Organisation, OAG, Steer Davies Gleave analysis

## City rankings

- 3.8 Figure 3.1 shows population, GDP and departing seats for the top 18 African cities by PPP-adjusted GDP (2008 data). Cities with a high population, GDP and seats may indicate a potential location for a viable hub.
- 3.9 Nairobi and Addis Ababa, two existing hubs in Eastern Africa, display a relatively high level of departing seats compared to population levels. Lagos in West Africa has a relatively high population and number of departing seats however does not operate as a hub to the same extent that, say, Lomé in Togo does, despite Lomé having very low levels of departing seats and population (for a full analysis of hubs in West Africa, see chapter 5).

Figure 3.1: African cities: GDP, population and departing seats



Source: OAG, PwC, Global city rankings 2008, Steer Davies Gleave analysis

## 4 Overview of air transport policy in selected African states

### Summary

#### Level of liberalisation

In order to understand the legal framework and the level of liberalisation on paper, we undertook a desktop review of the aviation policies and legislative context for 11 key African States, along with a number of non-African states as a comparator. We found that Nigeria, Ghana, Ethiopia and Tanzania were relatively more “open” than other African states such as Egypt Ivory Coast, Kenya and the Democratic Republic of Congo.

#### Key treaties

Two key treaties/decisions in Africa relating to liberalisation in the aviation market are the Yamoussoukro Decision and the ECOWAS Treaty. The objective of the Yamoussoukro Decision (YD) is the gradual liberalisation of scheduled and non-scheduled intra-African air transport services. The Abuja Treaty (1994) is recognised as the legal basis for the YD. Of the 54 African states, 44 have signed and formally ratified the Abuja Treaty and as a result became parties to the YD.

In theory, therefore, signatory States should have a liberalised air transport market in operation both within and between them. In practice, however, this is not the case. All sources confirmed that Yamoussoukro had not been implemented, or had only been partly implemented, and indeed whilst we are aware that Yamoussoukro is cited on occasion in bilateral ASAs, it is not, in practice, taken into account during negotiations for air traffic rights.

We understand that the Fifth Freedom rights granted to airlines as part of the 1975 Treaty establishing the Economic Community of West African States (ECOWAS) States (revised in 1993) has led to a high concentration of triangular and multi-stop flights being operated in Western and Central Africa compared to the rest of the continent.

#### Stakeholder issues

We provide an overview of stakeholders’ comments on three key components of the Air Services Agreements: airline ownership, Fifth Freedom rights and designations of carriers by States. We understand that issues of airline ownership are the most significant concern for African States and airlines, particularly fastjet, which is deemed a Tanzanian carrier under Tanzanian law but is not majority owned by African nationals. A number of stakeholders, including Kenya Airways, reported issues concerning the granting of Fifth Freedom rights. Under the YD there is no limit on the number of carriers a State Party can designate, as long as the carriers meet the eligibility requirements, although in practice often only a single carrier is designated by each country.

## Introduction

4.1 In order to understand the aviation policy applied by African States and regions, we have:

- Undertaken a desktop review of the legal frameworks in place, including an overview of the bilateral Air Services Agreements in place in Africa and some key international aviation treaties; and
- Examined policy implementation in practice through an overview of stakeholder comments on air transport policy in Africa, its impact and the key issues.

### Legal frameworks in place

4.2 In order to understand the legal framework and the level of liberalisation on paper, our desktop research included a review of the aviation policies and legislative context for a number of key African States. For each State, the analysis included an overview of the following areas:

- Air carriers in operation;
- The bodies that regulate aviation, and the laws under which they do this;
- Whether market access is regulated/limited, for each of domestic and international services;
- The procedures that exist to obtain rights to operate particular routes;
- The principal pieces of legislation that govern air safety, and where responsibility for this administration lies;
- The level of passenger charges on aviation, and the organisations that charge them;
- Restrictions to airline ownership; and
- Key bilaterals and their restrictions.

4.3 The following States were included in the analysis: Egypt, South Africa, Nigeria, Ghana, Zambia, Senegal, Ivory Coast, Ethiopia, Kenya, Tanzania, and Democratic Republic of Congo.

4.4 We include below an overall impression of the level of liberalisation of air services in the States considered. The full analysis for each State can be found in Appendix A.

4.5 The Air Services Agreement Projector (ASAP) is an analytical tool devised by the World Trade Organisation that analyses bilateral Air Services Agreements (ASAs) in order to assess their level of liberalisation. The summary below has been developed using this tool.

4.6 The ASAP tool relies on the ICAO database of ASAs and WTO Trade Policy Review Secretariat Reports. In the passenger data analysed (see Chapter 5), we have seen more Fifth Freedom routes than implied by the ASA analysis (for example, Kenya), indicating that this source may be incomplete. We note also, however, that it is possible that a country can permit another to exercise traffic rights informally, outside an ASA. It may also happen that an airline exercises traffic rights which are not conferred by an ASA or informally and the other state(s) in question permit(s) this without making objection (for most of the 1990s there was no bilateral at all in existence between France and the US, and yet French and US airlines continued to operate 3rd and 4th freedom services between the two countries in significant numbers, on an informal basis). Despite these potential limitations we nevertheless consider the ASAP a helpful tool in analysing and understanding the level of liberalisation in any given aviation market.

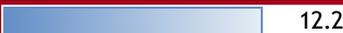
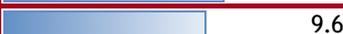
4.7 The WTO has devised indices that give an indication of the level of liberalisation of any given ASA and of the air transport policy of a particular State, ranging between zero for the most restrictive, and fifty, for the most open.

- 4.8 The Weighted Air Liberalization Index (WALI) is a synthetic measure of the level of liberalisation of the air transport policy of a given Signatory. It is calculated as an average of the indices of all the air service agreements concluded by that Signatory, weighted by the respective traffic they cover and ranges between zero for the most restrictive, and fifty, for the most open.
- 4.9 Four different weighting systems have been devised to accommodate different geographical and economic situations:
- Standard: gives equal weighting to various market access features (standard);
  - Fifth Freedom: gives more weighting to Fifth Freedom<sup>21</sup> traffic rights;
  - Ownership: gives more weighting to liberal withholding/ownership provisions; and
  - Designation: gives more weighting to multiple designations of carriers by states.
- 4.10 The Standard WALI for selected African states is shown in Table 4.1, along with the number of bilateral ASAs for each State. We have also included a number of non-African states as a comparator. The higher the WALI index, the more open a State's ASAs are. Whilst the non-African countries show more liberalised ASAs, there is not a significant gap between them and the more open African countries, such as Nigeria, Ghana and Ethiopia. It must be noted that, as a multilateral agreement, the Common Aviation Area in Europe is not included in the analysis below. If it were, the scores for the UK and France would be significantly higher (i.e. their markets would score as more open), as the European air transport market is liberalised under this agreement (although some restrictions, such as ownership restrictions, remain).

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<sup>21</sup> Fifth Freedom of The Air – the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down and to take on, in the territory of the first State, traffic coming from or destined to a third State (also known as a Fifth Freedom Right).

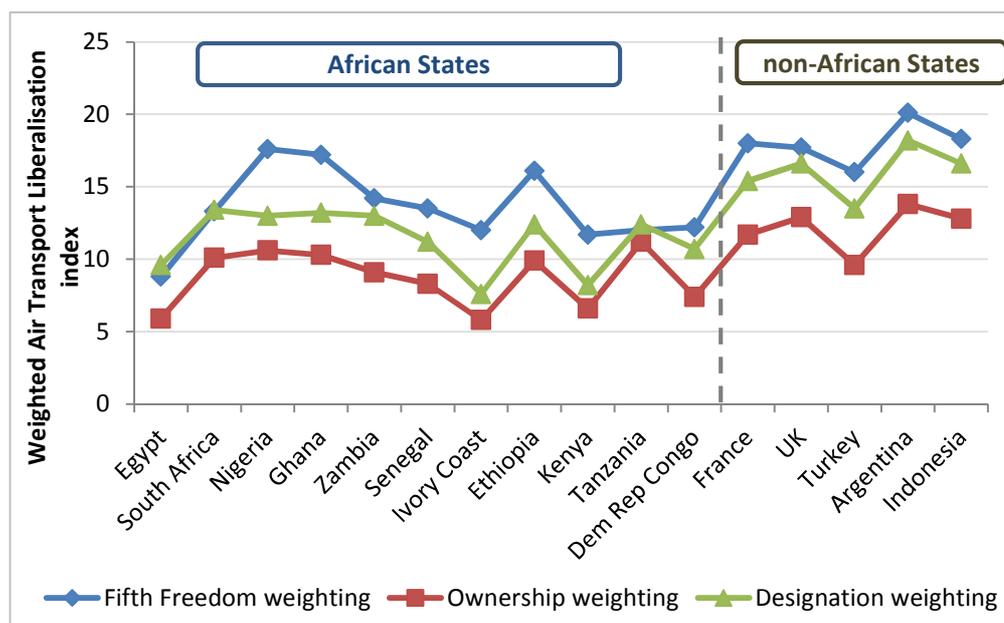
**Table 4.1: Air Liberalisation Index and Number of ASAs for selected African and non-African States**

Signatory	Standard weighting	Number of Bilateral ASAs
	closed <-----> open	
Egypt	 7	41
South Africa	 11.6	54
Nigeria	 12.4	20
Ghana	 12.2	26
Zambia	 10.4	13
Senegal	 9.6	21
Ivory Coast	 6.8	22
Ethiopia	 11.6	18
Kenya	 7.7	27
Tanzania	 11.4	23
Dem Rep Congo	 8.7	12
France	 13.6	63
UK	 14.3	96
Turkey	 11.3	52
Argentina	 16.1	33
Indonesia	 14.3	26

Source: World Trade Organisation, Steer Davies Gleave analysis

- 4.11 For each of the countries listed in Table 4.1, the figure below charts the weighted Air Liberalisation Index against each of the three other weighting systems (Fifth Freedom, Ownership and Designation).
- 4.12 For all the States shown in Figure 4.1, the Fifth Freedom weighting results in the (relative) highest level of liberalisation in the air transport market, and the ownership weighting the lowest.

Figure 4.1: Weighted Air Liberalisation Index for selected States



Source: World Trade Organisation, Steer Davies Gleave analysis

### Relevant international aviation treaties

4.13 Two key treaties/decisions in Africa relating to liberalisation in the aviation market are the Yamoussoukro Decision and the ECOWAS Treaty. Each of these is described below.

4.14 The 2012 Abuja Declaration relates to aviation safety in Africa and is described further in Chapter 6.

#### *Yamoussoukro Decision*

4.15 The objective of the Yamoussoukro Decision (YD) is defined under Article 2, Scope of Application, as the gradual liberalisation of scheduled and non-scheduled intra-African air transport services. The main elements are the granting to all state parties to the decision the free exercise of first, second, third, fourth, and Fifth Freedom rights on both scheduled and non-scheduled passenger and freight (cargo and mail) air services performed by an eligible airline<sup>22</sup>.

4.16 The Abuja Treaty, which formally entered into force on 12 May 1994, is recognised as the legal basis for the YD. Of the 54 African states, 44 have signed and formally ratified the Abuja Treaty and as a result became parties to the YD. The other 10 states (Djibouti, Equatorial Guinea, Eritrea, Gabon, Madagascar, Mauritania, Morocco, Somalia, South Africa, and Swaziland) cannot be considered parties.

4.17 In theory, therefore, signatory States should have a liberalised air transport market in operation both within and between them. In practice, however, this is not the case. All sources confirmed that Yamoussoukro had not been implemented, or had only been partly implemented, and indeed whilst we are aware that Yamoussoukro is cited on occasion in

<sup>22</sup> Open Skies for Africa, Charles E Schlumberger, 2010

bilateral ASAs, it is not, in practice, taken into account during negotiations for air traffic rights<sup>23</sup>.

#### *ECOWAS Treaty*

4.18 The 1975 Treaty establishing the Economic Community of West African States (ECOWAS) States (revised in 1993) includes a chapter on co-operation in transport, communications and tourism (Chapter VIII)<sup>24</sup>. Parts (f) and (g) of Article 32 are particularly relevant to this study:

- f) encourage co-operation in flight-scheduling, leasing of aircraft and granting and joint use of Fifth Freedom rights to airlines of the region; and
- g) promote the development of regional air transportation services and endeavour to bring about the merger of national airlines in order to promote their efficiency and profitability.

4.19 We understand that the Fifth Freedom rights granted to airlines as part of this treaty has led to a high concentration of triangular and multi-stop flights being operated in Western and Central Africa compared to the rest of the continent. For further evidence see chapter 5.

### **Policy in practice: stakeholder comments**

4.20 In this section we provide an overview of stakeholders' comments on three key components of the Air Services Agreements (in line with the three Weighted Air Liberalization Index (WALI) options available on the Air Services Agreement Projector):

- Ownership restrictions;
- Fifth Freedom rights; and
- Designations of carriers by states.

#### **Ownership**

4.21 From our stakeholder conversations, we understand that issues of ownership are the most significant concern for African States and airlines.

4.22 Under the YD, the carrier must be legally established in accordance with the regulations applicable in the relevant state party and have its headquarters, central administration, and principal place of business physically located in that same country. It must also be effectively controlled by the nationals of one, or in the case of multinational airlines, several, state parties<sup>25</sup>.

4.23 States retain their sovereign rights on the granting of traffic rights, in accordance with international treaties, including the International Air Transport Agreement, whilst being required to apply the provisions of the YD for intra-African market ASAs. It is also required of States to ensure that designated carriers meet the eligibility criteria and maintain responsibility for safety and security oversight over their designated airlines<sup>26</sup>.

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<sup>23</sup> Fastjet, interview 14 November 2013

<sup>24</sup> Treaty of ECOWAS, signed July 24, 1993. <http://www.comm.ecowas.int/>

<sup>25</sup> Open Skies for Africa, Charles E Schlumberger, 2010

<sup>26</sup> Africa's Strategy for market access and catalyst for air transport growth, ICAO working paper, ATCONF, 2013

### *Fastjet*

- 4.24 For fastjet, an airline based in Tanzania but owned by a UK-based PLC, the ownership issue is directly relevant. Fastjet is not majority owned by African nationals, but under Tanzanian Law, if an airline is registered in Tanzania and regulated by national authority it is deemed to be a Tanzanian carrier. The nationality/ ownership issue became important immediately when fastjet attempted to launch operations to other countries, for example, South Africa. Whilst under Tanzanian law fastjet is a Tanzanian carrier, other countries do not accept the designation because, under their own national legislation, designation requires ownership (or majority ownership) by Tanzanian nationals.
- 4.25 It should be noted that this issue would not be resolved even if the YD were fully implemented, since YD includes a requirement for ownership by the relevant country's nationals. In practice different countries have reacted to this legislative requirement for ownership (if it exists in their national legislation) in different ways. Some countries (e.g. Zimbabwe) have stated that they will change the language in the legislation, others (e.g. South Africa) insist on following the legislation to the letter.
- 4.26 Fastjet has therefore formed local partnerships in each country, such as South Africa, taking minority equity stakes, to obtain the route rights it seeks to operate. For example, in order to complete its attempted take-over of failed South African LCC 1time from its liquidators, it will need to comply with current South African foreign ownership laws (which limit foreign ownership of a South African airline to 25%)<sup>27</sup>.

### *East African Community*

- 4.27 The East African Community (EAC) is currently drafting region-wide air transport liberalisation legislation. During interviews the EAC confirmed that the only outstanding ('burning') issue is that of ownership (i.e. the level of national ownership in a State's designated carrier). African carriers have significant concerns about well-financed non-African airlines, such as those based in the Gulf, entering and dominating African markets, should ownership restrictions be relaxed. Negotiations within the EAC may lead to a compromise on the ownership issue (which may involve interim arrangements and/or lower ownership threshold levels).

### *ICAO*

- 4.28 ICAO, in its 2009 Africa Regional Report, indicated that it would like to see airline ownership rules be gradually but progressively relaxed with a view to freeing State owned airlines from political interference over their management<sup>28</sup>.

### **Fifth Freedom rights**

- 4.29 The YD allows the multilateral exchange of up to Fifth Freedom air traffic rights between any African YD party state using a simple notification procedure. However this (along with other facets of the Yamoussoukro Decision) is not the case in practice. A number of stakeholders, including Kenya Airways, reported issues concerning the granting of Fifth Freedom rights.
- 4.30 Kenya Airways noted that Fifth Freedom rights are very important for airlines to service countries with low population/propensity to fly, in order to ensure profitability. Kenya Airways have five routes in Africa where they have Fifth Freedom rights (further details were

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<sup>27</sup> CAPA Yearbook 2013 – Africa, CAPA, 2013

<sup>28</sup> ICAO AFI Enhanced Regional Cooperation, ICAO, 2009

confidential and not shared with the project team). They theorised that other major sub-Saharan African airlines (such as South African Airways, Rwanda Air and Ethiopian Airways) would experience similar issues.

- 4.31 In a 2013 working paper, ICAO<sup>29</sup> notes that some airlines have been using sixth freedom right operations (i.e. transporting passengers between State A and State B via the carrier's home state) to overcome Fifth Freedom market access restrictions, as well as to foster the development of traffic to/from their base hub location.
- 4.32 In a range of policy recommendations for Africa, Africa Infrastructure Country Diagnostic (AICD) comment that the increased fifth- and sixth-freedom operations conducted by Ethiopian, Kenyan, and South African airlines, demonstrate the potential for better, more sustainable, and possibly more cost-effective services<sup>30</sup>.
- 4.33 For further information on Fifth Freedom routes in operation in Africa, see Chapter 6.

#### **Designations of carriers by states**

- 4.34 Under the YD there is no limit on the number of carriers a State Party can designate, as long as the carriers meet the eligibility requirements. The Decision simply states that each State Party "shall have the right to designate at least one airline...". This seems to give rise to the possibility of State A refusing to designate a carrier wishing to commence operations to State B, say in a situation where there is protectionist behaviour towards a state carrier that has already been designated.
- 4.35 This demonstrates that, even if the YD were fully implemented, its provisions do not really constitute an Open Skies arrangement, relying very much on governmental involvement and enthusiasm to foster freedom of access for eligible airlines. The evidence shows that such enthusiasm is often absent.
- 4.36 Separately, the Decision does contain some limited grounds upon which State B could refuse authorisation to a carrier designated by State A - for instance if State B is convinced that the carrier designated by State A does not meet the eligibility criteria . However, the Decision does not allow State B to refuse the request simply on the basis that State A has already designated one carrier (i.e. State A is trying to designate multiple carriers). The question of course is the extent to which State B is nevertheless able to do so through other means / delay tactics and so forth. Designation issues were not raised by stakeholders interviewed as being a particular issue for operations in Africa.

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<sup>29</sup> Africa's Strategy for market access and catalyst for air transport growth, ICAO working paper, ATCONF, 2013

<sup>30</sup> An Unsteady Course – Growth and Challenges in Africa's Air Transport Industry, AICD, 2009

## 5 Aviation in Africa: supply and demand

### Summary

#### Air Services

We reviewed the types of route and the types of carrier operating from the continent's 20 biggest airports, which account for nearly 60% of total traffic in Africa over September 2012 – August 2013. The analysis shows that the mix of domestic, intra-regional, inter-regional and intercontinental traffic varies greatly between even the largest airports, revealing implicit geographical and market attributes, as well as pointing to the strategies of the airlines using them.

Interesting variations between airports are also observed in the balance of local (national) and reciprocal carriers operating the different types of route (domestic, inter-regional etc.). Differences are also noted in the extent to which triangular routings are utilised in the four African regions (Northern, Southern, Eastern and Western & Central). Triangular routings are found to be more prevalent in Western & Central Africa, reflecting the low levels of traffic, the lack of a dominant airline with a central hub, and the existence of Fifth Freedom traffic rights.

#### Gaps in connectivity and hubs

Our analysis of travellers' itineraries demonstrates the low level of connectivity at several important African airports, including Entebbe, Accra and Lagos (where a high proportion of indirect journeys are undertaken to/from the airports), but also Cairo and Johannesburg (where the proportion of indirect journeys may be lower, but the large traffic volumes suggest that these airports might be able to support direct markets and improved connectivity).

The low level of inter-regional connectivity across the continent is also highlighted, with as little as 31% of journeys between Northern and Southern Africa found to be direct in the period considered (Sept 2012 – Aug 2013).

The extent to which some of Africa's busiest airports act as hubs for connecting passengers is also examined. As expected, Cairo, Casablanca, Johannesburg, Addis Ababa and Nairobi all act as hubs, with high proportions (and volumes) of connecting passengers. A similar hub in Western & Central Africa is notably absent. Lomé is the only airport in the region that could be characterised as a hub, however it is small compared to busier airports, such as Lagos.

#### Fleet

Africa's low level of connectivity is further reflected in the relatively small size of African airlines' fleets. Despite representing 15% of the world's population, African airlines operate only 5.5% of the world's commercial passenger and freighter aircraft, thereby having the lowest level of aircraft per capita of any world region. The average age of these fleets is found to be the oldest of any world region (17 years vs 13 years for the global average), and their aircraft mix tends to involve smaller than average aircraft.

## Introduction

- 5.1 This section provides an overview of the desktop analysis undertaken to develop a detailed picture of air services currently operated in Africa, based on data from the world schedule database OAG and Market Intelligence Data Tapes (MIDT).
- 5.2 The OAG database holds a comprehensive list of scheduled and freighter flights across the world, providing details of carrier, origin and destination, routeing, aircraft flight times and days of operation, as well as seat and/or cargo capacity.
- 5.3 MIDT records itineraries booked through global distribution systems (GDS), capturing passengers' origin, destination and routing. This data gives a measure of the level of demand in the market, as well as the connectivity of existing networks. MIDT does not capture bookings made directly on airlines' own reservation systems and as a result will not account for most low-cost carrier demand, as well as part of the demand using other carriers. However, low levels of LCC operations in Africa in combination with relatively low internet and electronic payment system penetration across Africa will limit this unaccounted demand. Further, the more complex itineraries which are used to reveal network connectivity are more likely to be reserved through GDS.
- 5.4 We have reviewed the MIDT data and found that it appears to represent the large majority of passenger journeys in Africa, and is generally consistent with the information in OAG, so that passenger numbers in MIDT and seats in OAG can reasonably be compared.
- 5.5 Our analysis sets out the types of domestic, short-haul (intra-regional) international, inter-regional (intra-African) international and intercontinental services operated by African and other airlines across the continent. It also examines the end-to-end journeys made by passengers and identifies where passengers have to make use of connecting services, highlighting where there are gaps in connectivity.
- 5.6 We have identified which airports act as effective hubs, both in terms of absolute numbers of connecting passengers and relative to the airport's overall size. In addition, we have identified where Fifth Freedom rights appear to be available to carriers operating between airports outside their home countries.

### Terminology

- 5.7 OAG categorises African countries into one of four regions: Northern, Southern, Eastern and Western & Central. The regions are mapped in Figure 5.1 below. We have relied on this segmentation in our analysis.

Figure 5.1: Map of Africa showing OAG regions



Source: OAG, Steer Davies Gleave analysis

### 5.8 We term routes:

- Domestic: e.g. Cape Town-Johannesburg.
- Regional: short-haul international routes within a region, e.g. Nairobi-Kigali.
- Intra-African: international routes between regions, e.g. Cairo-Lagos.
- Intercontinental: e.g. Addis Ababa-Dubai.

### 5.9 We term carriers:

- National: all carriers registered in the departure and/or arrival country, not just flag carriers. E.g. Comair in South Africa.
- Regional: all carriers registered in the same region as the departure or arrival country. E.g. Kenya Airways from the perspective of Kigali.
- Other African: all carriers registered in regions other than that of the departure or arrival country. E.g. Egyptair from the perspective of Lagos.
- Non-African: e.g. Emirates.

## Air services

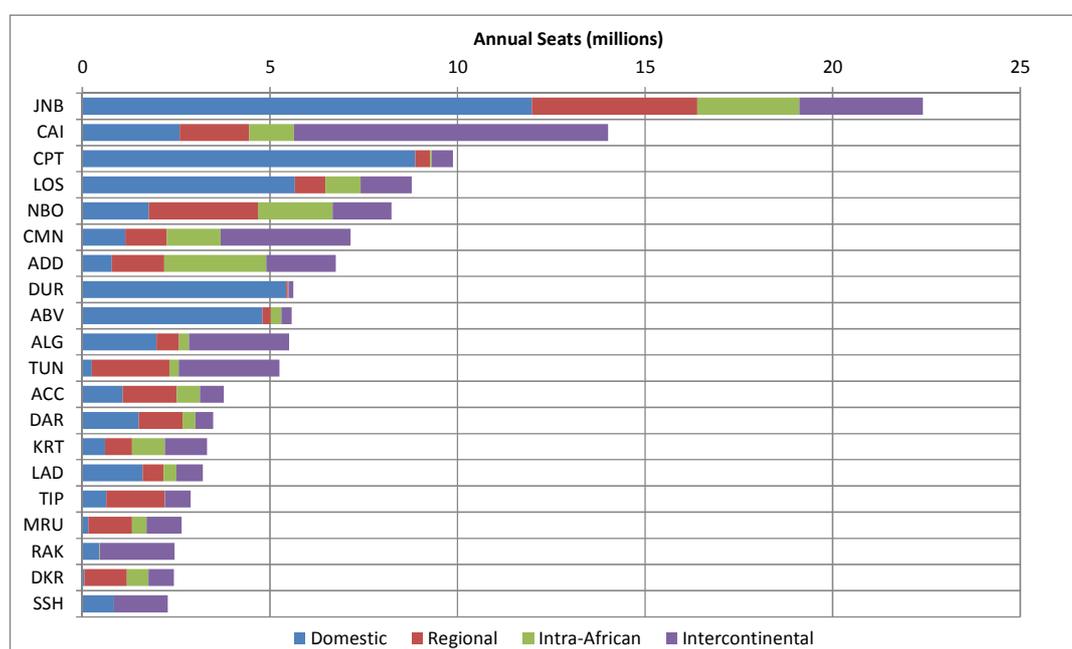
5.10 Using the OAG data, we have reviewed:

- Total traffic by airport (Air Transport Movements (ATMS) and seats), split by domestic, regional, intra-African and intercontinental flights;
- Total traffic by airport (as above), with each of the flight regions split into point-to-point and triangular routings; and
- Domestic, regional, intra-African and intercontinental traffic by airport, split by airline type (national, regional, other African, non-African).

### Type of route

5.11 The figure below shows the split of traffic origin/destination for the top 20 airports in Africa (by number of seats, September 2012 - August 2013).

Figure 5.2: Traffic (departing seats) by route type at top 20 airports in Africa by size (seats), Sept 2012-Aug 2013



Source: OAG, Steer Davies Gleave analysis, key in Table 5.1

Table 5.1: Airport three-letter code key

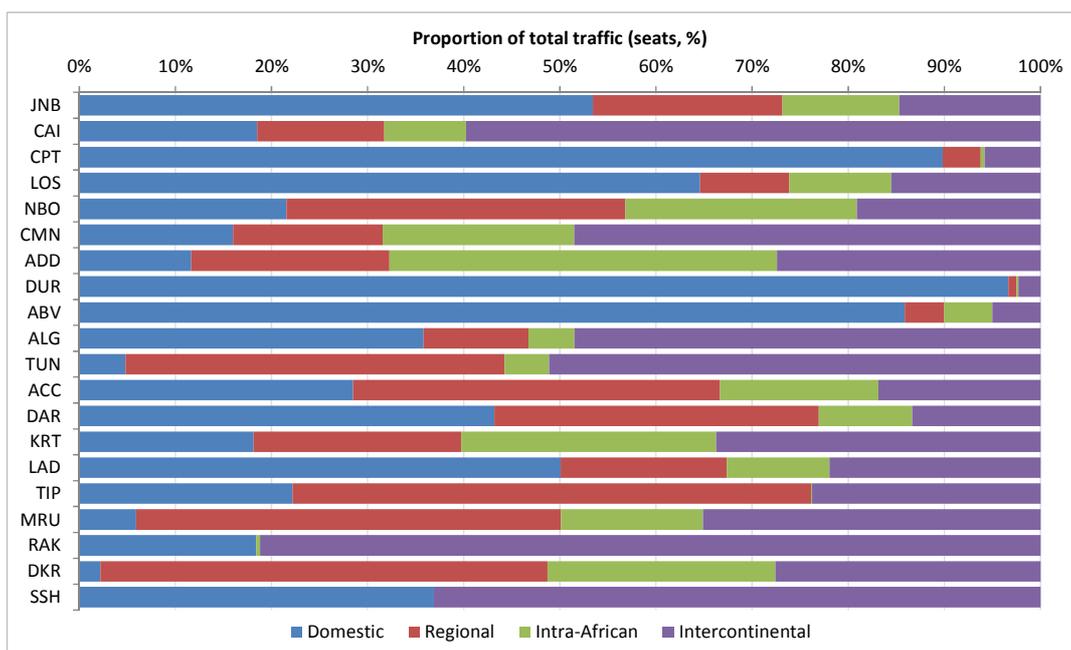
Airport	Airport name	Country	Region
JNB	Johannesburg O.R. Tambo Int	South Africa	Africa : Southern Africa
CAI	Cairo	Egypt	Africa : North Africa
CPT	Cape Town	South Africa	Africa : Southern Africa
LOS	Lagos	Nigeria	Africa : Central/Western Africa
NBO	Nairobi Jomo Kenyatta Int Apt	Kenya	Africa : Eastern Africa

Airport	Airport name	Country	Region
CMN	Casablanca Mohammed V Apt	Morocco	Africa : North Africa
ADD	Addis Ababa	Ethiopia	Africa : Eastern Africa
DUR	Durban King Shaka Int Apt	South Africa	Africa : Southern Africa
ABV	Abuja	Nigeria	Africa : Central/Western Africa
ALG	Algiers	Algeria	Africa : North Africa
TUN	Tunis	Tunisia	Africa : North Africa
ACC	Accra	Ghana	Africa : Central/Western Africa
DAR	Dar Es Salaam	Tanzania	Africa : Eastern Africa
KRT	Khartoum	Sudan	Africa : North Africa
LAD	Luanda	Angola	Africa : Southern Africa
TIP	Tripoli	Libya	Africa : North Africa
MRU	Mauritius	Mauritius	Africa : Eastern Africa
RAK	Marrakech	Morocco	Africa : North Africa
DKR	Dakar	Senegal	Africa : Central/Western Africa
SSH	Sharm El-Sheikh	Egypt	Africa : North Africa

5.12 Together, the top 20 airports by number of seats over September 2012 – August 2013 account for nearly 60% of total traffic in Africa. With 22.4 million departing seats over the period, Johannesburg airport is the largest in Africa and approximately 60% larger than the next largest airport, Cairo. Cape Town and Durban in South Africa also figure in the top 10, which includes Lagos, Nairobi, Casablanca, Addis Ababa, Abuja and Algiers.

5.13 The mix of traffic at the continent's largest airports varies greatly. Figure 5.3 below shows the proportion of each airport's capacity (departing seats, Sept 2012-Aug 2013) by type of route.

**Figure 5.3: Share of capacity (departing seats) by route type at top 20 airports in Africa by size (seats), Sept 2012-Aug 2013**



Source: OAG, Steer Davies Gleave analysis, key in Table 5.1

5.14 The variations observed in part reveal the different geographical and market attributes of the destinations. For example:

- Johannesburg - at the south of continent dominated by a developed domestic market
- Cairo - close to Europe and the Middle East dominated by intercontinental routes
- Marrakesh and Sharm el Sheikh - attracting large amounts of leisure traffic from Europe and the Middle East, but lacking almost any regional and intra-African connections
- Cape Town, Durban and Abuja - capacity is dominated by domestic routes, with a limited share of international traffic. Johannesburg and Lagos airports acting as the main international entry/exit points for South Africa and Nigeria respectively.

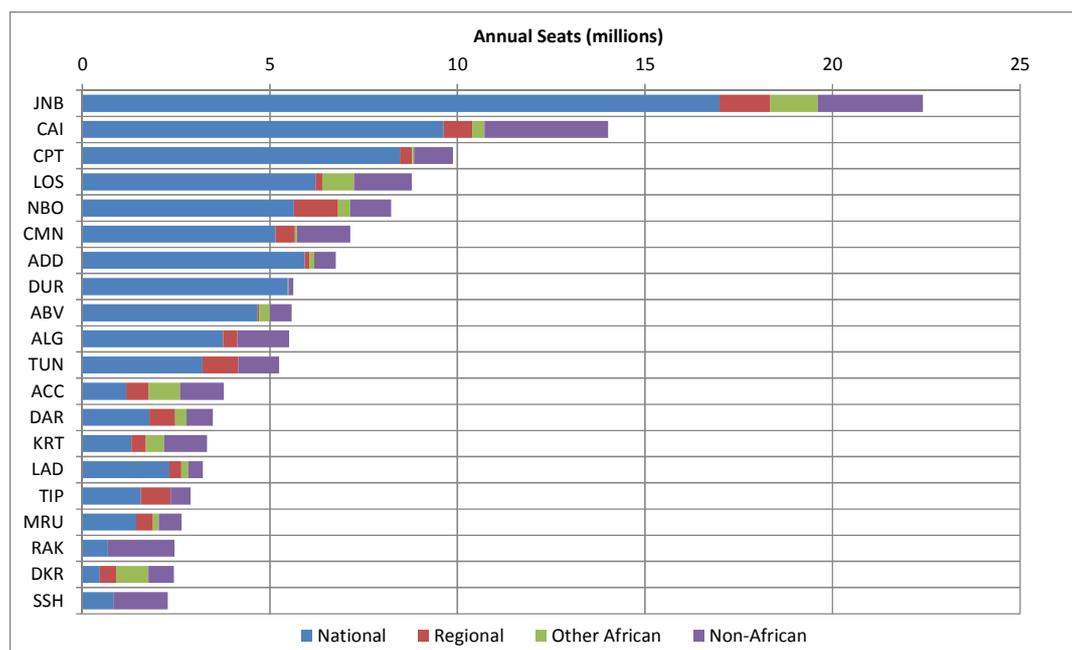
5.15 Having accounted for such attributes the traffic mix also reveals the relative importance of the airports in regional and intra-African networks and points to the market strategies of airlines using them. For example:

- Ethiopian's strong regional and intra-African network using its Addis Ababa hub;
- Similarly, Kenya Airways regional and intra-African presence focussing on Nairobi; and
- South African and BA/Comair's relatively extensive regional and intra-African operations centred on Johannesburg.

### Types of carrier

5.16 The figure below shows the split of traffic carriers for the same top 20 airports in Africa (by number of seats, September 2012 – August 2013).

Figure 5.4: Traffic (departing seats) by carrier type at top 20 airports in Africa by size (seats), Sept 2012-Aug 2013



Source: OAG, Steer Davies Gleave analysis, key in Table 5.1

- 5.17 In general, national carriers provide all domestic capacity and approximately half of the international capacity, with the other half provided by the reciprocal national carriers.
- 5.18 Again, some interesting variability is revealed between airports, for example 86% of international capacity at Addis Ababa is provided by Ethiopian carriers compared to 3% for Ghanaian carriers at Accra.
- 5.19 Interesting variability can also be observed between different types of route at a given airport. For example at Johannesburg, South African carriers offer:
  - a larger proportion of the regional capacity (70%) than reciprocal carriers do;
  - just over half (53%) of the intra-African capacity;
  - only a small proportion (15%) of intercontinental capacity.

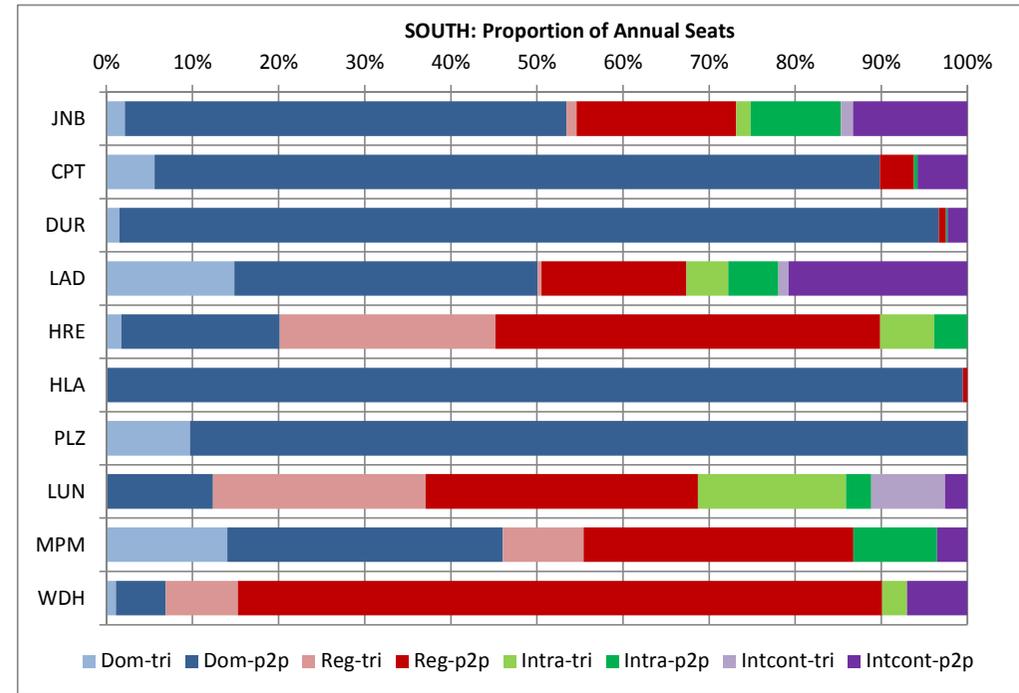
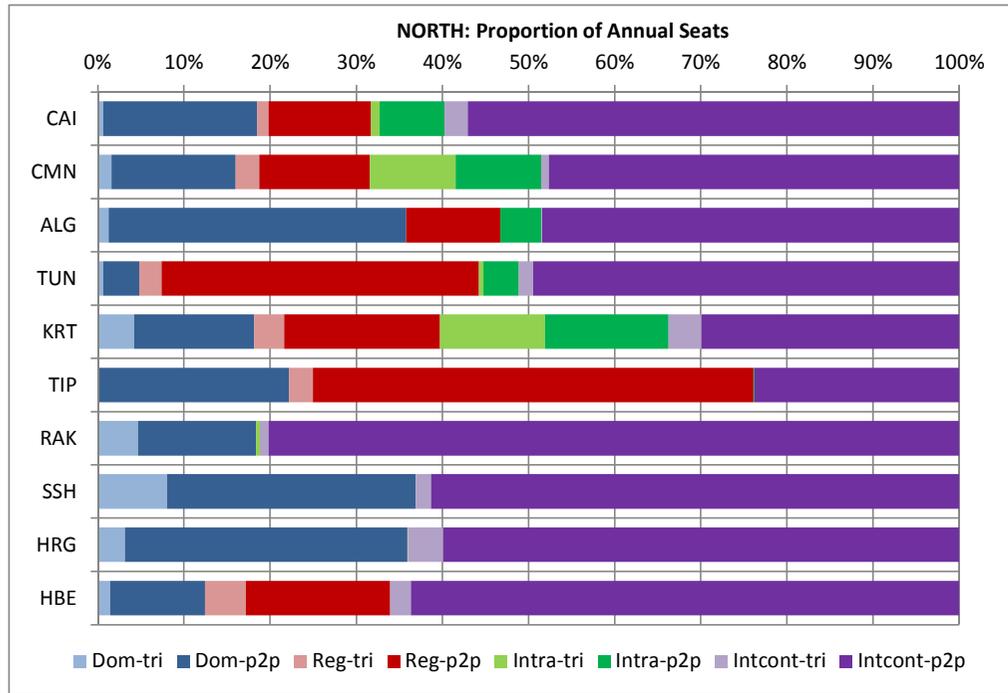
**Triangular routings**

- 5.20 "Triangular routings", where an aircraft flies to multiple airports rather than making a simple out and return journey, are generally used by airlines where overall levels of traffic are low, as more markets can be served using the same capacity. Triangular routings are particularly convenient for airlines where the airline holds Fifth Freedom rights to carry passengers to airports on the route which are outside the airline's home country, although they can also be economic even in the absence of such rights.
- 5.21 We have split the OAG data to show the traffic by region type that is point-to-point, or that involves a triangular routing. Figure 5.5 and Figure 5.6 overleaf show the proportional traffic at the main airports (top 10 by seats available) for each African region (Northern, Southern, Eastern and Western & Central Africa, as applied by OAG to the schedule data). In the figures, the darker shade of each colour shows the point to point flights and the lighter shade the triangular routings.
- 5.22 The following observations can be made:

- Of the largest 10 airports in the Northern region, all but two have close to or greater than 50% of their traffic to inter-Continental destinations (Europe and the Middle East, primarily);
- The largest airports in the South are dominated by South African airports and have a significant proportion of domestic flights. Maputo in Mozambique and Luanda in Angola report nearly 15% of flights on a triangular domestic only route;
- The proportions of triangular routes from the Eastern and Western & Central regions are high and significantly greater than those in the Northern and Southern regions. Of particular note in the Western & Central region are Accra (26% regional triangular routes, 7% intra-African triangular routes), Dakar (33%, 8%), Abidjan (61%, 2%), and Brazzaville (26%, 11%). In the Eastern region, Kigali has a high proportion of triangular routing (59%, 3%) as does Addis Ababa (10%, 16%) and Mombasa (23%, 0%).

5.23 The prevalence of triangular routings in West and Central Africa reflects the low levels of traffic, the lack of a dominant airline with a central hub, and the existence of Fifth Freedom traffic rights.

Figure 5.5: Point to point and triangular routing at the top 10 airports (Northern and Southern regions)

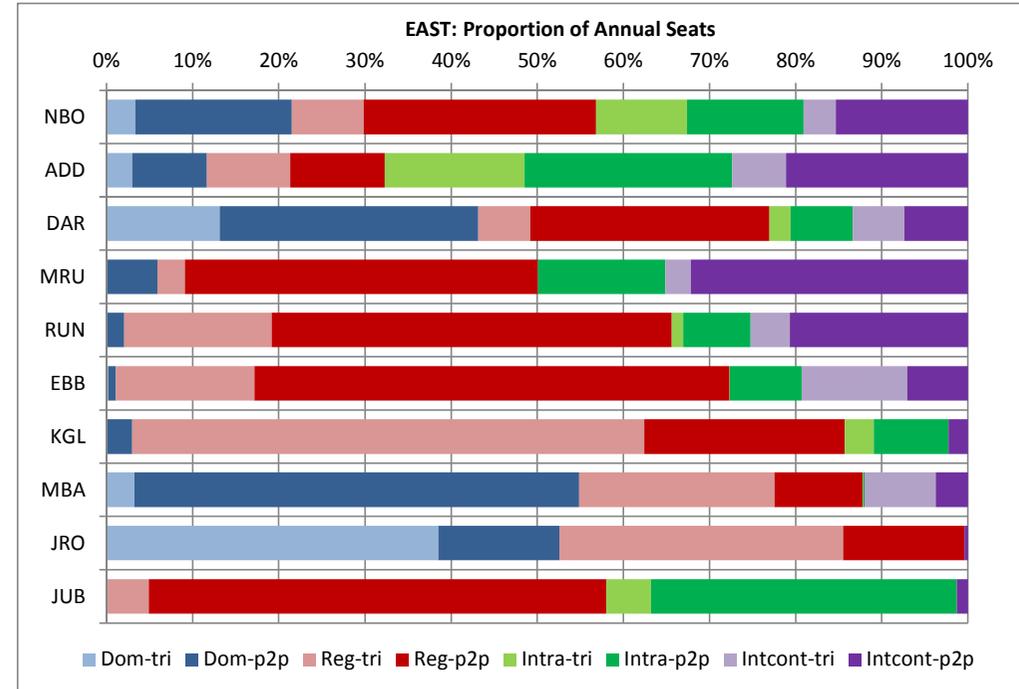
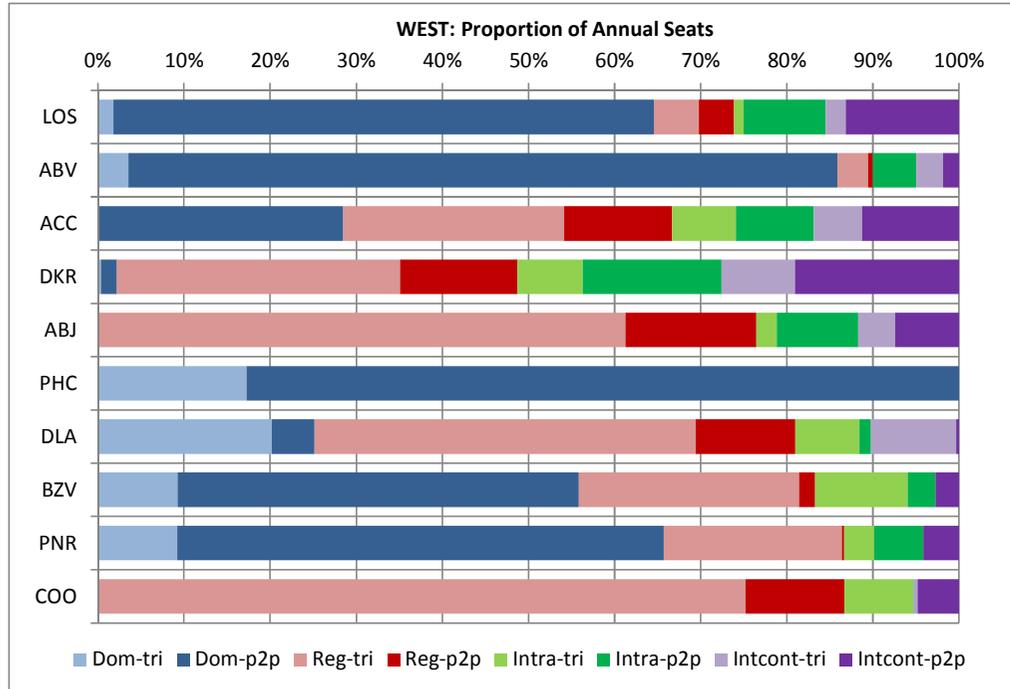


Route type	Description
Dom-tri	Domestic triangular routing
Dom-p2p	Domestic point-to-point flight
Reg-tri	Triangular routing within African OAG Region
Reg-p2p	Point-to-point flight within African OAG Region
Intra-tri	Intra-African triangular routing between OAG Regions
Intra-p2p	Intra-African point-to-point flight between OAG Regions
Intcont-tri	Intercontinental triangular routing
Intcont-p2p	Point-to-point intercontinental flight

Airport	Airport name	Country	Airport	Airport name	Country
CAI	Cairo	Egypt	JNB	Johannesburg O.r. Tambo Int	South Africa
CMN	Casablanca Mohammed V Apt	Morocco	CPT	Cape Town	South Africa
ALG	Algiers	Algeria	DUR	Durban King Shaka Int Apt	South Africa
TUN	Tunis	Tunisia	LAD	Luanda	Angola
KRT	Khartoum	Sudan	HRE	Harare	Zimbabwe
TIP	Tripoli	Libya	HLA	Johannesburg Lanseria Int Ap	South Africa
RAK	Marrakech	Morocco	PLZ	Port Elizabeth	South Africa
SSH	Sharm El-Sheikh	Egypt	LUN	Lusaka	Zambia
HRG	Hurghada	Egypt	MPM	Maputo	Mozambique
HBE	Alexandria Borg el Arab	Egypt	WDH	Windhoek Hosea Kutako Int	Namibia

Source: OAG, Steer Davies Gleave

Figure 5.6: Point to point and triangular routing at the top 20 airports (Eastern and Western & Central regions)



Route type	Description
Dom-tri	Domestic triangular routing
Dom-p2p	Domestic point-to-point flight
Reg-tri	Triangular routing within African OAG Region
Reg-p2p	Point-to-point flight within African OAG Region
Intra-tri	Intra-African triangular routing between OAG Regions
Intra-p2p	Intra-African point-to-point flight between OAG Regions
Intcont-tri	Intercontinental triangular routing
Intcont-p2p	Point-to-point intercontinental flight

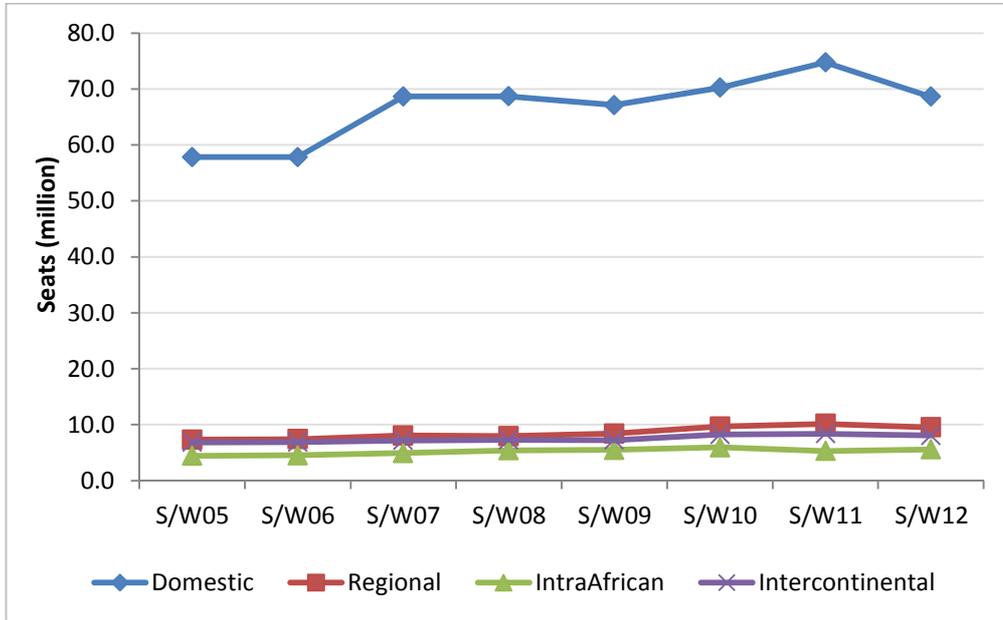
Airport	Airport name	Country	Airport	Airport name	Country
LOS	Lagos	Nigeria	NBO	Nairobi Jomo Kenyatta Int Apt	Kenya
ABV	Abuja	Nigeria	ADD	Addis Ababa	Ethiopia
ACC	Accra	Ghana	DAR	Dar Es Salaam	Tanzania
DKR	Dakar	Senegal	MRU	Mauritius	Mauritius
ABJ	Abidjan	Cote D'Ivoire	RUN	St-denis	Reunion
PHC	Port Harcourt	Nigeria	EBB	Entebbe	Uganda
DLA	Douala	Cameroon	KGL	Kigali	Rwanda
BZV	Brazzaville	Congo	MBA	Mombasa	Kenya
PNR	Pointe-Noire	Congo	JRO	Kilimanjaro	Tanzania
COO	Cotonou	Benin	JUB	Juba	South Sudan

Source: OAG, Steer Davies Gleave

### Evolution of air services

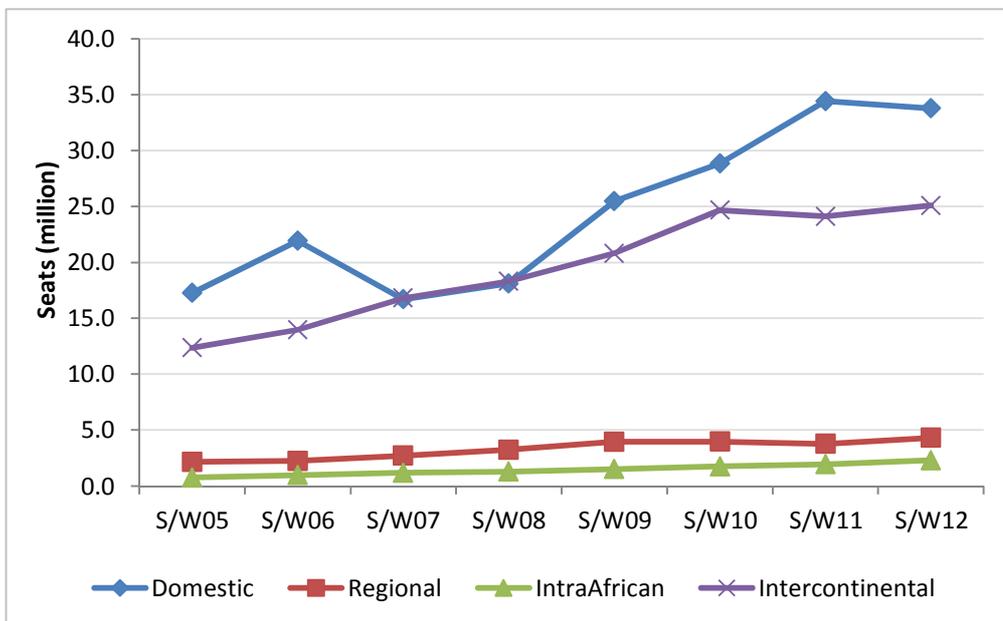
5.24 We have also analysed historical OAG data going back to 2006 in order to observe changes in the split of traffic (between domestic, regional, intra-African and intercontinental) over the period. A number of contrasting growth patterns are compared in the figures below.

Figure 5.7: Traffic growth 2005-2012 (summer and winter), South Africa



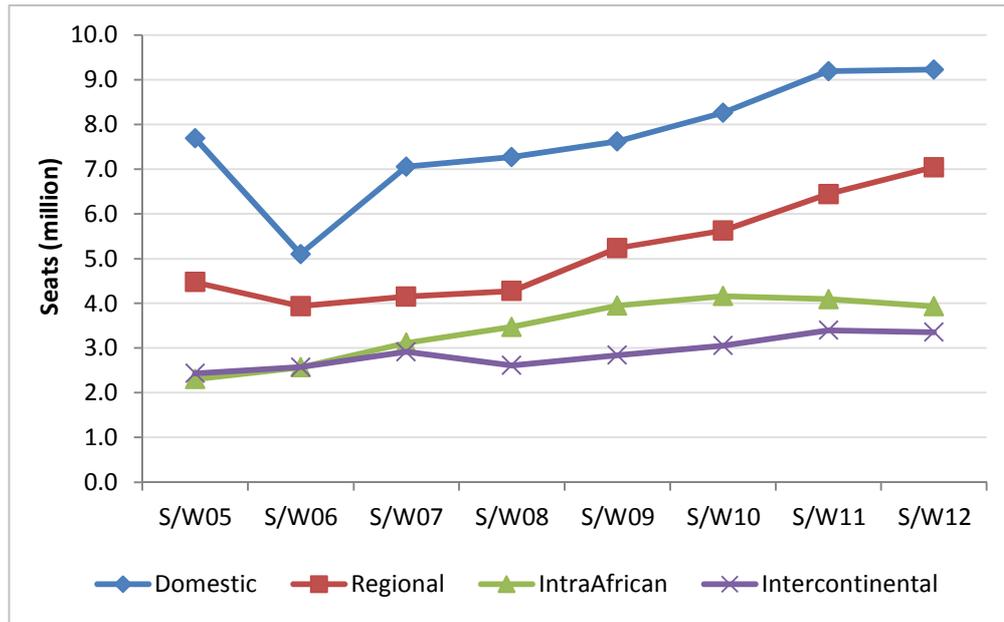
Source: OAG, Steer Davies Gleave analysis

Figure 5.8: Traffic growth 2005-2012 (summer and winter), Nigeria



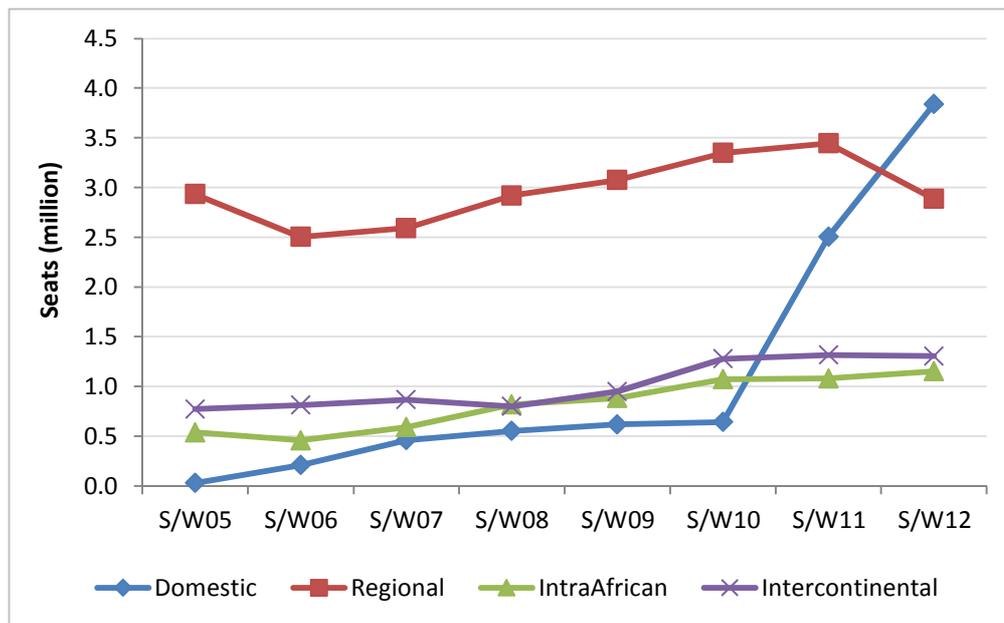
Source: OAG, Steer Davies Gleave analysis

Figure 5.9: Traffic growth 2005-2012 (summer and winter), Kenya



Source: OAG, Steer Davies Gleave analysis

Figure 5.10: Traffic growth 2005-2012 (summer and winter), Ghana



Source: OAG, Steer Davies Gleave analysis

5.25 All countries shown report domestic traffic as the most significant driver of overall traffic throughout the period excepting Ghana, where domestic traffic has increased significantly over the latter part of the period to 2012 (notably it tripled in 2011). South Africa's traffic in particular is dominated by domestic journeys, and little growth has been seen in regional, intra-African and intercontinental flights over the period. Ghana and Kenya report significant proportions of regional traffic compared to Nigeria and South Africa, and, at nearly 30% in S/W 2012, Kenya has the most significant proportion of inter-regional traffic of the four States shown.

## Connectivity

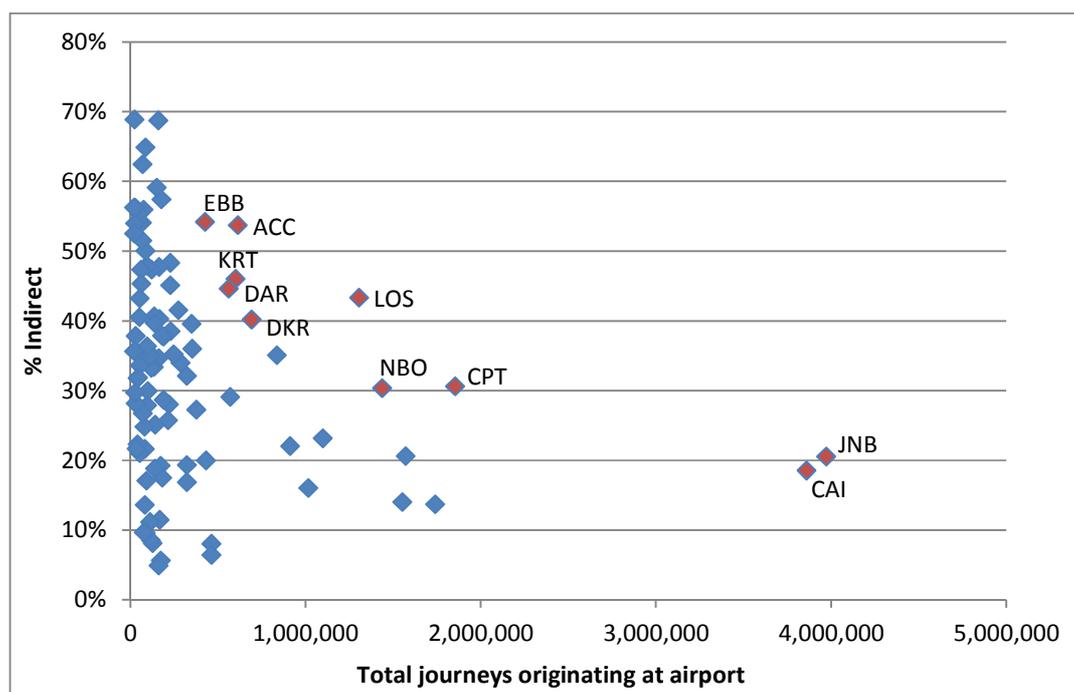
5.26 ICAO notes that there is no single definition of air transport "connectivity". However, connectivity is a property of a network and can be defined in such a way as to constitute an indicator of the network's concentration. Therefore, connectivity is the ability of a network to move a passenger from one point to another with the lowest possible number of connections and without an increase in fare, focusing on, from a commercial perspective, minimum connecting times with maximum facilitation ultimately resulting in benefits to air transport.

### Gaps in connectivity

5.27 Figure 5.11 below shows the proportion of journeys originating at African airports that are indirect (i.e. passengers are required to connect at least once in order to reach their final destination) against the volume of journeys originating at those airports. Highlighted are the most significant of these airports, where particularly high proportions and/or large volumes of originating journeys are indirect.

5.28 Note that the chart does not indicate connectivity through the airports shown - the airports are considered in terms of the types of journey (direct or indirect) required to reach the airport as a final destination (or true origin) of the journey.

Figure 5.11: Connectivity of Journeys originating at African airports, Sept 2012-Aug 2013



Source: MIDT, Steer Davies Gleave analysis

**Table 5.2: Airport three-letter code key**

Airport	Airport name	Country	Region
EBB	Entebbe	Uganda	Africa : Eastern Africa
ACC	Accra	Ghana	Africa : Central/Western Africa
KRT	Khartoum	Sudan	Africa : North Africa
DAR	Dar Es Salaam	Tanzania	Africa : Eastern Africa
LOS	Lagos	Nigeria	Africa : Central/Western Africa
DKR	Dakar	Senegal	Africa : Central/Western Africa
NBO	Nairobi Jomo Kenyatta Int Apt	Kenya	Africa : Eastern Africa
CPT	Cape Town	South Africa	Africa : Southern Africa
JNB	Johannesburg O.R. Tambo Int	South Africa	Africa : Southern Africa
CAI	Cairo	Egypt	Africa : North Africa

- 5.29 Figure 5.11 demonstrates the low level of connectivity at several important African airports, as measured by the proportion of indirect journeys undertaken to/from these airports. Over half of the journeys originating at Entebbe and Accra are indirect, with Khartoum, Dar es Salaam, Dakar and Lagos all coming in at over 40%, which is high compared to Addis 23% and Casablanca 21%, indicating limited connectivity. The proportion of indirect journeys originating at Johannesburg and Cairo is much lower at around 20%; however the high volume of journeys originating at these airports suggests that they might be able to support a direct market and improved connectivity.
- 5.30 Table 5.3 shows the proportion of direct journeys (as a percentage of total journeys including direct and connecting journeys). In the left-hand part of the table, which shows journeys between African regions, intra-regional journeys are shaded red. In each region there is a higher proportion of direct journeys on intra-regional routes than on journeys between regions, as might be expected. For example, whilst the overwhelming majority (97%) of passenger journeys originating in and destined for Northern Africa are direct, only 31% of journeys originating in Northern Africa and destined for Southern Africa are undertaken on direct flights.
- 5.31 The right-hand part of the table shows journeys from each African region to other continents. Northern Africa has the highest proportion of direct journeys to other continents, which is not surprising given its proximity to Europe and the Middle East. Only 28% of journeys between Western & Central Africa to the Middle East were direct, compared with 71% from Eastern Africa.

**Table 5.3: Proportion of direct journeys with origin Africa, by region (Sept 2012-Aug 2013)**

Origin/ Dest.	N. Af	S. Af	W&C Af	E. Af	Europe	Middle East	Asia	North America	Latin America	North America	Australia
<b>N. Af</b>	97%	31%	82%	77%	83%	81%	22%	38%	1%	38%	0%
<b>S. Af</b>	31%	95%	69%	70%	33%	59%	16%	10%	48%	10%	26%
<b>W&amp;C Af</b>	80%	67%	89%	71%	44%	28%	0%	18%	12%	18%	0%
<b>E. Af</b>	79%	70%	71%	94%	39%	71%	36%	8%	5%	8%	19%

Source: MIDT, Steer Davies Gleave analysis

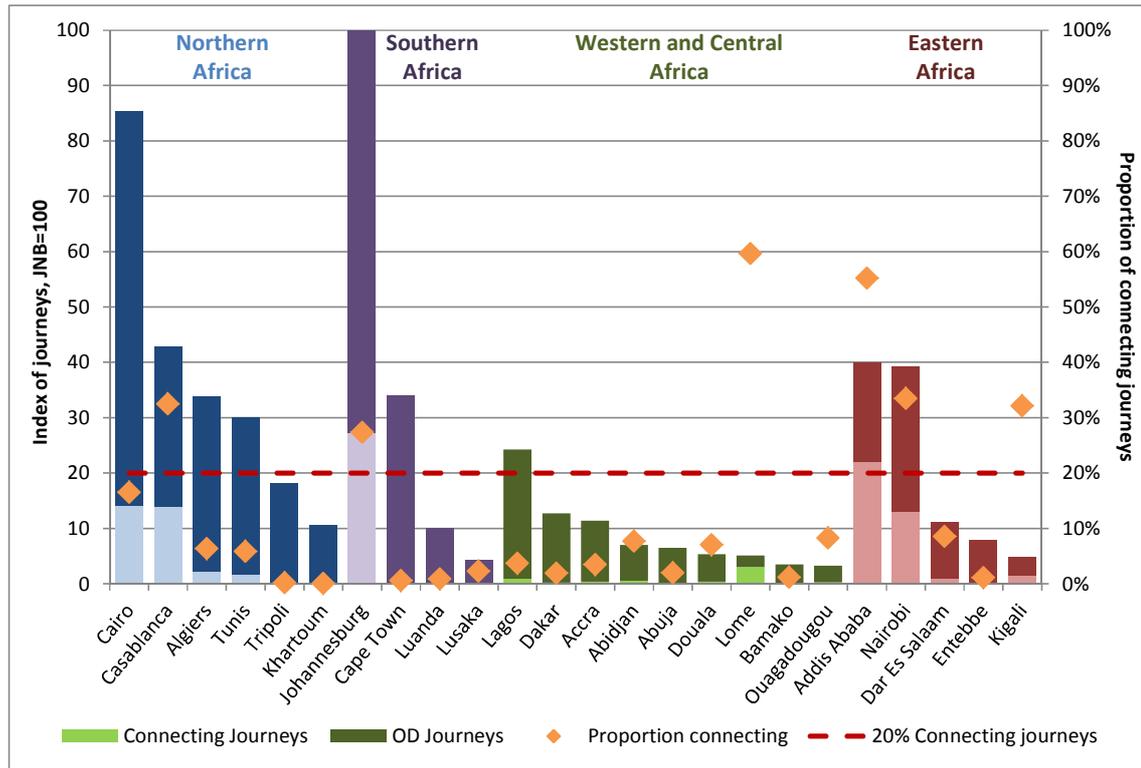
## Hubs

- 5.32 A hub airport is one used by large numbers of passengers as a transfer point for connecting journeys between other airports. Hubs are often, though not necessarily, characterised by the presence of a dominant airline making large numbers of flights to different destinations, thereby facilitating improved passenger connectivity.

### Level of hub activity

- 5.33 Figure 5.12 shows the extent to which some of the continent's busiest airports act as hubs for connecting passengers. Northern, Southern and Eastern Africa all have sizeable airports where the proportion of journeys connecting there approaches or exceeds 20% (which is low compared to large global hubs such as Heathrow c.35% and Amsterdam c.50%). Cairo, Casablanca, Johannesburg, Addis Ababa and Nairobi all act as hubs.

Figure 5.12: Total journeys and the proportion of journeys connecting at larger (by journeys) airports, by region (Sept 2012-Aug 2013)



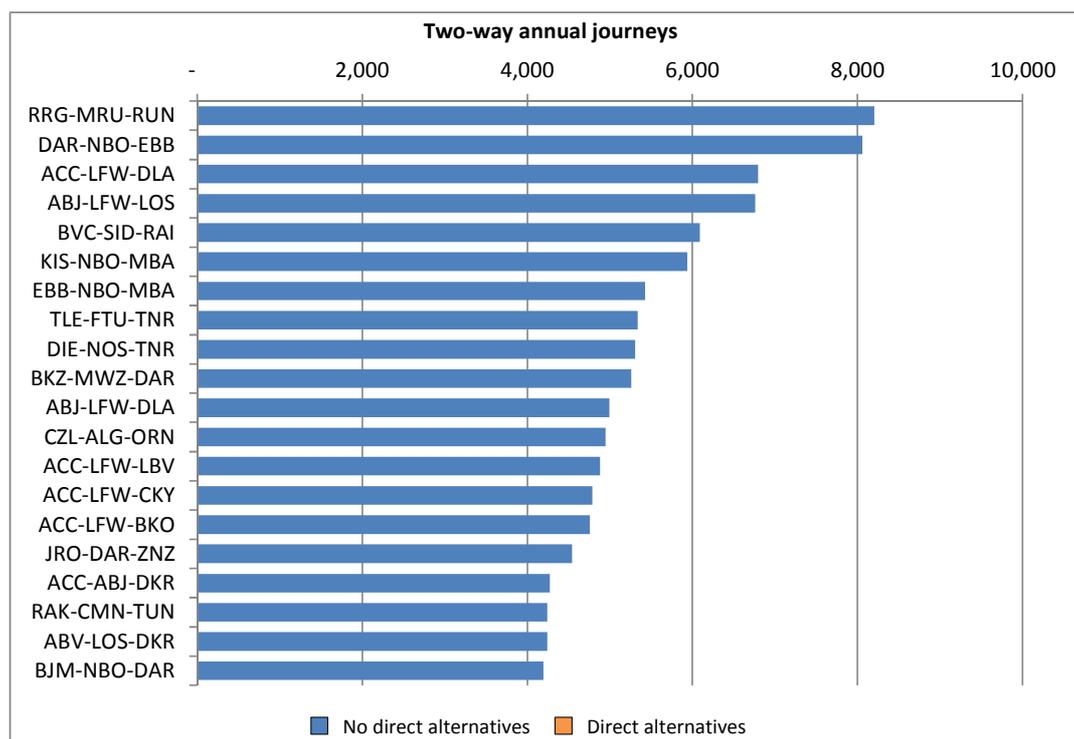
Source: MIDT, Steer Davies Gleave analysis

- 5.34 Notably, Addis Ababa has a very high proportion of connecting journeys (55%), reflecting Ethiopian's market strategy. The impact of this strategy, through Ethiopian's control of ASKY, is also observed at Lomé, the only airport in Western and Central Africa that might be characterised as a hub with 60% of journeys making onward connections. Lomé, however, is small compared with busier airports in the region, such as Lagos, and considerably smaller than hubs in other regions.
- 5.35 Kigali is similar to Lomé. Here Rwandair's strategy has led to over 30% of journeys connecting through the airport. But like Lomé again, the overall volume of journeys is small compared to that using other hubs.

**Popular routings: how passengers complete their journeys**

- 5.36 This section examines how passengers reach their final destinations where direct services are not in place, by looking at the busiest routings on domestic and regional journeys, inter-regional/intra-African journeys, and intercontinental journeys.

**Figure 5.13: Top 20 indirect domestic and intra-regional journeys, Sept 2012-Aug 2013 (excluding JNB connections)**



Source: MIDT, Steer Davies Gleave analysis, key in Table 5.4

**Table 5.4: Airport three-letter code key**

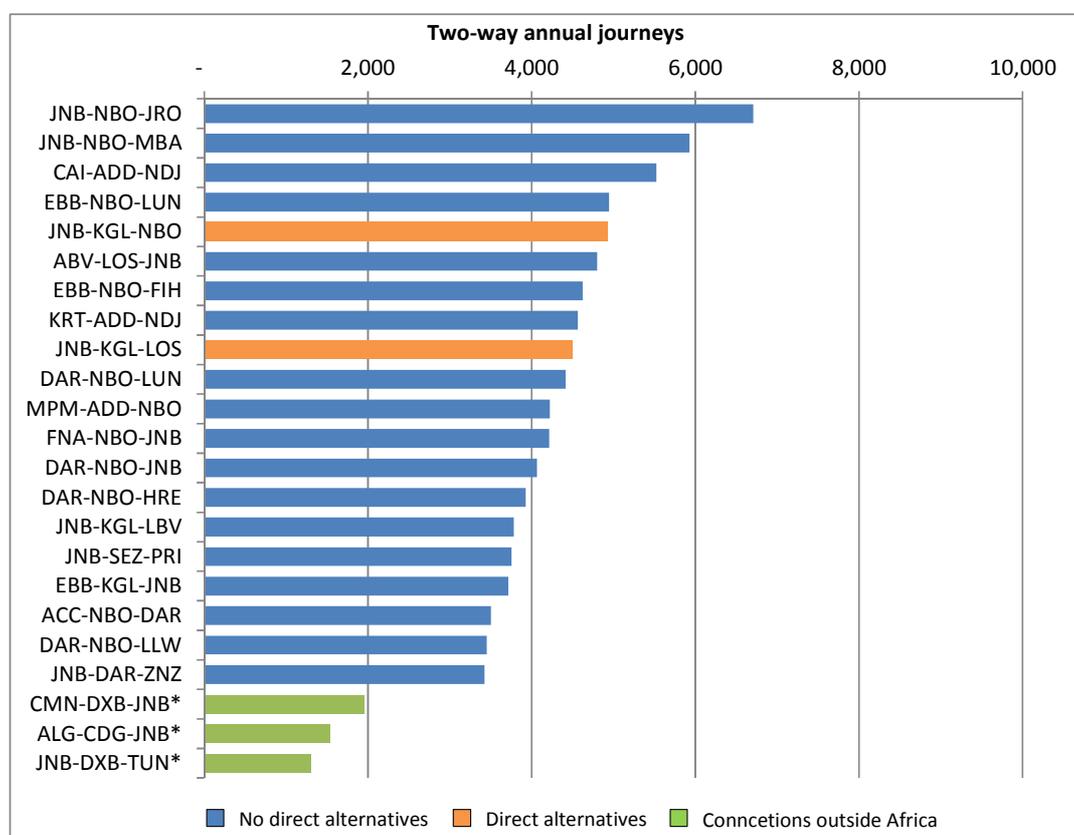
Route	Origin/Destination	Connection hub	Destination/Origin
RRG-MRU-RUN	Rodrigues Island, Mauritius	Mauritius, Mauritius	St-denis, Reunion
DAR-NBO-EBB	Dar Es Salaam, Tanzania	Nairobi, Kenya	Entebbe, Uganda
ACC-LFW-DLA	Accra, Ghana	Lomé, Togo	Douala, Cameroon
ABJ-LFW-LOS	Abidjan, Cote D'Ivoire	Lomé, Togo	Lagos, Nigeria
BVC-SID-RAI	Boa Vista Island, Cape Verde	Sal Island, Cape Verde	Praia, Cape Verde
KIS-NBO-MBA	Kisumu, Kenya	Nairobi, Kenya	Mombasa, Kenya
EBB-NBO-MBA	Entebbe, Uganda	Nairobi, Kenya	Mombasa, Kenya
TLE-FTU-TNR	Toliara, Madagascar	Tolanaro, Madagascar	Antananarivo, Madagascar
DIE-NOS-TNR	Antsiranana, Madagascar	Nosy-Be, Madagascar	Antananarivo, Madagascar
BKZ-MWZ-DAR	Bukoba, Tanzania	Mwanza, Tanzania	Dar Es Salaam, Tanzania
ABJ-LFW-DLA	Abidjan, Cote D'Ivoire	Lomé, Togo	Douala, Cameroon

Route	Origin/Destination	Connection hub	Destination/Origin
CZL-ALG-ORN	Constantine, Algeria	Algiers, Algeria	Oran Es Senia Apt, Algeria
ACC-LFW-LBV	Accra, Ghana	Lomé, Togo	Libreville, Gabon
ACC-LFW-CKY	Accra, Ghana	Lomé, Togo	Conakry, Guinea
ACC-LFW-BKO	Accra, Ghana	Lomé, Togo	Bamako, Mali
JRO-DAR-ZNZ	Kilimanjaro, Tanzania	Dar Es Salaam, Tanzania	Zanzibar, Tanzania
ACC-ABJ-DKR	Accra, Ghana	Abidjan, Cote D'Ivoire	Dakar, Senegal
RAK-CMN-TUN	Marrakech, Morocco	Casablanca, Morocco	Tunis, Tunisia
ABV-LOS-DKR	Abuja, Nigeria	Lagos, Nigeria	Dakar, Senegal
BJM-NBO-DAR	Bujumbura, Burundi	Nairobi, Kenya	Dar Es Salaam, Tanzania

5.37 The top six domestic and intra-regional journeys, along with a further four, involve connections between Cape Town or Durban and Johannesburg. Excluding these results in the 20 routes shown in the figure above. Of these:

- All transfer in the same region.
- All domestic journeys transfer in the same country.
- 9 out of 13 regional journeys transfer in a third country within the region.
- No direct routings identified.

Figure 5.14: Top 20 indirect intra-Africa journeys plus top 3 hubbing on other Continent, Sept 2012-Aug 2013 (excluding JNB connections)



Source: MIDT, Steer Davies Gleave analysis, key in Table 5.5

**Table 5.5: Airport three-letter code key**

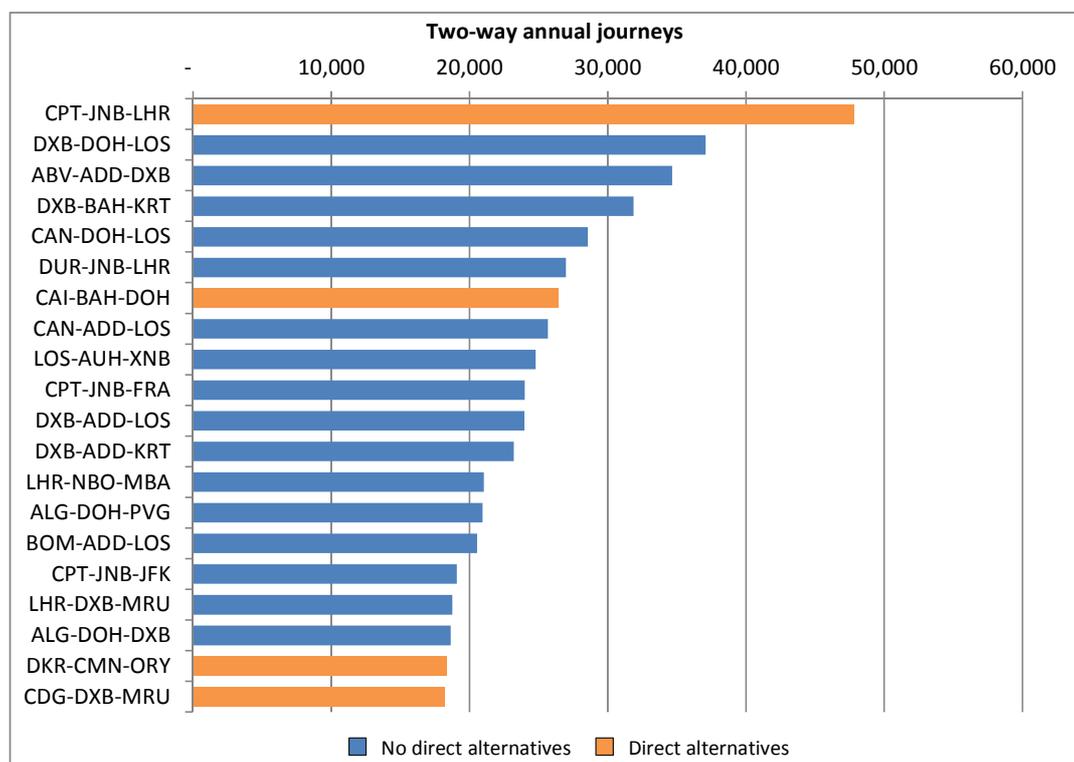
Route	Origin/Destination	Connection hub	Destination/Origin
JNB-NBO-JRO	Johannesburg, Africa South	Nairobi, Kenya	Kilimanjaro, Tanzania
JNB-NBO-MBA	Johannesburg, Africa South	Nairobi, Kenya	Mombasa, Kenya
CAI-ADD-NDJ	Cairo, Egypt	Addis Ababa, Ethiopia	N'djamena, Chad
EBB-NBO-LUN	Entebbe, Uganda	Nairobi, Kenya	Lusaka, Zambia
JNB-KGL-NBO	Johannesburg, Africa South	Kigali, Rwanda	Nairobi, Kenya
ABV-LOS-JNB	Abuja, Nigeria	Lagos, Nigeria	Johannesburg, Africa South
EBB-NBO-FIH	Entebbe, Uganda	Nairobi, Kenya	Kinshasa, DR Congo
KRT-ADD-NDJ	Khartoum, Sudan	Addis Ababa, Ethiopia	N'djamena, Chad
JNB-KGL-LOS	Johannesburg, Africa South	Kigali, Rwanda	Lagos, Nigeria
DAR-NBO-LUN	Dar Es Salaam, Tanzania	Nairobi, Kenya	Lusaka, Zambia
MPM-ADD-NBO	Maputo, Mozambique	Addis Ababa, Ethiopia	Nairobi, Kenya
FNA-NBO-JNB	Freetown, Sierra Leone	Nairobi, Kenya	Johannesburg, Africa South
DAR-NBO-JNB	Dar Es Salaam, Tanzania	Nairobi, Kenya	Johannesburg, Africa South
DAR-NBO-HRE	Dar Es Salaam, Tanzania	Nairobi, Kenya	Harare, Zimbabwe
JNB-KGL-LBV	Johannesburg, Africa South	Kigali, Rwanda	Libreville, Gabon
JNB-SEZ-PRI	Johannesburg, Africa South	Mahe Island, Seychelles	Praslin Island, Seychelles
EBB-KGL-JNB	Entebbe, Uganda	Kigali, Rwanda	Johannesburg, Africa South
ACC-NBO-DAR	Accra, Ghana	Nairobi, Kenya	Dar Es Salaam, Tanzania
DAR-NBO-LLW	Dar Es Salaam, Tanzania	Nairobi, Kenya	Lilongwe, Malawi
JNB-DAR-ZNZ	Johannesburg, Africa South	Dar Es Salaam, Tanzania	Zanzibar, Tanzania
CMN-DXB-JNB	Casablanca, Morocco	Dubai Int, UAE	Johannesburg, Africa South

Route	Origin/Destination	Connection hub	Destination/Origin
ALG-CDG-JNB	Algiers, Algeria	Paris Charles de Gaulle, France	Johannesburg, South Africa
JNB-DXB-TUN	Johannesburg, South Africa	Dubai Int, UAE	Tunis, Tunisia

5.38 The top six intra-African journeys, along with a further four, involve connections between Cape Town or Durban and Johannesburg. Excluding these results in the 20 routes shown in the figure above. Of these:

- 15 out of 20 transfer in the same region as the origin or destination.
- 5 out of 20 transfer in a third region.
- None transfer on another continent.
- 12 out of 15 transferring in same region, transfer in a third country.
- Direct routings exist for 2 out of 20 routes (highlighted in orange).
- Top 3 routings involving intercontinental transfers are also shown in green.

Figure 5.15: Top 20 indirect intercontinental Journeys, Sept 2012-Aug 2013



Source: MIDT, Steer Davies Gleave analysis, key in Table 5.6

**Table 5.6: Airport three-letter code key**

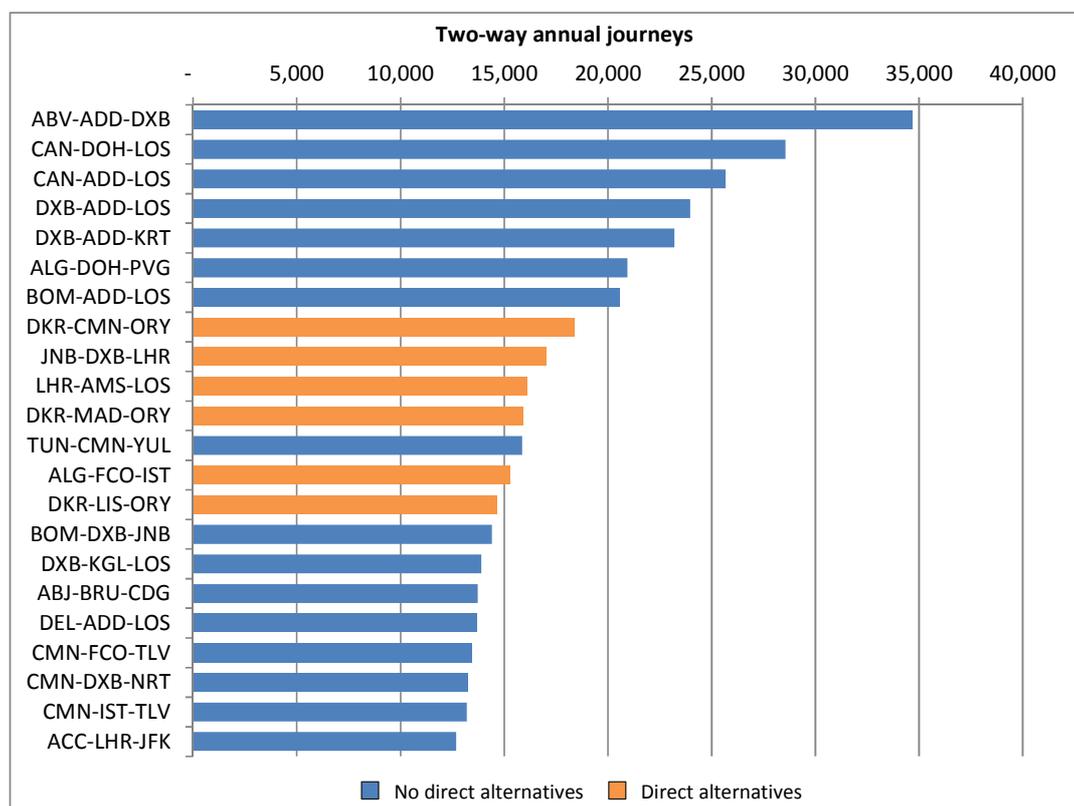
Route	Origin/Destination	Connection hub	Destination/Origin
CPT-JNB-LHR	Cape Town, South Africa	Johannesburg, Africa	London Heathrow, UK
DXB-DOH-LOS	Dubai Int, UAE	Doha, Qatar	Lagos, Nigeria
ABV-ADD-DXB	Abuja, Nigeria	Addis Ababa, Ethiopia	Dubai Int, UAE
DXB-BAH-KRT	Dubai Int, UAE	Bahrain, Bahrain	Khartoum, Sudan
CAN-DOH-LOS	Guangzhou, China	Doha, Qatar	Lagos, Nigeria
DUR-JNB-LHR	Durban, South Africa	Johannesburg, Africa	London Heathrow, UK
CAI-BAH-DOH	Cairo, Egypt	Bahrain, Bahrain	Doha, Qatar
CAN-ADD-LOS	Guangzhou, China	Addis Ababa, Ethiopia	Lagos, Nigeria
LOS-AUH-XNB	Lagos, Nigeria	Abu Dhabi Int, UAE	Dubai, UAE
CPT-JNB-FRA	Cape Town, South Africa	Johannesburg, Africa	Frankfurt Int, Germany
DXB-ADD-LOS	Dubai Int, UAE	Addis Ababa, Ethiopia	Lagos, Nigeria
DXB-ADD-KRT	Dubai Int, UAE	Addis Ababa, Ethiopia	Khartoum, Sudan
LHR-NBO-MBA	London Heathrow, UK	Nairobi, Kenya	Mombasa, Kenya
ALG-DOH-PVG	Algiers, Algeria	Doha, Qatar	Shanghai Pudong, China
BOM-ADD-LOS	Mumbai, India	Addis Ababa, Ethiopia	Lagos, Nigeria
CPT-JNB-JFK	Cape Town, South Africa	Johannesburg, Africa	New York J F K, USA
LHR-DXB-MRU	London Heathrow, UK	Dubai Int, UAE	Mauritius, Mauritius
ALG-DOH-DXB	Algiers, Algeria	Doha, Qatar	Dubai Int, UAE
DKR-CMN-ORY	Dakar, Senegal	Casablanca, Morocco	Paris Orly, France
CDG-DXB-MRU	Paris Charles de Gaulle, France	Dubai Int, UAE	Mauritius, Mauritius

5.39 The table above shows that for the top 20 indirect intercontinental routes by volume:

- 10 out of 20 transfer in the same region as the origin or destination.
- 6 out of 20 transfer in second African region.
- 4 out of 20 transfer in third continent.
- 4 out of 10 transferring in same region, transfer in a third country. All passengers travelling to/from the Middle East transfer in a second Middle Eastern country.
- 5 out of 6 transferring in second African region, transfer in Addis Ababa, 1 in Casablanca.
- 2 out of 4 transferring in Middle East connect on to China, 2 on to Europe.
- Direct routings exist for 4 of the routes (highlighted in orange).

5.40 The figure and analysis above feature the top 20 indirect intercontinental routes by volume, however these include a number of domestic or local Middle East - Middle East connections, as well as high-volume leisure routes to islands (e.g. Mauritius). Excluding these types of routes provides an insight to indirect journeys that potentially reveal more about the connectivity available in current intercontinental networks. The figure below shows the top 22 such routes.

**Figure 5.16: Top 22 intercontinental journeys, excl. domestic connections, Middle East – Middle East connections and leisure routes, Sept 2012–Aug 2013**



Source: MIDT, Steer Davies Gleave analysis, key in Table 5.7

**Table 5.7: Airport three-letter code key**

Route	Origin/Destination	Connection hub	Destination/Origin
ABV-ADD-DXB	Abuja, Nigeria	Addis Ababa, Ethiopia	Dubai Int, UAE
CAN-DOH-LOS	Guangzhou, China	Doha, Qatar	Lagos, Nigeria
CAN-ADD-LOS	Guangzhou, China	Addis Ababa, Ethiopia	Lagos, Nigeria
DXB-ADD-LOS	Dubai Int, UAE	Addis Ababa, Ethiopia	Lagos, Nigeria
DXB-ADD-KRT	Dubai Int, UAE	Addis Ababa, Ethiopia	Khartoum, Sudan
ALG-DOH-PVG	Algiers, Algeria	Doha, Qatar	Shanghai Pudong, China
BOM-ADD-LOS	Mumbai, India	Addis Ababa, Ethiopia	Lagos, Nigeria
DKR-CMN-ORY	Dakar, Senegal	Casablanca, Morocco	Paris Orly, France

Route	Origin/Destination	Connection hub	Destination/Origin
JNB-DXB-LHR	Johannesburg, South Africa	Dubai Int, UAE	London Heathrow, UK
LHR-AMS-LOS	London Heathrow, UK	Amsterdam, Netherlands	Lagos, Nigeria
DKR-MAD-ORY	Dakar, Senegal	Madrid Barajas, Spain	Paris Orly, France
TUN-CMN-YUL	Tunis, Tunisia	Casablanca, Morocco	Montreal, Canada
ALG-FCO-IST	Algiers, Algeria	Rome Fiumicino, Italy	Istanbul, Turkey
DKR-LIS-ORY	Dakar, Senegal	Lisbon, Portugal	Paris Orly, France
BOM-DXB-JNB	Mumbai, India	Dubai Int, UAE	Johannesburg, South Africa
DXB-KGL-LOS	Dubai Int, UAE	Kigali, Rwanda	Lagos, Nigeria
ABJ-BRU-CDG	Abidjan, Cote D'Ivoire	Brussels Airport, Belgium	Paris Charles de Gaulle, France
DEL-ADD-LOS	Delhi, India	Addis Ababa, Ethiopia	Lagos, Nigeria
CMN-FCO-TLV	Casablanca, Morocco	Rome Fiumicino, Italy	Tel Aviv, Israel
CMN-DXB-NRT	Casablanca, Morocco	Dubai Int, UAE	Tokyo Narita, Japan
CMN-IST-TLV	Casablanca, Morocco	Istanbul Ataturk Airport, Turkey	Tel Aviv, Israel
ACC-LHR-JFK	Accra, Ghana	London Heathrow, UK	New York J F K, USA

5.41 The table above shows that:

- 6 out of 22 transfer in the same region as the origin or destination.
- 8 out of 22 transfer in a second African region.
- 8 out of 22 transfer in a third continent.
- 6 out of 8 transferring in second African region transfer in Addis Ababa - 1 in Casablanca, 1 in Kigali.
- Direct routings exist for 6 of the routes (highlighted in orange).

### Fifth Freedom Rights

5.42 Figure 5.17 shows the air routes operated under Fifth Freedom rights across Africa (Sept 12 - Aug 13, twice or more a week frequencies, more than 50k two-way seats annually). The colours used signify the number of airlines operating a particular Fifth Freedom route. The map shows that Fifth Freedom rights are exercised widely in West and Central Africa.



while the second shows the percentage across world regions of aircraft by service and order status.

**Table 5.8: African Aircraft Fleet**

Region	Aircraft	Percentage of World fleet	Population (millions)	% of World Population	Aircraft per million heads
<b>Africa</b>	<b>1,415</b>	<b>5.5%</b>	<b>1,032</b>	<b>15%</b>	<b>1.4</b>
Asia Pacific	6,333	24.8%	3,886	56%	1.6
Europe	6,516	25.5%	847	12%	7.7
Latin America and Caribbean	1,992	7.8%	580	8%	3.4
Middle East	1,102	4.3%	189	3%	5.8
North America	8,136	31.9%	346	5%	23.5
Not given	18	0.1%		0%	
<b>Total</b>	<b>25,512</b>	<b>100.0%</b>	<b>6,881</b>	<b>100%</b>	<b>3.7</b>

Source: Ascend Flightglobal world aircraft fleet database, 2012

**Table 5.9: Relative Fleet sizes by order/operating Status**

	Africa	Asia Pacific	Europe	Latin America and Caribbean	Middle East	North America	Not given	Total
In Service	<b>5.5%</b>	24.8%	25.5%	7.8%	4.3%	31.9%	0.1%	100.0%
Letter of Intent	<b>1.0%</b>	37.6%	22.5%	3.6%	5.8%	27.3%	2.1%	100.0%
On Option	<b>1.0%</b>	14.5%	25.5%	7.9%	6.0%	44.5%	0.6%	100.0%
Option Letter of Intent	<b>0.7%</b>	40.2%	37.6%	0.3%	0.6%	20.2%	0.4%	100.0%
Order	<b>2.0%</b>	36.1%	18.3%	7.9%	8.1%	24.7%	2.9%	100.0%
Storage	<b>10.2%</b>	14.2%	22.8%	10.1%	3.7%	38.0%	1.0%	100.0%
<b>Total</b>	<b>4.3%</b>	<b>26.8%</b>	<b>23.9%</b>	<b>7.6%</b>	<b>5.2%</b>	<b>31.3%</b>	<b>0.9%</b>	<b>100.0%</b>

Source: Ascend Flightglobal world aircraft fleet database, 2012

- 5.47 The tables indicate the relatively small size of both Africa's existing fleet and the even lower level of orders, Letters of Intent, and options for future aircraft. We also see that, due to their generally weak financial position and relatively small size, African airlines frequently obtain second-hand aircraft rather than ordering new from manufacturers, in many cases via aircraft leasing companies.
- 5.48 This is reflected in the average age of aircraft operated by African carriers, which at 17 years is the oldest of any world region, compared to the global average of 13 years.
- 5.49 African airlines also tend to operate smaller aircraft than average, which is reflected in higher shares of manufacturers such as Bombardier (de Havilland), Hawker Beechcraft and Embraer in the aircraft overview (Table 5.10), in comparison to the number of (larger) Boeing and Airbus equipment.

**Table 5.10: Split of Aircraft Fleets by manufacturer**

	Total aircraft (passenger or cargo)	Africa	% World Fleet	% African Fleet	African as % total	Average Age (World fleet)	Average Age (African fleet)	Difference (age)
Boeing	9,157	394	35.9%	27.8%	4.3%	11.7	13.9	2.1
Airbus	6,580	191	25.8%	13.5%	2.9%	7.9	10.2	2.4
Bombardier (de Havilland)	1,230	133	4.8%	9.4%	10.8%	19.2	18.3	-0.9
Hawker Beechcraft	597	109	2.3%	7.7%	18.3%	22.0	18.5	-3.5
Embraer	1,824	103	7.1%	7.3%	5.6%	9.0	13.3	4.3
Aircraft Industries	217	79	0.9%	5.6%	36.4%	22.6	24.3	1.7
ATR	773	79	3.0%	5.6%	10.2%	12.1	10.9	-1.2
Antonov	549	78	2.2%	5.5%	14.2%	32.7	31.7	-1.0
Boeing (McDonnell- Douglas)	952	49	3.7%	3.5%	5.1%	23.9	33.2	9.3
Bombardier (Canadair)	1,341	44	5.3%	3.1%	3.3%	8.6	9.7	1.1

Source: Ascend Flightglobal world aircraft fleet database, 2012

5.50 African airline fleet sizes reflect the relative size of operation of the airlines. The table below shows the fleet size of the airlines with the 10 largest fleets.

**Table 5.11: African Airline Fleet sizes**

Operator	Fleet size
Egyptair	67
Ethiopian Airlines	55
South African Airways	53
Air Algerie	44
Royal Air Maroc	40
Kenya Airways	38
Tunisair	31
SA Airlink	28
Solenta Aviation	24
SA Express	23

Source: Ascend Flightglobal world aircraft fleet database, 2012

5.51 The largest fleets are held, as may be expected, by the continent's major flag-carrying national airlines (the last three entries are all entities affiliated to South African Airways). It is notable that no true low cost carriers are in the list, indicating the weakness of this sector in Africa.

## 6 Other barriers to the development of aviation in Africa

### Summary

There are a number of other barriers to the development of aviation in Africa beyond those already discussed (population, wealth, legislation and policy). Five key barriers are covered in this chapter.

#### Fares

We have analysed fares from several national and international routes and compared price per km for a number of routes. We found that the average intra-European fare price per km is approximately a third lower than the average intra-African fare. The drivers of this difference include: high levels of taxes, fees and charges in African States, higher operational costs in Africa; and increased competition as a result of market liberalisation resulting in lower ticket prices in Europe.

#### Taxes, Fees and Charges (TFC)

Aviation is seen by many African governments as a high revenue industry; aviation tax collection is inexpensive and convenient for Governments to raise funds. Most of the service providers are monopoly providers and without proper regulatory oversight of them coupled with lack of transparency and consultation has resulted in the setting of high Taxes, Fees and Charges (TFCs). The effect of this is market distortion, damage to the commercial viability of carriers, limitation to growth, and diverted finance.

#### Aviation Safety

Safety oversight and consumer confidence in aviation safety in Africa has long been an issue for African airlines. According to a World Bank study, the high accident rate in Sub-Saharan Africa is primarily a result of poor safety standards and lax supervision. We include an overview of aviation safety in Africa, including current activities and plans underway, and list some of the key concerns raised by stakeholders; with airlines recognising the paramount importance of safe operations and oversight agencies noting that compliance, whilst improving, remains an issue. Some RECS are undertaking to harmonise aviation safety regulations across their Member States.

#### Infrastructure

In the North, East, and South, established hubs such as Cairo, Addis Abba, Nairobi and Johannesburg, provide airlines with sufficient infrastructure to develop their operations from these airports. In Western Africa, whilst some airports (Lagos, Lomé) do provide important connectivity, infrastructure issues prevent their development into fully operational hubs. The majority of stakeholders consulted concluded that Lagos, Nigeria, is the most appropriate location for an aviation hub in West Africa, due to the size of the economy, population of Nigeria and level of intercontinental traffic as compared to the other options, Accra (Ghana)

and Lomé (Togo). However safety issues and the lack of infrastructure do not make it an immediately attractive choice.

### **Availability of Finance**

Airlines require access to finance both for working capital and, particularly, to obtain aircraft. With some exceptions, the banking system in much of sub-Saharan Africa is not well capitalised and national banks are not in a strong position to provide the long-term financing required for aircraft purchase or long-term aircraft leases. The small size of most African airlines and the many difficulties in developing and operating airlines in many African countries mean that many financial institutions are unwilling to invest in African airlines or, where they do invest, charge higher rates than would be charged to airlines in other parts of the world. We review some of the characteristics of aircraft finance in Africa and the issues facing it, including aircraft leasing, Export Credit Agencies, the Cape Town Convention and the costs of aircraft finance.

## **Introduction**

6.1 In this section we provide examples of other barriers to the development of aviation in Africa, beyond those discussed in chapters 3 and 4. The following issues are covered:

- Fares;
- Taxes, Fees and Charges (TFC);
- Aviation Safety;
- Infrastructure; and
- Availability of Finance.

## **Fares**

6.2 A number of stakeholders (including fastjet, the EAC, EAC-CASSOA, Arik Air and Kenya Airways) commented that the level of aviation ticket fares in Africa is higher than seen in other, more liberalised markets, such as the European Union. In 2013, the Economist's Gulliver travel blog reported that average fares in south east Africa have risen by 24% in two years, thanks in part to rising fuel costs and hefty take-off taxes, but also due to fewer regional players reducing the level of competition, following the demise or poor performance of Air Zimbabwe, Air Malawi, and Zambian Airways<sup>32</sup>.

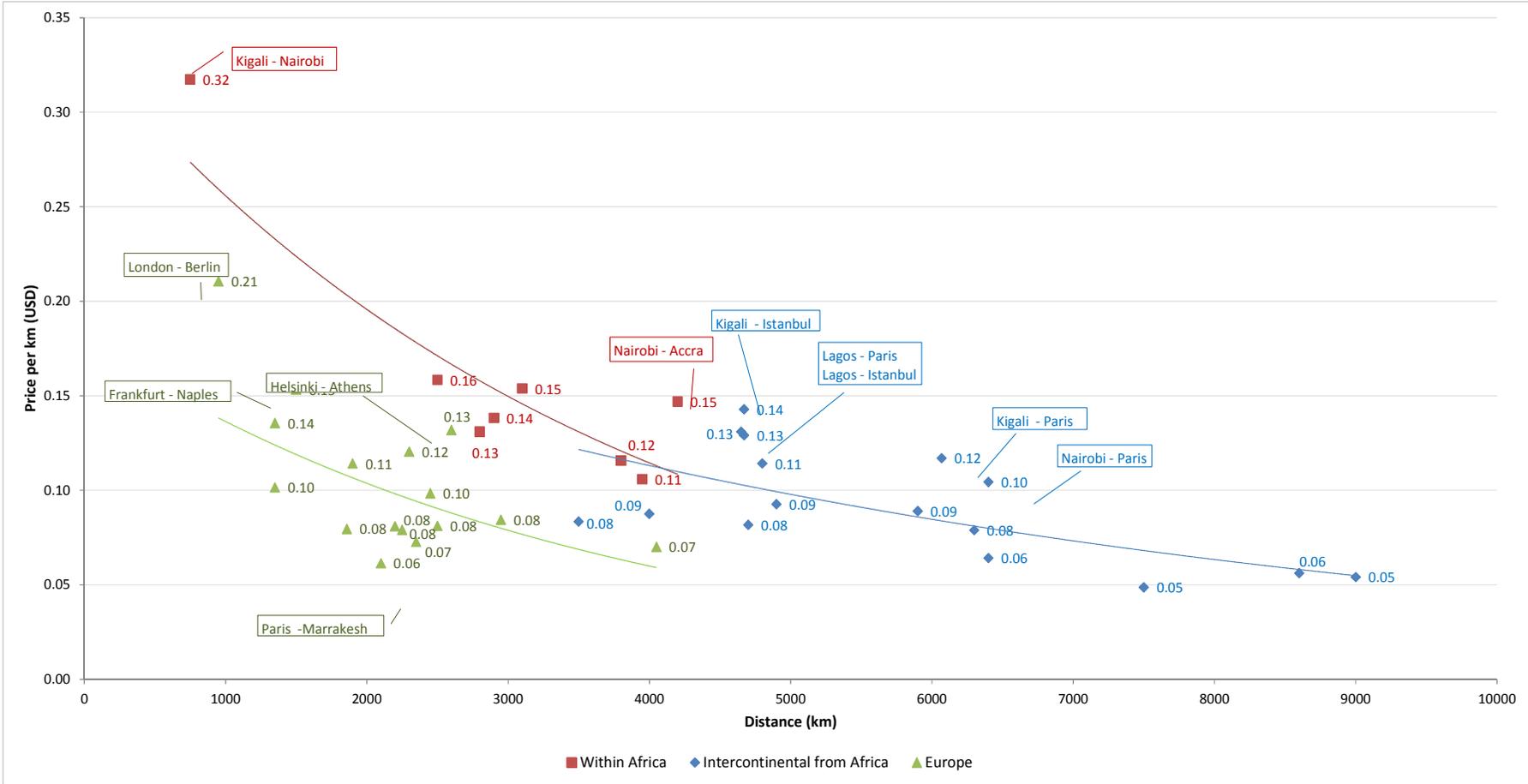
6.3 We have analysed fares from several national and international routes taking in account both direct and stop-over (to a maximum of three) flights. The comparison has been undertaken using publicly available fares data on kayak.co.uk. We analysed 26 routes, with the cheapest fare and cheapest direct fare determined for:

- Trip length: of 1 day, 7 days, and 28 days; and
- Advance purchase of: 1 day, 7 days, 30 days, 90 days, and 180 days.

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<sup>32</sup> Aviation in Africa Going south, The Economist Gulliver blog, 23 Apr 2013

Figure 6.1: Fares analysis: price per KM (USD) vs distance



Source: kayak.co.uk, Steer Davies Gleave analysis

- 6.4 We have compared the fares and the price per km for each route for a number of selected routes. For the selected routes, Figure 6.1 compares the cheapest available price per km for a 7 day return trip, booked 7 days in advance.
- 6.5 As expected, the price per km decreases as the distance flown increases, as economies of scale would be achievable. We have applied a logarithmic line of best fit<sup>33</sup> to the data points, and note that the price per km for intra-European flights (i.e. in a liberalised air transport market) are significantly lower than African flights, over similar distances. The highest European fare researched, London-Berlin, is at \$0.32/km nearly 50% cheaper than the Kigali - Nairobi rate (distances are comparable).
- 6.6 For the routes analysed, the average intra-European fare price per km is approximately a third lower than the average intra-African fare. There are a number of drivers of this difference:
- High levels of taxes, fees and charges in African States, investigated in more detail in the following section (Taxes, fees and charges);
  - Higher operational costs in Africa; and
  - Increased competition as a result of market liberalisation resulting in lower ticket prices in Europe.
- 6.7 Other points of interest:
- Kigali - Nairobi, at USD \$0.32 per km, is one of the most expensive fare rates seen in this analysis. We note that there are limited benefits on this route from economies of scale, as it is also the shortest route, however it places well outside both the African and inter-continental lines of best fit.
  - Although Lagos and Kigali airports do not have a particularly high level of TFCs, we note that inter-continental fares to Paris and Istanbul are more expensive than similar distance routes, starting from different airports.
  - Lagos displays a higher price per kilometre ratio than Nairobi and Cairo, for example, for flights of c. 4000 km. This is in line with the TFCs at the Nigerian airport being higher than the ones at the Kenyan and Egyptian airports.

### **Operating costs**

- 6.8 Both stakeholders and the literature consulted have commented on the high operational costs that airlines face in Africa.
- 6.9 Fastjet confirmed that fuel prices are approximately 20-30% higher in Africa than other parts of the world, and estimated lease costs to be about 20% higher than in Europe. Arik Air also stated that financing for aircraft leases was more expensive in Africa than other parts of the world, particularly in Nigeria, due to the continent or country risk applied by the banks. The high operating costs for airlines in Africa are also acknowledged by the Economist, Reuters, Financial Times (Mango Aviation Services quote), CAPA and ICAO<sup>34</sup>.
- 6.10 This issue is examined in further detail in Chapter 7 (African airline costs and route economics).

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<sup>33</sup> A line of best fit is a line that goes through the centre of all data points on a scatter chart. It is determined by the correlation between the variables on the scatter plot, and approximates the overall trend of the points in the chart.

<sup>34</sup> ICAO AFI Enhanced Regional Cooperation, ICAO, 2009

## Competition

- 6.11 The absence of any serious competition between carriers on many African routes is keeping fares high. Arik Air stated that they considered regional development in West Africa to be the most attractive market for them, with considerable growth and, importantly, yield potential. They stated that on some West African routes, loadings of only 50% were required for profit, due to the high fares that they are able to charge.
- 6.12 The EAC stated that the region's dependence on bilateral Air Service Agreements (ASAs) meant that the aviation market was still artificially restricted, and that local operators were protected regardless of their performance.
- 6.13 In cases where competition has been introduced, it has resulted in lower fares. On the Johannesburg-Lusaka route (for which South African Airways had been the only carrier for over 10 years), designating the South African low-cost carrier, Kulula, as the Zambian carrier reduced fares by 33-38 percent and increased passengers by 38 percent<sup>35</sup>.
- 6.14 Fastjet entered the Southern African market in 2012 with a low fares policy. Fastjet stated that their lowest initial fare for domestic routes in Tanzania is USD\$20 plus tax, and their average domestic fare is approximately USD \$78-79. Their lowest international fare (for their one international route to Johannesburg) is USD \$100, and the average is in the range of USD \$200-\$210 plus tax. The impact of these low fares on the domestic market has been to increase the size of the market (by 20%, according to some sources including the EAC). Interestingly, fastjet confirmed that 38% of their passengers in their first year of operation in Tanzania are first time flyers. The impact of low fares on the international route (Dar es Salaam - Johannesburg) is not yet known, as the route has only been in operation for one month at the time of writing.

## Taxes, fees and charges

- 6.15 Aviation is seen by many African governments as a high revenue industry; aviation tax collection is inexpensive and convenient for Governments to raise funds. Most of the service providers are monopoly providers and without proper regulatory oversight of them coupled with lack of transparency and consultation has resulted in the setting of high Taxes, Fees and Charges (TFCs). The effect of this is market distortion, damage to the commercial viability of carriers, limitation to growth, and diverted finance (A recent study by UK-based Oxford Economic Forecasting (OEF) concluded that a 10% increase in air transport connectivity can increase long-term GDP by 1.1%)<sup>36</sup>.
- 6.16 We have reviewed taxes, fares and charges (passenger) at 15 African airports and at 5 other airports around the world, for comparison purposes. The data for this comparison have been extracted from the IATA Charges Manual (Aug 2013). The analysed airports are:
- Egypt - Cairo
  - Ethiopia - Addis Ababa
  - Ghana - Accra
  - Ivory Coast - Abidjan

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<sup>35</sup> Africa's Infrastructure A time for Transformation, World Bank 2010

<sup>36</sup> African Union Conference of Min of Transport – Impact of High Taxes, Fees and Charges on African Air Transport, African Union, 2011

- Kenya - Nairobi
- Morocco - Casablanca
- Nigeria - Lagos
- Rep. Congo - Brazzaville
- Rep. Dem. Congo - Kinshasa
- Rwanda - Kigali
- Senegal - Dakar
- South Africa - Johannesburg
- Tanzania - Dar es Salaam
- Togo - Lomé
- Zambia - Lusaka

6.17 The TFCs included:

- Departing tax: international & domestic
- Security charge
- Service charge
- Safety charge
- Government/Airport tax
- Civil aviation tax
- Solidarity tax
- Other taxes

6.18 TFCs are charged either in national currency or US dollars (sometimes both). All charges in national currency have been converted to current USD using exchange rates at 30 October 2013. Figure 6.2 overleaf shows the TFCs at the selected airports, split between Departure tax and all other taxes.

6.19 For international departures Dakar (Senegal, \$132), Abidjan (Cote d'Ivoire, \$102) and Accra (Ghana, \$100) have the highest level of TFCs for the African airports reviewed. Dakar Airport notes that its high TFCs are due to a "Development charge", however the other airports do not make such a distinction.

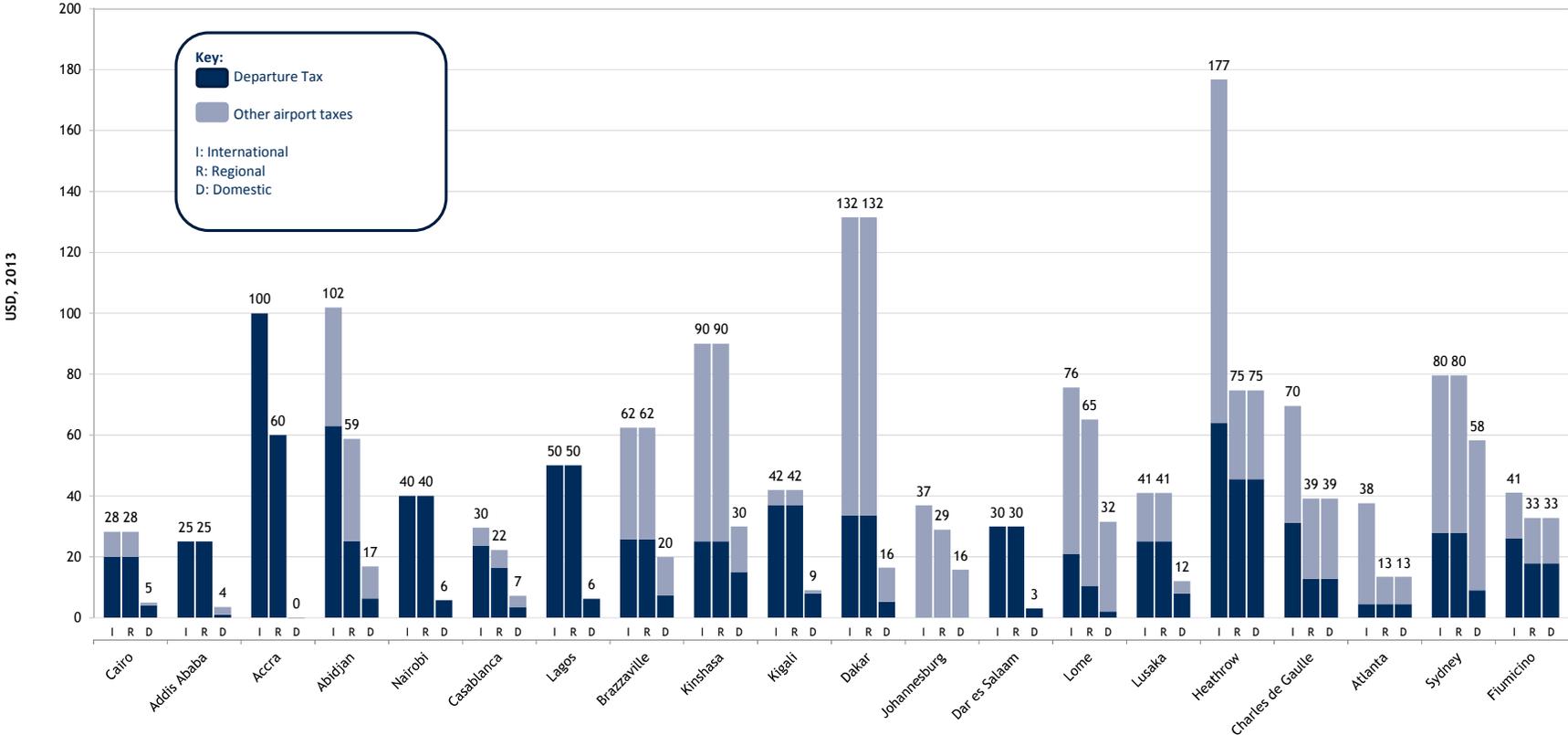
6.20 Looking at the departure tax for regional international flights only (i.e. excluding the security, service, safety and other charges), the average of the African airports reviewed is \$28.22, compared to \$21.70 at the non-African airports reviewed (30% higher). Total TFCs at African airports (\$51.68) are also higher on average than non-African counterparts (\$47.92), but by only 8%. This difference becomes more pronounced when living conditions and the economy are factored into account. According to a 2012 African Development Bank report, 60.8% of Africa's population live on under USD \$2 per day (compared to under 2% in Europe), and only 4.8% have over USD \$20 per day to live on<sup>37</sup>.

6.21 The level of domestic TFCs is generally very low at African airports, with half of the selected airports charging less than USD\$10, and Accra charging less than USD\$1 per passenger. Domestic TFCs at non-African airports are on average over three times higher than African airports.

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<sup>37</sup> Briefing Note 5: Income equality in Africa, African Development Bank 2012

Figure 6.2: Taxes, fees and charges at selected African and non-African airports



Source: IATA Charges Manual, Steer Davies Gleave analysis

- 6.22 A small number of African airports charge separate regional tax rates for international flights to an African destination. Both Accra and Abidjan do this, with regional tax levels approximately 40% lower than inter-continental international flights (notably, Accra and Abidjan have amongst the highest non-regional international TFCs). Johannesburg, Lomé and Casablanca also have lower regional TFCs, but with less of a difference to the non-regional TFCs seen in Accra and Abidjan.
- 6.23 Concern over high TFCs at African airports and the potential for more airports to reduce TFCs for regional (i.e. intra -African) flights was noted by a number of stakeholders including EAC, EAC-CASSOA and fastjet.
- 6.24 The EAC commented that up to 60% of the ticket price is taxes and that tackling the problem of high TFCs would be their next focus, if they succeeded with their current attempts to liberalise the air transport market. The EAC considered that Governments are open to this discussion and that they are considering double tax treaties between States for departure tax.

### **Aviation safety in Africa**

- 6.25 Safety oversight and consumer confidence in aviation safety in Africa has long been an issue for African airlines. ICAO noted that increased efficiency in Africa's skies, and global trust in its airlines can only be achieved within well-enforced safety regimes<sup>38</sup>. According to a World Bank study, the high accident rate in Sub-Saharan Africa is primarily a result of poor safety standards and lax supervision, not operation of Eastern-built or older aircraft<sup>39</sup>.
- 6.26 This section provides an overview of aviation safety in Africa, based primarily on publically available data from the International Civil Aviation Organization (ICAO). A high level overview for selected States of the principle pieces of safety legislation in Africa is provided in Appendix A.

### **Accidents in Africa**

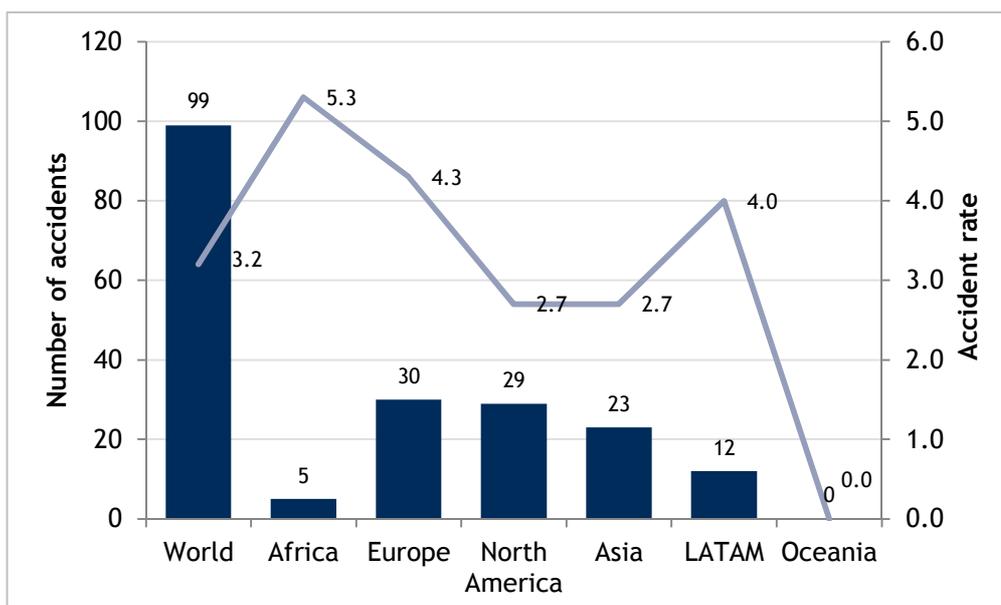
- 6.27 The accident rate is ICAO's primary indicator of aggregate safety in the global air transport sector. In Africa in 2012, there were five aircraft accidents, two of which were fatal, out of a global total of 99. However, the accident rate (no. of accidents per million departures) is, at 5.3, the highest among all the UN regions. At 3% of all scheduled commercial departures, Africa accounts for the lowest percentage of global traffic volumes, but the highest accident rate.

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<sup>38</sup> ICAO AFI Enhanced Regional Cooperation, ICAO 2009

<sup>39</sup> Africa's Infrastructure A time for Transformation, World Bank 2010

Figure 6.3: Number of accidents and Rate (2012)



Source: ICAO Safety Audit Information, Steer Davies Gleave analysis

6.28 Table 6.1 provides a summary of the air transport accidents that occurred in the Africa region in 2012 and 2013.

Table 6.1: Africa Accidents Summary, 2012 and 2013

Date	State	AC type	Fatalities (ground casualties)	Notes
29/03/2012	Sudan	Fokker 50	0	Runway safety-related
09/04/2012	Tanzania	De Havilland DHC8	0	Runway safety-related
02/06/2012	Ghana	Boeing 727-200	0 (+12)	Runway safety-related
03/06/2012	Nigeria	MD-83	165	Engine failure
22/08/2012	Kenya	Let 410	4	Takeoff related
30/11/2012	Congo	Ilyushin 76T	7(+25)	
06/02/2013	Tunisia	Airbus A320	0	Landing related
05/03/2013	South Africa	EMB-120	0	n/a
03/10/2013	Nigeria	EMB-120	16	Takeoff related

Source: ICAO Safety Audit Information

6.29 Not yet included in the ICAO register is a Linhas Aereas de Mozambique (LAM) crash in a remote part of the Zambezi Region of Namibia that occurred on Friday 29 November 2013. All

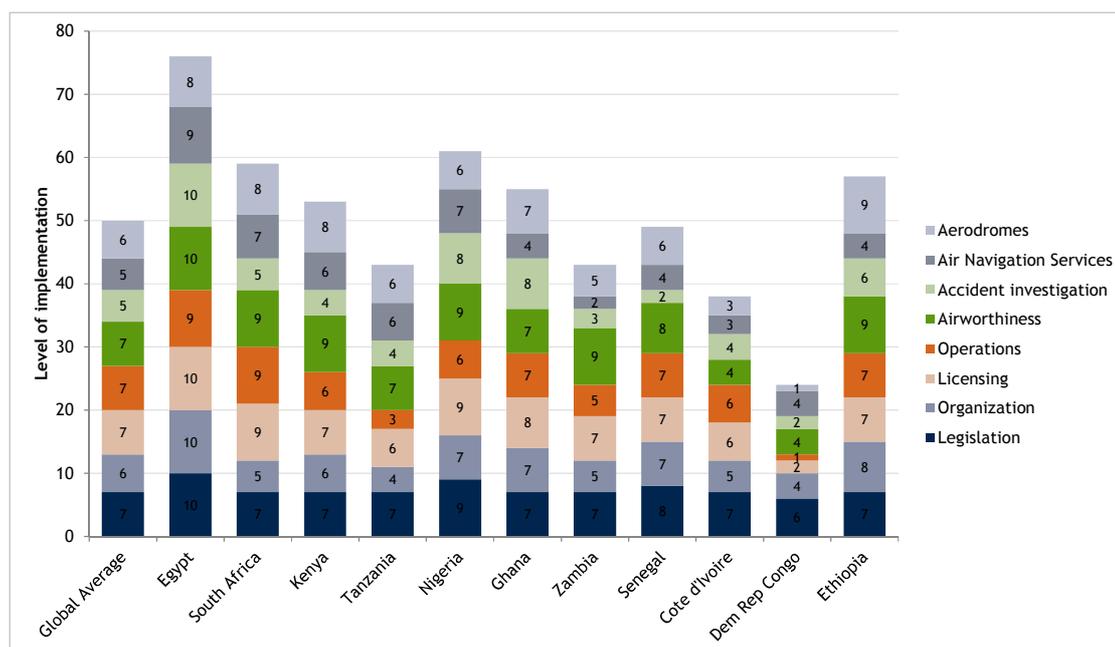
33 people aboard the Embraer 190 aircraft were killed; the reason for the crash is not yet known<sup>40</sup>.

### Level of implementation

6.30 ICAO audits the implementation of its Standard Recommended Practices and Procedures through its Universal Safety Oversight Audit Programme (USOAP). The aggregate USOAP effective implementation level for Africa is 44% compared to the World average of 61%.

6.31 Figure 6.4 compares the level of implementation of 12 selected African countries to the global average.

Figure 6.4: ICAO level of USOAP implementation



Source: ICAO Safety Audit Information, Steer Davies Gleave analysis

6.32 Egypt, South Africa, Ethiopia and Nigeria all perform considerably better than the global average. Tanzania, Zambia, Ivory Coast and the Democratic Republic of Congo score lower.

6.33 In an interview with Routes magazine<sup>41</sup>, the Ethiopian Airlines chairman stated that, although overall Africa accident rate is high, IATA's 20 Sub Saharan carriers perform in line with other regions, and that it is a handful of countries (for example, the Democratic Republic of Congo), that tarnish Africa's overall reputation.

### Implementation plans

6.34 There are a number of ICAO activities and plans currently underway in Africa. Table 6.2 provides an overview of these activities, the parties involved, and their targets.

<sup>40</sup> Mozambique Airline Crashes in Zambezi Killing All 33 on Board, <http://allafrica.com/>, 2 December 2013

<sup>41</sup> Ethiopian Airlines Strategy, Routes Magazine, Issue 7, p 18

**Table 6.2: ICAO implementation plans**

Plan	Target
<p>IATA, ICAO and Africa’s Directors General of Civil Aviation: Africa Strategic Safety Improvement Action Plan - Abuja Declaration (Jul 2012)</p>	<p>Implementation of an effective and transparent regulatory oversight system. All African operators to implement the IATA Operational Safety Audit (IOSA)</p> <p>Implementation of runway safety measures</p> <p>Training on preventing loss of control</p> <p>Implementation of flight data analysis (FDA) to be supported through the IATA IPSOA programme</p> <p>Implementation of Safety Management Systems (SMS)</p>
<p>Netherlands Ministry of Infrastructure: program to improve aviation safety in the East African Community (Burundi, Kenya, Rwanda, Uganda and United Republic of Tanzania)</p>	<p>Optimization of air navigation services and aeronautical information management</p> <p>Improvement of the safe use of airports concentrating on airside safety, apron planning and rescue and firefighting training.</p>
<p>ICAO Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan - 2008)</p>	<p>23 ICAO Plans of Action have been developed for States with significant safety concerns and a low level of effective implementation of the critical elements of a safety oversight system</p> <p>Training: supporting the establishment and evolvement of the Association of African Aviation Training Organizations (AATO); over 2,193 trainees from various States in Africa benefitted from 66 courses conducted from 2008 to 2012 throughout the Continent</p> <p>Promoting the establishment and strengthening of regional safety oversight organizations, as a means to facilitate the pooling of scarce resources</p>
<p>African Civil Aviation Commission (AFCAC) - AFI-CIS project</p>	<p>Creating a pool of qualified and experienced aviation safety inspectors from within the AFI Region to provide assistance to African States in addressing their safety oversight deficiencies.</p> <p>AFI-CIS is focused on States with significant safety concerns (SSCs) and with low effective implementation of safety-related Standards.</p> <p>As of May 2013, 32 States and two RSOOs have joined the AFI-CIS programme.</p>
<p>Banjul Accord Group Aviation Safety Oversight Organisation (BAGASOO)</p>	<p>Cooperative agreement between Cape Verde, Gambia, Ghana, Guinea, Liberia, Nigeria and Sierra Leone to institutionalize the Co-operative Development of Operation Safety and Continuing Airworthiness Programme (COSCAP) Project.</p> <p>242 aviation personnel from the civil aviation authorities and the industry in BAG member States have received training in the areas of safety management systems, inspector training system (ITS) and resolution of safety concerns</p> <p>Technical assistance is being given to Guinea, Liberia and Sierra Leone to resolve their safety oversight deficiencies.</p>

Plan	Target
FAA: Safe Skies for Africa (SSFA) Program	Government Safety Inspector (GSI) training in Botswana and Inspector Training Systems (ITS) and safety management systems training in Cape Verde, Ghana, Kenya, and Nigeria.

Source: ICAO Safety Audit Information, Steer Davies Gleave analysis

### List of airlines that are banned within European Union

6.35 The European Union publishes an annual list of airlines banned within the EU due to their unsafe operating practices. The following African airlines are currently included on the banned list:

- Republic of Ghana - Meridian Airways Ltd
- Republic of Ghana - Airlift International Ltd (Operational Restrictions)
- Gabon, South Africa - Nouvelle Air Affaires Gabon (Operational Restrictions)
- Republic of Congo - All air carriers certified by the authorities with responsibility for regulatory oversight of the Republic of Congo
- Democratic Republic of Congo (DRC) - All air carriers certified by the authorities with responsibility for regulatory oversight of the DRC
- Zambia - All air carriers certified by the authorities with responsibility for regulatory oversight of Zambia

### IATA Operational Safety Audit (IOSA)

6.36 The IATA Operational Safety Audit (IOSA) program is an internationally recognized evaluation system designed to assess the operational management and control systems of an airline. All IATA members are IOSA registered and must remain registered to maintain IATA membership.

6.37 The total accident rate for IOSA carriers in 2012 was 77% lower than the rate for non-IOSA operators. IATA states that IOSA has become a global standard, recognized well beyond IATA membership. As of 1 May 2013, 138 (37%) of the 381 airlines on the IOSA registry were non-IATA member airlines<sup>42</sup>.

6.38 Table 6.3 lists all African airlines on the IOSA registry at November 2013. IOSA certification for Ethiopian Airlines subsidiary ASky is expected by Q1 2014.

<sup>42</sup> IATA, IOSA information page, accessed 15 November 2013, <http://www.iata.org>

**Table 6.3: African airlines: IOSA registry**

Afriqiyah Airways	Arik Air Limited	Precision Air Services Limited
Air Algérie	Comair Ltd.	Royal Air Maroc
Air Botswana	EgyptAir	S.A. Airlink (Pty) Limited
Air Burkina S.A.	Ethiopian Airlines Enterprise	SAFAIR Operations (Pty) Ltd.
Air Cairo	Interair South Africa	South African Express Airways (Pty) Ltd.
Air Madagascar	Kenya Airways Limited	Sudan Airways Co.
Air Mauritius Ltd.	LAM - Linhas Aéreas de Moçambique	TAAG Angola Airlines
Air Namibia (Pty) Ltd.	Libyan Airlines	TACV Cabo Verde Airlines
Air Seychelles Ltd.	Meridiana Africa Airlines (U)/Air Uganda	Trans Air Congo
Air Zimbabwe	Nile Air	Tunisair

Source: IOSA

**European Aviation Safety Agency (EASA) activities in Africa**

- 6.39 EASA is an EU Agency with a primary focus on aviation safety in EU and neighbouring States. EASA does however have a mandate for international cooperation, in assisting States that want to adopt European regulation, or in assisting States adopt international safety standards.
- 6.40 EASA's international cooperation for technical activity is focused on three strategic fields:
- support to the EU Civil Aviation Cooperation projects, in particular the CAAs subject to Regulation (EC) No 2111/2005;
  - the Regional strategy; and
  - the EASA International Cooperation Forum (ICF), i.e. support to the CAAs making use of European regulations.
- 6.41 EASA is planning to build up a regional safety agency based in Francophone Africa, which will include airports, ANS and airline activity (operations, maintenance, and certification). The agency will not look to transfer competency from national CAAs to itself, instead it will focus on harmonizing regulations and practices at a regional level.
- 6.42 Other planned projects include the promotion of air safety at a continental and regional level through the use of satellite for ANS; and the provision of tools to check aviation records such as certification, licences and registration.

6.43 The key milestones in Africa-related activity expected over the course of this planning cycle are<sup>43</sup>:

- 2012-2014:
  - Technical Assistance missions to CAAs subject to Regulation (EC) No 2111/2005 in order to support them to meet international requirements; and
  - participate in EC-launched projects in Zambia.
- 2012-2016:
  - Support to the EU Civil Aviation Cooperation Projects: Emphasis will be given to the Projects directly contracted by the Commission to EASA such as the Mediterranean Aviation Safety Coordination (MASC) Programme, as well as planned projects in Sub-Saharan Africa with DEVCO (e.g. CEMAC sub-region).
  - Support to the Regional Organisations in Africa such as UEMOA, CEMAC and CASSOA.
  - Involvement in ICAO Co-operative Development of Operational Safety and Continuing Airworthiness Programmes (COSCAP), with several regional projects in sub-Saharan Africa (UEMOA, BAG, CEMAC, SADC) - including BAGASOO noted in the ICAO implementation plans above.
  - Support to the countries making use of EU regulations through the ICF forum. Coordination of the ICF network of focal points ICF and their activities.

#### **Abuja Declaration on aviation safety in Africa**

6.44 The 2012 Abuja Declaration<sup>44</sup> on aviation safety in Africa includes a Plan of Action and High Level Safety Targets for African Union states. Amongst others, these targets call for

- Progressive increases in the Effective Implementation (EI) score of ICAO's USOAP results;
- The implementation of State Safety Programmes (SSP) and Safety Management Systems (SMS) for all service providers by the end of 2015; and
- compulsory IOSA certification among all African airlines by 2015.

6.45 The African Civil Aviation Commission (AFCAC) has been directed to establish effective monitoring and reporting mechanisms for the Declaration, other resolutions and regional initiatives.

#### **Comments**

6.46 Aviation safety in Africa is a central concern for stakeholders, although they noted that the situation had been improving.

6.47 Airlines recognise the paramount importance of safe operations, with some airlines consulted seeing the need to contract their maintenance operations to renowned European firms rather than undertaking it themselves or using a local provider. The increased expense was considered worth it to ensure a link to the respected "brand" and associated safety standards of these established European companies, such as Lufthansa Technik or Sabena Technics. The airlines see benefits not only from a passenger perspective, in that the airline is acknowledged as having "European safety standards" and an uncompromising attitude to safety, but also in dealing with erratic regulatory behaviour from national Civil Aviation Authorities.

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<sup>43</sup> EASA Business Plan 2012-2016, 14 December 2011

<sup>44</sup> Abuja Declaration on Aviation Safety in Africa, African Union, July 2012

- 6.48 The East Africa Community Civil Aviation Safety and Security Oversight Agency (CASSOA) noted compliance with safety regulations as an issue. CASSOA is not an enforcement agency, but exists to standardise and harmonise aviation regulations and revisions across the EAC States. CASSOA adheres to ICAO standards, and ICAO Annexes 1-19 (excluding Annex 9) have been harmonised, including all security Annexes. The CAAs of EAC Member States are major shareholders. Now that regulations have been harmonised, CASSOA is developing a common personnel licensing system, which would enable free movement of skilled aviation personnel across EAC States and support broader liberalisation goals. CASSOA are hoping to get the Southern African Development Community (SADC) involved for some elements (aviation medical personnel). Their vision is for harmonised regional safety groups to eventually become continental. This goal is in line with Priority One of the AICD's policy recommendations regarding aviation safety in Africa<sup>45</sup>, which included a recommendation for pooled or regional safety oversight organizations could hire technical personnel at more competitive salaries than individual countries and then share them throughout the region.
- 6.49 Our understanding is that the EAC and EAC-CASSOA's progress in harmonising aviation safety regulations is the most developed of all African Regional Economic Communities.

## Infrastructure

- 6.50 The availability and quality of aviation infrastructure varies across Africa. In the North, East, and South, established hubs such as Cairo, Addis Abba, Nairobi and Johannesburg, provide airlines with sufficient infrastructure to develop their operations from these airports. In Western Africa, whilst some airports (Lagos, Lomé) do provide important connectivity, infrastructure issues prevent their development into fully operational hubs.
- 6.51 The majority of stakeholders consulted concluded that Lagos, Nigeria, is the most appropriate location for an aviation hub in West Africa, due to the size of the economy, population of Nigeria and level of intercontinental traffic as compared to the other options, Accra (Ghana) and Lomé (Togo). However safety issues (e.g. Dana Air crash in 2012, with 163 casualties) and the lack of infrastructure do not make it an immediately attractive choice, and stakeholders acknowledged the attraction of alternatives such as Accra or Lomé for airlines wishing to hub in West Africa.
- 6.52 In this section we detail the key characteristics of some of the main airports in Western Africa. Information on the condition of these assets is very limited, however by considering the capital investments planned at these airports we are able to gain a view on their current ability to serve the region's aviation needs. This review relies on three primary sources (also included in the bibliography):
- Airports in Africa – Capital investment programmes 2014, Brooks Market Intelligence, 2014;
  - Logistics Capacity Assessment website (<http://dlca.logcluster.org/>), a long-standing interagency tool administered by the UN World Food Programme; and
  - Airfield Charts (<http://airfieldcharts.com/africaairports.htm>), a resource for commercial pilots.

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<sup>45</sup> An Unsteady Course – Growth and Challenges in Africa's Air Transport Industry, AICD, 2009

- 6.53 These sources have been supplemented by further desktop research (referenced in the footnotes below), as well as interviews with key players (e.g. Arik Air and Ghana Airports Company).
- 6.54 We are aware that ECOWAS are currently undertaking a detailed review of airport infrastructure in West Africa, which involves site visits to airports in scope. This study is expected to produce a comprehensive overview of airport infrastructure in West Africa, however it is not due to be completed until the end of 2014 at earliest (i.e. after publication of this report).

### **Nigeria**

- 6.55 Nigeria received a much needed boost in 2010, when it was conferred Category I status by the US Federal Aviation Administration (FAA), which recognises the country's efforts in meeting ICAO safety standards and allows Nigerian carriers to once again fly direct to the United States. However, years of neglect by previous governments has led to a progressive deterioration of infrastructure and poor service standards, which recently appear to be being addressed. In September 2011 Aviation Minister Fidelia Njeze announced that NGN 90 billion (USD 567 million) of the total NGN 300 billion federal funding package for transport was being reserved for the upgrading of airports, but the minister also emphasised that Nigeria's airports needed not only the intervention of government, but also of foreign agencies and international organisations, to reach accepted standards of comfort, safety, efficiency and reliability.
- 6.56 However, UKTI reports that there continues to exist considerable concern about the financial viability of the development of the Nigerian aviation sector, given the inadequate financial position of the federal and state agencies and the high debt profile of local airlines operators. Safety and security continues to be primary concern at all Nigerian airports<sup>46</sup>.
- 6.57 The Nigerian Government is implementing a transformational programme and has initiated a number of projects simultaneously across its network of airports. This work is in addition to a first phase of a near-term terminal renovation and upgrade programme, which will be executed at 11 terminals across the country. The projects will entail:
- The redesign of the exterior facades of the buildings to give them a modern look;
  - Expansion of the footprint of some of the buildings to create additional capacity, circulation space and the opportunity for increased commercial offerings; and
  - Redesign and construction of the interior of the buildings to give a modern look and feel with significant improvements to passenger facilities.
- 6.58 Access to jet fuel is also an issue in Nigeria, as almost all jet fuel is refined abroad and trucked to airports from ports. Arik Air reported "regular" shortages of supply, particularly in inland airports such as Abuja. Arik Air considers the availability of jet fuel to be a worrying inhibitor in terms of attempts to facilitate airline expansion at Lagos airport.

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<sup>46</sup> Nigeria Ghana Transport Scoping Report, UKTI, December 2011

*Lagos*

<b>Passenger terminals</b>	<b>2</b>
Runways	2
Instrument landing system (ILS)	All approaches
Passenger terminal capacity	5.0m
Passenger traffic	7.1m (2013)

- 6.59 The airport at Lagos has two passenger terminals that are handling considerably higher passenger numbers than their reported capacity of 5.0 million<sup>47,48</sup>. In addition to the capacity constraints the airport faces infrastructure issues that further limit its connectivity. For example, passengers transferring from international to domestic flights must leave the airport terminal and take an outside road to the domestic terminal. Airlines such as Arik Air provide their own bussing services for these passengers, as taxis are not perceived as safe or sufficiently reliable, but it is not unusual for these to get seriously delayed in poor traffic conditions. Arik Air stated that their hubbing opportunities are severely limited by this situation. Their goal is to become a network carrier and for this the airline requires a good transit/transfer facility, which in Lagos at the moment is "nigh on impossible". There is no available infrastructure in the airport to make this happen and as a result transferring at Lagos is daunting for passengers. Arik Air deploy ground staff to facilitate transfers for their passengers.

*Lekki*

- 6.60 In order to overcome the constraints faced by the existing airport at Lagos, a new greenfield airport had been proposed by the Nigerian Government and initial steps for its development had been made. A PPP prequalification competition was announced in November 2011, with request for proposals expected to be issued in 2012. Following delays, three bids were received for the DBFOM concession in October 2013. However, as of February 2014 the government was still seeking investment for the project, while the Lagos State Governor reportedly said that land acquisition and preparatory work for the new international airport was complete<sup>49</sup>. It is not clear what the current status of this project is, with some sources noting that it has been cancelled<sup>50</sup>.

*Abuja*

<b>Passenger terminals</b>	<b>2</b>
Runways	1
Instrument landing system (ILS)	All approaches
Passenger terminal capacity	Not available
Passenger traffic	3.9m (2013)

<sup>47</sup> <http://nigerianstat.gov.ng/pages/download/205>

<sup>48</sup> <http://www.airport-technology.com/projects/mutalamohammad/>

<sup>49</sup> <http://centreforaviation.com/profiles/newairports/lekki-epe-international-airport>

<sup>50</sup> <http://inspiratia.com/subsaharan-africa/uganda/infrastructure/projects/lekki-epe-international-airport-1/>

6.61 At Abuja the domestic terminal is in such a poor state that the domestic passengers were moved into wings of the international terminal in 2012<sup>51</sup>. These interventions are intended as stop-gap measures to bring immediate relief to the airport users while the airport terminals are renovated. The old domestic terminal is in effect being rebuilt and expanded, with international flights then planned to move into the new facility once its complete. In July 2014 the project was said to be progressing well, with 30% of the works completed<sup>52</sup>.

### Ghana

6.62 The Ghana Airports Company Ltd (GACL) is seeking to establish Kotoka International in Accra as a hub to service sub-Saharan Africa. There is high demand for increased services to the airport, attributed largely to the commencement of oil production in Ghana.

#### Accra

Passenger terminals	2
Runways	1
Instrument landing system (ILS)	All approaches
Passenger terminal capacity	Exceeded
Passenger traffic	2.4m (2013)

6.63 Kotoka International Airport is one of the region’s major airports. It has two terminals, the capacity of which has reportedly been exceeded<sup>53</sup><sup>54</sup>, although we note that GACL stated to our project team that its capacity issues are mainly around stand availability. The airport can currently accommodate up to 25 aircraft<sup>55</sup>.

6.64 GACL considers this to be the main issue that is limiting the expansion of aviation in Ghana. There are current capital developments planned to address these issues, including the development of a number of parking stands for aircraft and a new passenger terminal. Through the Investment and Gateway Programme, the company is eliciting financial assistance from private and public sources to undertake projects that will ensure increased capacity to accommodate the envisaged rise in flight operations. The prequalification phase for a new third terminal at Accra is underway.

### Togo

6.65 Our passenger journeys analysis in Chapter 5 shows that Lomé, with 60% of journeys making onward connections, is the only airport in Western and Central Africa that might be characterised as a hub (ASKY, a subsidiary of Ethiopian Airlines, has used Lomé as a hub since 2010). Lomé, however, is small compared with busier airports in the region, such as Lagos, and considerably smaller than hubs in other regions.

<sup>51</sup> <http://www.thisdaylive.com/articles/fg-to-build-new-international-terminal-at-abuja-airport/115743/>

<sup>52</sup> <http://www.thisdaylive.com/articles/okonjo-iweala-lauds-abuja-rail-airport-terminal-projects/184500/>

<sup>53</sup> <http://business.peacefmonline.com/pages/news/201406/205244.php>

<sup>54</sup> [http://www.gacl.com.gh/statistics\\_2.html](http://www.gacl.com.gh/statistics_2.html)

<sup>55</sup> <http://dlca.logcluster.org/display/public/DLCA/2.2.1+Ghana+Kotoka+International+Airport>

*Lomé*

<b>Passenger terminals</b>	<b>1</b>
Runways	1
Instrument landing system (ILS)	Partial, 1 of 2 approaches
Passenger terminal capacity	0.5m
Passenger traffic	0.5m (2013)

- 6.66 The Togolese government has announced its intent for Lomé to operate as a West African hub and a modernisation project<sup>56</sup> commenced at the end of 2011, which includes the construction of a new 21,000m<sup>2</sup> passenger terminal with passenger boarding bridges, enlargement of the apron to enable the accommodation of 15 aircraft, and expansion of the cargo centre to more than treble handling capacity from 15,000 to 50,000 tonnes. The new terminal is due to enter service in early 2015, raising the airport's capacity by 1 mppa<sup>57,58</sup>.
- 6.67 The Togolese Government is also discussing plans for a new airport for Lomé, probably to be built at Tsevie, some 40km from the capital city. Some feasibility studies for development are understood to have been completed.

**Other major airports in Western Africa***Abidjan, Ivory Coast*

<b>Passenger terminals</b>	<b>1</b>
Runways	1
Instrument landing system (ILS)	Partial, 1 of 2 approaches
Passenger terminal capacity	2.0m
Passenger traffic	1.2m (2013)

- 6.68 The development of aviation in the Ivory Coast and of the facilities at its biggest airport, Abidjan, has been significantly set back in recent years as a result of the civil conflicts in the country. Following the country's gradual recovery, plans have been announced for an extension to the international passenger terminal at Abidjan from 11,000m<sup>2</sup> to 26,000m<sup>2</sup>, the rehabilitation of the charter terminal, a new cargo terminal, refurbishment of the aircraft parking area, renovation of access roads, construction of a new car parking facility and, ultimately, an airport business park. Also a priority is the upgrade of the runway to enable the handling of the Airbus A380, which is intended to be used by Air France on the Paris-Abidjan route.
- 6.69 The concession agreement, held by AERIA, a consortium comprising Egis Avia, Marseille Provence Airport and local investors, was due to expire in 2011, but has since been renewed for 20 years. A loan of CFA 10 billion has been received for the first phase of this expansion programme.

<sup>56</sup> CAPA, Lomé Airport profile

<sup>57</sup> <http://www.adp-i.com/en/gnassingbe-eyadema-international-airport-new-terminal>

<sup>58</sup> <http://aeroportdelome.com/site/le-chantier-en-phase-finale/>

*Bamako, Mali*

<b>Passenger terminals</b>	<b>1</b>
Runways	1
Instrument landing system (ILS)	Partial, 1 of 2 approaches
Passenger terminal capacity	0.4m
Passenger traffic	0.6m (2009)

6.70 Bamako, Mali's main airport, is undergoing a major USD 72 million expansion and improvement project, under an agreement with the United States-Mali Millennium Challenge Account (MCA-Mali)<sup>59</sup>. The work includes:

- Construction of a 15,600m<sup>2</sup> passenger terminal with a capacity of 1.5 million passengers by 2023;
- Upgrading the runway and extending it by 500m to 3,200m;
- Construction of a taxiway parallel to the runway;
- Upgrading and extension of aircraft parking areas;
- Replacement of navigation equipment;
- Development of access roads and car parking; and
- Power station for water, electricity and waste.

*Dakar, Senegal*

<b>Passenger terminals</b>	<b>1</b>
Runways	2 (1 short)
Instrument landing system (ILS)	Partial, 1 of 4 approaches
Passenger terminal capacity	Not available
Passenger traffic	2.2m (2013)

6.71 Dakar has offered important connectivity in the region, having often been used for stopovers on flights between North America and Africa. The Senegalese Government has sought to replace the existing airport, where expansion is limited, with a new international airport. In September 2011 it announced that it has secured EUR 406 million in long-term financing from several international banks.

6.72 The new Blaise Diagne International Airport has been designed to meet projected traffic growth up to 2025. When completed at the end of 2014, it will be able to handle 3.0 million passengers and 80,000 aircraft movements annually. It will have a 42,000m<sup>2</sup>, two-level terminal, double the size of the existing one, with direct access to six passenger boarding bridges, a 4,000x60m runway and 30 aircraft parking positions. Construction of a second runway is being considered for the future, to bring capacity up to 10 million passengers.

<sup>59</sup> <http://www.mcc.gov/pages/countries/program/mali-compact>

*Ouagadougou, Burkina Faso*

Passenger terminals	1
Runways	1
Instrument landing system (ILS)	Partial, 1 of 2 approaches
Passenger terminal capacity	0.5
Passenger traffic	0.4 (2011)

- 6.73 Burkina Faso's main international airport at Ouagadougou is located in the centre of the city and as a result faces significant expansion constraints. A new airport is being constructed approximately 35km northeast of the capital and the government plans to close the existing airport upon completion of the new facility around 2018. The phased project is due to run for 16 years from 2013, with an eventual capacity of 1.6 million passengers a year. The government has secured over 80% of the scheme's projected USD 450 million costs and is still exploring ways to attract private finance<sup>60</sup>.

**Conclusion**

- 6.74 Terminal capacity is a key issue in hindering the development of aviation in Western Africa, both at present and in the near-term future. All of the airports reviewed are either already undertaking, or are planning to undertake significant capacity enhancement projects in the form of refurbishing existing facilities, or building new greenfield developments with a view to providing sufficient capacity to accommodate anticipated strong growth. We note that none of the airports report pressing runway capacity constraints, although constraints are apparent on taxiways, aprons and stands. The economic justification for some of the newly constructed airports is not clear, where in many cases existing capacity might be better utilised by rescheduling to prevent the simultaneous arrival of more flights than the airport can process<sup>61</sup>.
- 6.75 Concerns have been raised around the availability of fuel, especially at inland airports, reflecting broader energy supply issues in the region, while further concerns also surround the provision of suitable hubbing facilities. Users highlight that as well as sufficient passenger capacity, airports should offer adequate terminal connectivity to facilitate convenient and reliable transfers. This is felt especially strongly at Lagos, the most prominent candidate for a hub in the region, where the international and domestic terminals are only linked by an external, congestion-prone road.

**Availability of finance**

- 6.76 Airlines require access to finance both for working capital and, particularly, to obtain aircraft. With the exception of South Africa and, to some extent Nigeria and Kenya, the banking system in much of sub-Saharan Africa is not well capitalised and national banks are not in a strong position to provide the long-term financing required for aircraft purchase or long-term aircraft leases, for which in any case, US dollar-denominated liquidity is the key requirement.
- 6.77 The small size of most African airlines and the many difficulties in developing and operating airlines in many African countries mean that many financial institutions are unwilling to invest

<sup>60</sup> <http://www.burkinafasoindia.org/documents/Donsin%20FINAL%20English.pdf>

<sup>61</sup> Africa's infrastructure, a time for transformation, IBRD/World Bank, 2010.

in African airlines or, where they do invest, charge higher rates than would be charged to airlines in other parts of the world (Europe, North America and also Asia).

6.78 These problems are compounded by the fact that, for the purchase of new aircraft, volume discounts are unlikely to be available due to the small purchase volumes most African airlines are able to place (in contrast to the larger airlines in other parts of the world who are often able to place orders for many tens, or even in some cases hundreds of aircraft), obtaining correspondingly high levels of discount.

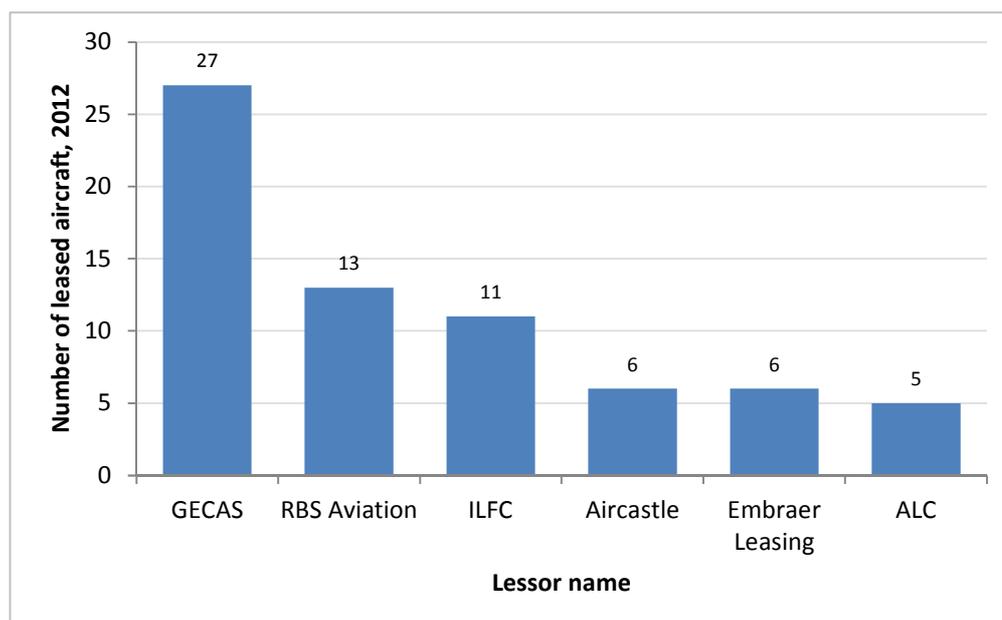
6.79 Nevertheless, the strong level of growth predicted for the African aviation industry over the next 20 years (5% per annum), is higher than the world average at 4.7% per annum and much higher than the growth predicted for Europe and North America (source: Airbus). Clearly Africa therefore represents a major opportunity for investment in aviation.

6.80 We review some of the characteristics of aircraft finance in Africa and the issues facing it, below.

**Aircraft leasing**

6.81 Airfinance Journal reports<sup>62</sup> that the number of African airlines using operating or finance leases is still relatively low, at around 40%. However it is growing as lessors have shown an increasing willingness to lend to African carriers. The chart below shows the sizes of the main aircraft leasing companies in Africa.

Figure 6.5: Aircraft Lease Companies in Africa



Source: Airfinance Journal June 2012

6.82 GECAS is currently the most active lessor in the region, funding just over twice as many aircraft as their next competitor RBS Aviation. However the number of smaller lessors active in the market, such as Capital Aviation and African Frontier Capital, is also increasing and three of the most active aviation banks in the region - Investec, Nedbank Capital and RMB - are now also

<sup>62</sup> Airfinance Journal, June 2012

offering operating leases to airlines. Despite this, the flexibility of leasing aircraft tends to remain limited to top-tier airline operators.

### **Export Credit Agencies**

- 6.83 As commercial debt has become increasingly difficult for airlines to access, the use of export credit agencies (ECAs), balance sheet funding and in some cases manufacturer provided finance (particularly through leases) has become more common. An analysis of data reported by Flightglobal shows that of finance deals undertaken in 2011 by African operators, 32 of 52 aircraft financed were underwritten by ECAs, 17 were loans or refinancing and only three were on operating leases (these were B737's leased to Royal Air Maroc).
- 6.84 While commercial banks are generally prepared to offer airlines ECA financing, the standard ECA product guarantees only 85% of the total transaction. This leaves 15% of the financing exposed, which banks are often unwilling to provide alone. Development banks are therefore increasingly being used as a method of bridging this funding gap. Afrexim, Africa Development Bank, PTA bank and Africa Finance Corporation have all supported aviation deals as they seek to help the socio-economic development of Africa through improving transport infrastructure. In addition to this, regional African banks (such as the large Nigerian banks Zenith and FBN, and Rand merchant bank in South Africa) have been willing and able to commit to an increasing amount of financing.
- 6.85 Set against this are new rules and legislation brought in by the 2011 Aircraft Sector Understanding (ASU) which requires each ECA to classify its buyers/borrowers into one of eight risk categories, based on their senior unsecured credit ratings. The ASU applies to all new commercial aircraft, except regional jets and turboprops, delivered since the start of 2013 and will apply to new regional aircraft from January 2014. It applies to new aircraft from all manufacturers except those in China and Russia, which are not OECD members. Brazil is not an OECD member either but has accepted the new ASU.
- 6.86 The new ASU raises the export credit premium for all buyers/borrowers, whether airline or lessor. However, the ASU drafters added requirements to reduce this risk. Export credit for higher risk airlines comes with more strings attached. These may include higher initial security deposits, shorter repayment periods, minimum lease payments for leased aircraft, and higher maintenance reserves which affect all carriers and will naturally suppress the availability or at the very least raise the cost of finance to weaker African carriers. The ASU also creates greater incentives to adopt the Cape Town Convention, described below.

### **Cape Town Convention**

- 6.87 The Convention on International Interests in Mobile Equipment and its related Aircraft Protocol, collectively called the Cape Town Convention, came into force for aircraft in April 2006. It creates an international registry of security interests in aircraft and spells out creditor rights, thereby eliminating much of the uncertainty about how creditors might fare in a local jurisdiction after an air carrier's default or insolvency. The International Registry of Mobile Assets, established to record international interests in aircraft covered by the treaty is located in Ireland and mediation cases for leasing disputes are heard in the High Court of Ireland.
- 6.88 The airlines of any country that adopts the Cape Town Convention, making it the law of their own land, qualify for a discount of up to 10% on their export credit premium.
- 6.89 To date, 48 nations, including the European Union and 11 African states, have adopted the Cape Town Convention and several more, including Australia and Canada, are likely to follow.

The so-called "Cape Town discount" no doubt gives them an added incentive, with credit rating Moody's describing how two additional notches may be granted to airlines in countries where the convention has been ratified. Australia's transport minister Anthony Albanese estimates that adopting the convention will save Australian airlines, which routinely use export credit, \$330,000 on a new ATR 72 turboprop and \$2.5 million on an Airbus A380.

- 6.90 Although the Cape Town Convention therefore appears to provide strong incentives for improvement in local law to the benefit of aircraft lessors and financiers, thereby helping to lower lease cost rates, our discussions with stakeholders have raised doubts as to its effectiveness in practice. Even in countries where the Convention is in force, it is still necessary for a lessor suffering a default to get a local court to endorse its seizure of the aircraft asset. Other unpaid creditors may try to put a lien on the aircraft, which is likely to prevent its immediate export from the country, thereby causing the lessor to suffer considerable loss.
- 6.91 Therefore the Cape Town Convention, while a helpful measure, does not circumvent the need for a strong legal system to underpin ownership rights.

#### **Costs of aircraft finance**

- 6.92 We discussed issues relating to the financing of aircraft in Africa with two providers of finance in the region. The first is an established global aircraft leasing company who have currently placed a number of aircraft with African airlines. The second is a new start-up venture offering finance and operating leases on smaller turbo-prop aircraft, together with a sale and lease back product.
- 6.93 A common theme in the discussions was that while there were some operational issues within Africa, although it was felt these could be overcome. However there was an appreciation that it took longer to reach financial close on an aircraft leasing deal than it would in developed nations and that this ultimately added to the cost of the transaction. There was some low level concern that while the Cape Town Convention provided some degree of comfort to lessors, the contents of the Convention, and the protection it therefore gave should an airline face bankruptcy, were generally untested in most jurisdictions. There was a danger that when a carrier faced bankruptcy, all creditors would immediately seek the local court's assistance to place a lien on the assets of the airline, including aircraft, thereby complicating the efforts of the lessor to remove the aircraft from the country.
- 6.94 In practice, therefore, it was the strength of local law, and the attitude of local Courts, which determined the effective level of security available to lessors, rather than the country's adherence to the Cape Town Convention itself.
- 6.95 One of the issues discussed in leasing an aircraft in Africa was that the global market tended to dictate the demand for the aircraft and leasing payments a lessor would receive. There is a trade-off between the routes available in different markets, the level of perceived risk and any capital costs which the lessor may need to incur to re-let the aircraft. A case was cited where the African airline concerned did not require any significant aircraft modifications, whereas other airlines had required extensive changes, resulting in the net financial position being better if the aircraft was leased to the African carrier, despite the perceived additional risk.
- 6.96 However the lessor also described how, as supply can often outweigh demand, when a lessor is actively seeking a lessee for an aircraft, the lost revenue from the aircraft sitting un-operational on the ground means that the lessor will on occasions be forced to accept whatever lease payments he can for an aircraft just to minimise his exposure or reduce his

losses. However the lessor will only have typically ten to fifteen percent of the equity in the aircraft, with the remainder being provided by commercial banks. It was commented that commercial banks providing the debt finance will often require a few basis points higher interest charge to cover the greater perceived default risk of an aircraft being leased to an African airline.

- 6.97 In developed nations, dry lease monthly rental rates tend to be below 1% of the aircraft's market value and we understand the larger and more successful African carriers such as Kenyan Airways, Ethiopian Airlines and South African Airways are able to negotiate similar lease rates. However for carriers in less developed aviation markets, or those perceived to be higher risk, the target monthly lease rate would typically be 1.25% to 1.5% of the aircraft's market value with the potential to go as high as 2%. In addition, deposits would tend to be higher in African countries, with an additional two- to three months' payment being held to cover any potential default risk. If possible the lessor would also seek a government guarantee to cover default risk.

## 7 African airline costs and route economics

### Summary

There are several root causes contributing to a lack of available, safe and affordable travel in Africa. This chapter covers two key issues: high airline fares and low load factors, and their correlation to high costs for airlines. We include a number of proposed solutions to breaking this relationship.

#### Airline Fares and Costs

In previous chapters, we analysed and presented fares by comparing the price per km for a number of routes. In this chapter, we select some typical intra African routes and analyse their route costs. We then compare this against published fares for the same routes and for routes of similar length in Europe and India. We show that (on average) costs and fares are 1.5 – 2 times higher than those in Europe and 2.5 – 3 times higher than those in India.

#### Load Factors and Cost Breakdown

One of the major contributors to high fares and costs is load factors. Average load factors in Africa are around 60% (Ethiopian airways) whereas EasyJet in Europe achieves 89% and SpiceJet in India 74%. We show that if African carriers achieved an 80% load factor, their unit costs would be lower and much closer to European unit costs. Other factors contributing to high African unit costs include: high fuel costs due to poor infrastructure (on average 20% higher than Europe/India), high airport taxes at some airports (on average 25% higher than Europe/India), high staff costs and high “other” costs (maintenance, commercial costs, on average 50% higher than Europe/India).

#### The Vicious Circle between High Costs and Low Demand

There is a vicious circle linking high costs and low demand, with high fares leading to low load factors and reduced efficiency, hence keeping costs high. In order to break down these barriers to aviation a reduction in external costs, such as fuel and airport charges, is required through infrastructure improvements and potential regional discounts on charges. Further by improving airline efficiency and potentially reducing fares to increase load factors, the vicious circle of high costs and low load factors could be broken, resulting in an affordable, cost efficient aviation offer.

## Introduction

7.1 The analysis in this report so far has highlighted the characteristics of aviation in Africa and identified some of the barriers to the expansion of aviation services in the continent.

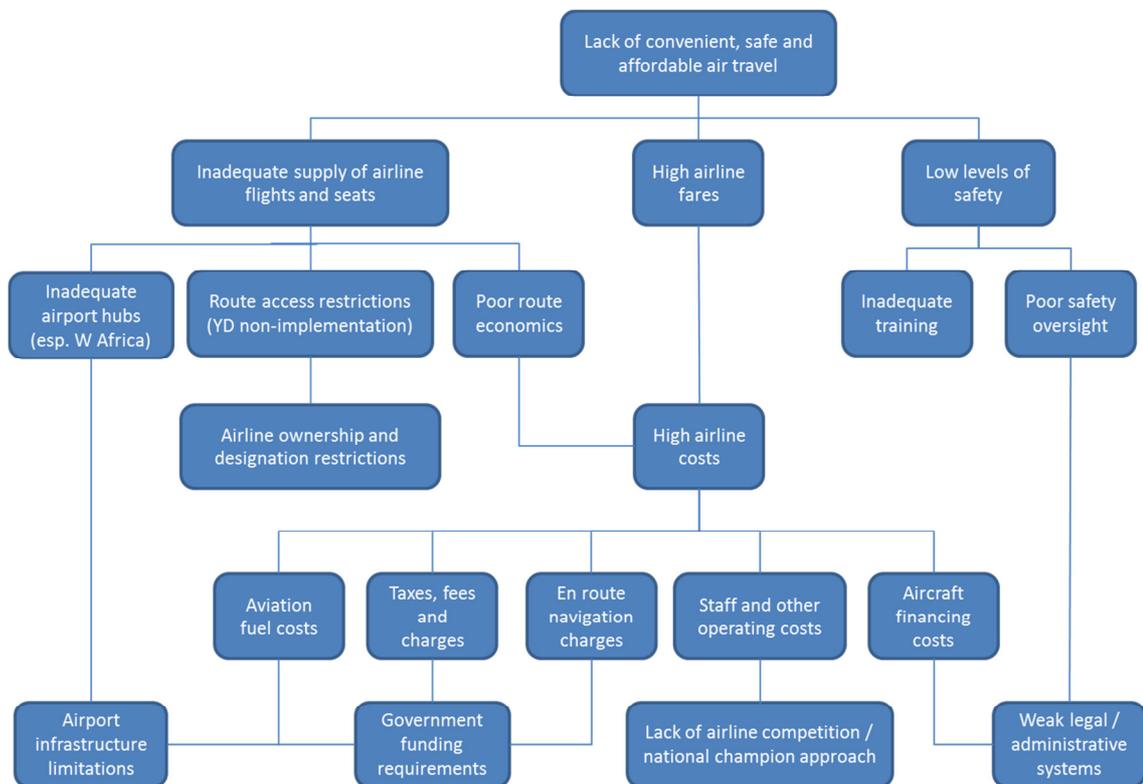
7.2 In order to gain an understanding of the limitations to the expansion of aviation services in Africa, we have undertaken a “root cause” analysis of the difficulties faced by the industry. We have chosen to start from the perspective of air transport users, taking the view that it is the difficulties faced by these end-users which limit the benefits that aviation in Africa can deliver to society. On that basis, we have defined the fundamental problem faced by the industry in Africa as:

*‘The lack of convenient, safe and affordable air travel’.*

7.3 While a very broad statement, we consider that it captures the problem which needs to be solved. Consistent with this, we consider that solving this problem could be regarded as a reasonable definition of success for African aviation, and would contribute to addressing the barriers to the expansion of effective aviation services in Africa, which is the objective of this study.

7.4 The diagram below starts with this problem statement, breaking it down into constituent causes, which include the particular problems with Yamoussoukro implementation and the lack of an effective hub in West Africa highlighted in this study, but also look beyond these problems to more fundamental causes, with the objective of helping to identify potential solutions.

Figure 7.1: African Aviation Root cause analysis



- 7.5 Our analysis identifies three main causes for the lack of convenient, safe and affordable air travel:
- An inadequate supply of airline flights and seats;
  - High airline fares; and
  - Low levels of safety.
- 7.6 Each of these can in turn be broken down into further contributing causes. The inadequate supply of seats can be traced to problems with infrastructure (inadequate hubs), restricted market access through the failure to implement Yamoussoukro as well as poor route economics.
- 7.7 A major concern of all commentators on the industry is the very high level of air fares compared with in other regions of the world (see chapter 6), in spite of the low level of supply and demand. The principal cause of high fares is the high costs experienced by airlines, whether internally or externally driven (there are few cases of excessive profits in the African aviation industry). High airline costs in turn are a major contributory factor to the poor route economics, which in turn partly explain the low level of supply.
- 7.8 As noted in chapter 6, costs for African airlines are generally excessively high, across most areas of the business, including:
- Aviation fuel costs (poor supply and low levels of competition combined with high taxes);
  - Taxes, fees and charges, including high passenger departure taxes and often other imposed costs such as withholding tax paid directly to governments, as well as airport costs;
  - En-route navigation charges (these are often at international levels despite the poor level of service provided);
  - Internal operating costs including staff costs (which can be high reflecting a lack of competitive pressure and, in state-owned airlines, a desire to maintain employment levels, as well as relatively low utilisation of aircraft and staff operating hours on average compared to international benchmarks); and
  - Financing costs, especially for aircraft (reflecting the risks perceived by leasing companies and financiers, both in relation to the risk of poor commercial performance and problems with recovery of aircraft assets in the event of non-payment of lease/finance charges).
- 7.9 The safety of African aviation is generally poor, with the causes identified as inadequate oversight mechanisms and poor training for staff (as well as, to a lesser extent, outdated or poorly maintained equipment).
- 7.10 In turn, many of these problems can be described through underlying causes which affect many economic sectors in the countries concerned. These include:
- Poor infrastructure (airports, oil refineries and pipelines);
  - Government need for steady, reliable sources of income (which airport charges and taxes on airlines can provide);
  - Weak legal and administrative systems (not providing the assurance needed by investors); and
  - A desire to develop an airline acting as a "national champion" for reasons of national pride, as well as a lack of understanding of the benefits of competition.

7.11 At the conclusion of Phase 1 of the study, we agreed three main areas of focus for Phase 2 with the ICA:

- Demonstrating the benefits of liberalisation via economic and regulatory analysis including:
  - Airline costs and route economic analysis; and
  - Development of a shortlist of incremental legal and regulatory framework improvements.
- High level infrastructure review; and
- Engagement with stakeholders.

7.12 In this chapter we provide an overview of the work undertaken on the costs and route economic analysis (the first area of focus) for Phase 2, along with some suggestions on how to break the vicious circle between high costs and low demand.

### Methodology

7.13 The “root cause analysis” (Figure 7.1) indicates there are multiple reasons for the poor route economics of flights in Africa. To quantify the extent of their impact, we have analysed the economics of certain typical intra-African routes. A number of routes were chosen to cover a variety of distances, geographies and economic contexts:

- Lagos – Abuja (LOS – ABV);
- Lagos – Accra (LOS – ACC);
- Abidjan – Dakar (ABJ – DKR);
- Kigali – Nairobi (KGL – NBO);
- Dar es Salaam – Mwanza (DAR – MWZ); and
- Lagos – Johannesburg (LOS – JNB)

7.14 For each of these routes, we estimated individual route costs by:

- Taking actual overall operating costs published by African airlines (Ethiopian Airlines, Kenya Airways, South African Airlines, Fastjet). These were obtained from their latest financial statements.
- Allocating the operating costs to selected routes (whether operated by those airlines or not), allowing for suitable aircraft type and route characteristics (distance flown, local fuel costs, local taxes, fees and charges).
  - Information from OAG was used to obtain the numbers of seats/available seat kilometres and flights. For cases where this information was not available from OAG we used airline financial statements;
  - Aircraft leasing costs were obtained from the Ascend Flightglobal world aircraft fleet database;
  - Landing, departure and navigation charges were obtained from IATA published values and checked against individual airport websites for consistency; and
  - Fuel costs were obtained from estimates based on the US Energy Information Administration<sup>63</sup> and benchmarked against costs published by IATA.
- These are then compared with actual fares available in the market (web search).

7.15 In order to compare and contrast African costs and fares, we analysed a similar set of routes in UK/Europe and in India:

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<sup>63</sup> <http://aeroportos.weebly.com/fuel-prices.html>

- For UK/Europe, we used operating costs published by Ryanair and EasyJet; and
- For India, we used operating costs published by SpiceJet.

7.16 The comparator routes are detailed in the table below, they were grouped on the basis of distance/average flight time:

**Table 7.1: Comparator route details**

Route Details			Average Flight time (hh:mm)
Route 1	Africa	Lagos – Abuja (LOS – ABV)	01:15
	UK/Europe	London Gatwick – Edinburgh (LGW – EDI)	01:25
	India	Bengaluru – Hyderabad (BLR – HYD)	01:05
Route 2	Africa	Kigali – Nairobi (KGL – NBO)	01:25
	UK/Europe	London Gatwick – Milan Malpensa (LGW – MXP)	01:55
	India	Mumbai – Bengaluru (BOM – BLR)	01:30
Route 3	Africa	Abidjan – Dakar (ABJ – DKR)	02:45
	Europe	Frankfurt – Istanbul (FRA – IST)	03:10
	India	New Delhi – Chennai (DEL – MAA)	02:50
Route 4	Africa	Lagos – Johannesburg (LOS – JNB)	06:20
	Europe	N/A	N/A
	India/Asia	New Delhi – Singapore (DEL – SIN)	05:50

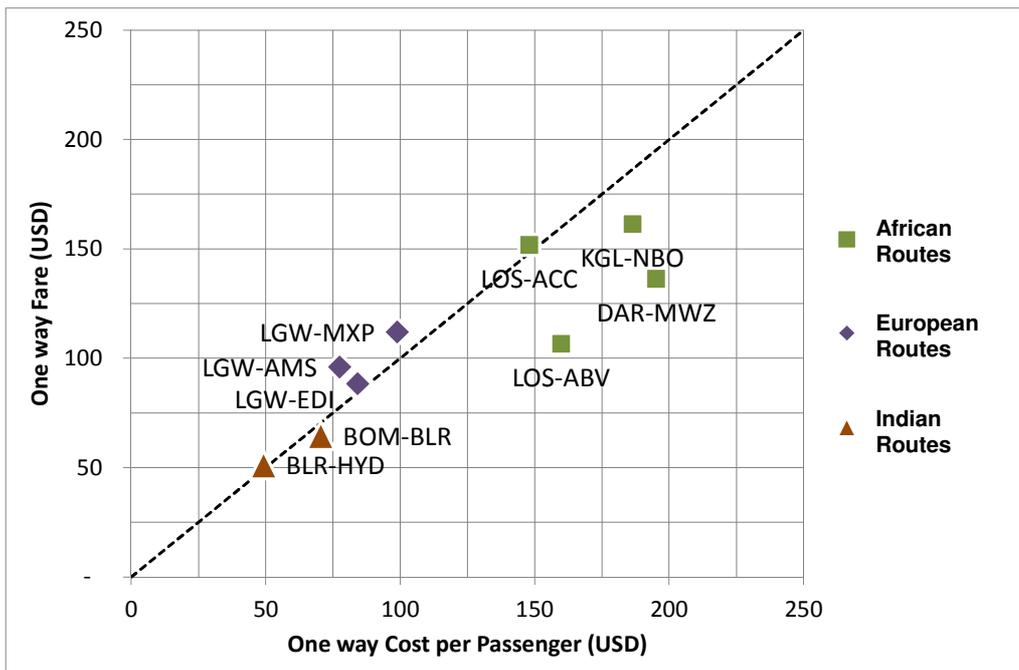
7.17 The methodology for apportioning costs for the individual comparator routes was the same as that outlined above for African routes.

### Airline fares and costs

7.18 As can be seen in Figure 7.2 and Figure 7.3, for both shorter routes (<2 hours flight time) and longer routes (2-7 hours flight time), costs and fares in Africa are typically:

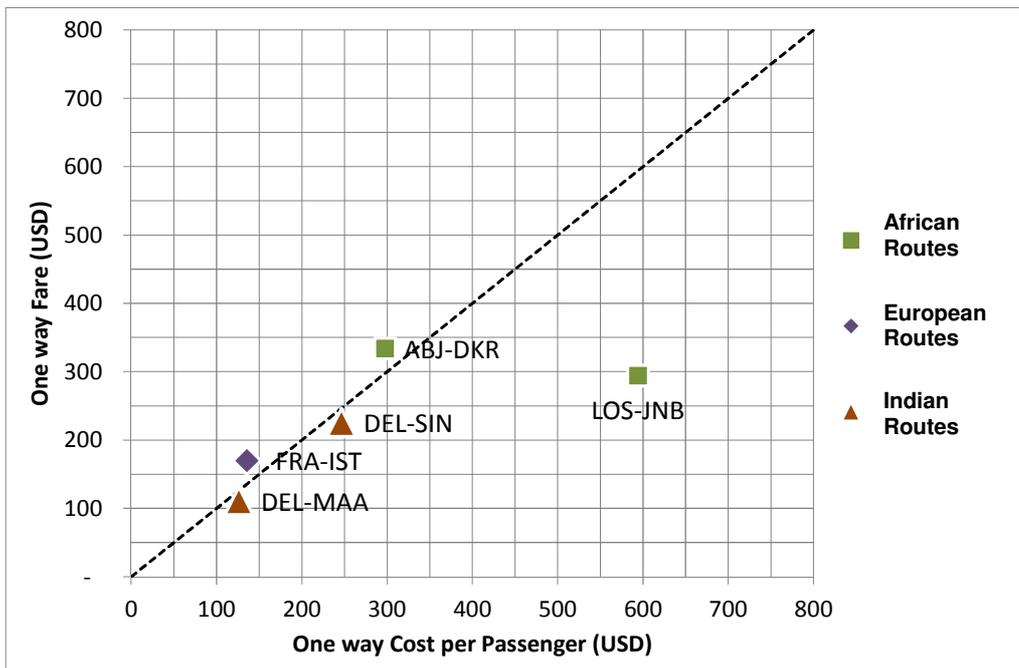
- 1.5-2.0 times those in Europe; and
- 2.5-3.0 times higher than those in India.

Figure 7.2: Comparison of Costs and Fares of African, European and Indian routes (less than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

Figure 7.3: Comparison of Costs and Fares of African, European and Indian routes (more than 2 hours)



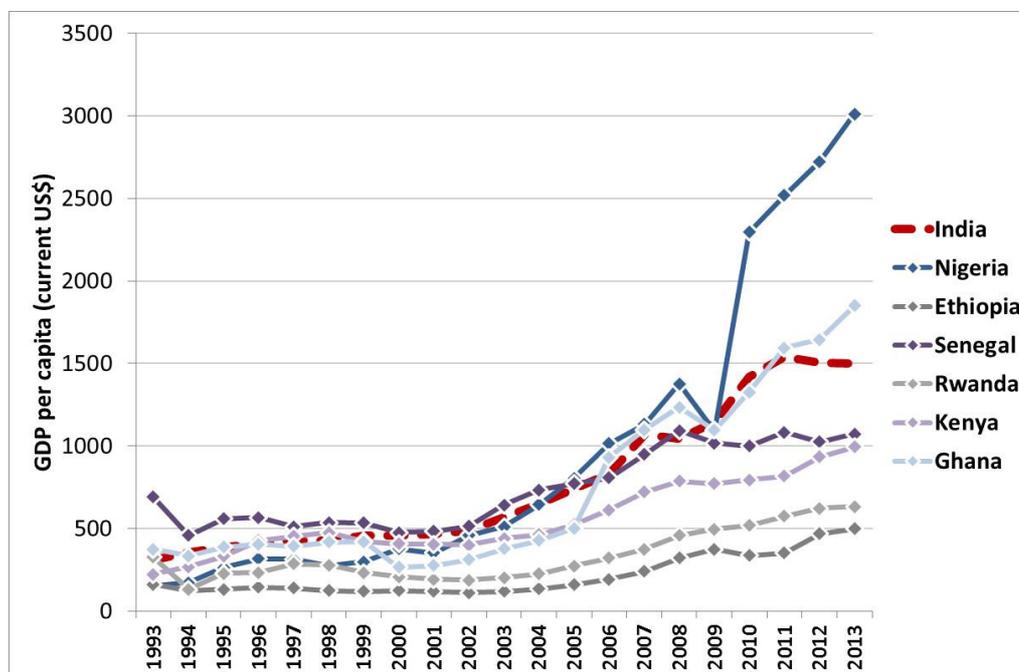
Source: Steer Davies Gleave analysis based on published fares and airline financial statements

7.19

Figure 7.4 compares the Gross Domestic Product (GDP) per capita (current US\$) for India, and selected African countries (Nigeria, Ethiopia, Senegal, Rwanda, Kenya and Ghana) for the past two decades. As can be seen, while the countries' respective GDPs maintained similar trends during the 90s; however they have evolved at different rates over the past decade. In the macro context, in 2013, the GDP per capita for India (US\$ 1498.9) is similar to that for Ghana (US\$ 1850.2) and lies approximately in the middle of Nigeria (US\$ 3,010.3) and Ethiopia (US\$

498.1), with the other African countries also within this range. In contrast, the GDP per capita for UK in 2013 was US\$ 39,350.6. Even South Africa, with a GDP per capita twice that of Nigeria (US\$ 6,617.9 in 2013) is still closer to that of India than the UK and other European countries (the EU GDP per capita US\$ in 2013 was 34,240.2).

Figure 7.4: GDP per capita (current US\$) from 1993 – 2013



Source: Steer Davies Gleave analysis based on World Bank Data

- 7.20 A direct comparison of the economic conditions between India (one country) and Africa (more than 50 countries, all with varying degrees of development) is not straightforward. Nevertheless, the choice of the African countries mentioned above as the countries for which we have compared fares and costs to India is reasonable, given the comparability of their economic indicators to those of India, versus those in the UK and Europe. Indeed, when factoring in living conditions, there are further similarities, for example 68.8% of India’s population lives on under US\$ 2 per day (World Bank 2010 estimate) compared to 60.8 % of Africa’s population and 2% in Europe (as mentioned in chapter 6).
- 7.21 We therefore would expect that, given levels of economic development, fares in Africa would be similar to those in India and certainly should not be higher than those in Europe. The relationship between Africa, India and Europe at a cost, rather than fare level, is more extreme, because the benchmark Indian and European airlines are low cost, whereas no major African low cost carriers exist.
- 7.22 In recent years we have seen the emergence of fastjet (following the acquisition of Fly540) and more recently Jambojet (Kenyan Airways’ low cost carrier), although both are in the nascent stages of development, the former having commenced operations in November 2012 and the latter in April 2014, with fleet sizes of 3 aircraft and less than 10 routes served by each. Currently these airlines are offering competitive “low cost” fares but they are not of a scale comparable to those in India or UK/Europe, nor do they have many years of operating history through which we may compare and contrast operations.

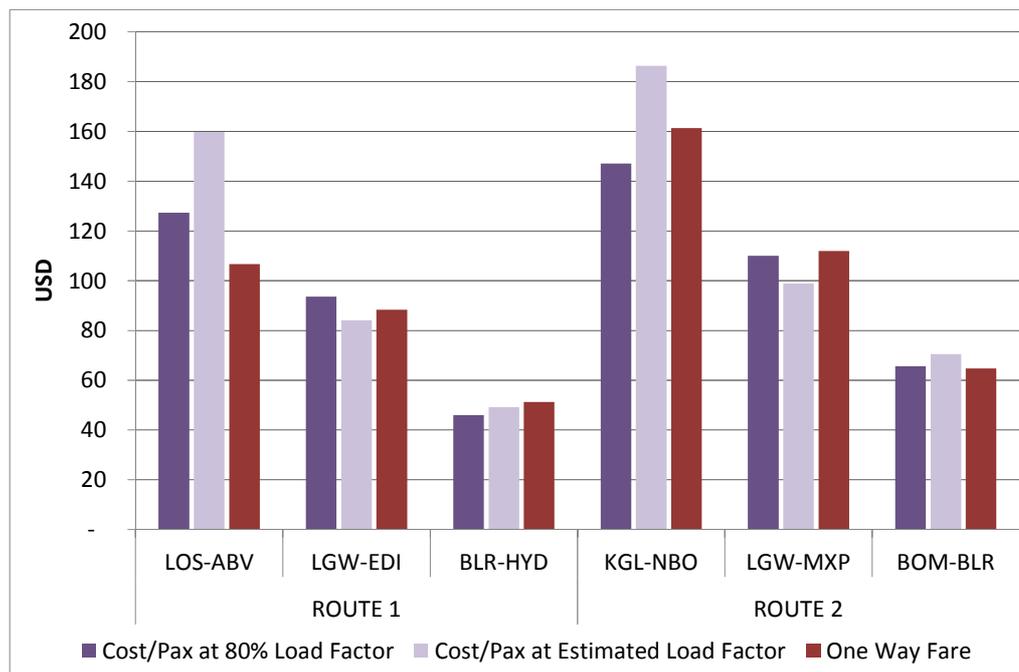
## Load factors

7.23 It was observed that low load factors are a major factor in the disparity between African, and European and Indian route economics:

- EasyJet has an average load factor of 89%;
- SpiceJet has an average load factor of 74%; and
- Ethiopian Airlines has an average load factor of 60%.

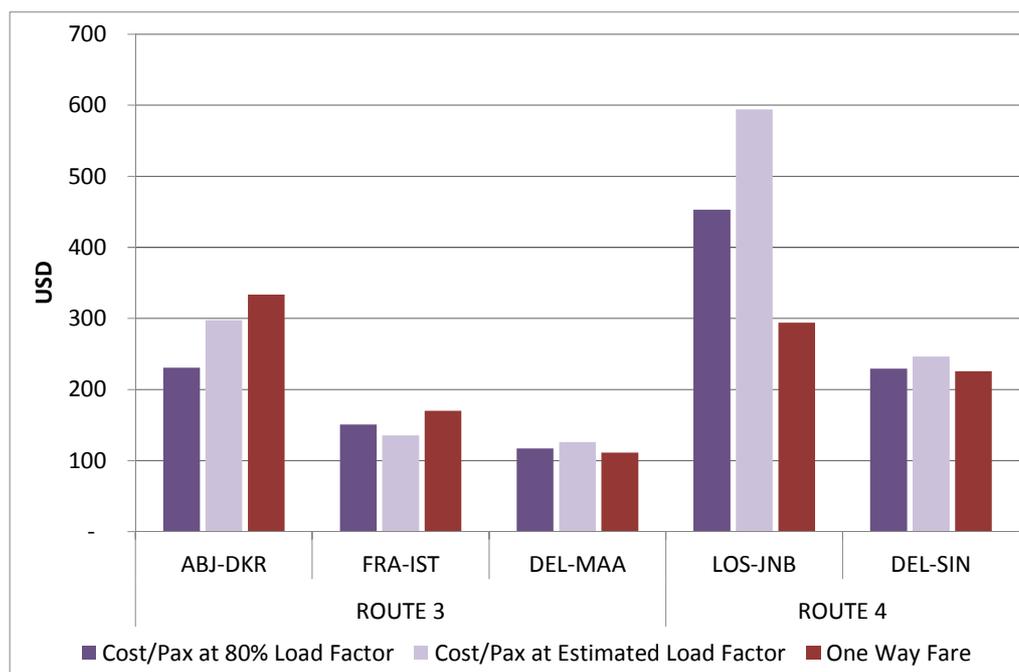
7.24 We analysed the effect of increasing the load factors to levels comparable to those observed in UK/Europe and India. As can be seen in Figure 7.5 and Figure 7.6, applying a comparable load factor of 80% to African routes could result in significantly lower route unit costs.

Figure 7.5: Effect of load factors on costs (shorter routes, less than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

Figure 7.6: Effect of load factors on costs (longer routes, more than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

## Cost breakdown

7.25 Besides load factors, there are a number of other reasons for the high costs for African carriers, as can be seen in Figure 7.7 and Figure 7.8:

- Higher fuel costs due to poor infrastructure, on an average 20% higher than Europe/India;
- Higher airport taxes at some airports, on average 25% higher than Europe/India;
- Higher staff costs; and
- Higher “other” costs (maintenance, commercial costs), on average 50% higher than Europe/India.

7.26 In Europe, we note that fuel costs are lower than in Africa, with the average fuel cost for the airports analysed being US\$ 3.4 per gallon in Europe and US\$ 4.2 per gallon in Africa<sup>64</sup>, a 24% difference. This is largely due to a poor supply combined with low levels of competition and high taxes.

7.27 The average fuel cost in India (for the airports of Delhi, Mumbai, Chennai, Bengaluru and Hyderabad) is US\$ 4.7 per gallon<sup>65</sup>, 11% higher than the average African fuel cost and hence contributing to almost 50% of total airline operating cost. This is primarily due to high government taxation levels. However, as can be seen in Figure 7.7 and Figure 7.8, staff costs, airport taxes and “other” costs are lower in India than in Africa.

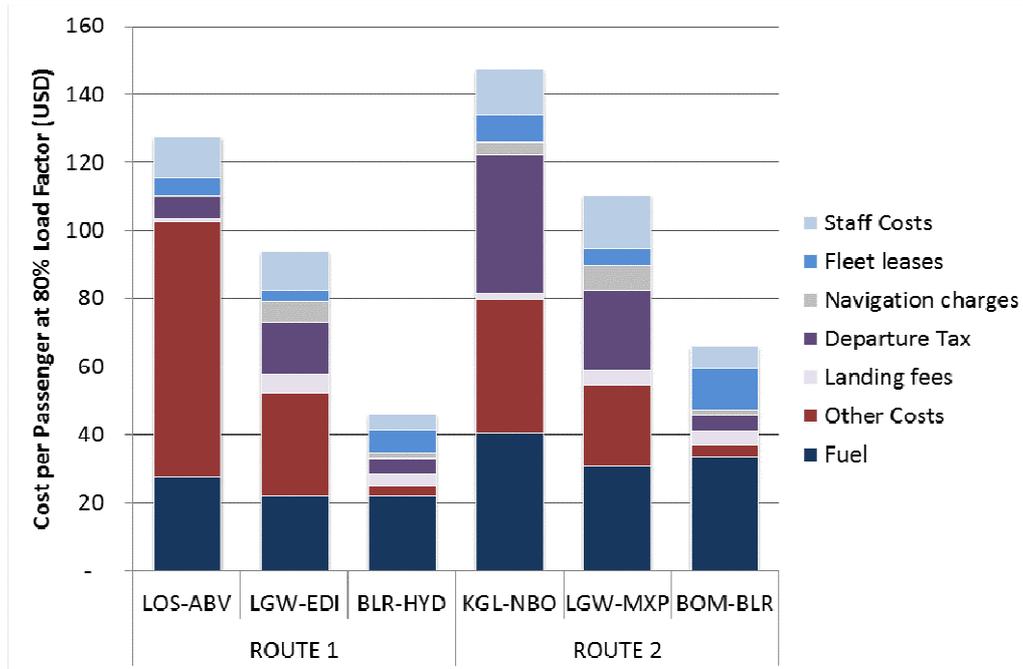
7.28 On analysing lease costs based on the aircraft fleets of each airline (obtained from the Ascend Flightglobal world aircraft fleet database and cross checked with the fleets reported by the airlines in their financial statements) and apportioning these to the flights (and hence

<sup>64</sup> <http://aeroportos.weebly.com/fuel-prices.html>

<sup>65</sup> Ibid.

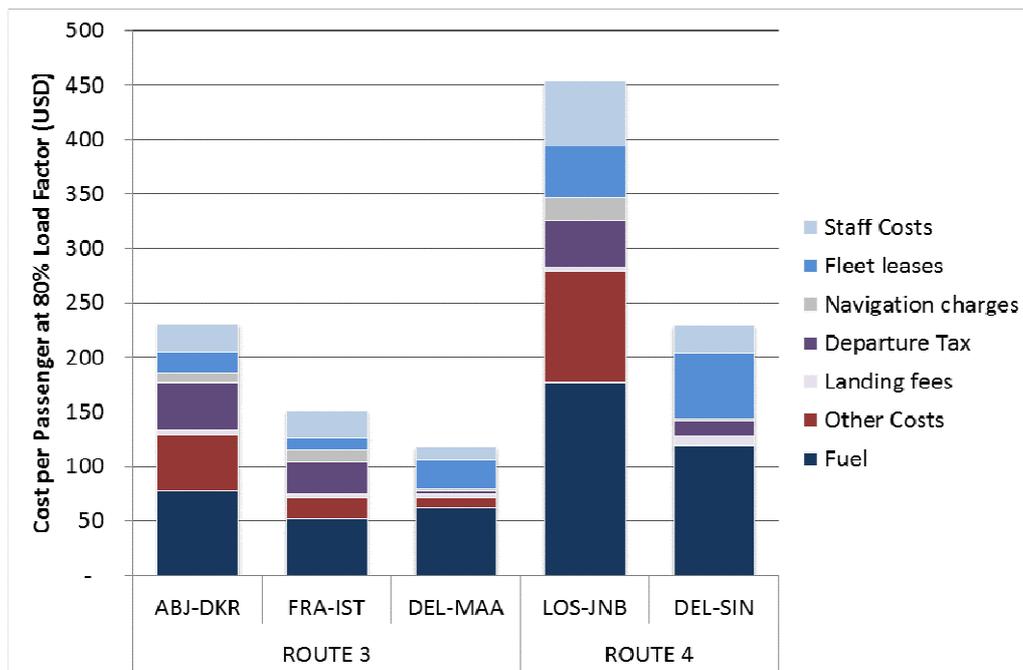
rotations) achieved by each aircraft, it can be seen that the lease costs per route in Europe are lower than those in Africa and India. Given that low cost carriers have simpler infrastructure and at times less ground equipment, they are able to achieve faster turnarounds, which in turn results in better utilisation of aircraft and hence reducing the “cost” of this, for the passengers. There is also an element of efficiency on the ground at European airports which results in faster turnaround times.

Figure 7.7: Breakdown of route costs, normalised at 80% load factor (shorter routes, less than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

Figure 7.8: Breakdown of route costs, normalised at 80% load factor (longer routes, more than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

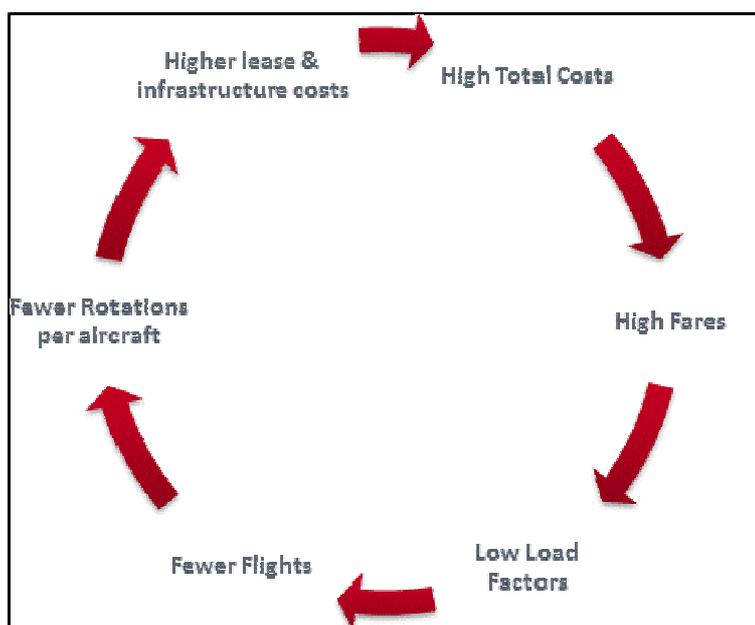
## Breaking the cycle of high costs

7.29 This section illustrates the potential impact of adjusting the cost base of the African carriers to be in line with those of European and Indian carriers

7.30 As shown in Figure 7.9, there is a vicious circle between high costs, high fares and low load factors:

- High fares lead to low demand;
- Low demand leads to higher unit costs from less efficient use of aircraft and, especially, lower load factors; and
- This in turn causes fares to rise, to cover the cost high base.

Figure 7.9: The vicious circle between high costs, high fares and low load factors

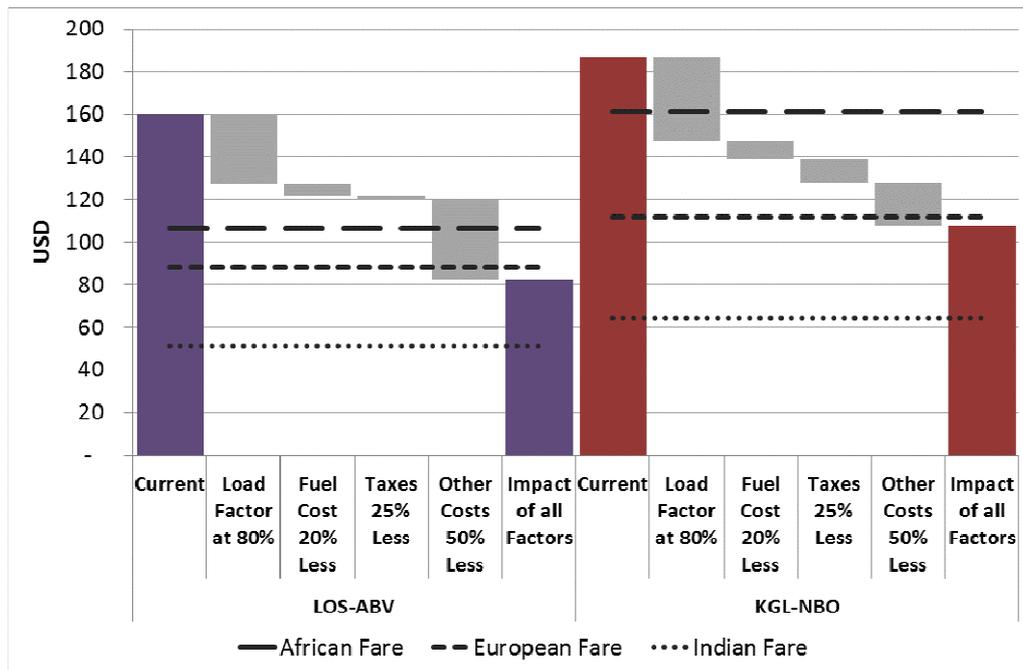


Source: Steer Davies Gleave analysis

7.31 We analysed the impact of adjusting the cost base of African carriers to be in line with European carriers by:

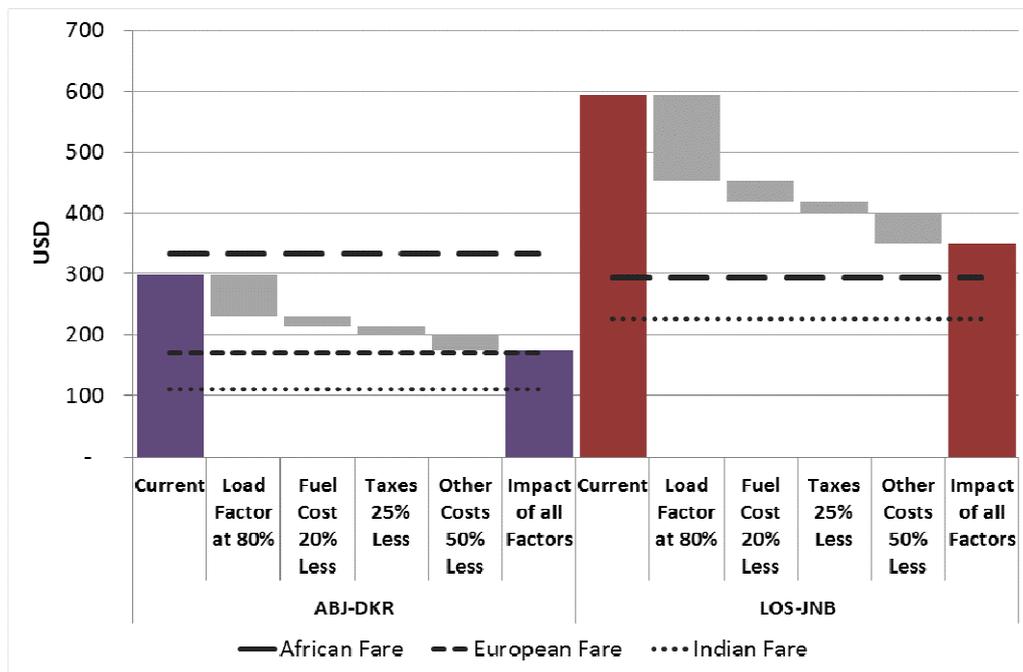
- Increasing the load factor to 80%;
- Reducing the Fuel costs by 20%;
- Reducing airport and navigation taxes by 25%; and
- Reducing other costs by 50%.

Figure 7.10: Impact of adjusting the cost base of African carriers (shorter routes, less than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

Figure 7.11: Impact of adjusting the cost base of African carriers (longer routes, more than 2 hours)



Source: Steer Davies Gleave analysis based on published fares and airline financial statements

7.32 This assumption on the increase in load factors to 80% was based on a price elasticity of -1.5 (which is an average benchmarked value and which implies that one percent reduction in price

elicits a 1.5 percent increase in demand)<sup>66</sup>. This elasticity (using the formally correct exponential formulation) implies that a fare reduction of 20% would result in a 40% increase in volume, all else being equal.

- 7.33 In terms of load factors, assuming the current load factor of 60%, a 40% increase in volume would lead to an 80% load factor, in line with those achieved in India and Europe.
- 7.34 As demonstrated in Figure 7.10 and Figure 7.11, an increase in the load factor to 80% has the largest impact in reduction of costs. Further measures to reduce fuel costs through improved infrastructure, taxes through government actions (e.g. regional discounts on airport charges) and 'other' costs, through economies of scale and competitive pressure would bring African costs down to be in line with European fare levels, though Indian fares remain lower still. This could essentially break the vicious circle between high costs and low load factors.
- 7.35 It is worth mentioning that fastjet reported a load factor of 73% for July 2014<sup>67</sup>, which might be one of the reasons why they have managed to promote low fares. However, they have only been in operation for a short period and it would be worth examining their financials after a few more years of operation.
- 7.36 In summary, while there is a vicious circle linking high costs and low demand (with high fares leading to low load factors and reduced efficiency, hence keeping costs high), our route cost analysis provides one solution to break down these barriers to aviation. This lies in a combined effort to reduce external costs, such as fuel and airport charges, via the provision of improved infrastructure and government intervention on the taxation regime (e.g. potential regional discounts on airport charges and taxes), and the improving of airline efficiency in terms of efficient utilisation of aircraft and potentially the reduction of fares to achieve higher load factors. With this the vicious circle of high costs and low load factors could be broken, resulting in an affordable, cost-efficient aviation offer.

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<sup>66</sup> Air Travel Demand Briefing note, IATA 2008,

[http://www.iata.org/whatwedo/Documents/economics/air\\_travel\\_demand.pdf](http://www.iata.org/whatwedo/Documents/economics/air_travel_demand.pdf)

<sup>67</sup> <http://www.stockmarketwire.com/article/4866039/fastjet-capacity-increases.html>

## 8 Liberalisation – the legal context

### Summary

#### Benefits of liberalisation

In this chapter we outline the potential economic and social benefits of a liberalised air transport market to the African continent, drawing on experiences to date in liberalised States in Europe, and also in developing nations (Chile, Brazil and Costa Rica). We note that there are currently a number of successful liberalisation regimes in Africa, including South Africa (which liberalised its domestic air travel in the early 2000s) and Egypt (liberalisation adopted in the 1980s), and the agreement to harmonise aviation policies and regulations and extend full privileges to each other's airlines in the East African Community (Kenya, Tanzania, Uganda) (2005, extended to Burundi in 2007).

We acknowledge that removing restrictions on national air transport industries will bring with it many concerns for African nations with long traditions of support for national carriers, as a number of national carriers will likely struggle to adjust; however others, as seen in Europe, will adapt and thrive by borrowing from the low-cost business models of their new competitors.

#### Moving towards liberalisation in Africa

The Yamoussoukro Decision (YD), adopted by 44 African States in 1994, aims to gradually liberalise scheduled and non-scheduled intra-African air transport services. In practice, however, this has not happened, due to different levels of development between signatory States, individual State interests and an incomplete legal framework in which to apply the YD. Some progress towards liberalisation has, however, been made at Regional Economic Community (REC) level, and in bilateral agreements.

Given this historical level of inertia at a pan-Africa level, significant step changes towards further air transport liberalisation (such as those seen in the EU in the early 1990s) are unlikely. We therefore propose a number of smaller developments that may be possible within the current legal framework that will keep the air transport market in Africa moving towards liberalisation, drawing on the some good examples in the RECs in this area. We focus on options available in areas of concern raised by stakeholders: competition and dispute resolution, ownership and control, fifth freedom rights, and air carrier designation.

## Introduction

- 8.1 As outlined in chapter 4 (paragraphs 4.15- 4.17), the Yamoussoukro Decision (YD) aims to gradually liberalise scheduled and non-scheduled intra-African air transport services. The Abuja Treaty, which formally entered into force on 12 May 1994, is recognised as the legal basis for the YD. Of the 54 African states, 44 have signed and formally ratified the Abuja Treaty and as a result became parties to the YD.
- 8.2 As noted in chapter 4, YD signatory States should have a liberalised air transport market in operation both within and between them. In practice, however, this is not the case. This is for a range of reasons, including:
- different levels of development between signatory States;
  - individual State interests (ownership clause, route access and fifth freedom rights, air carriers' designation); and
  - an incomplete legal framework in which to apply the YD (lack of competition regulations and dispute settlement mechanisms).
- 8.3 In this chapter we first outline the benefits of liberalisation that may be available in Africa, drawing on examples in other countries, including the EU Member States. Following this, and taking into account the existing barriers to the implementation of the Yamoussoukro Declaration and the reasons for them, we have considered targeted, incremental, legal and administrative changes which might facilitate liberalisation and competition. We propose a number of small steps towards further liberalisation that may be possible within the current legal framework, drawing on some of the positive developments seen at REC and national/bilateral levels.

## Benefits of liberalisation

- 8.4 Liberalisation brings with it economic and social advantages that are expected to benefit African nations, their communities, and their airlines.
- 8.5 For **consumers**, we have seen that liberalisation often results in:
- lower airfares;
  - an increased number of flights;
  - an increased choice of airlines and routes;
  - increased services to and from airports and cities that are traditionally under-served; and
  - improved quality of customer service.
- 8.6 For **airlines**, liberalisation can:
- improve capacity;
  - increase productivity and commercial innovation;
  - spread technical knowledge and best practices throughout the industry;
  - increase investment by lowering the cost of capital and opening access to greater and more efficient sources of financing;
  - improve profitability by lowering costs and improving efficiency; and
  - increase airline market value leading to greater potential for mergers and alliances.
- 8.7 With liberalisation, airlines may operate on a fully commercial basis - using capital more efficiently, responding to changes in market demand, and improving productivity. Liberalisation also may allow airlines to be innovative and competitive by developing specialisations in niche markets and routes. However, it is important to recognise that airlines

must be efficient, flexible, and responsive to customer needs to succeed in a liberalised environment.

- 8.8 In addition to the benefits to consumers and the air transport industry, liberalisation would likely provide significant benefits to the economy as a whole, with increases in GDP seen in those countries removing restrictions. An InterVISTAS study, for example, estimated that a 10% increase in international air services led to a 0.07% increase in GDP<sup>68</sup>. One of the key industries likely to benefit would be the tourism industry, which is closely linked with the air transport industry and which provides a large range of employment opportunities. In turn, the tourism industry has a multiplier effect in other economic sectors, such as lodging, food and beverage, and domestic transportation.
- 8.9 Trade benefits are likely under a liberalised air transport market. An estimated 40% of the total value of world trade is transported by air<sup>69</sup>. This is especially true in relation to distant markets, time-sensitive goods, and high-value and/or low-volume products<sup>70</sup> - all of which are applicable to valuable elements of African trade. Compounding this is the current state of road infrastructure in Africa, where the intraregional road network has major discontinuities<sup>71</sup>. There is much to gain from improved air cargo transport in Africa, and continued development of air transport trade would likely provide key economic growth opportunities to the continent.
- 8.10 The development of liberalised air transport system would also likely result in increased interest and investment from outside sources. The establishment of a modern air transport system and connectivity is often a factor considered by companies in making business location and investment decisions.

#### **The European experience**

- 8.11 The benefits of liberalisation and cooperation between neighbouring markets can be seen from examining the European air transport liberalisation experience. Air transport was fully liberalised in the EU over the period 1988 to 1992, and this liberalisation was extended to non-EU Member States Iceland, Norway and Switzerland<sup>72</sup>. As a result, any EU-licensed airline can operate air transport services between any two points within the EU, with whatever frequency and capacity and at whatever fares it wishes. In addition nationals or companies from any EU Member State are permitted to own and control or establish an airline in any EU Member State<sup>73</sup>. Following liberalisation, European air traffic boomed: scheduled routes increased by nearly 75%, the number of total flights increased by 88%, and the number of seats offered to consumers more than doubled<sup>74</sup>. Competition on routes grew: the number of international scheduled routes with three or more carriers increased by more than 250%<sup>75</sup>. These dramatic

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<sup>68</sup> Measuring the economic rate of return on Investment in Aviation, InterVISTAS Consulting Inc, 2006

<sup>69</sup> ICAO Information Paper, The Economic Benefits of Liberalising Regional Air Transport: A Review of Global Experience, ICAO Global Symposium on Air Transport Liberalisation, Dubai, 18-19 September 2006, p.7

<sup>70</sup> ICAO Information Paper, The Economic Benefits of Liberalising Regional Air Transport: A Review of Global Experience, ICAO Global Symposium on Air Transport Liberalisation, Dubai, 18-19 September 2006, p.7

<sup>71</sup> Africa's Infrastructure, A time for transformation, World Bank 2010

<sup>72</sup> See generally, [http://ec.europa.eu/transport/modes/air/index\\_en.htm](http://ec.europa.eu/transport/modes/air/index_en.htm) (last accessed 22/08/14)

<sup>73</sup> Ibid.

<sup>74</sup> ICAO Information Paper, p.12

<sup>75</sup> Ibid.

changes resulted in lower ticket prices, with published normal economy airfares decreasing by 5% and published promotional fares by 30%, while overall average ticket prices fell by more than 15%<sup>76</sup>. Studies have found that the expansion of air services increased European GDP by 4% from 1996-2006<sup>77</sup>.

### **Experience in developing nations**

- 8.12 Liberalisation has benefitted developing nations as well. In Chile, air transport liberalisation took place in 1979<sup>78</sup>. Since then, air traffic has increased at rates significantly higher than regional and world averages<sup>79</sup>. The Chilean national carrier (LAN) embraced competitive strategies and actually increased its market share<sup>80</sup>. As a result, the number of non-resident visitors to Chile has increased at an average annual rate of 8%, with resultant overall economic benefits to the tourism industry<sup>81</sup>.
- 8.13 In Costa Rica, air transport liberalisation has seen tourist arrivals quadruple over 20 years and the number of air carriers serving country has almost tripled<sup>82</sup>. In Brazil, start-ups of low-cost carriers such as GOL Airlines are prospering in a liberalised commercial environment - this success has led to more routes and lower fares which have in turn opened up new markets in this very large country with a history of air transport difficulties<sup>83</sup>.

### **Potential benefits in Africa**

- 8.14 Similar benefits in terms of fare and time savings, connectivity improvements, as well as broader economic benefits, would likely accompany liberalisation in Africa. Currently, the highly-regulated regional aviation market between many African countries limits competition, restricts flight frequency, and results in high ticket prices. This contributes to the restriction of overall economic growth in those nations. The continued protection of weak, state-owned airlines restricts competition and ignores the broader economic benefits of cheaper, convenient air travel - in addition, it would very likely free up money currently used as direct government financial subsidies on national airlines for other pressing national needs, as well as increasing government income from an increased number of passengers paying airport taxes. Air service restrictions, such as the protection of national airlines, are seen to encourage inefficiency, distorting the market and depriving the nation of tourism and business development opportunities. In fact, continued restriction results in a less competitive and outdated national airline in the increasingly inter-connected global economy and as a result an unappealing prospect to the major global airline alliances seeking to increase their membership.
- 8.15 It is important to note that there are currently a number of successful liberalisation regimes in Africa. South Africa liberalised its domestic air travel in the early 2000s and the creation of low-cost, no-frills airlines has resulted in the domestic air transport market growing by more

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<sup>76</sup> Ibid.

<sup>77</sup> Oxford Economic Forecasting/Air Transport Action Group, 2005, Economic and Social Benefits of Air Transport

<sup>78</sup> ICAO Information Paper, p.13

<sup>79</sup> Ibid.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid. p. 14

<sup>83</sup> Ibid.

than 50% in only four years<sup>84</sup>. In addition, established, full-service airlines have reduced their prices in response to remain competitive and attract consumers<sup>85</sup>. Liberalisation was adopted by Egypt in the 1980s to take advantage of tourism opportunities at the nation's heritage sites and coastal tourism hot spots<sup>86</sup>. In response, international traffic and tourist arrival numbers increased an average of 8-11% per year despite ongoing political uncertainty and terrorism fears<sup>87</sup>. Further, Egyptair, the national carrier, has maintained its position of a 30% share in international passenger traffic by adopting competitive strategies<sup>88</sup>. In 2005, the East African Community (Kenya, Tanzania, Uganda) agreed to harmonise aviation policies and regulations and extend full privileges to each other's airlines with great success - this has been extended to Burundi and Rwanda upon those nations joining the Community in 2007<sup>89</sup>.

8.16 A recent study published by IATA assesses the economic benefits of implementing the Yamoussoukro Decision<sup>90</sup> and notes the following additional African success stories:

- The agreement of a more liberal air market between South Africa and Kenya in the early 2000s led to 69% rise in passenger traffic.
- Permitting a low cost carrier service between South Africa and Zambia (Johannesburg-Lusaka) resulted in a 38% reduction in discount fares and 38% increase in passenger traffic.
- Ethiopia's pursuit of more liberal bilaterals (on a reciprocal basis) has contributed to the success of Ethiopian Airlines. In addition, Ethiopians benefit from 10-21% lower fares on intra-African routes with more liberal bilaterals, and 35-38% higher frequencies (compared to restricted intra-Africa routes).
- The 2006 Morocco-EU open skies agreement led to 160% rise in traffic and the number of routes operating between points in the EU and points in Morocco increasing from 83 in 2005 to 309 in 2013.

8.17 While we have reviewed the likely benefits of liberalisation, removing restrictions on national air transport industries will bring with it many concerns for African nations with long traditions of support for national carriers. Liberalisation in the United States and Europe has led to a number of national carriers struggling to adjust (e.g. Malev, Swissair, Olympic Airways); however others have adapted and thrived by borrowing from the low-cost business models of their new competitors. National carriers can be competitive early on in a decreased regulatory environment through alliances and mergers.

8.18 Liberalisation may result in reduced profits in the short term, but reduced fares lead to increased traffic volume which can be turned into an overall increase in both revenue and profitability.

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<sup>84</sup> Ibid. p.3

<sup>85</sup> Ibid.

<sup>86</sup> Ibid. p.8

<sup>87</sup> Ibid.

<sup>88</sup> Ibid. p.9

<sup>89</sup> Ibid.

<sup>90</sup> Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision, prepared for IATA in partnership with AFCAC and AFRAA by InterVISTAS Consulting Ltd, July 2014

## Liberalisation in Africa: a gradual change

8.19 In this section we consider a number of targeted, incremental, legal and administrative changes which might facilitate liberalisation and competition in the air transport market in Africa. These would be actions or changes that are possible within the context of existing regulations – we first review the scope of the potential changes available, drawing on some of the positive developments seen at REC and national/bilateral levels, and then explore options in the following areas (see also stakeholder comments on this areas in Chapter 4, from page 18):

- Ownership and control;
- Fifth freedom rights; and
- Air carrier designation.

### Scope of changes: focus efforts at national or REC level

8.20 The Yamoussoukro Decision lacks clear competition rules, and whilst it refers to arbitration procedures in its Annex II, no such procedures actually exist. Notwithstanding efforts (including at African Union level) to develop dispute resolution/arbitration rules and a competition framework, the issue remains unresolved. The lack of such rules and continuing efforts to properly empower and resource the African Civil Aviation Commission (in its role as executing agency) are frequently cited as factors contributing to the ongoing delay in implementing the Yamoussoukro Decision. However, some commentators suggest that in practice such matters might be better viewed as conditions subsequent to implementation of the Decision rather than conditions precedent<sup>91</sup>.

8.21 Various efforts to progress liberalisation at REC level demonstrate that a lack of pan-African dispute resolution and competition rules need not be a barrier to market access reform. The West African Economic and Monetary Union's ("WAEMU") air transport programme provides for market access rules which are in some respects (e.g. provision for cabotage) more liberal than the Yamoussoukro Decision, albeit only on a sub-regional basis. This appears to have been assisted in part by the establishment of competition rules applying to the air transport sector under WAEMU Regulation No. 2/2002. Another example is the clearly drafted dispute resolution and arbitration framework under the Banjul Accord Group's (BAG) Multilateral Air Services Agreement.

8.22 The various bilateral ASAs which are generally compliant with the Yamoussoukro Decision's principles, such as a number of those entered into by Ethiopia, further demonstrate that market access reform can progressed on a bilateral basis if necessary (with any disputes and competition issues presumably dealt with by way of negotiation).

8.23 Concerns regarding the underdeveloped institutional and supervisory mechanisms for implementation of the Yamoussoukro Decision may of course have some merit. However, in reality it seems that a key driver of the ongoing inertia in achieving liberalisation (whether through the Yamoussoukro Decision or otherwise) is the varying level of air transport development across the African continent and the perceived negative impact liberal market access rules could have on certain local interests, particularly in the context of relaxed rules regarding nationality of ownership and control of air carriers.

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<sup>91</sup> Open Skies for Africa, Charles E Schlumberger, 2010

- 8.24 It might be argued that those States Party with strong carriers (such as Ethiopia) stand to gain the most from relaxed market access rules. However, the growth of air services in states such as Uganda, which has pursued a policy of liberalisation on a bilateral basis notwithstanding the absence of a significant national carrier, demonstrate that liberalisation does have its merits.
- 8.25 If full implementation of the Yamoussoukro Decision or other forms of pan-African liberalisation are currently unrealistic, in the interim focus might be shifted to further market access reform at REC level or on a bilateral ASA basis. Experience in (inter alia) WAEMU and BAG demonstrates the possibilities in that regard.

#### Scope of change

**Issue:** a key driver of the ongoing inertia in achieving liberalisation is the varying level of air transport development across the African continent and the perceived negative impact liberal market access rules could have on certain local interests (the underdeveloped institutional and supervisory mechanisms required for implementation of the Yamoussoukro Decision are of concern but do not appear to be the main issue).

**Lesson:** Efforts to progress liberalisation at REC level, and the bilateral ASAs which are generally compliant with the Yamoussoukro Decision's principles (such as a number of those entered into by Ethiopia) demonstrate that a lack of pan-African dispute resolution and competition rules need not be a barrier to market access reform.

**Proposal:** focus on market reform at REC level or on bilateral ASA bases. Suggested starting points could include:

- the East Africa Community Civil Aviation Safety and Security Oversight Agency (CASSOA), which exists to standardise and harmonise aviation regulations and revisions across the EAC States. The CAAs of EAC Member States are major shareholders (see chapter 6, paragraphs 6.48 and 6.49 for further information).
- The West African Economic and Monetary Union (WAEMU)
- Banjul Accord Group

#### Ownership and control

- 8.26 As identified in chapter 4 (under paragraph 4.21), and as barriers to fastjet's expansion have demonstrated in practice, issues of airline ownership represent a key concern for African States and airlines, and therefore constitute a substantial barrier to the effective implementation of the Yamoussoukro Decision.
- 8.27 Most bilateral ASAs and functioning open skies arrangements contain rules dealing with nationality of airline ownership and control. Bilateral ASAs typically require that the carrier be substantially owned and effectively controlled by the designating state or its nationals. Regulation (EC) 1008/2008, which consolidates the liberalised rules on intra-EU market access, makes the operation of intra-EU air services conditional upon (inter alia) EU member states or their nationals owning more than 50% of the air carrier and effectively controlling it<sup>92</sup>.

<sup>92</sup> Art.4(f) Regulation (EC) 1008/2008 on common rules for the operation of air services in the Community

- 8.28 Whilst the Yamoussoukro Decision requires that the designated carrier be effectively controlled by a State Party<sup>93</sup>, it abandons the traditional nationality of ownership requirement in favour of designation of carriers that are (inter alia) legally established and have their headquarters, central administration and principal place of business in the designating state.
- 8.29 Although arguably more progressive than the traditional nationality of ownership approach, and whilst falling into line with ICAO's general aim of encouraging the use of a 'principal place of business' model, the Yamoussoukro Decision's very liberal stance on issues of ownership could make its effective implementation difficult, at least in the short term. This is particularly true in the context of general concerns that well-funded overseas (and more particularly Gulf) carriers or investors might dominate local markets through the establishment of or the making of equity investments in locally incorporated air carriers, thereby putting African owned carriers at a competitive disadvantage. Conversely, given the general desire to increase African carriers' access to international capital markets, any open skies arrangement based on a more traditional nationality of ownership requirement may impact the long-term growth of the African aviation industry.
- 8.30 Art.2 of the Yamoussoukro Decision provides that it takes precedence over any multilateral or bilateral agreements on air services between States Party which are incompatible with the Decision. Strictly speaking any attempt to import a traditional ownership requirement into a bilateral or multilateral arrangement (for instance at REC level) between States Party to the Yamoussoukro Decision would therefore be null and void. Nevertheless, in practice the introduction of such a requirement might provide an effective transitional measure in seeking to effectively implement the Yamoussoukro Decision (or encouraging pan-African liberalisation in more general terms). This is particularly true given the widespread disregard for its terms by various States Party, and the continued reliance on and negotiation of bilateral ASAs which retain more traditional nationality of ownership requirements.
- 8.31 The use of an EU-type requirement - that a designated air carrier be majority owned by States Party to the Yamoussoukro Decision or their nationals - would still allow for foreign equity participation in local carriers, albeit at a reduced (i.e. minority shareholder) level. The introduction of such a requirement on a pan-African basis appears to require either the amendment of the Yamoussoukro Decision itself or the introduction of a new open skies regime. Neither option seems particularly practicable.
- 8.32 A more realistic approach might be to encourage the use of multilateral agreements on a regional or sub-regional level (either through existing RECs or smaller groups of like-minded States Party) that largely replicate the provisions of the Yamoussoukro Decision save that a designated airline would have to be majority owned and effectively controlled by one or more contracting State or its/their nationals. Such arrangements might import an EU-type ownership requirement that<sup>94</sup>:-
- "[Contracting States] and/or nationals of [Contracting States] own more than 50% of the [undertaking/carrier] and effectively control it, whether directly or indirectly through one or more intermediate undertakings."*
- 8.33 Some RECS have already provided similar provisions within their regional / sub-regional liberalisation programmes. Whilst implementation has not yet occurred (seemingly because

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<sup>93</sup> Art.6.9(g) of Yamoussoukro Decision

<sup>94</sup> Per Art.4(f) of Reg.(EC) 1008/2008

competition rules are still under development), the Common Market for Eastern and Southern African's ("COMESA") air transport liberalisation programme<sup>95</sup> provides for market access subject to the carrier being substantially owned and effectively controlled by a COMESA member state or its nationals.

- 8.34 Alternatively, a standard form bilateral ASA might be developed for use between like-minded States which is largely Yamoussoukro compliant save that ownership of a designated carrier should vest in one or more of the States that have implemented the standard form bilateral ASA. How such an arrangement would be implemented in practice would require further investigation.
- 8.35 Either of the above arrangements might be supplemented with a discretionary right for 'State A' to agree to 'State B's' designation of a carrier who does not comply with the nationality of ownership requirement. In practice such discretion might well be exercised regardless of whether there is an express term to that effect, but perhaps the inclusion of such a provision would provide a clear method for a contracting State to filter out benign overseas investments from those which are perceived as putting genuinely local carriers at a competitive disadvantage.
- 8.36 Thought could also be given to the development of an agreed definition of 'principal place of business' for the purposes of Art.6.9(b) of the Yamoussoukro Decision. Such a definition might incorporate an expectation of regional ownership and therefore provide adequate comfort to stakeholders who remain concerned about non-African interests establishing or investing in locally incorporated air carriers were the Yamoussoukro Decision to be fully implemented in its current form. Such an interpretation would arguably be inconsistent with way 'principal place of business' is typically interpreted and the development of such definition (and indeed its formal implementation) would therefore require significant further thought.

#### Ownership and Control

**Issue:** The Yamoussoukro Decision requires that the designated carrier be effectively controlled by a State Party, abandoning the traditional nationality of ownership requirement in favour of designation of carriers that are (inter alia) legally established and have their headquarters, central administration and principal place of business in the designating state. This very liberal stance on issues of ownership could make the effective implementation of the YD difficult, at least in the short term - particularly in the context of general concerns that well-funded overseas (and more particularly Gulf) carriers or investors might dominate local markets.

**Proposal:** encourage the use of multilateral agreements on a regional or sub-regional level (either through existing RECs or smaller groups of like-minded States Party) that largely replicate the provisions of the Yamoussoukro Decision save that a designated airline would have to be majority owned and effectively controlled by **one or more** contracting States or their nationals (so retaining the ownership requirement, but not restricting it to nationals of single African state). Such arrangements might import an EU-type ownership requirement. Alternatively, develop a standard form bilateral ASA that is compliant with YD in all areas save that ownership of a designated carrier should be one or more of the signatory States.

**Suggested starting point:** the COMESA air transport liberalisation programme

<sup>95</sup> Through the COMESA Regulations for the implementation of Liberalization of Air Transport Services - Legal Notice No.2 of 1999

### Fifth freedom rights

- 8.37 Stakeholder feedback indicates that potentially unrestricted access to 5th freedom traffic rights on an intra-African basis under the Yamoussoukro Decision may be overly ambitious, at least in the short term (see chapter 4, paragraphs 4.29 - 4.33). That said, at REC level, particularly amongst ECOWAS members (and more specifically BAG and WEAMU states), regional liberalisation of 5th freedom traffic rights appears to have been successful.
- 8.38 If access to 5th freedom traffic rights is deemed to be a key barrier to the proper implementation of the Yamoussoukro Decision, one means of pushing through implementation of the Decision more generally might be to re-apply the transitional measures under Art.3.2 of the Decision, which allowed States Party to limit their commitment in respect of 5th freedom traffic rights for a two year period. The same system might be applied at REC level (or amongst new groups of like-minded states).
- 8.39 Another transitional measure might be to limit (on a multilateral regional (i.e. REC) basis, or through a standard form bilateral ASA) the number of 5th freedom routes that 'State B' (and 'State C') must grant to 'State A's designated carrier(s), beyond which the grant of further 5th freedom rights would be at 'State B's discretion. In practice this might result in 'State B' only granting access to unprofitable / undesirable 5th freedom routes. This might be remedied by providing that 'State A's designated carrier(s) should be granted access to any 5th freedom route it desires subject to the relevant cap not having been met.
- 8.40 Another potential approach would be to adopt a process similar to the transitional measures under the first and second EU liberalisation packages, with access initially limited to larger routes (in terms of annual traffic).

#### Fifth Freedom rights

**Issue:** unrestricted access to 5th freedom traffic rights on an intra-African basis under the Yamoussoukro Decision may be overly ambitious, at least in the short term.

**Proposal:** encourage gradual releases of restrictions of fifth freedom rights, including:

- Regional liberalisation of 5th freedom traffic rights.
- Apply transitional measures e.g. 5<sup>th</sup> freedom traffic rights for a two year period.
- Limitations to the number of routes where 5<sup>th</sup> freedom rights are offered (possibly similar to that under the first and second EU liberalisation packages, with access initially limited to larger routes (in terms of annual traffic).

**Suggested starting point:** BAG and WEAMU States, to confirm implementation mechanism and success levels, and then communication to COMESA, EAC, and SADC.

#### Air carrier designation

- 8.41 Art.6 of the Yamoussoukro Decision provides that "each State shall have the right to designate in writing at least one airline...". Given this language, there exists a risk that 'State A' would designate one carrier (say a State-owned flag carrier) for the purposes of the Yamoussoukro Decision, and in seeking to protect that carrier's interests then refuses to make further designations. This could significantly limit the degree of actual liberalisation and as a result the benefits of competition, given the possibility that the number of carriers actually granted route access under the Yamoussoukro Decision would be severely restricted, potentially to only one airline.

- 8.42 Whilst unlimited designation seems unrealistic, perhaps each State could be required to designate up to, say, 3 carriers, subject to them meeting the eligibility criteria under Art.6.9 of the Yamoussoukro Decision, following which the State would be able to designate further carriers at its discretion.

**Designation**

**Issue:** States could limit the number of designations to one carrier only – which does not encourage competitive behaviour.

**Proposal:** requirement to designate up to 3 carriers, subject to them meeting the eligibility criteria under Art.6.9 of the Yamoussoukro Decision.

## 9 Conclusion and Action Plan

### Summary

In this chapter we provide an overview of the study's findings and then propose an outline strategy for the ICA to ensure the learnings and recommendations of the study reach the relevant decision makers.

We propose that, following the conclusion of this project, the next steps should be targeted discussions with key decision makers. It is our view that the activity in this area has reached the point where the analysis and conclusions reached, along with the stakeholder views gathered to date, can be presented and used to facilitate further discussion amongst decision makers to understand where progress in liberalising the air transport market in Africa might be achieved, both in a geographic sense (i.e. the States or Regional Economic Communities (RECs) most receptive of potential changes) and legislatively (i.e. the areas of development, whether that be in designation, ownership & control, fifth freedoms, or others, where success is most likely to be reached).

### Conclusions and lessons learned

- 9.1 The analysis in this report has highlighted some of the characteristics of aviation in Africa, along with a review of the range of issues that are preventing the expansion of effective aviation services in Africa.

#### Legal context

- 9.2 The key treaty in Africa relating to liberalisation in the aviation market is the Yamoussoukro Decision. The objective of the Yamoussoukro Decision (YD) is the gradual liberalisation of scheduled and non-scheduled intra-African air transport services. The Abuja Treaty (1994) is recognised as the legal basis for the YD. Of the 54 African states, 44 have signed and formally ratified the Abuja Treaty and as a result became parties to the YD.
- 9.3 In theory, therefore, signatory States should have a liberalised air transport market in operation both within and between them. In practice, however, we have found that this is not the case. All sources confirmed that Yamoussoukro had not been implemented, or had only been partly implemented, and indeed whilst we are aware that Yamoussoukro is cited on occasion in bilateral ASAs, it is not, in practice, taken into account during negotiations for air traffic rights.
- 9.4 We asked stakeholders for their comments on three key components of the Air Services Agreements: airline ownership, Fifth Freedom rights and designations of carriers by States. We understand that issues of airline ownership are the most significant concern for African States and airlines. A number of stakeholders, including Kenya Airways, reported issues concerning the granting of Fifth Freedom rights. As for designations, under the YD there is no limit on the

number of carriers a State Party can designate, as long as the carriers meet the eligibility requirements, although in practice often only a single carrier is designated by each country (the YD is in this area at least not particularly encouraging of competition, as the requirement is for 'at least one' designation only) .

### **The current situation**

- 9.5 We reviewed the types of route and the types of carrier operating from the continent's 20 biggest airports, and found that the mix of domestic, intra-regional, inter-regional and intercontinental traffic varies greatly between even the largest airports, revealing implicit geographical and market attributes, as well as pointing to the strategies of the airlines using them. Differences were noted in the extent to which triangular routings are utilised in the four African regions (Northern, Southern, Eastern and Western & Central). Triangular routings are found to be more prevalent in Western & Central Africa, reflecting the low levels of traffic, the lack of a dominant airline with a central hub, and the existence of Fifth Freedom traffic rights.

#### *Gaps in connectivity and hubs*

- 9.6 Our analysis of travellers' itineraries demonstrates the low level of connectivity at several important African airports, including Entebbe, Accra and Lagos, but also Cairo and Johannesburg (where the proportion of indirect journeys may be lower, but the large traffic volumes suggest that these airports might be able to support direct markets and improved connectivity). The low level of inter-regional connectivity across the continent is also highlighted, with as little as 31% of journeys between Northern and Southern Africa found to be direct in the period considered (Sept 2012 - Aug 2013).
- 9.7 The extent to which some of Africa's busiest airports act as hubs for connecting passengers is also examined. As expected, Cairo, Casablanca, Johannesburg, Addis Ababa and Nairobi all act as hubs, with high proportions (and volumes) of connecting passengers. A similar hub in Western & Central Africa is absent. Lomé is the only airport in the region that could be characterised as a hub, however it is small compared to busier airports, such as Lagos.

#### *Fleet*

- 9.8 Africa's low level of connectivity is further reflected in the relatively small size of African airlines' fleets. Despite representing 15% of the world's population, African airlines operate only 5.5% of the world's commercial passenger and freighter aircraft, thereby having the lowest level of aircraft per capita of any world region. The average age of these fleets is found to be the oldest of any world region (17 years vs 13 years for the global average), and their aircraft mix tends to involve smaller than average aircraft.

#### *Fares*

- 9.9 We found that the average intra-African fare price per km is approximately half as high again as the average intra-European fare. The drivers of this difference include: high levels of taxes, fees and charges in African States, higher operational costs in Africa; and increased competition as a result of market liberalisation resulting in lower ticket prices in Europe.

#### *Aviation Safety*

- 9.10 Safety oversight and consumer confidence in aviation safety in Africa has long been an issue for African airlines. According to a World Bank study, the high accident rate in Sub-Saharan Africa is primarily a result of poor safety standards and lax supervision. Airlines recognise the paramount importance of safe operations and oversight agencies note that compliance, whilst

improving, remains an issue. Some RECS are undertaking to harmonise aviation safety regulations across their Member States.

### *Infrastructure*

- 9.11 In the North, East, and South, established hubs such as Cairo, Addis Abba, Nairobi and Johannesburg, provide airlines with sufficient infrastructure to develop their operations from these airports. In Western Africa, whilst some airports (Lagos, Lomé) do provide important connectivity, infrastructure issues prevent their development into fully operational hubs. The majority of stakeholders consulted concluded that Lagos, Nigeria, is the most appropriate location for an aviation hub in West Africa, due to the size of the economy, population of Nigeria and level of intercontinental traffic as compared to the other options, Accra (Ghana) and Lomé (Togo). However safety issues and the lack of infrastructure do not make it an immediately attractive choice.

### **Proposals for change**

- 9.12 Our airline costs and route economics analysis provides one solution to break down these barriers to aviation. This lies in a combined effort to reduce external costs, such as fuel and airport charges, via the provision of improved infrastructure and government intervention on the taxation regime (e.g. potential regional discounts on airport charges and taxes), and the improving of airline efficiency in terms of efficient utilisation of aircraft and potentially the reduction of fares to achieve higher load factors. With this the vicious circle of high costs and low load factors could be broken, resulting in an affordable, cost-efficient aviation offer.
- 9.13 As noted throughout this report, the YD exists in theory rather than practice. In addition, even if the YD were fully implemented, its provisions do not fully constitute an Open Skies arrangement (for example, the designation clause, see Chapter 4, from page 18), relying very much on governmental involvement and enthusiasm to foster freedom of access for eligible airlines. The evidence shows that such enthusiasm is often absent.
- 9.14 Moving towards liberalisation in practice is difficult as decision makers in Government and other stakeholders must be convinced of the benefits of liberalisation (to customers, airlines and governments/economies). In addition the means of moving towards a more liberalised environment in gradual increments must be found, starting with the existing legislative and administrative framework. Given the inertia on various existing requirements of YD (such as ownership) it is unlikely that any step changes beyond increments will be achievable in practice. However, there are positive experiences seen at REC and national/levels in some cases that can be drawn upon to support incremental moves towards liberalisation:
- The East African Community (EAC):
    - currently drafting region-wide air transport liberalisation legislation, with the only outstanding ('burning') issue (as of end 2013) being that of ownership (i.e. the level of national ownership in a State's designated carrier).
    - The East Africa Community Civil Aviation Safety and Security Oversight Agency (CASSOA) exists to standardise and harmonise aviation regulations and revisions across the EAC States. CASSOA adheres to ICAO standards, and ICAO Annexes 1-19 (excluding Annex 9) have been harmonised, including all security Annexes. The CAAs of EAC Member States are major shareholders. Now that regulations have been harmonised, CASSOA is developing a common personnel licensing system, which would enable free movement of skilled aviation personnel across EAC States and support broader liberalisation goals. CASSOA are hoping to get Southern African

Development Community (SADC) involved for some elements (aviation medical personnel). Their vision is for harmonised regional safety groups to eventually become continental. Our understanding is that the EAC and EAC-CASSOA's progress in harmonising aviation safety regulations is the most developed of all African Regional Economic Communities.

- The West African Economic and Monetary Union's ("WAEMU") air transport programme provides for market access rules which are in some respects (e.g. provision for cabotage) more liberal than the Yamoussoukro Decision, albeit only on a sub-regional basis. This appears to have been assisted in part by the establishment of competition rules applying to the air transport sector under WAEMU Regulation No. 2/2002. Another example is the clearly drafted dispute resolution and arbitration framework under the Banjul Accord Group's (BAG) Multilateral Air Services Agreement.
- Whilst implementation has not yet occurred (seemingly because competition rules are still under development), the Common Market for Eastern and Southern African's ("COMESA") air transport liberalisation programme provides for market access subject to the carrier being substantially owned and effectively controlled by a COMESA member state or its nationals.
- At REC level, particularly amongst ECOWAS members (and more specifically BAG and WEAMU states), regional liberalisation of 5th freedom traffic rights appears to have been successful.

#### *Ownership and Control*

9.15 The Yamoussoukro Decision requires that the designated carrier is effectively controlled by a State Party, abandoning the traditional nationality of ownership requirement in favour of designation of carriers that are (inter alia) legally established and have their headquarters, central administration and principal place of business in the designating state. This very liberal stance on issues of ownership could make the effective implementation of the YD difficult, at least in the short term - particularly in the context of general concerns that well-funded overseas (and more particularly Gulf) carriers or investors might dominate local markets.

9.16 We propose that the use of multilateral agreements on a regional or sub-regional level (either through existing RECs or smaller groups of like-minded States Party) is encouraged. These may largely replicate the provisions of the Yamoussoukro Decision apart from a requirement that a designated airline would have to be majority owned and, importantly, effectively controlled by **one or more** contracting States or their nationals (so retaining the ownership requirement, but not restricting it to nationals of single African state). This is similar to an EU-type ownership requirement. Alternatively, a standard form bilateral ASA could be developed that is compliant with YD in all areas save that ownership of a designated carrier should be one of the signatory States.

#### *Fifth Freedom rights*

9.17 Unrestricted access to 5th freedom traffic rights on an intra-African basis under the Yamoussoukro Decision may be overly ambitious, at least in the short term. We therefore propose that gradual release of restrictions of fifth freedom rights is encouraged, including:

- Regional liberalisation of 5th freedom traffic rights.
- Application of transitional measures e.g. 5th freedom traffic rights for a two year period.

- Limitations to the number of routes where 5th freedom rights are offered (possibly similar to that under the first and second EU liberalisation packages, with access initially limited to larger routes (in terms of annual traffic)).

#### *Designation*

- 9.18 States currently may limit the number of designations to one carrier only – which does not encourage competitive behaviour. We therefore propose that States are required to designate up to three carriers, subject to them meeting the eligibility criteria under Art.6.9 of the Yamoussoukro Decision.

### **Stakeholder engagement on the issues during the study**

- 9.19 For any progress on the liberalisation of the air transport sector to be made, it is vital that the right stakeholders are consulted. We provide below an outline strategy for ensuring the issues highlighted by the study and proposed recommendations reach the relevant decision makers.

- 9.20 During the course of this study, considerable efforts were made to try to communicate the issues raised to the most relevant stakeholders, with mixed success. The project team has spoken to a number of stakeholders and also attended a number of conferences and meetings in Africa (see chapter 2 for details):

- Modern Airports Africa Conference, Nairobi Kenya on November 19 and 20, 2013, where the team attended the conference and was able to arrange a number of productive side-meetings with other conference attendees and project stakeholders;
- African Aviation Summit 2014 & 23rd Annual 'Air Finance for Africa' Conference Addis Ababa, Ethiopia, from 9-11 June, 2014, where the team presented on day 1 of the conference (*Implementing Air Transport Liberalisation in Africa; Benefits and Opportunities*); and
- The 10<sup>th</sup> ICA Annual Meeting in Cape Town, South Africa, November 2014.

- 9.21 The *Modern Airports Africa Conference* provided the opportunity to hold interviews with a number of stakeholders, which has materially contributed to this study.

- 9.22 At the *African Aviation Summit* in Addis Ababa project team's presentation was well received, with a substantial question and answer session following the main presentation. There was considerable interest in the route economics comparisons, including discussion of the relationship of low load factors and high fares and how to break out of this cycle. However, in relation to the proposed regulatory measures to achieve liberalisation, it was unfortunate that there were not many representatives present from national regulatory bodies, or national governments, nor indeed many from airlines, in contrast to expectations beforehand based on the suggested conference programme and delegates. Therefore, it was not possible to hold a constructive debate on the proposed regulatory measures with the most relevant audience.

- 9.23 Full reports of both conferences were provided in separate reports to the ICA.

#### *10<sup>th</sup> ICA Annual Meeting in Cape Town*

- 9.24 The project team attended the 10<sup>th</sup> ICA Annual Meeting in Cape Town, South Africa, in November 2014. This high level meeting of policy makers was jointly hosted by AFDB and the South African Government, and had over 120 participants from:

- The African Union Commission (AUC);
- All eight African Regional Economic Communities (RECs);

- International donors;
- The G8 countries; and
- The private sector.

9.25 The project team attended the conference and presented the findings and recommendations of the study during two sessions:

- The ICA African Stakeholders' meeting on 12<sup>th</sup> November 2014;
- The ICA Members meeting on 13<sup>th</sup> November 2014.

9.26 This meeting provided a good opportunity to further disseminate the study, its analysis and its conclusions. The ICA itself hosted, which ensured both that the study presentation was incorporated into the meeting schedule, and access to attendees' contact details. We originally proposed that the study should be presented to the group, which would be followed by a separate, breakaway discussion group arranged for a smaller set of key decision makers, likely involving government and regulatory authorities at this stage. Unfortunately the breakaway discussion group was not available to hold in the busy schedule of the meeting, however some productive discussion was held following each of the presentations:

- A SADC representative commented that the report highlights issues already known, and that the requirement now is to understand how the level of liberalisation implementation can be improved. This stakeholder also confirmed that discussions have been ongoing for some time on this topic at REC level.
- A number of stakeholders suggested further consultation was required, including with the African Civil Aviation Commission (AFCAC) and the African Airlines' Association (AFRAA). The African Union Commission confirmed they would be willing to assist in this engagement by providing appropriate introductions and contact details.
- The EAC confirmed that the issues highlighted by the study are in line with the key issues that they are currently experiencing in their own REC-level negotiations, where the issue of ownership and control is the only impediment to agreement.
- The recent meeting of the Chairperson of the African Union Commission, HE Dr. Nkosazana Dlamini Zuma and a delegation of the AFRAA in Addis Ababa in October 2014 was noted. The purpose of this meeting was to discuss the importance of the aviation sector in the socio-economic transformation of the continent<sup>96</sup>. It was noted that it would be helpful to align activities in this area.
- A number of RECs expressed an interest in gaining a better understanding (i.e. quantification) of the economic benefits available under a liberalised air transport market (to consumers, operators and governments).
- It was generally agreed that the audience present did not constitute the "right" stakeholders required for any progress or agreement to be made, and that this group should include the AUC, RECs, AFRAA, and AFCAC as a minimum.

9.27 For a full list of stakeholders engaged with during the ICA Annual Meeting, see chapter 2.

9.28 A significant number of interested stakeholders attended the meeting and there was a good level of engagement, with helpful suggestions being made about parties to involve in future discussions. However, it was generally agreed that to make significant progress and move towards reaching agreement on the issues, it would be necessary to hold meetings with key decision makers within African aviation, including national governments and aviation

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<sup>96</sup> <http://cpauc.au.int/en/content/single-african-air-transport-market-critical-agenda-2063>

regulators, the Regional Economic Community (REC) aviation policy leaderships, and airline representatives (for both the full service and low cost sectors).

### **Action Plan to facilitate implementation of recommendations**

- 9.29 While this Final Report represents the formal output of the present study, it is clear that in order to make practical progress in the implementation of the recommendations, further engagement with stakeholders is required.
- 9.30 We propose that the next steps following this study should be targeted discussions with key decision makers. We assess that the activity in this area has reached the point where the analysis and conclusions reached, along with the stakeholder views gathered to date, can be presented and used to facilitate further discussion amongst decision makers. This would allow stakeholders to understand where progress in liberalising the air transport market in Africa might be achieved, both in a geographical sense (i.e. the States or RECs most receptive of potential changes) and legislatively or administratively (i.e. the areas of development, whether that be in designation, ownership and control, fifth freedoms, or others, where success is most likely to be reached).
- 9.31 Based on discussions with stakeholders during the project, and in particular at the ICA Annual Meeting in Cape Town, it is clear that the Regional Economic Communities are the forums most closely engaged in developing changes to how aviation is administered in Africa. However, progress within the RECs is ultimately dependent on the agreement of their constituent national governments.
- 9.32 Within national governments, we observe that while the transport ministries (or where they exist, aviation ministries) are the most directly involved, in practice key decisions with financial implications, which include those relating to national airlines and airport passenger charges, need to involve national finance ministries or treasury departments. These ministries are also, often, influential with heads of government.
- 9.33 Taking these factors into account, we therefore propose a two-pronged approach for any future engagement with stakeholders:
- Support progress on aviation matters at REC level; and
  - Engage with national governments in the context of infrastructure funding through their finance ministries.
- 9.34 Firstly, we suggest that it would be useful to facilitate working sessions with individual RECs (or groups of RECs such as the COMESA/EAC/SADC tripartite). In order to fit in with the work underway within the RECs, we would suggest that the RECs be invited to host the relevant sessions, but that the ICA members be invited to fund them, allowing the ICA Secretariat a role as well as an opportunity to promote the findings of this study. It would be important to ensure the invitation of representatives of the constituent national governments, as well as, potentially, pan-African organisations including the AUC and AFCAC and some airline representatives. The exact format and invitation list would need to be agreed with the hosting REC, and there is likely to be a trade-off between a smaller, more focused meeting and a larger gathering which may have more acceptance among stakeholders. The agenda would need to include both information sharing and working sessions to develop solutions, for example structured as follows:
- Understanding of the current regulations and administrative procedures in place in the REC countries, both national and regional;

- Current initiatives to liberalise access to markets across the REC, including progress and outstanding issues;
- Discussion of the potential benefits of liberalisation;
- Discussion of practical steps, in terms of changes to administrative procedures or market access rules, which could be undertaken (and what technical support might be provided to facilitate this, such legal or organisational structure advice); and
- Agreement of concrete next steps and timelines for decision implementation.

9.35 We note that a recent publication by the World Bank investigating the potential for low cost carriers in developing countries<sup>97</sup> identified the EAC as a region where considerable opportunities for profitable low-cost carrier operations may emerge, provided a number of measures were met, including the fostering of a competitive environment by removing market distortions (e.g. monopolistic state-owned carriers, restrictive air transport policies and bad governance). This indicates that progressing liberalisation in the EAC as a priority may result in a ‘quick win’ with easily identifiable progress and benefits which could then be used in turn to encourage other RECs to follow this example.

9.36 The second prong of the approach would be for ICA to facilitate a meeting with African finance ministers or senior officials. This might form part of a wider discussion on the funding of infrastructure projects more generally, but would include a focused session on aviation. In this session, the ICA Secretariat would set out the desire of its members to fund aviation-related projects across Africa, including airport upgrades, fuel pipelines and aircraft financing. It could also, assuming that ICA members are supportive of the approach, stipulate conditions which would apply to such financing, which might include the requirement to liberalise access to international air routes (including in relation to airline ownership) and streamlining administrative procedures for airlines and other industry members. As part of this session, it might be appropriate to present the findings of this study in terms of the benefits of liberalisation and practical steps to achieve it.

9.37 If both prongs of the approach were successful, there might then be an opportunity to link up the two processes, bringing together finance officials with national and REC aviation officials, to try to reach agreement on the next steps of the process, and in particular to influence the processes already underway within the RECs.

*Preliminary list of key stakeholders to engage*

9.38 Following the approach described above will require engagement with a number of stakeholders. The list below is based on our understanding of those organisations or states that have made progress, or which are most open to, liberalising the air transport market. In many cases, contacts with representatives of these organisations have been made during the course of this study.

- Pan-Africa Organisations:
  - Africa Union Commission
  - New Partnership for Africa's Development (NEPAD)
  - African Civil Aviation Commission (AFCAC)
  - African Development Bank;
- Regional Economic Communities:

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<sup>97</sup> Ready for Takeoff? The potential for low-cost carriers in developing countries, Charles E. Schlumberger and Nora Weisskopf, World Bank Group, 2014

- East African Community (EAC)
- COMESA
- COMESA-EAC-SADC Tripartite group
- Banjul Accord Group (BAG)
- West Africa Economic and Monetary Union (WAEMU/UEMOA)
- Economic Community Of West African States (ECOWAS);
- Civil Aviation Authorities:
  - East African Community's Civil Aviation Safety Oversight Agency (EAC-CASSOA)
  - CAAs of: Kenya, Uganda, Tanzania, Ghana, Rwanda, Togo, Nigeria, Tanzania, South Africa;
- Government ministries/aviation ministers:
  - Ghana
  - Ethiopia
  - Kenya
  - Tanzania; and
- Airlines:
  - AFRAA
  - Representatives of low-cost carriers such as Kulula, fastjet, Fly540.

9.39 Following the recent publication of their study into Yamoussoukro Decision issues and an assessment of the economic benefits of its full implementation,<sup>98</sup> it may also be worthwhile liaising with IATA (and study partners AFCAC and AFRAA) to align methodologies and approach to next steps, while retaining a position independent of that of the airlines.

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<sup>98</sup> Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision, prepared for IATA in partnership with AFCAC and AFRAA by InterVISTAS Consulting Ltd, July 2014

# APPENDICES

# A Country Profiles

## A1 Country Profiles

A1.1 This memorandum examines the following countries: Egypt, South Africa, Nigeria, Ghana, Zambia, Senegal, Ivory Coast, Ethiopia, Kenya, Tanzania and the Democratic Republic of Congo.

A1.2 A resource that we have used is the Air Services Agreement Projector, a tool devised by the World Trade Organisation.

### The ASAP

A1.3 The Air Services Agreement Projector (ASAP) is an analytical tool devised by the World Trade Organisation that analyses bilateral Air Services Agreements (ASAs) in order to assess their level of liberalisation. It relies on the ICAO database of ASAs and WTO Trade Policy Review Secretariat Reports. We would caveat this report by stating that we have not reviewed the underlying data to this analysis.

A1.4 The WTO has devised indices that give an indication of the level of liberalisation provided through any given ASA and of the air transport policy of a particular State, ranging between zero for the most restrictive, and fifty, for the most open.

A1.5 Air Liberalisation Index (ALI): The ALI is a synthetic measure of the openness of a given air services agreement. It was devised by the WTO Secretariat in consultation with a panel of professionals, academics and air transport negotiators.

A1.6 Four weighting systems have been devised to accommodate different geographical and economic situations:

- ST: gives equal weighting to various market access features (standard);
- 5+: gives more weighting to Fifth Freedom traffic rights<sup>99</sup>;
- OWN+: gives more weighting to liberal withholding/ownership provisions;
- DES+: gives more weighting to multiple designations.

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<sup>99</sup> The freedoms are defined in Appendix 1 to this document

## Overall view of the States considered

A1.7 The following table gives an overall impression of the openness of air services in each of the eleven countries covered in this memorandum. The column headings are explained below.

A1.8 **ASAP traffic:** The traffic (number of passengers, millions) covered by all of the respective country's air service agreements that are included in the Projector. This data is from 2011 scheduled passenger traffic statistics provided to the WTO by the International Air Transport Association (IATA).

A1.9 **ASAP traffic share:** The traffic covered by the respective country's air service agreements, as a share of global air traffic (i.e. the traffic covered by every air service agreement worldwide that is included in the Projector).

A1.10 **Weighted Air Liberalization Index (WALI):** The WALI is a synthetic measure of the openness of the air transport policy of a given Signatory. It is calculated as an average of the indices of all the air service agreements concluded by that Signatory, weighted by the respective traffic they cover and ranges between zero for the most restrictive, and fifty, for the most open/ liberalised.

A1.11 Four weighting systems have been devised to accommodate different geographical and economic situations, in the same way as for the ALI above:

- ST: gives equal weighting to various market access features (standard);
- 5+: gives more weighting to Fifth Freedom traffic rights;
- OWN+: gives more weighting to liberal withholding/ownership provisions;
- DES+: gives more weighting to multiple designations.

**Appendix Table A.1: Overview of air services agreement rankings, by State (Africa)**

Signatory	ASAP Traffic	ASAP Traffic Share (%)	WALI ST	WALI 5+	WALI O+	WALI D+	Number of Bilateral ASAs
Egypt	9.7	0.91	7	8.8	5.9	9.6	41
South Africa	6.6	0.63	11.6	13.3	10.1	13.4	54
Nigeria	1	0.1	12.4	17.6	10.6	13	20
Ghana	1.2	0.12	12.2	17.2	10.3	13.2	26
Zambia	0.74	0.07	10.4	14.2	9.1	13	13
Senegal	1.1	0.11	9.6	13.5	8.3	11.2	21
Ivory Coast	0.43	0.04	6.8	12	5.8	7.6	22
Ethiopia	0.82	0.08	11.6	16.1	9.9	12.4	18
Kenya	1.8	0.17	7.7	11.7	6.6	8.2	27
Tanzania	0.79	0.07	11.4	12	11.2	12.4	23

Signatory	ASAP Traffic	ASAP Traffic Share (%)	WALI ST	WALI 5+	WALI O+	WALI D+	Number of Bilateral ASAs
Dem Rep Congo	0.16	0.02	8.7	12.2	7.4	10.7	12

A1.12 By way of comparison, the ALI indices for some non-African states are also given below.

**Appendix Table A.2: Overview of air services agreement rankings, by State (Non-Africa)**

Signatory	ASAP Traffic	ASAP Traffic Share (%)	WALI ST	WALI 5+	WALI O+	WALI D+	Number of Bilateral ASAs
France	29.2	2.75	13.6	18	11.7	15.4	63
UK	55.2	5.2	14.3	17.7	12.9	16.6	96
Turkey	23.2	2.19	11.3	16	9.6	13.5	52
Argentina	8.2	0.78	16.1	20.1	13.8	18.2	33
Indonesia	16.8	1.58	14.3	18.3	12.8	16.6	26

### Types of Air Services Agreement identified by the WTO Secretariat

A1.13 The WTO has found that the majority of ASAs fall into one of six categories. These are defined in the table below.

**Appendix Table A.3: Categories of ASAs**

Type	Freedom	Designation	Withholding/ownership	Tariffs	Capacity
A	3rd and 4th	Single designation	Substantive ownership and effective control	Double approval	Pre-determination
B	3rd and 4th	Multi-designation	Substantive ownership and effective control	Double approval	Pre-determination
C	3rd,4th, 5th	Single designation	Substantive ownership and effective control	Double approval	Pre-determination
D	3rd,4th, 5th	Single designation	Substantive ownership and effective control	Double approval	Bermuda I
E	3rd,4th, 5th	Multi-designation	Substantive ownership and effective control	Double approval	Pre-determination
F	3rd,4th, 5th	Multi-designation	Substantive ownership and effective control	Double approval	Bermuda I

Type	Freedoms	Designation	Withholding/ownership	Tariffs	Capacity
G	3rd,4th, 5th	Multi-designation	Substantive ownership and effective control <i>or</i> Community of interest <i>or</i> Principal place of business	Free pricing <i>or</i> Double disapproval	Free determination

## **A2 South Africa<sup>100</sup>**

### **Carriers operating in South Africa**

A2.1 Six major domestic airlines operate in the country, as well as a number of smaller charter airline companies<sup>101</sup>. South African Airways, South African Express and Airlink fly between all the major cities and to some of the smaller ones. Kulula.com and Mango offer cut-price flights on the more popular routes. British Airways has a franchise arrangement with Comair, in terms of which flights are operated between the major centres.

### **Which bodies regulate aviation, and under what basic laws?**

A2.2 The South African Civil Aviation Authority (SACAA) controls and regulates the civil aviation industry. It was established by the Civil Aviation Act No. 13 of 2009.

A2.3 The Air Traffic and Navigation Services Company Limited is responsible for the provision and operation of air navigation infrastructure and services.

A2.4 The Air Services Licensing Council and International Air Services Licensing Council are responsible for licensing and control of air services.

A2.5 The Airports Company South Africa Limited established by the Airports Company Act No. 44 of 1993, owns and regulates the major airports.

### **Is access to the market for provision of air services regulated, and if so, how?**

A2.6 Requirements differ for international and domestic air services.

#### *International Air Services*

A2.7 Licences for international air services will only be issued to South African residents or to companies which are incorporated in South Africa and whose voting rights are substantially held by residents of South Africa.

A2.8 An application is made to the International Air Services Licensing Council on the prescribed form, as set out in the International Air Services Act No. 60 of 1993. This application must be accompanied by documents establishing how the airline service will be operated safely and reliably, proof that the applicant is financially capable of operating an air service, and copies of existing licences. The Council must make a determination on the application within 120 days.

A2.9 A licence is not required for the operation of international air services if an aircraft visiting the Republic from time to time and registered in another State is operated under and in accordance with: (i) the provisions the International Air Services Transit Agreement, signed at Chicago on 7 December 1944; (ii) an air transport service agreement (i.e. a bilateral agreement); or (iii) a foreign licence. Instead, a foreign operator's permit must be obtained from the International Air Services Licensing Council on a prescribed form.

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<sup>100</sup> Getting the Deal Through: Air Transport 2013; International Comparative Legal Guide to Aviation Law 2013

<sup>101</sup> Civair, Global Aviation, Safairm Allegiance Air, Federal Air, Naturelink Aviation, Norse Air, Rovos Air, Solenta Aviation.

A2.10 Use of foreign aircraft for the provision of international air services requires an application to the Council, in order to satisfy them that the aircraft is correctly registered and certified in its country of origin.

#### *Domestic Air Services*

A2.11 In order to operate domestic air services a licence is required. Licences will only be issued to applicants who are residents of South Africa or, if a company, those registered in South Africa with at least 75% voting rights held by South African residents.

A2.12 An application is made to the Air Services Licensing Council on the prescribed form. This application must be accompanied by documents establishing how the airline service will be operated safely and reliably, details as to management and qualifications, and proof that the applicant is financially capable of operating an air service. Within 21 days the Council will forward a copy of the application to SACAA and put a notice of the application in the Government Gazette. The Council must make a determination on the application within 120 days.

#### **What procedures are there to obtain rights to operate particular routes?**

A2.13 If an air service provider wishes to operate additional routes, it will be required to submit an application to have its licence amended. The Council will take into account the effect that the amendment will have on other licensees and the benefits that may flow from operating more than one international air service over the same route or in the same region.

#### **What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A2.14 SACAA has oversight of civil aviation safety and security, and enforces the Civil Aviation Security Regulations of 2011. It is responsible for registration and airworthiness of aircraft; licensing of personnel; approval of air traffic services; and licensing and operation of airports, training organisations, maintenance organisations and manufacturing organisations.

A2.15 The Aviation Safety Investigation Board was established by the Civil Aviation Act of 2009 to investigate aircraft accidents, in compliance with Annexure 13 of the Chicago Convention 1944.

#### **Who sets passenger charges on aviation and what are they?**

A2.16 No airport tax is levied on passengers upon departure from the airport.

A2.17 Airfares are not directly regulated by legislation. However, under the Competition Act No. 89 of 1998, the Competition Commission and associated bodies regulate competition in South Africa. Practices such as price fixing and excessive pricing by dominant firms are absolutely prohibited.

#### **Are there restrictions to airline ownership? Can a carrier be based in the State but owned by foreign nationals?**

A2.18 Licences for international air services will only be issued to South African residents or to companies which are incorporated in South Africa and whose voting rights are substantially held by residents of South Africa.

A2.19 Foreign owned carriers will need to obtain a foreign operator's permit. They will only be permitted to do so under: (i) the provisions of the International Air Services Transit Agreement, signed at Chicago on 7 December 1944; (ii) an air transport service agreement; or (iii) a foreign licence.

## Key bilaterals and their restrictions

- Are you able to obtain any information on bilaterals and their restrictions? What is the requirement for route access?
- Does an airline need to be designated by the national government to fly?
- Is there a limit on the number of designations?

A2.20 Research by the ComMark Trust has found that, domestically, the rise of low cost airlines has reduced ticket prices and led to major growth in the market<sup>102</sup>. Internationally however, restrictive bilaterals are in place that restrict frequency and/or capacity and often only allow a single airline from each country to operate<sup>103</sup>. A study submitted by AECOM to USAID in March 2009<sup>104</sup> stated that the reluctance to grant Fifth Freedom rights stems from safety and security concerns about some of the operators that may be granted authorisation to land at South African airports.

A2.21 The ASAP shows that South Africa has entered into 54 bilateral agreements (and one plurilateral agreement, being the Yamoussoukro Decision). It has bilateral agreements in place with 14 other African states. The classification of bilaterals with some non-African states are also included in the table below.

**Appendix Table A.1: South Africa bilaterals**

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Zambia	30.10.92	10	15.5	8.5	13	E	100 – 500
Ethiopia	14.05.97	0	0	0	0	A	50 – 100
Senegal	30.07.96	10	15.5	12	9	o	10 – 50
Egypt	26.08.97	6	5	5	5.5	o	10 – 50
Mozambique	10.05.02	9	14.5	7.5	8	o	100-500
Botswana	23.07.91	6	5	5	5.5	o	100-500
Madagascar	14.08.90	0	0	0	0	A	50-100
Lesotho	2.11.90	0	0	0	0	A	10-50
Seychelles	30.6.95	0	0	0	0	A	10-50
Rwanda	11.11.93	4	3.5	3.5	7.5	B	10-50
Morocco	18.2.94	4	3.5	3.5	7.5	B	10-50
Mali	9.7.02	10	15.5	12	9	o	1-10

<sup>102</sup> Headline Report by ComMark Trust; ICAO Global Symposium on Air Transport Liberalisation; September 2006; [http://www.icao.int/Meetings/AMC/MA/2006/dubai2006/commark\\_ip.pdf](http://www.icao.int/Meetings/AMC/MA/2006/dubai2006/commark_ip.pdf)

<sup>103</sup> 'Open Skies for Africa – Implementing the Yamoussoukro Decision'; Charles Schlumberger, World Bank, 2010

<sup>104</sup> "Assessment of Potential Impact of Implementation of the Yamoussoukro Decision on Open Skies Policy in the SADC Region"; Rexter Ndhlovu and Andy Ricover; March 2009

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Tunisia	2.07.97	4	3.5	3.5	7.5	B	1-10
Burundi	6.2.92	0	0	0	0	A	1-10
France	08.10.93	10	15.5	8.5	13	E	100 – 500
Indonesia	20.11.97	4	3.5	3.5	7.5	B	10-50

A2.22 South Africa's ASAs with Ethiopia, Madagascar, Lesotho, the Seychelles and Burundi are type A. This means that they do not grant Fifth Freedom rights, and only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Permitted capacities are pre-determined.

A2.23 The ASAs with Rwanda, Morocco, Tunisia and Indonesia are Type B. This means that they do not provide Fifth Freedom rights. Multiple airlines may be designated to fly between states; they must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A2.24 South Africa's ASAs with Zambia and France are type E within the WTO categorisation. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A2.25 South Africa's ASAs with Senegal, Mozambique, Botswana, Mali and Egypt are type o, which means that they do not fit into any type as assessed by the ASAP.

## **A3 Kenya**

### **Carriers operating in Kenya**

A3.1 The national flag carrier is Kenya Airways Ltd. There are a number of short haul airlines that operate internationally and domestically including African Express Airways, Airkenya Express, and Fly SAX/Fly540. Charter airlines such as 748 Air Services, Astral Aviation and Bluebird Aviation also operate in the country.

### **Which bodies regulate aviation, and under what basic laws?**

A3.2 Air services in Kenya are regulated by the Kenya Civil Aviation Authority (KCAA), as established by the Civil Aviation (Amendment) Act 2002<sup>105</sup>. Under the Civil Aviation Act 2013 (which came into force on 25 January 2013) the KCAA has a mandate to plan, develop, manage, regulate and operate a safe, economically sustainable and efficient civil aviation system in Kenya. Civil Aviation Regulations have been produced that empower the KCAA to carry out this mandate.

### **Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A3.3 Air operators whose principal place of business or permanent residence is located in Kenya must hold an air operator certificate (AOC) issued by the KCAA (The Civil Aviation Act 2013). In order to be issued with an AOC an operator must establish that it has its principal place of business and it is registered in Kenya; that it holds a valid air service licence, that it meets the required standards as to staffing, equipment and maintenance, and that it has an approved aircraft operator security programme. An AOC holder must maintain its principal base of operations in Kenya.

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<sup>105</sup> Information found on the Kenya Civil Aviation Authority website: [www.kcaa.or.ke](http://www.kcaa.or.ke)

A3.4 An AOC holder may only operate foreign registered aircraft if there is in existence a current agreement between the KCAA and the State of Registry governing the airworthiness regulations applicable to the foreign aircraft.

A3.5 The Civil Aviation Regulations issued by the East African Community, enacted by Kenya, state that foreign air operators with an Air Operator Certificate issued and controlled by another state's civil aviation authority may operate commercial air operations in and out of Kenya. Aircraft must have a valid certificate of airworthiness and a certificate of registration.

**What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A3.6 The Directorate of Aviation Safety Standards and Regulation (DASSR) ensures aviation safety, security oversight, and undertakes economic regulation of the industry. Kenya is a member of the East African Community, and as such the East African Community's Civil Aviation Safety Oversight Agency (EAC CASSOA) also has oversight as to Kenya's aviation safety programme.

**Passenger charges: Who sets passenger charges on aviation and what are they?**

A3.7 A service charge for air passengers is imposed by the Kenya Airports Authority, which is normally included in the ticket price<sup>106</sup>.

**Airline ownership: Are there restrictions to airline ownership? Can a carrier be based in the State but owned by foreign nationals?**

A3.8 KLM owns a 26% share in Kenya Airways.

**Key bilaterals and their restrictions**

A3.9 According to the WTO ASAP, Kenya has bilateral air services agreements with six other African states. It is also a member of the East African Community, with Tanzania, and the Common Market for Eastern and Southern Africa (COMESA) with Egypt, Ethiopia, Zambia and the Democratic Republic of Congo.

**Appendix Table A.2: Kenya bilaterals**

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic(pax in '000s)
Ethiopia	5.10.67	14	19	12	16.5	F	100 – 500
Uganda	10.6.85	6	12	5	5.5	C	100-500
Sudan	27.02.81	6	12	5	5.5	C	10-50
Malawi	22.4.82	6	12	5	5.5	C	10-50
Mauritius	5.3.79	6	12	5	5.5	C	10-50
Lesotho	12.7.89	6	12	5	5.5	C	0-1
France	28.07.64	14	19	12	16.5	F	50-100

<sup>106</sup> <http://www.businessdailyafrica.com/Corporate-News/Kenya-Airports-Authority-doubles-air-passenger-charges--/539550/1401486/-/sqng9/-/index.html>

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic(pax in '000s)
Thailand	06.09.91	6	12	5	5.5	C	10-50

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A3.10 Kenya's bilateral services agreement with Ethiopia and with France is type F under the ASAP categorisation. This means that it grants Fifth Freedom rights to the parties. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A3.11 Kenya's ASAs with Uganda, Sudan, Malawi, Mauritius, Lesotho and Thailand are type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

## **A4 Tanzania**

### **Carriers operating in Tanzania**

A4.1 Precision Air Services PLC is the largest airline in Tanzania. It operates passenger services to ten domestic airports as well as providing international services. Other airlines providing international services include Fastjet and ZanAir. The national flag carrier Air Tanzania, after an unsuccessful attempt to privatise, is 100% government owned. Coastal Travels Ltd and Auric Air Services provide domestic air services, while there are many small charter operations.

### **Which bodies regulate aviation, and under what basic laws?**

A4.2 Aviation is regulated in Tanzania by the Tanzania Civil Aviation Authority (TCAA)<sup>107</sup>. The Tanzania Civil Aviation Act Chapter 80 of 2006 covers the provision of air navigation services and the regulation of safety and security aspects of the industry, and also extends the regulatory mandate of the TCAA to cover the economic regulation of air transport services, aeronautical airport services (airside airport operations, ground handling<sup>108</sup>, refuelling, in-flight catering etc.) and air navigation services. Civil Aviation Regulations and Rules also apply.

A4.3 Established in 1999, the Tanzania Airport Authority manages all public airports.

### **Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A4.4 Air service operators must hold a valid air operator certificate (AOC) (The Civil Aviation (Air Operator Certification And Administration) Regulations, 2011) . In order to be issued with an AOC an operator must establish that it has its principal place of business and it is registered in Tanzania; that it holds a valid air service licence; and that it meets the required standards as to staffing, equipment and maintenance. An AOC holder must maintain its principal base of operations in Tanzania.

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<sup>107</sup> Information found on the Tanzanian Civil Aviation Authority website: [www.tcaa.go.tz](http://www.tcaa.go.tz)

<sup>108</sup> *ibid*

A4.5 An AOC holder may only operate foreign registered aircraft if there is in existence a current agreement between the TCAA and the State of Registry governing the airworthiness regulations applicable to the foreign aircraft.

A4.6 The Civil Aviation (Commercial Air Transport Operations by Foreign Air Operator) Regulations, 2006 apply to the operation of commercial air transportation operations by a foreign air operator. Foreign air operators with an Air Operator Certificate issued and controlled by another state's civil aviation authority may operate commercial air operations in and out of Tanzania. Aircraft must have a valid certificate of airworthiness and a certificate of registration.

A4.7 Non-scheduled flights require an Air Service Licence, to be obtained from the TCAA.

#### **What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A4.8 The TCAA is responsible for administering air safety. It achieves this through Civil Aviation Regulations regarding airworthiness, flight operations, personnel licensing, air navigation services, and aviation security.

#### **Passenger charges:**

A4.9 There is an airport service charge of around US\$6 on domestic flights and US\$40 on international flights, set by the Tanzania Airports Authority<sup>109</sup>.

#### **Airline ownership**

A4.10 No information could be found.

#### **Key bilaterals and their restrictions**

A4.11 According to the ASAP, Ethiopia is the only country that Tanzania has entered into an ASA with out of the countries covered by this report. However, the TCAA has produced a list of the bilateral air services agreements that Tanzania has entered into, correct as at 28 February 2013<sup>110</sup>.

A4.12 The following ASAs are initialled, with a signed confidential memorandum of understanding (as opposed to fully signed) according to the TCAA.

A4.13 The ASA with Ethiopia provides for double airline designation. Up to 28 aircraft of any size are permitted per week.

A4.14 The ASA with Egypt provides for multiple airline designation. Up to 7 passenger aircraft per week of any aircraft type are permitted.

A4.15 The ASA with Zambia provides for multiple airline designation, with unlimited frequencies of aircraft.

A4.16 The ASA with Democratic Republic of Congo is currently not operational, as there are no direct flights. Up to five flights per week are permitted.

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<sup>109</sup> [http://www.taa.go.tz/index.php?option=com\\_content&view=article&id=91&Itemid=141](http://www.taa.go.tz/index.php?option=com_content&view=article&id=91&Itemid=141)

<sup>110</sup> TCAA list of bilateral service agreements that Tanzania has entered into: <http://www.tcaa.go.tz/files/BASA%20status%20by%2028%20February%202013.pdf>

A4.17 The ASA with Nigeria is not operational. It provides for multiple airline designation, with unlimited frequencies of aircraft of any size.

A4.18 The ASA with Kenya provides for multiple airline designation. Permitted flight frequencies vary by route:

- Unlimited frequencies are permitted between Kenya and Zanzibar
- 42 flights on Nairobi - Kilimanjaro
- 42 on Nairobi - Dar es Salaam
- 14 on Kisumu - Mwanza
- 14 on Nairobi-Mwanza
- 14 on Mombasa-Kilimanjaro
- 14 on Kisumu-Mwanza
- Unlimited from any point in Tanzania to Mombasa
- 42 on Dar es Salaam-Nairobi
- 42 on Kilimanjaro-Nairobi
- 14 on Mwanza-Kisumu
- 14 on Mwanza-Nairobi
- 35 on Zanzibar-Nairobi

A4.19 The operating carriers are Kenya Airways, AirKenya Express Ltd, Five Forty Aviation Ltd, Safari Link Ltd, Jetlink Express Ltd and Precision Air Services PLC.

A4.20 The ASA with South Africa provides for multiple airline designation. Up to 21 passenger flights per week of any aircraft size are permitted. Cargo flights are unlimited.

A4.21 According to the ASAP, Tanzania has fully entered into ASAs with the following countries.

**Appendix Table A.3: Tanzania ASAs**

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Ethiopia	19.09.67	14	19	12	16.5	F	10-50
Rwanda	1.9.06	23	26.5	23	24.5	o	10-50
Mozambique	7.10.09	19	23	16	21	o	10-50
Malawi	4.5.83	6	12	5	5.5	C	10-50
Burundi	2.4.09	13	18	11	15.5	E	10-50
Zimbabwe	5.12.80	0	0	0	0	A	1-50
Botswana	12.12.03	21	24.5	17.5	22.5	i	1-50
Germany	17.11.81	6	12	5	5.5	C	50-100
Russia	08.08.78	10	15.5	8.5	9	D	1-10

A4.22 The ASA with Zimbabwe is type A. This means that it does not grant Fifth Freedom rights, and only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Permitted capacities are pre-determined.

A4.23 Tanzania's ASAs with Malawi and Germany are type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A4.24 Tanzania's ASA with Russia is type D. This means that Fifth Freedom rights are granted. Only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A4.25 Tanzania's ASA with Burundi is type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A4.26 The ASA with Ethiopia is type F. This means that it grants Fifth Freedom rights to the parties. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A4.27 Tanzania's ASAs with Rwanda and Mozambique are type o, which means that they do not fit into any type as assessed by the ASAP.

## **A5 Democratic Republic of Congo**

### **Carriers operating in the Democratic Republic of Congo**

A5.1 Air carriers Air Baraka, Air Castilla, Air Malebo, Armi Global Business Airways, Biega Airways, Blue Sky, Ephrata Airlines, Eagles Services, GTRA, Mavivi Air Trade, Okapi Airlines, Patron Airways, Pegasus, Sion Airlines and Waltair Aviation have been granted an operating licence. However, none of these operators have been granted the required Air Operator Certificate. The authorities informed the EU that five operators (Korongo, FlyCAA, Air Tropiques, ITAB and Kinavia) expect to complete the certification process to obtain an AOC by the end of September 2013<sup>111</sup>.

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<sup>111</sup> Commission Implementing Regulation No 659/2013 of 10 July 2013 amending Regulation (EC) No 474/2006 establishing the Community list of air carriers which are subject to an operating ban within the Community

### Which bodies regulate aviation, and under what basic laws?

A5.2 The Directorate of Civil Aeronautics regulates aviation services. Aviation is regulated by the Civil Aviation Act of 31 December 2010<sup>112</sup>.

### What are the principal pieces of legislation which govern air safety, and who administers air safety?

A5.3 All airlines from the DRC have been on the EU banned list since 2006. The US Federal Aviation Administration (FAA) has assessed the Government of the Democratic Republic of the Congo's Civil Aviation Authority as not being in compliance with International Civil Aviation Organization (ICAO) aviation safety standards for oversight of the DRC's air carrier operations.

### Passenger charges:

A5.4 All departing travellers must pay a US\$50 airport exit fee, in cash<sup>113</sup>.

### Airline ownership

A5.5 No information could be found.

### Bilaterals

A5.6 According to the ASAP, the DRC has ASAs with four African states.

Appendix Table A.4: DRC bilaterals

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Congo	28.05.79	4	3.5	3.5	7.5	i	10-50
Morocco	3.11.76	10	15.5	8.5	13	E	10-50
Burundi	12.3.82	11	16.5	9.5	10	D	1-10
Togo	13.6.80	6	12	5	5.5	i	1-10
France	02.05.62	10	15.5	8.5	13	E	50-100
Russia	28.09.64	7	13	6	6.5	C	0-1

<sup>112</sup> Advice received from Sutter & Pearce

<sup>113</sup> US Bureau of Consular Affairs: [http://travel.state.gov/travel/cis\\_pa\\_tw/cis/cis\\_1104.html#entry\\_requirements](http://travel.state.gov/travel/cis_pa_tw/cis/cis_1104.html#entry_requirements)

A5.7 The information about the DRC's ASAs with the Congo and Togo is incomplete, meaning that the WTO has not given these agreements a rating.

A5.8 The DRC's ASA with Russia is type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A5.9 The ASA with Burundi is type D. This means that Fifth Freedom rights are granted. Only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A5.10 The DRC's ASAs with Morocco and France are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

## **A6 Ivory Coast**

### **Carriers operating in the Ivory Coast**

A6.1 The US Federal Aviation Administration (FAA) has assessed the government of Cote d'Ivoire's Civil Aviation Authority as not being in compliance with International Civil Aviation Organization (ICAO) aviation safety standards for oversight of Cote d'Ivoire's air carrier operations. However, none of the airlines are on the EU banned list as of July 2013.

A6.2 The national flag carrier is Air Cote d'Ivoire, which started operations in November 2012 (following the bankruptcy of Air Ivoire in 2011). It is 65% owned by the government and 20% owned by Air France<sup>114</sup>.

### **Which bodies regulate aviation, and under what basic laws?**

A6.3 Aviation is regulated by the Cote d'Ivoire Civil Aviation Authority.

### **What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A6.4 No information could be found.

### **Passenger charges:**

A6.5 See chapter 6 for TFC analysis.

### **Airline ownership**

A6.6 No information could be found.

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<sup>114</sup> Bloomberg News, 3 June 2013: <http://www.businessweek.com/news/2013-06-03/aga-khan-fund-to-pull-out-of-ivory-coast-airline-in-capital-move>

## Key bilaterals and their restrictions

A6.7 The WTO has a record of six bilateral agreements between the Ivory Coast and other African states.

Appendix Table A.5: Ivory Coast bilaterals

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Ghana	26.05.64	6	12	5	5.5	C	50-100
Mali	09.07.64	6	12	5	5.5	C	50-100
Guinea	26.06.63	6	12	5	5.5	C	10-50
Morocco	31.08.79	0	0	0	0	A	10-50
Tunisia	08.06.67	5	4.5	4.5	8.5	B	10-50
Algeria	16.02.67	6	12	5	5.5	C	0-1
France	19.10.62	10	15.5	8.5	13	E	100-500
Lebanon	19.12.63	10	15.5	8.5	13	E	10-50

A6.8 The Ivory Coast's ASA with Morocco is type A. This means that it does not grant Fifth Freedom rights, and only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Permitted capacities are pre-determined.

A6.9 The Ivory Coast's ASA with Tunisia is Type B. This means that it does not provide Fifth Freedom rights. Multiple airlines may be designated to fly between states; they must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A6.10 The ASAs with Ghana, Mali, Guinea and Algeria are type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A6.11 The DRC's ASAs with France and the Lebanon are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

## **A7 Senegal**

### **Carriers operating in Senegal**

A7.1 Group Air Senegal, operating as Senegal Airlines, is the national flag carrier operating domestic flights and international flights to neighbouring countries. It is 64% privately owned, the remainder being state owned<sup>115</sup>.

### **Which bodies regulate aviation, and under what basic laws?**

A7.2 The Senegal Civil Aviation National Agency (ANACS) is an autonomous agency within the Ministry of Transport, established by Decree No. 2003-384 of 28 October 2003<sup>116</sup>.

A7.3 The Agency for Air Navigation Safety in Africa and Madagascar (ASECNA), a multinational public corporation comprising 18 francophone African states, provides air navigation services.

A7.4 The Agency of Senegal Airports (ADS) manages airports in the country (decree n°2008-460 of 9 May 2008).

### **Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A7.5 No information could be found.

### **What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A7.6 No information could be found.

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<sup>115</sup> Senegal Airlines website, <http://www.senegalairlines.aero/en/content/shareholding>

<sup>116</sup> ICAO Case Study on Commercialization, Privatization and Economic Oversight of Airports and Air Navigation Services Providers; ANACS website: <http://www.anacim.sn/>

### Passenger charges:

A7.7 There is an Airport Infrastructure Development Charge of 54 Euros on departing and arriving international passengers and 2 Euros for domestic passengers, to fund the building of the new airport in Dakar<sup>117</sup>.

### Airline ownership

A7.8 No information could be found.

### Key bilaterals and their restrictions

A7.9 According to the WTO ASAP, Senegal has entered into 21 bilateral air service agreements. Five of these are with other African states.

Appendix Table A.6: Senegal bilaterals

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Ghana	20.02.64	6	12	5	5.5	C	10-50
Mali	07.02.63	0	0	0	0	A	100-500
South Africa	30.07.96	10	15.5	12	9	o	10 – 50
Morocco	07.06.82	10	15.5	8.5	13	E	10-50
Tunisia	25.03.66	4	3.5	3.5	7.5	B	10-50
France	15.06.62	10	15.5	8.5	13	E	100-50
UK	20.05.74	4	3.5	3.5	7.5	B	10-50

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<sup>117</sup> ICAO Case Study, 12 February 2013: <http://www.icao.int/sustainability/CaseStudies/Senegal.pdf>

A7.10 Senegal's ASA with Mali is type A. This means that it does not grant Fifth Freedom rights, and only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties can be designated to fly between the states by each signatory. Tariffs require approval from both states. Permitted capacities are pre-determined.

A7.11 Senegal's ASAs with Tunisia and the UK are type B. This means that the ASA does not provide Fifth Freedom rights. Multiple airlines may be designated to fly between states; they must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A7.12 Senegal's ASA with Ghana is type C. This means that it provides Fifth Freedom rights. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A7.13 Senegal's ASAs with Morocco and France are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A7.14 The ASA with South Africa is type o, which means that it does not fit into any type as assessed by the ASAP.

## **A8 Zambia**

### **Carriers operating in Zambia**

A8.1 Since the collapse of Zambia Airways in 2009, the country has not had a national carrier. All air carriers certified by the Zambian authorities are on the EU banned list as of July 2013. A World Bank study has found that the domestic air transport sector can be considered liberalised<sup>118</sup>.

### **Which bodies regulate aviation, and under what basic laws?**

A8.2 The Department of Civil Aviation, created in 1954, regulates air services in Zambia<sup>119</sup>.

### **Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A8.3 No information could be found.

### **What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A8.4 The Department of Civil Aviation regulates air safety.

### **Passenger charges:**

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<sup>118</sup> Services Trade & Development - The Experience Of Zambia; [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/04/30/000090341\\_20070430134813/Rendered/PDF/396590ZM0Part101OFFICIALOUSE0ONLY1.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/04/30/000090341_20070430134813/Rendered/PDF/396590ZM0Part101OFFICIALOUSE0ONLY1.pdf)

<sup>119</sup> ZCAA website: [www.zmd.gov.zm](http://www.zmd.gov.zm)

A8.5 An airport tax is levied on all passengers departing from Zambia: US\$ 25 for international flights and US\$ 8 for domestic flights<sup>120</sup>.

### Airline ownership

A8.6 There are no formal restrictions on ownership, but according to the Department of Civil Aviation, the directorship of the company must be 50% Zambian<sup>121</sup>.

### Key bilaterals and their restrictions

A8.7 Zambia has 72 bilateral air service agreements in place - only eight of which are in use<sup>122</sup>. Zambia has refused to grant Fifth Freedom rights to Libya (Tripoli-Lusaka-Johannesburg in 2001), Ethiopia (Addis Ababa-Lusaka-Johannesburg in 2005), Nigeria (Lagos-Lusaka-Johannesburg, during bilateral agreement negotiations) and Kenya (Nairobi-Lusaka-Harare in 2005). Some Fifth Freedom rights have been granted for cargo; for example, Emirates Cargo was granted rights to serve Lusaka out of Nairobi.

A8.8 The WTO ASAP has a record of four ASAs between Zambia and other African states.

**Appendix Table A.7: Zambia bilaterals**

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
South Africa	30.10.92	10	15.5	8.5	13	E	100 - 500
Malawi	11.01.72	14	19	12	16.5	F	50-100
Botswana	08.02.72	4	3.5	3.5	3.5	o	10-50
Lesotho	05.10.84	4	3.5	3.5	3.5	o	0 - 1
UK	13.02.08	22	19	22.5	24	o	50-100
Netherlands	23.02.83	6	12	5	5.5	C	1-10

<sup>120</sup> IATA Travel Centre, Customs, Currency & Airport Tax regulations details

<sup>121</sup> World Bank, Services Trade & Development: the Experience of Zambia, 2007: *ibid*

<sup>122</sup> *ibid*

A8.9 Zambia's ASA with the Netherlands is type C. This means that it provides Fifth Freedom rights. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A8.10 Zambia's ASA with South Africa is type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A8.11 Zambia's ASA with Malawi is type F. This means that it grants Fifth Freedom rights to the parties. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A8.12 The ASAs with Botswana, Lesotho and the UK are type o, which means that they do not fit into any type as assessed by the ASAP.

## **A9 Ghana**

### **Carriers operating in Ghana**

A9.1 The Ghanaian Government has pursued a "liberalized skies aviation policy"<sup>123</sup>. Airlines that are currently hold Ghanaian air carrier licences include Air Ghana, Africa World Airlines, Antrak Air, CTK and Starbow, and cargo carriers including Meridian Airways. Airlift International (GH) Ltd and Meridian Airways Ltd, cargo operators licensed by the Ghana Civil Aviation Authority, have been put on the EU banned list.

### **Which bodies regulate aviation, and under what basic laws?**

A9.2 The Ghana Civil Aviation Authority (GCAA) regulates air services under the Civil Aviation Act, Act 678 of November 2004<sup>124</sup>. It also provides air navigation services within the Accra Flight Information Region (FIR), comprising the air space over Ghana, Togo and Benin. Ghana Civil Aviation Regulations (GCARs) are the method by which the GCAA regulates air services. They are based on the Standards and Recommended Practices prescribed by ICAO. The GCAA publishes guidance as to compliance with the GCARs by way of advisory circulars and technical directives.

A9.3 Within the GCAA is the Economic Regulation and Business Development Department (ERBD), which is responsible for the licensing of air transport, economic regulation of the aviation industry, and consumer protection.

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<sup>123</sup> Presentation to ICAO Conference 'Aviation in Transition: Challenges & Opportunities of Liberalization', March 2003; "The Liberalization Experience" - The Case of Ghana; <http://www.icao.int/Meetings/ATConf5/Documents/Boachie.pdf>

<sup>124</sup> GCAA website, [www.gcaa.com.gh](http://www.gcaa.com.gh)

**Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A9.4 An airline must obtain an Air Operator Certificate from the GCAA in order to conduct commercial air transport operations<sup>125</sup>. Airlines must be a Ghanaian registered company in order to obtain an AOC.

A9.5 Airlines must also hold an Air Carrier Licence in order to operate domestic or international Air Transport Services<sup>126</sup>. An ACL will only be granted to applicants whose place of business and registered office are located in Ghana.

A9.6 Air operators holding an AOC that has been issued by a foreign civil aviation authority must obtain a Validation of Air Operator Certificate from the GCAA<sup>127</sup>.

**What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A9.7 The GCAA regulates air safety by way of the GCARs.

**Airline designation:**

A9.8 All holders of an Air Carrier Licence (ACL) issued by the GCAA intending to operate sub-regional, regional or international air transport services to another state under an existing bilateral/multilateral air service agreement to which Ghana is a signatory shall be required to apply for designation<sup>128</sup>.

**Passenger charges:**

A9.9 A passenger service charge is levied on passengers departing from Ghana<sup>129</sup>: on international flights, US\$ 200 for first class; US\$ 150 for business class; and US\$ 100 for economy class. On domestic flights, a charge of GHS 10 is levied. Transit passengers proceeding on the first connecting service or within 24 hours are exempt.

**Airline ownership**

A9.10 There are no requirements as to nationality of ownership or control of airlines, although the holder of an AOC must be a Ghanaian national<sup>130</sup>.

**Key bilaterals and their restrictions**

A9.11 According to the WTO ASAP, Ghana has bilateral ASAs with 26 other states, 16 of which are with African states.

**Appendix Table A.8: Ghana bilaterals**

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<sup>125</sup> GCAA guidance on AOCs: [http://www.gcaa.com.gh/extweb/docs/srd/AOC\\_AP\\_001\\_002.pdf](http://www.gcaa.com.gh/extweb/docs/srd/AOC_AP_001_002.pdf)

<sup>126</sup> <http://www.gcaa.com.gh/extweb/docs/erd/REQUIREMENTS%20-%20ACL%20APPLICATION.pdf>

<sup>127</sup> GCAR Part 10 [http://www.gcaa.com.gh/reg/?page\\_id=3046](http://www.gcaa.com.gh/reg/?page_id=3046)

<sup>128</sup> <http://www.gcaa.com.gh/extweb/index.php/regulations-a-policies/economic-regulation/93>

<sup>129</sup> IATA Travel Centre

<sup>130</sup> Clyde & Co report on Ghana, 2008

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Nigeria	23.03.73	6	12	5	5.5	C	100-500
Ivory Coast	26.05.64	6	12	5	5.5	C	50-100
Liberia	10.06.64	14	19	12	16.5	F	50-100
Egypt	29.08.60	14	19	12	16.5	F	10-50
Ethiopia	09.06.60	12	17	10	14.5	i	10-50
Burkina Faso	25.08.68	7	13	6	6.5	i	10-50
Togo	07.07.68	0	0	0	0	A	10-50
Senegal	20.02.64	6	12	5	5.5	C	10-50
Morocco	29.01.63	4	3.5	3.5	7.5	B	1-10
Mali	09.01.63	14	19	12	16.5	F	1-10
Benin	15.03.68	6	12	5	5.5	C	1-10
Guinea	20.12.62	14	19	12	16.5	F	1-10
Malawi	04.05.65	10	15.5	8.5	9	D	0-1
Tunisia	11.12.62	11	16.5	9.5	14	E	0-1
Congo	21.05.64	10	15.5	8.5	13	E	0-1
Algeria	23.09.63	14	19	12	16.5	F	0-1
UK	11.07.73	14	19	12	16.5	F	100-500
Netherlands	30.07.60	14	19	12	16.5	F	50-100

A9.12 Ghana's ASA with Togo is type A. This means that it does not grant Fifth Freedom rights, and only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Permitted capacities are pre-determined.

A9.13 Ghana's ASA with Morocco is type B. This means that it does not provide Fifth Freedom rights. Multiple airlines may be designated to fly between states; they must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A9.14 Ghana's ASAs with Nigeria, the Ivory Coast, Senegal and Benin are type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A9.15 Ghana's ASA with Malawi is type D. This means that Fifth Freedom rights are granted. Only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A9.16 Ghana's ASAs with Tunisia and the Congo are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A9.17 Ghana's ASAs with Liberia, Egypt, Mali, Guinea, Algeria, the UK and the Netherlands are type F. This means that the ASA grants Fifth Freedom rights to the parties. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause, as for type D.

A9.18 The information about Ghana's ASAs with Ethiopia and Burkina Faso is incomplete, meaning that the WTO has not given these agreements a rating.

## **A10 Egypt**

### **Carriers operating in Egypt**

A10.1 The national flag carrier, EgyptAir, is 100% state owned but self-financed. It has stakes in Air Cairo (a low cost airline), Smart Aviation Company (a corporate jet operator), and Air Sinai (which flies to Israel).

### **Which bodies regulate aviation, and under what basic laws?**

A10.2 The Egyptian Civil Aviation Authority (ECAA) regulates aviation services through implementation of the Egyptian Civil Aviation Regulations<sup>131</sup>.

**Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A10.3 Air operators engaging in international or domestic air transportation must have an air operator certificate (AOC) issued by the ECAA. The general rule is that a person may not operate as an air operator unless that person is a citizen of Egypt. A company is an 'Egyptian citizen' if it is created under Egyptian law, the president and two-thirds or more of the board of directors are Egyptian citizens and at least 51 percent of the voting interest is owned or controlled by Egyptian citizens (ECARs, Part 121).

A10.4 Operators holding an AOC from a foreign authority must obtain a Validation of Air Operator Certificate from the ECAA in order to operate within Egypt (ECARs, Part 129). Aircraft operated by a foreign carrier must carry current registration and airworthiness certificates issued or validated by the country of registry and display the nationality and registration markings of that country state.

**What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A10.5 The Egyptian Civil Aviation Authority has responsibility for aviation safety and the prevention of accidents through prescribing standards and regulations<sup>132</sup>. It has introduced the ECAA Safety and Accident Prevention Program (ESAP) to help fulfil this duty. This body consists of ECAA representatives and members of the Egyptian aviation industry.

**Passenger charges:**

A10.6 No airport tax is levied on passengers upon departure<sup>133</sup>.

**Airline ownership**

A10.7 Only Egyptian citizens can obtain an air operator certificate from the ECAA. A company is an 'Egyptian citizen' if it is created under Egyptian law, the president and two-thirds or more of the board of directors are Egyptian citizens and at least 51 percent of the voting interest is owned or controlled by Egyptian citizens (ECARs, Part 121).

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<sup>131</sup> ECAA website: [www.civilaviation.gov.eg](http://www.civilaviation.gov.eg)

<sup>132</sup> *ibid*

<sup>133</sup> IATA Travel Centre

## Key bilaterals and their restrictions

A10.8 Egypt has signed the following bilateral ASAs with other African states.

Appendix Table A.9: Egypt bilaterals

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Nigeria	12.04.66	10	15.5	8.5	13	E	50-100
Morocco	19.05.60	10	15.5	8.5	13	E	50-100
South Africa	26.08.97	6	5	5	5.5	o	10 – 50
Ghana	29.08.60	14	19	12	16.5	F	10-50
Turkey	12.01.93	4	3.5	3.5	7.5	B	100-500
Russia	11.09.58	6	12	5	5.5	C	500-100,000

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A10.9 Egypt's ASA with Turkey is type B. This means that they do not provide Fifth Freedom rights. Multiple airlines may be designated to fly between states; they must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A10.10 Egypt's ASA with Russia is type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A10.11 Egypt's bilateral ASAs with Nigeria and Morocco are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A10.12 Egypt's ASA with Ghana is type F. This means that it grants Fifth Freedom rights to the parties. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A10.13 Egypt's ASA with South Africa is type o, which means that it does not fit into any type as assessed by the ASAP.

## **A11 Nigeria<sup>134</sup>**

### **Carriers operating in Nigeria**

A11.1 International Nigerian airlines include Arik Air and Aero Contractors of Nigeria Limited. Domestic airlines include Chanchangi Airlines, Dana Air, Kabo Air and Overland Airways.

### **Which bodies regulate aviation, and under what basic laws?**

A11.2 The Nigerian Civil Aviation Authority, established by the Nigerian Civil Aviation Act 2006, regulates aviation services in Nigeria. Other regulatory bodies charged with regulating civil aviation are: the Federal Airports Authority of Nigeria (established by the Federal Airports Authority Act no. 9 of 1996); the Nigerian Airspace Management Agency (established by the Nigerian Airspace Management Act no. 48 of 1999) and the Nigerian Metrological Agency.

### **Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A11.3 Air carriers must apply to the Minister of Aviation for an Air Transport Licence (ATL). The application must be submitted not less than six months before the proposed date of commencement of operations. Air carriers must make a concurrent application for an Air Operator Certificate to the NCAA. An air operator that intends to take non-scheduled flights should apply for an Air Operator Permit.

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<sup>134</sup> The International Comparative Legal Guide to Aviation Law 2013, Nigeria

## What are the principal pieces of legislation which govern air safety, and who administers air safety?

A11.4 Air safety is governed by the Nigerian Civil Aviation Act 2006, and administered by the NCAA.

### Passenger charges:

A11.5 No airport tax is levied on passengers upon departure<sup>135</sup>.

### Airline ownership

A11.6 To qualify for the grant of an aviation licence or other related permit or authorization in Nigeria, the Nigerian Civil Aviation Authority has to be satisfied that the applicant is a Nigerian citizen or in the case of a corporate body, it is a company registered in Nigeria and which is controlled by Nigerian nationals. This requirement does not apply to licences, permits, certificates and other authorisations needed by any person for the purpose of operating an aircraft for private use only<sup>136</sup>.

### Key bilaterals and their restrictions

A11.7 Nigeria has bilateral ASAs in place with five other African states.

Appendix Table A.10: Nigeria bilaterals

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Egypt	12.04.66	10	15.5	8.5	13	E	50-100
Ghana	23.03.73	6	12	5	5.5	C	100-500
Sierra Leone	12.03.73	10	15.5	8.5	13	E	10-50
Benin	24.08.79	6	12	5	5.5	C	10-50
Togo	05.04.66	10	15.5	8.5	13	E	10-50
France	09.06.80	6	12	5	5.5	C	50-100
Netherlands	26.01.83	6	12	5	5.5	C	50-100

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<sup>135</sup> IATA Travel Centre

<sup>136</sup> [http://www.hoganlovells.com/files/Publication/b45cd8d0-8481-4d52-ac2e-044ae2d08cac/Presentation/PublicationAttachment/fd65d5e4-1855-4e50-8ba5-067c6a106cc0/Foreign%20Investments%20in%20Nigeria\\_preliminary%20legal%20issues.pdf](http://www.hoganlovells.com/files/Publication/b45cd8d0-8481-4d52-ac2e-044ae2d08cac/Presentation/PublicationAttachment/fd65d5e4-1855-4e50-8ba5-067c6a106cc0/Foreign%20Investments%20in%20Nigeria_preliminary%20legal%20issues.pdf)

A11.8 Nigeria's ASAs with Egypt, Sierra Leone and Togo are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A11.9 Nigeria's ASAs with Ghana, Benin, France and the Netherlands are type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

## **A12 Ethiopia**

### **Carriers operating in Ethiopia**

A12.1 According to the Ethiopian Civil Aviation Authority , the following local airlines operate in Ethiopia: the state-owned flag carrier, Ethiopian Airlines (international), Trans Nation Airways (international), Suhura Airways, Amibara Aviation Services (passenger, cargo and spray service), Air Ethiopia, AberdAir Ethiopia, and Abyssinian Flight Service. Domestically, Ethiopian Airlines holds a near monopoly on domestic routes .

### **Which bodies regulate aviation, and under what basic laws?**

A12.2 The Ethiopian Civil Aviation Authority (ECAA) regulates aviation in Ethiopia. It was established under Civil Aviation Proclamation No. 616/2008. The Aviation Regulation Directorate and the Air Navigation Services Directorate are the bodies that discharge the ECAA's regulatory duties. The ECAA produces the Ethiopian Civil Aviation Rules and Standards (ECARAS).

### **Is access to the market for provision of air services regulated, and if so, how? What procedures are there to obtain rights to operate particular routes?**

A12.3 To conduct air transport operations or provide general aviation services under ECARAS, an operator must be a citizen of Ethiopia . Operators must obtain an Air Operator Certificate from the ECAA.

A12.4 Foreign air operators should apply to the ECAA for Operations Specifications. The ECAA must be satisfied that the operator: has a valid AOC issued by a foreign civil aviation authority; has had its aircraft operator security programme approved by the foreign civil aviation authority; meets the requirements in ECARAS; meets the standards in the applicable annexes to the Chicago Convention; and has sufficient financial resources to conduct safe operations (ECARAS Part 10).

### **What are the principal pieces of legislation which govern air safety, and who administers air safety?**

A12.5 The safety oversight delegation of the ECAA is indicated by the Ethiopian Civil Aviation Proclamation no. 616/2008. The Aircraft Registration and Airworthiness Certification Directorate (part of the Aviation Regulation Directorate) is responsible for assessing aircraft airworthiness and preparing and distributing advisory material to the aviation industry concerning airworthiness practices and procedures.

A12.6 The Air Navigation Regulation Directorate is responsible for safety oversight of air navigation services and meteorology services provided for air navigation.

### **Passenger charges:**

A12.7 The Ethiopian Airports Enterprise sets passenger services charges . International passengers will be charged US\$ 25; passengers in transit whose stay is between 24 and 48 hours will be charged US\$ 2.5; and transit passengers whose stay is less than 24 hours will not be charge. Domestic passengers arriving at or departing from any domestic airport will be charge birr 20.

### Airline ownership

A12.8 No information could be found.

### Key bilaterals and their restrictions

A12.9 According to the WTO ASAP, Ethiopia has signed bilateral ASAs with seven other African states.

**Appendix Table A.11: Ethiopia bilaterals**

Signatory	Date	ALI ST	ALI 5+	ALI O+	ALI D+	Type	Traffic (pax in '000s)
Kenya	5.10.67	14	19	12	16.5	F	100 – 500
South Africa	14.05.97	0	0	0	0	A	50 – 100
Tanzania	19.09.67	14	19	12	16.5	F	10-50
Uganda	24.12.78	10	15.5	8.5	13	E	10-50
Ghana	09.06.60	12	17	10	14.5	i	10-50
Namibia	01.02.08	20	24	24	18.5	o	1-10
Benin	17.07.86	6	5	5	5.5	C	0-1
UK	22.09.88	14	19	12	16.5	F	50-100
Saudi Arabia	26.05.02	6	12	5	5.5	C	100-5000

A12.10 Ethiopia's ASA with South Africa is type A. This means that it does not grant Fifth Freedom rights, and only one airline, which must be substantially owned and effectively controlled by one of the two contracting parties, can be designated to fly between the states by each signatory. Tariffs require approval from both states. Permitted capacities are pre-determined.

A12.11 Ethiopia's ASA with Benin is type C. This means that Fifth Freedom rights are granted. Only one airline may be designated to fly between states, and it must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Permitted capacities are pre-determined.

A12.12 Ethiopia's ASAs with Uganda and Saudi Arabia are type E. This means that third, fourth and Fifth Freedoms are granted. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacities are pre-determined.

A12.13 Ethiopia's ASAs with Kenya, Tanzania and the UK are type F. This means that it grants Fifth Freedom rights to the parties. Multiple airlines can be designated to fly between the countries. Air service providers must be substantially owned and effectively controlled by one of the two contracting parties. Tariffs require approval from both states. Capacity is granted under a Bermuda I clause: this provides for capacity limits to be set after the ASA has been entered into. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal.

A12.14 The ASAs with Ghana and Namibia have not been categorised by the ASAP.

# B Bibliography

B1.1 A bibliography of sources for our literature review is provided below.

**Appendix Table B.1: Publications and other reference materials**

Title	Author, date
ICAO AFI Enhanced Regional Cooperation	ICAO,2009
Africa's Strategy for market access and catalyst for air transport growth	ICAO working paper, ATCONF, 2013
ICAO AFI Enhanced Regional Cooperation	ICAO,2009
CAPA Yearbook 2013 - Africa	CAPA, 2013
Africa's Infrastructure A time for Transformation	World Bank, 2010
African Union Conference of Min of Transport - Impact of High Taxes, Fees and Charges on African Air Transport	African Union, 2011
2011 AU Min of Transport Conf - Aviation Safety	African Union, 2011
Success Stories KenyaAir	IFC, 2008
Nigeria Ghana Transport Scoping Report	UKTI, December 2011
ECOWAS - Regional Air Transport Database	ECOWAS, November 2012
DFR on Feasibility Study on Regional Aircraft Maintenance Facility	ECOWAS, 2012
An Unsteady Course - Growth and Challenges in Africa's Air Transport Industry	AICD, 2009
Assorted IATA updates	IATA, May 2013
Open Skies For Africa	Charles E Schlumberger, 2010
Airports in Africa – Capital investment programmes 2014	Brooks Market Intelligence Reports, 2013
Logistics Capacity Assessment website, <a href="http://dlca.logcluster.org/">http://dlca.logcluster.org/</a>	UN Food Programme interagency tool, accessed September 2014

Title	Author, date
Airfield charts website, <a href="http://airfieldcharts.com/africaairports.htm">http://airfieldcharts.com/africaairports.htm</a>	Commercial pilots' resource, accessed September 2014
Transforming Intra-African Air Connectivity: The Economic Benefits of Implementing the Yamoussoukro Decision	Prepared for IATA in partnership with AFCAC and AFRAA by InterVISTAS Consulting Ltd, July 2014
Ready for Takeoff? The potential for low-cost carriers in developing countries	Charles E. Schlumberger and Nora Weisskopf, World Bank Group, 2014

**Appendix Table B.2: News articles**

Title	Author, date
Nigerian Aviation Minister Calls Air Crash 'Act Of God'	Airwise, 9 Oct 2013
Aviation in Africa Going south	The Economist Gulliver blog, 23 Apr 2013
FastJet Confident Of Overcoming Obstacles	Reuters, 5 Jun 2013
Fastjet To Start Cargo Services	Reuters, 3 Sep 2013
Fastjet navigates tough African terrain	Financial Times, 7 Oct 2013
Fastjet sets date for maiden flight	Financial Times, 14 Oct 2013
Africa's ailing national airlines survive on USD2.5 billion of government subsidy.	CAPA centre for aviation, 8 Oct 2013
fastjet reports USD42 million net loss	CAPA centre for aviation, 17 Oct 2013
Lekki Nigeria	Inspiratia, 18 Oct 2013
Fastjet touches down in Johannesburg	Financial Times, 18 October, 2013
No Airport in Nigeria is fully certified	Channels TV, 28 October 2013
South African Airways needs to move forward with new strategic plan	CAPA, 4 November 2013
Ethiopian Airlines Strategy	Routes Magazine, Issue 7, p 18