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INFRASTRUCTURE DEVELOPMENT AND REGULATORY REFORM IN SUB-SAHARAN AFRICA: THE CASE OF AIR TRANSPORT

by

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RÉSUMÉ

Ce Document analyse les principales questions de politique économique soulevées par la réforme de la réglementation du transport aérien en Afrique subsaharienne. Il montre que l'amélioration de l'infrastructure du transport aérien constitue un enjeu fondamental dans les efforts de la région pour s'intégrer devantage dans l'économie mondiale. Sur la base des expériences des pays de l'OCDE dans les domaines de la privatisation, de la libéralisation et de la réglementation, l'auteur analyse les progrès réalisés en Afrique subsaharienne et identifie trois études de cas particulièrement importantes : la restructuration de la compagnie aérienne régionale de l'Afrique de l'Ouest francophone, la vente de la compagnie aérienne publique du Kenya et le processus plus général de réformes en Afrique du Sud, de loin le plus grand marché du continent.

L'analyse met en lumière l'importance des dynamiques régionales pour renforcer l'industrie du transport aérien dans les pays émergents et en développement. De ce point de vue, les progrès ont été plus limités en Afrique subsaharienne qu'en Amérique centrale, par exemple. A l'approche du début des négociations commerciales du Millénaire et de la première revue du transport aérien à l'OMC, ces problèmes vont devenir des priorités politiques pour tous les pays. Ils pourraient même devenir d'importants instruments de négociation pour les pays non membres de l'OCDE qui cherchent à obtenir de meilleures conditions d'accès aux marchés des pays de l'OCDE pour leurs exportations traditionnelles.

SUMMARY

This Technical Paper analyses the main policy issues raised by regulatory reform in air transport in sub–Saharan Africa. Its basic premise is that improving air infrastructure is of paramount importance for the region as it tries to integrate more thoroughly into the world economy. On the basis of the experience of OECD countries with privatisation, liberalisation, and regulatory design, the author analyses progress being made in sub–Saharan Africa and identifies three important case studies: the restructuring of the regional airline of Francophone Western Africa, the sell–off of the state–owned airline of Kenya, and the overall reform process in South Africa, by far the largest market in the sub–continent.

The analysis highlights the importance of regional dynamics in the upgrading of the air transport industry in developing and emerging areas. Sub–Saharan Africa has made smaller progress in this respect than, for instance, Central America. As the start of the Millenium Round and the first WTO air transport review approach, these issues will gain policy priority for all countries, and may become powerful bargaining tools for non–OECD countries to press for more open access into OECD markets for the South's traditional exports.

PREFACE

The OECD has been at the forefront of economic and institutional analyses of regulatory reform, drawing policy lessons that, while normally addressed to Member countries, are also relevant for developing and emerging economies. As part of the Development Centre's research programme on Emerging Africa and on the role that co–operation and integration among African nations can play in fostering growth and development, this Technical Paper relates the experiences of OECD countries in reforming their air transport industry to similar attempts being made in sub–Saharan Africa.

The basic finding of the study is that some progress has been made in some countries in the areas of privatisation and liberalisation. In particular, Kenya privatised its state–owned airline, which is now the only sub–Saharan African carrier fully integrated into one of the global alliances poised to dominate the air transport industry. In South Africa, for its part, the liberalisation of the air transport market is delivering benefits to customers. Nonetheless, many obstacles remain before sub–Saharan Africa will be able to fully reap the benefits of integrating into the world economy.

Reinforcing the institutional framework to encourage, and to watch over, market competition must be a top policy priority and governments must act more decisively to translate official declarations regarding the benefits of sub–regional, multi–national air companies into concrete policy initiatives. At the same time, developing countries' concerns about the possibly unfair dynamics of global air transport liberalisation must receive due attention by OECD Member countries.

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I. INTRODUCTION

The positive impact of a well–functioning infrastructure system on a country's growth rate and standard of living is a truism that has recently received empirical support in a number of well–known studies. Recent research on low growth in sub–Saharan Africa has also explored the role of geography and location, and has correspondingly added new dimensions to the policy debate on infrastructure. Collier and Gunning (1999), after noting that public services are deficient and infrastructure scarce and costly, hint that spending well in such areas would enhance growth. Bloom and Sachs (1998) argue that the effects of the Africa dummy on growth disappear when entering geographic variables — the percentage of a country's land area in the tropics; the density of the population within 100 km of the coast; and the population density in the interior — into the growth regressions. Noting the poor state of Africa's infrastructure, they suggest that this "may in large part reflect geographical realities" (p. 263) and conclude that "international competitiveness in manufactures requires a set of effective institutions linking the domestic economy with world markets" and that "creative effort is needed to promote investment in infrastructure" (p. 272). Freeman and Lindauer (1999), who challenge the view that Africa is different because of geography, reach similar policy conclusions about the key role of institutions.[1] As Hernandez–Catá (1999) summarises, "transportation is expensive because of monopolistic, cartelised, and/or subsidised sea, air, and rail links. Globalisation coupled with a reduction in transaction costs could shift comparative advantage toward manufacturing and raise output while helping to diversify the region's economy".[2]

In this paper we focus on current policy issues in improving air transport systems. Aviation is critical for Africa to compete in the emerging global economy. It serves to increase trade, attract investment, grow a tourism industry, and weave together a modern society. While the development of civil aviation is partly contingent on the level of income, it remains of paramount importance in Africa, especially for a number of low–density and land–locked countries in Central Africa that may find it the most rapid and suitable means for the transportation of perishable goods. Rwandan coffee traders, for example, confronted with the impediments posed by Idi Amin on shipments through Uganda to Kenyan ports, resorted to air transport in 1976, finding it no more costly, and much faster (UN–ECA 1995, p. 6). At present, the system suffers from the more general problems that have hindered investment in many developing countries — and in most of sub–Saharan Africa — as well as from further features that are idiosyncratic to civil aviation. On the one hand, an unstable financial and macroeconomic environment has increased the degree of domestic uncertainty facing investors. These have thus tended to require higher rates of return than in countries with a well–established institutional and legal infrastructure to support market transactions.[3] On the other hand, state–ownership, poor management and monitoring, and a maze of anti–competitive arrangements have bred corruption, fares and costs higher than the world norm, poor financial results, and low safety of airlines and airports (ICAO 1984). To put it simply, the welfare consequences of the industrial organisation of African air transport have been negative.

OECD countries have made substantial progress in liberalising ownership and market access in air transport and, income differences notwithstanding, the lessons that can be drawn are of paramount importance for developing countries. In the wake of the 1980 Lagos Action Plan and the 1984 Mbabane Declaration on African Air Transport, gradual liberalisation of traffic rights was launched in 1988. The Yamoussoukro Declaration called for integration through mergers, shared exploitation, and consortia, in order to strengthen co–operation, co–ordination and integration of air services. A formal 3–phase timetable was also included. Some governments are also implementing privatisation strategies, in the domain of airlines (e.g. Kenya) and airports (e.g. Côte d'Ivoire, South Africa), or are at least pursuing corporatisation and commercialisation of their assets in the sector. As part of this process foreign companies are establishing their ties to the region, via direct investment, strategic partnership, or code–sharing agreements. But generally speaking results have been discouraging, and the 1997 Task Force of the African Civil Aviation Commission suggested to lift the deadlines of the Yamoussoukro Declaration and to shift the focus of future endeavours on sub–regional integration (ICAO 1999*a*).

Sections II–III present a concise overview of the institutional framework governing air transport around the world, of the developments that have deeply changed the industry in OECD countries since the late 1970s, and of their business and regulatory consequences. We identify a number of key issues, such as the defence of competition, the protection of consumers, environmental regulation, and state aid, that have most attracted the attention of OECD policymakers. While it is true that Africa does not yet experience the same policy dilemmas, being a reform laggard may become an opportunity for regulatory leapfrogging: in any case, in a global industry such as air transport all developing nations are confronted with most of the same issues as OECD economies. Section IV provides a broad overview of the main features and problems of African air transport, which are found to be generally associated with the small size of each domestic market, the inefficiencies of state ownership, and the existence of significant market distortions. The identification of such issues has driven the selection of three case studies: the Air Afrique attempt at forging regional integration (Section V), the privatisation of Kenya Airways (Section VI), and the current reform initiatives in South Africa, by far the most developed air market in the region (Section VII). Against the background of emerging policy issues in the OECD area, the concluding Section VIII offers some thoughts on a comparative perspective. In particular, we explore the implications for Africa of the first WTO air transport review, which should begin not later than 2000.

II. THE POLITICAL ECONOMY OF CIVIL AVIATION IN OECD COUNTRIES

Civil aviation for the transport of passengers and merchandise has always constituted a *sui generis* market, with the possible exception of its pioneering days when entry was basically unrestricted. It is possible to single out a core of characteristics that combine to distinguish civil aviation from other industries:

— dominant state ownership, at least outside the United States, and corresponding competition immunity, on the grounds of national security and pride considerations;

— pervasive controls on entry, capacity, and tariffs, on the grounds of the size of investment needed and the presence of network externalities;

— existence of an international regime with specific international organisations and institutions;

— high degree of vertical integration, with *de jure* or *de facto* control and ownership links between physical infrastructure and air and ground services.

At least outside the United States, state ownership became the norm around World War II. In Britain, for instance, the government nationalised BOAC (British Overseas Airways Corporation, the predecessor of British Airways) in 1939 for security reasons. In other countries, such as Italy, it was deemed that only state ownership could substitute for the lack of private capital. In Europe — and in the developing world as the progress of decolonisation led to the birth of new airlines there — state–owned carriers were charged with social obligations, such as serving remote areas in the countries or providing low–price fares to select categories of users, but were also used as a source of political patronage and as a foreign policy tool. Very often, national airlines were seen as “visible and mobile symbols of modernity, virility, and independence” (Pirie, 1992, p. 344). Even free–market governments, however, considered civil aviation a peculiar industry and subjected it to specific norms, most notably in the United States the 25 per cent limit on foreign ownership and the “Fly America” policy, which requires US civil servants to use only US carriers.

The regulatory framework had two dimensions. On the domestic front, the goal was to ensure stability in the market, with a rather low attention to the desires of consumers: air fares, entry and exit, frequencies, co–operative agreements, and competition were responsibility of ministries (in Europe and Japan) or independent agencies such as the Civil Aeronautics Authority (later renamed the Civil Aeronautics Board, CAB) in the United States. Where ministerial regulation is combined with state ownership, the risk of a conflict of interest, for example when granting route licenses, was magnified, *a fortiori* in those countries where airport infrastructure was also in the hands of governments.[4]

At the international level, the need for a core of shared principles to govern the industry emerged as early as 1919, when the Paris Convention Relating to the Regulation of Aerial Navigation bestowed international legitimacy to the principle of unfettered sovereignty over national aerospace (Nayar 1995). The 1944 Chicago conference, attended by 52 countries, reaffirmed this principle and agreed on the so–called first and second freedoms, those to fly over another state’s territory and to make a technical stopover. On the other hand, US pressures in favour of the third and the fourth freedoms, pertaining to

unrestricted commercial rights to take traffic to, and bring traffic from, another state, were only partly successful, as they were made conditional on an initial equal sharing of frequency plus an "escalator clause" under which a carrier could add to frequency if its flights were at least two–thirds filled. A functional intergovernmental organisation, the ICAO (International Civil Aviation Organization) was also founded, with a mandate limited to safety and technical matters, and no independent voice on tariff–setting, frequency of flights, or volume of traffic carried. As regards safety, in particular, ICAO concentrates on developing standards to ensure the safe operation of aircraft, but it is the responsibility of the member states themselves to ensure the application of these standards in practice.

As the importance of civil aviation for passengers and freight rapidly rose in the post–war era, the existence of network externalities also became increasingly clear, as an adverse occurrence in any one country could affect the whole world market. Nonetheless, while the Chicago principles regulate international aviation to this day, the system is far from being multilateral. The real sources of norms are bilateral agreements negotiated by governments. These fix a set of rules that identify the airlines of the contracting economies with the rights to fly on each route; determine the capacity that can be provided by each of those designated airlines; and limit the capacity that can be offered by airlines from third countries. While mutual rights agreements are agnostic as to the desired ownership structure, nationality requirements are generally imposed upon the share register of the designated flag–carriers.

The most important such agreement, signed by the United States and the United Kingdom in 1946 at Bermuda, specified that there was no predetermination of capacity; incorporated the fifth freedom — beyond rights which allow one country's airlines to carry the traffic of third countries from and to the other one on their outward and inward flights;[5] and transferred to IATA (International Air Transport Association), a trade group founded in 1945 as a clearing house for financial transfers among airlines, the power to determine air fares, subject to approval by both governments. The existence of nearly 4 000 separate bilateral aviation agreements, no less than their lack of durability, undermined the coherence of the international system.

The first oil crisis provided a significant shock to the business community and policy–makers alike. Following the CAB liberalisation of entry and the so–called "discount fare experiments" of the mid–1970s, US regulatory reform started in earnest with the 1978 Airline Deregulation Act, that led to free entry to all carriers that are "fit, willing, and able" (1982) and to the complete elimination of regulations on fares, routes, destinations, and frequencies (1983).[6] The parallel renegotiation of the US–UK agreement led in 1977 to the signing of Bermuda II, that provided BA with more entry points to the United States; introduced dual designation (two airlines from each country) on the busier routes; established a consultative process for handling issues of capacity; and abolished fifth–freedom rights. From the early 1990s Washington tried to sign "open skies" accords, giving airlines from the two signatory countries unrestricted access to each other's airports. Among the 34 Open Skies agreed at mid–1999, the only ones with G7 partners have been with Germany (February 1996) and Italy (November 1998).

Following Bermuda II, the United Kingdom embarked on its own reform (Green and Vogelsang, 1994), as in many other policy areas, the first European country to do so. The 1979 Tory manifesto proposed to transform British Airways into a public limited company in view of its privatisation, which was finally completed in 1987, not before the company had taken over British Caledonian, its only British rival for long–distance routes. The second

half of the 1980s also saw a considerable liberalisation, both of the domestic market, where entry is now almost completely free, subject to safety licensing, and of some very important overseas ones. The "liberal bilateral" signed with the Netherlands in 1984, in particular, determined that any airline can operate between the two countries, subject to approval from its home government, and offer any fare that is not vetoed by both governments.

In Continental Europe airline deregulation started later and has followed a much slower pace, although it has gathered momentum with the realisation of the Single Market initiative. In the area of transport, the 1957 Rome Treaty limited the Commission's scope of action to rail, road, and inland waterways. Calls for improving the efficiency of the air transport system and assuring the survival of European carriers in an internationally competitive environment came from transnational business associations, consumer groups, and the airlines themselves (O'Reilly 1997). Moreover, in an important ruling in 1986, the European Court of Justice made explicit that even in the domain of air transport policy, the Commission might make use of its powers to investigate cases of suspected infringements of Articles 85 and 86, and propose measures to end such infringements.

The European Council regulations of the early 1990s have made all European routes accessible to European carriers, granted them full operational flexibility and full rate–freedom, and ended regulatory discrimination between scheduled and non–scheduled services. Establishing a single market has resulted in the reduction of the discretionary powers of national authorities and the extension of the possibilities for air carriers to decide, on the basis of economic and financial considerations, fares, new routes and capacities to be offered on the market. As a result, air transport within the European Economic Area is now governed by common rules which provide for licensing, market access, pricing freedom and the application of the competition rules.

In 1994, the Commission published a communication which identified scarcity and cost of infrastructure as a main cause of the high costs incurred by European air travellers. As of January 1999, access to ground handling facilities for third parties at Community airports has been liberalised.[7] This measure is expected to help reduce operating costs and improve the quality of service for airport users. The same kind of effect is expected to be achieved through a new directive on airport charges, which is now in the process of being adopted. The fragmentation of the air traffic management systems is addressed through the strengthening of the Eurocontrol organisation. For this purpose, a revised Eurocontrol Convention has been signed in 1997 and the Community is actively taking part in creating the European Air Safety Authority (EASA). Finally, the Commission started infringement procedures under Art. 169 of the Treaty against those member states that have concluded "Open skies" or similar agreements with the United States. In the view of the Commission, "open skies" agreements constitute a major distortion of the internal market as created by the third package since they grant fifth freedom traffic rights within the Community to US airlines and discriminate between Community carriers on grounds of nationality, thereby preventing the exercise of freedom of establishment. A particularly negative consequence of the bilateral system is that European airlines normally cannot fly to non–member countries from any point in the EU but only from the territory of their home Member State. This creates an asymmetry that disadvantages European airlines in comparison with their competitors. This is particularly striking in the case of the transatlantic market. American carriers can fly from whatever airport in the United States to a wide range of airports in the EU. On the contrary European carriers can operate to the United States from only one Member State.[8]

The last major OECD region to be affected by these regulatory developments has been Asia.[9] While not an open skies agreement, the four–year deal signed by the United States and Japan in January 1998 has lifted all restrictions on the services by the three incumbent carriers whose operating rights stem from the 1952 pact, also extending them unlimited fifth freedom. On the Japanese side, two passenger carriers and one cargo operator have been designated as incumbents, although Japan Airlines and All Nippon Airways will be granted beyond rights only to the Americas, not to Europe. The new agreement also permits code–sharing on US–Japan routes for the first time. Open skies were signed by the United States with Singapore, Malaysia, Brunei, Taiwan, and New Zealand, and negotiations are underway with Korea (Baliles 1997). A single market was created between Australia and New Zealand, while a partial liberalisation initiative between Indonesia, Malaysia and Thailand was later extended to Brunei and the Philippines. APEC ministries of Transport also issued a Declaration on Principles on Harmonisation of Civil Aviation Safety Rules in 1997, based on 92 potential issues identified by a group of experts.

Nonetheless, despite these positive developments, and the more general trend towards a more liberal trading system, the regulatory system in air transport clashes with many of the principles of multilateralism (Findlay *et al.* 1998). Annex 9 of the General Agreement on Trade in Services (GATS) excluded traffic rights and directly related activities, although it applies to aircraft repair and maintenance services, marketing of air transport services, and computer–reservation services. Rights are still negotiated on a reciprocal basis with the aim of achieving a balance of opportunities between the two sides. It does not therefore treat all trading partners in a non–discriminatory way. It also discriminates between foreign trading partners and domestic firms in terms of market access. As a result, the current arrangements deny some of the gains from international trade in this service, although the WTO is committed to reviewing it by the year 2000 (and air transport could be included in the Millennium Round).

III. OUTCOMES AND POLICY ISSUES

While only in the United States and, to a lesser extent, the United Kingdom has the liberalisation experience been long enough to warrant some significant consideration of its effects, pristine regulatory issues can also be identified from Continental Europe. First, there is a wide consensus that in the United States deregulation has led to lower prices and significant welfare gains to consumers (US Department of Transportation 1998). This is also true for UK routes, such as those to and from Ireland and the Netherlands, where entry is free (Abbott and Thompson 1991). Some other less–known effects also deserve to be mentioned: price discrimination has increased, especially at hub airports;[10] employment has increased, although wages have declined somewhat; and the public has manifested a rising (albeit not necessarily justified) anxiety concerning safety (Winston 1993).

Second, it is still open to question whether reforms have increased competition. As predicted by contestability theory (Bailey and Panzar 1981), a relatively large number of new firms entered the market in the first phase, but many did not survive the rise of competition, giving rise to the emergence of an oligopoly. The six major carriers share 70 per cent of the US market by themselves and, with their other partners (so–called "feeders", or regional airlines), have an 82 per cent share of all domestic traffic.[11] In the EU, liberalisation measures have not introduced competition on all markets. The Commission's own 1996 report on the impact of the third package of liberalisation measures noted that 64 per cent of EC routes were operated as monopolies, although many of these are new or thin routes, and that fares for business passengers had not decreased. According to a recent report by the Civil Aviation Authority of the United Kingdom, the percentage of European routes with more than two EU carriers rose marginally from 4 per cent in 1992 to 7 per cent in 1997, while major airlines increased the overall proportion of flights from main hubs from 77 per cent to 85 per cent.[12] Nonetheless, there can be no doubt that liberalisation has increased product variety, as evidenced by the emergence of no–frills passenger carriers — such as Southwest in the United States, Debonair, Go, Rynair, and Virgin Express in the EU — and of integrated cargo "express services" (FedEx, UPS, DHL, etc.).[13]

In the presence of network effects, a customer values a particular product more if that product is already used by a large number of people. The specific features of network competition and the existence of externalities make it valuable for customers to have access to the largest network. The more the network of the market leader grows, the lower its need to interconnect with competitors and the higher their need to interconnect with the market leader. In this case, barriers to entry may be high while barriers to expansion are low. A new entrant would have to be able to attract a critical mass of customers to become a viable competitor. Compared to a new entrant, a firm that already has an established base of customers large enough to make it viable may find it easier to attract new customers. Moreover, in the presence of network effects, an established firm should have a strong incentive to increase the size of its customer base as this makes it more attractive to both new and existing customers and, therefore, seize any opportunity to attract customers from competing suppliers. It does seem that other than size/frequency, superior management, and a high degree of cost–effectiveness (in particular in terms of maximisation of aircraft utilisation time and savings through outsourcing), what characterise survivors

are complementary inputs: ownership of a Computer Reservation System (CRS), frequent flyer programs, and market power in one or more hubs. The importance of market power in major hubs is magnified by the lack of gates, ticket counters, or take–off and landing slots at certain airports.

The US Department of Transportation decided in 1998 to initiate an investigation to determine the existence of "unfair exclusionary conduct" if a major airline responds to new entry at its hub by a low–fare competitor with a strategy of flooding the market with low–fare seats to the extent that its local revenues actually decline. The reasoning is that such a business strategy only makes sense if it eliminates competition so fares can be raised to or above pre–competition levels. Similar issues emerge at the international level as US carriers seek to repeat their domestic hub strategies on a global basis by entering into strategic alliances with foreign airlines.[14]

A third point, obviously closely related to the previous ones, has to do with airports (OECD 1998).[15] Even if economies of scale mean that competition between different airports is not always possible, making them independent and profit–maximisers should provide the right incentives to allocate take–off and landing rights and to invest in new capacity efficiently. A real market for slots, however, has not emerged yet, because of state ownership (in Continental Europe and Japan), regulations requiring airports to reinvest all revenues raised within the airport itself (in the United States), or horizontal integration (in the United Kingdom, where all BAA airports were privatised together). Regulatory intervention is therefore needed to make more transparent the number of available slots and their use, and to encourage a quasi–market allocation of slots. In particular, requirements that slots can only be swapped, without associated cash payments, should be abolished.

Fourth, some qualitative elements seem to be playing an increasingly important role for customers, although this is difficult to evaluate in terms of standard welfare measurement.[16] The proliferation of tariffs, over–booking, the availability of seats at the most publicised promotion fare, the growth in frequent–flier programmes, advance reservation and Saturday–night stay requirements, code–sharing, and airline alliances can all make it harder for consumers to compare competing offers. Interlining has also become more difficult, sometimes even legally impossible.[17] This may not serve the interests of passengers, who often need to travel to several cities which are linked by different airlines and have relied on interlining to make their lives easier. Assuring transparency in flight numbering and customer service is therefore of paramount importance. It is essential that the rules keep in line with the evolution of the market. Carriers must not be allowed to distort the presentation of flight options with artificial definitions designed to keep passengers from choosing good quality connections. The rules must also ensure that new entrant carriers and new connections involving smaller carriers are given a fair chance in the market. A 1997 study indeed reached the conclusion that code–sharing has tended to divert traffic among participating airlines rather than generate new traffic, but has benefited the partner airlines both in terms of revenue generation and traffic, particularly where the agreement is part of a wider alliance (IATA 1998, p. 5).

A fifth issue is that of aid to government–owned carriers. In 1994 the Commission set out principles and criteria for the assessment of state aid to airlines in the guidelines on the application of articles 92 and 93 of the EC Treaty and article 61 of the EEA agreement on state aid in the aviation sector. Since 1991 seven airlines have benefited from public capital injections which were considered state aid and granted exemption: in a few other cases the Commission considered the capital injection to be a commercial financial

transaction. The seven airlines that received state aid had different characteristics and problems, requiring specific solutions. However, several general features recur in all or some of the restructuring programmes. Cost reduction has been achieved through temporary wage cuts or freezes, suspensions of promotions, staff reductions (through early retirement schemes), two–tier pay systems, whereby new employees are hired at lower salaries than existing ones, and redistribution of free shares to employees as a compensation for the voluntary reduction in wages. Restructuring programmes have usually focused on fleets, aiming at modernisation and rationalisation. The number of aircraft may be reduced so that costly over–capacity is eliminated, old aircraft are replaced by new ones which are more cost–effective and more suitable to the specific operating requirements of each airline. Eventually the reduction of the different types of aircraft making up a fleet is pursued, since this allows considerable savings in terms of maintenance costs and costs related to training of ground and cabin personnel. The disposal of assets, such as holdings in hotels, airports, other airlines, which yield no strategic advantage to the core activity while consuming resources brought about further cost reduction. According to the Commission, the restructuring programmes have achieved their objectives to an extent which varies from one airline to another but, overall, can be regarded as successful, as shown by the most commonly used indicators in the industry.

Finally, because of acoustic and air pollution, substantial environmental regulations apply to air transport. The operation of so–called Charter 2 aircraft is being phased out, and the opportunity of international action on CO_2 and NO_x aircraft emissions is also a matter of considerable debate.[18] The European decision to also limit the use of hush–kitted planes, on the grounds that they are noisier than new Charter 3 aircraft designs, has recently generated heated controversy with the US government, showing the political impact that environmental regulations may provoke. In addition, developing countries have expressed their concern that the binding targets placed on the substitution of noisy and polluting equipment may prove too onerous.

In synthesis, the OECD experience points to three main policy messages. First and foremost, that liberalisation delivers in terms of quantity, quality, and cost of air transport; second, that market opening must be accompanied by other initiatives, ranging from competition policy advocacy to privatisation, and possibly even to a reasonable resort to state aid if the latter is the fastest way to break an institutional impasse. Third, that other policy issues that are more or less ancillary to air transport liberalisation *per se* — such as the privatisation of airports, environment regulation, and WTO negotiation — are playing an increasingly important role in determining policy and business outcomes.

IV. THE POLITICAL ECONOMY OF CIVIL AVIATION IN SUB–SAHARAN AFRICA

The African air transport market has grown considerably since the mid–1980s, by a cumulative 56 per cent in 1985–96 in terms of revenue passenger–kilometres (RPKs) (Table 1). The rate of growth has been particularly high for Africa–Asian routes, reflecting the Far Eastern “economic miracle” but also the opening up of new destinations following the end of economic sanctions towards South Africa. For all its growth, however, the market share of Africa in world air traffic has diminished over the last decade, from more than 4 per cent in 1985 to 3.71 per cent in 1996. The composition of traffic flows is also rather skewed, with routes to/from Europe accounting for roughly two thirds of the total. The share of intra–African traffic, on the other hand, is limited and shrinking. In both Europe and South America, for example, intra–area traffic represents roughly a third of traffic originating in the area. Central America can be compared to Africa, insofar as, for both regions, Northern partners — the United States and Europe, respectively — play a major role as catalysts of commercial and migration flows. The world RPK share is similar — 2.13 per cent for North–Central America and 1.90 per cent for Europe–Africa. In both cases intra–area traffic is low, and it has decreased in terms of market share in Central America, although in the latter region total traffic growth of 166 per cent dwarfs that in Africa.

Tables 2 and 3 show the largest airlines and airports in sub–Saharan Africa. South Africa stands out. It is the world’s 26th largest market for passenger traffic and the 29th for cargo freight, and it is five times and two and a half times as large as the two next–biggest sub–Saharan African aviation markets, Mauritius and the Yaoundé Treaty countries (i.e., the owners of Air Afrique) respectively (ICAO 1999a). Not only are South African Airways and its hub, Johannesburg, by far the biggest players in the market, but two domestic carriers (Comair and Sun Air) are the third and fourth largest airlines and Cape Town and Durban are the second and fourth busiest airports. With the partial exception of Nigeria, South Africa is also the only country with a real domestic market: elsewhere there is indeed a very limited degree of inter–modal competition, and road transport enjoys a virtual monopoly for passenger and cargo transport.

The marginalisation of African carriers is made very clear not only by the fact that none of them has joined the largest international alliances (see Table 5 below), but also by two other recent trends in aviation markets. First, they are marginal participants of CRS supply: GETS (Gabriel Extended Travel Service), a co–operative venture among developing countries’ airlines, is connected to 3 000 travel agents and terminals only, whereas the three largest systems — Sabre, Galileo, and Amadeus — have roughly 40 000 connections and more than 150 000 terminals each (WTO 1998, Table 1, p. 8). Second, African carriers have faced greater obstacles in leasing aircraft than their foreign counterparts. Airlines can lease planes either from leasing companies or from other airlines, manufacturers and banks, although terms are usually better using the first modality. Out of a world total of almost 12 000 aircraft, leased planes correspond to 27 per cent, and the share in all Africa is only marginally lower at 22 per cent (ICAO 1999b). Nonetheless, when looking at the number of aircraft leased from leasing companies, the contrast is much more dramatic. The percentage is equal to 5 per cent only in Africa, compared to 10 per cent in North America, 15 per cent in Europe, and 39 per cent in Central and South America. Finding co–operative solutions on both accounts was one of Yamoussoukro’s targets, although results have been largely insufficient.

Table 1. **Air Traffic Statistics for Africa 1985-2007**

	1985	1990	1995	1996	1998/2007 (Annual growth rate)	
					Boeing	Airbus
Revenue passenger-kilometres (RPK) in millions						
Africa-Africa	13 540	14 689	14 775	15 335	6.7	4.0
Africa-China	181	311	1 274	1 834	5.8	7.1
Africa-Europe	43 037	47 732	57 178	66 897	5.5	4.5
Africa-Middle East	5 156	7 394	6 479	6 973	6.1	4.5
Africa-North America	1 220	1 298	2 640	3 052	6.9	5.2
Africa-Oceania	354	686	1 192	1 633	5.8	6.2
Africa-South America	985	1 000	1 373	1 765	8.2	5.7
Africa-Southeast Asia	280	909	3 226	3 623	5.8	5.1
Africa-Southwest Asia	751	818	1 025	1 585	5.8	5.1
Total from Africa	65 504	74 837	89 162	102 697	..	..
As a percentage of world total	*4.16*	*3.43*	*3.44*	*3.71*	..	..
As a percentage of each region's total						
Africa-Africa	20.67	19.63	16.57	14.93	..	..
Central America-Central America	16.58	13.10	13.25	10.66	..	..
Africa-Europe	65.70	63.78	64.13	65.14	..	..
Central America-North America	56.06	58.36	51.58	43.34	..	..

Source: Airbus (1998), *Global Market Forecast 1998-2027* and Boeing (1998), *Current Market Outlook.*

Table 2. **Sub-Saharan Africa's Largest Airlines in 1997**

Airline	Passengers Carried	Freight Tonnes Carried	Revenue Passenger Kms (000)	Available Seat Kms (000)	Load Factor
South African Airways (SA)	5 214 148	74 806	15 089 277	23 490 251	64.23
Air Afrique (RK)	940 723	47 225	2 664 497	4 274 225	62.33
Comair (BA)	876 980	1 553	833 480	1 279 983	65.11
Sun Air (BV)	814 696	0	749 905	1 122 292	66.81
Air Mauritius (MK)	794 482	24 620	3 875 068	5 642 639	68.67
Kenya Airways (KQ)	786 205	12 152	1 801 558	2 902 119	62.07
Ethiopian Airlines (ET)	772 266	35 244	1 965 827	3 229 368	60.87
Air Zimbabwe (UM)	608 083	11 728	838 212	1 762 865	47.54
Air Madagascar (MD)	571 851	6 898	760 218	1 154 081	65.87
Air Seychelles (HM)	384 777	4 432	854 544	1 538 653	55.53
SA Airlink (SA)	368 364	242	152 489	278 995	54.65
Sudan Airways (SD)	333 094	15 263	471 228	1 133 030	41.59
Air Namibia (SW)	214 486	4 765	906 046	1 731 667	52.32
LAM (TM)	188 387	2 311	290 691	439 389	66.15
Air Tanzania (TC)	187 525	2 851	159 438	300 352	53.08
Air Botswana (BP)	116 428	481	55 043	96 609	56.97
Nigerian Airways (WT)	88 411	814	111 161	338 929	32.79
Eagle Aviation (Y4)	49 450	0	22 800	55 720	40.91

Source: IATA.

Table 3. **Sub-Saharan Africa's Busiest Airports in 1997**

Airport (international code)	Country	World Ranking*		Number of passengers	Growth rate (1997 over 1996)
		Passenger	Cargo		
Johannesburg (JNB)	South Africa	91	53	9 722 758	13.5
Cape Town (CPT)	South Africa	159	..	3 998 316	13.8
Nairobi (NBO)	Kenya	214	..	2 550 972	-4.8
Durban (DUR)	South Africa	222	232	2 386 247	6.8
Lagos (LOS)	Nigeria	238	224	2 053 933	-17.8
Mauritius (MRU)	Mauritius	279	..	1 484 263	9.9
St Denis (RUN)	Reunion	287	206	1 399 948	9.8
Abidjan (ABJ)	Côte d'Ivoire	322	222	1 057 718	11.1
Dakar (DKR)	Senegal	328	190	1 014 588	14.4
Mombasa (MBA)	Kenya	349	..	887 839	-4.2
Addis Ababa (ADD)	Ethiopia	..	179	863 000	..
Port Elizabeth (PLZ)	South Africa	364	269	812 601	5.1
Libreville (LBV)	Gabon	374	227	754 181	17.9
Antananarivo (TNR)	Madagascar	416	248	581 965	14.1
Abuja (ABV)	Nigeria	419	..	571 849	-1.2
Kano (KAN)	Nigeria	432	..	523 617	-34.6
Windhoek (WDH)	Namibia	449	..	429 811	9.3
Entebbe (EBB)	Uganda	454	194	415 016	9.9
Ilha do Sal (SID)	Cabo Verde	465	356	392 914	17.3
Lusaka (LUN)	Zambia	482	251	328 132	11.1
Maputo (MPM)	Mozambique	489	338	308 500	9.7
Banjul (BJL)	Gambia	494	348	292 460	14.3
Conakry (CKY)	Guinea	495	323	290 582	2.7
Port Harcourt (PHC)	Nigeria	496	..	290 578	-39.1
Cotonou (COO)	Benin	499	344	287 954	8.3
Asmara (ASM)	Erithrea	522	358	243 732	-6.4

Note: World rankings for cargo traffic are preliminary ACI 1998 data.

State ownership of flag carriers — those that are granted rights in bilateral agreements — remains the norm, although some airlines, including Air Mauritius, are in the process of privatisation. Aggregated financial results show a low return on capital.[19] It would be disingenuous, however, to brand all African airlines as highly inefficient. State–owned Ethiopian Airlines, for instance, has made net profits during each of the last 14 years.[20] Air Tanzania started generating profits "as a result of the bold restructuring measures undertaken since 1992" and of the freedom granted to management in a more open market (World Bank 1996, p. 162). Air Mauritius reported a profit of Rs 311 million for the year ended 31 March 1998 on a turnover of Rs 6.1 billion, comfortably exceeding the 3.4 per cent average net return on revenue achieved by IATA members in 1997 (IATA 1998).[21]

As noted above, the economics of hub–and–spokes aviation makes dominance at large airports a major issue for competition authorities, especially when demand outstrips supply of slots and landing and take–off rights. Given the combination of control over airports, governments' rearguard actions to protect their carriers, and entry barriers, a considerable degree of market power could be expected even in less sophisticated markets like those of sub–Saharan countries, where transit traffic as a percentage of total traffic is much lower. For six of the largest airports, we have computed a very rough measure of the existing degree of competition on the basis of the percentage of routes served by at least two carriers (Table 4).[22] With the caveat that in some cases bilateral agreements may *de facto* limit the incentives for tariff competition, consumers seem to have a fair degree of choice on regional and Africa–Europe routes — in the latter case through hubbing in Europe[23] — while much less so on trans–African flights. When excluding Mauritius, an island, two thirds of routes serving neighbouring countries are competitive. This ratio is not inferior to that of intra–EU routes: Button 1997 (Table 2, p. 77) shows that Air France enjoyed monopoly power on 25 per cent of its routes, Lufthansa on 39 per cent, and KLM and Air Lingus at levels exceeding 50 per cent. Combined with a through revision of bilateral agreements, this may make it easier for Africa to develop a system of competing hub–and–spoke networks.

Technical and institutional considerations make safety a major focus of attention. It is striking to observe that the share of sub–Saharan Africa in disasters involving commercial airlines — 9.28 per cent of fatalities recorded in 1990–98 — is more than double its traffic share.[24] A 1997 midair collision between a US Air Force plane and a German Luftwaffe one, which killed all 33 on board, was ascribed by USAF's accident investigation report to "poor management in [Luanda] airspace" and to "sporadic [and] convoluted" message routing between air traffic control agencies.[25] At least 77 "near miss" accidents — involving a situation in which the cockpit crew believes their aircraft was endangered by the close proximity of another aircraft — were recorded in 1996 alone, prompting the International Federation of Air Line Pilots Associations to declare the airspace north of Zimbabwe "critically deficient". Such critical deficiencies in fact pose real obstacles to the integration of African countries into the world economy: in May 1997, for example, the UK Department of Transport barred Nigerian Airways from British airports until safety concerns were addressed.[26]

Currently, only five African states — Egypt, Ethiopia, Ghana, Morocco, and South Africa — meet ICAO standards, as insufficient investment has been made in airports, airways, and navigation facilities (radars, VHF radio coverage, meteorological information).[27] Few nations collect over–flight and landing fees and other potential payments from airlines to underwrite safety and facility upgrades, and doubts have been expressed concerning the use to which such funds are put in countries that do collect fees.[28] At 16 years in 1997, the average fleet age of airlines in Africa is also the highest in the world, and exactly double that of Asian carriers (Airbus 1998, p. 27).

Table 4. **Competition in the Busiest Airports in sub-Saharan Africa**

	To the same country		To the same region		To the rest of Africa and the Middle East		To Europe and Israel		To Asia and Oceania		To North and South America	
	A	B	A	B	A	B	A	B	A	B	A	B
from JNB	24	17%	16	75%	25	28%	14	5%	7	42%	5	40%
from NBO	5	20%	11	72%	19	37%	9	22%	2	50%	..	..
from LOS	11	27%	13	62%	7	14%	8	13%	1	0%	..	..
from MRU	..	..	11	36%	1	0%	11	18%	7	0%	..	..
from ABJ	4	0%	17	71%	12	8%	9	22%	..	..	1	0%
from DKR	4	25%	12	58%	7	28%	14	21%	..	..	1	0%

Column A: number of destinations
Column B: percentage of destinations for which there is competition (more than one airline plying the route, excluding code-sharing)
Source: author's calculation based on *OAG World Airways Guide*, March 1999.

Table 5. **Forms of Internationalisation of Sub-Saharan African Carriers**

	Capital participation	Partnership	Code-sharing
Air Afrique	Air France (10%)	..	TAP
Air Gabon	Air France, CDC (jointly 20%)	..	..
Air Madagascar	Air France (3.5%)	..	..
Air Mauritius	Air France (2.8%), Air India (2.6%), British Airways (3.8%)	..	Air France, Air Madagascar, Air Seychelles, Austrian Airlines, British Airways, Malaysian
Cameroon Airlines	Air France (3.6%)	..	..
Kenya Airways	KLM (26%)	..	Alitalia, KLM
Nigerian Airways	..	..	British Airways, MEA
South African Airways	SAirGroup (20%)	Lufthansa	American Airlines, Varig
TAAG	..	..	Air France

Note: Capital participation data from "Airline ownership survey", *Airline Business*, July 1998, pp. 63-7; code-sharing agreements from *OAG World Airways Guide*, March 1999.

Meeting in Abuja in 1997 under the auspices of the ICAO, aviation authorities from Africa and the Indian Ocean produced a new navigation plan, recommended the formation of financially autonomous and politically independent civil aviation authorities, and adopted a suggestion to extend ICAO's Safety Oversight Programme to include audits of airports (ICAO 1997). Rapidly improved co–ordination between ATS units throughout Southern Africa has also resulted from the implementation of essential communication links by the Southern African Development Community (SADC) Vectoral Satellite (VSAT) project. The system uses the Intelsat 604 satellite of Telkom, the South African telecom operator, which is in fixed orbit over the Indian Ocean. Establishing a Southern Africa Regional Air Transport Authority is also being considered, and a safety oversight group has been formed in the framework of the East African Tripartite Co–operative Commission.

The US government has made improvements in the operational efficiency of civil aviation, including upgrading of airport and air traffic control infrastructure, a core area of its strategy towards the region. The "Safe Skies for Africa" initiative, launched by President Clinton during his 1998 trip, aims at promoting sustainable improvements in aviation safety and security in Africa and creating the environment necessary to foster the growth of aviation services between Africa and the United States.[29] The initiative also complements US efforts to conclude open skies agreements with key African countries and promote code sharing agreements between US and African airlines. Specific goals include:

— quadrupling the number of sub–Saharan African countries that meet ICAO safety standards (based on FAA assessments);

— improving airport security at between 8–12 airports within the region within three years;

— improving regional air navigation services in conjunction with assistance offered in support of the above two goals.

The first Safe Skies country survey began in Kenya in March 1999, and other candidates for the programme include Angola, Cameroon, Cape Verde, Ivory Coast, Mali, Tanzania and Zimbabwe. The possibility of Open Skies arrangements are currently explored with Kenya, Tanzania, and Ghana, and talks have also been held with Burkina Faso (Slater 1999).

IV. THE LIMITS OF CO–OPERATION: THE CASE OF AIR AFRIQUE

Civil aviation is an industry where co–operative approaches among developing countries appear to be almost natural in order to overcome the problems posed by large investments, in aircraft, airport infrastructure, and human resources planning and development. Airports incur sizeable fixed indivisible costs and it is estimated that the presence of such economies of scale means that airports serving less than 1.5–to–3 million passengers operate with increasing long–term average costs (Nicoletti 1997). Size, moreover, provides bargaining power in the purchase of goods and services, and ultimately in aircraft procurement.[30] These factors could have been conducive to regional and sub–regional co–operation even in the pre–liberalisation era of world civil aviation, but can be taken as almost binding these days as the industry moves towards cut–throat competition and OECD carriers launch their onslaught even in non–OECD markets. Recent trends in Central America, a region that can be judiciously compared with sub–Saharan Africa, point to forging partnerships to increase the sway of airlines over suppliers, expand their route networks in open skies markets, and improve the safety of their operations. The Taca group, for example, was formed in the mid–1990s by merging the airlines of Costa Rica, El Salvador, Guatemala, Nicaragua, and Panama. It manages all their commercial, financial, and airport–service work, and it teamed with airlines from Brazil and Chile to acquire some 200 medium–range, narrow–body transports.[31]

The track record of air transport co–operation in Africa, however, is far from auspicious. West Africa Airways Corporation (WAAC) for example, was founded by Ghana, Nigeria, Sierra Leone and Gambia and based in Lagos, Nigeria. After Ghana became independent in 1957, the Ghanaian government left WAAC and joined with the British Overseas Airways Corporation (BOAC). In 1962 Ghana terminated the agreement with BOAC, and the following year Ghana Airways became a state corporation. A more recent failure, due not least to civil wars, is that of Air Mano, a proposed joint venture between Liberia, Sierra Leone, and Guinea.[32] On the other side of the continent, the East African Airways Corporation (EAA), formed in 1946, was one of the institutions operated under the East African High Commission by Kenya, Tanganyika, and Uganda. The airline survived as a statutory corporation when the three countries achieved independence and created in 1961 the East African Common Services Organisation, which then became the East African Community in 1967. But the rising political divergence between capitalist Kenya and socialist Tanzania, as well as the Ugandan crisis under Idi Amin, led to the demise of EAA, and the creation of three autonomous carriers.[33]

Nothing more than Air Afrique, however, stands as the quintessential emblem of the promises and limits of Pan–Africanism: the frequency and depth of press coverage goes indeed well beyond that received by airlines in OECD countries. Established on 28 March 1961 by the treaty of Yaoundé, signed by eleven Francophone countries (Benin, Burkina Faso, Cameroon, the Central African Republic, Chad, Congo, Gabon, Ivory Coast, Mauritania, Niger, and Senegal), Air Afrique's capital was initially divided among the signatory countries (66 per cent) and Sodetraf (34 per cent), a branch of UTA, a French private airline. Each country gave Air Afrique an exclusive concession on international traffic (except for the neighboring rights), while keeping their autonomy on domestic transportation. During the 1970s, two member states, Cameroon and Gabon,[34] withdrew

but were replaced by two new joining members, Togo and Mali. Following some changes in the capital structure, regional governments each own a 6.4 per cent stake, while the Caisse Française de Développement, the French equivalent to the Overseas Development Corporation, Air France, the West African Development Bank and DHL own a combined 29.6 per cent. In 1992, another milestone was to jointly negotiate bilateral agreements with non–members through a multilateral negotiation committee.

Route developments followed the path set by the long–standing relationships with Europe, and particularly with France, or two main markets:

A North–South line corresponding to the traffic Europe – Africa.

A South–South line corresponding to inter–state relationships.

Afterwards, the company created air links starting from West Africa to New York, Jeddah and Johannesburg. As West Africa grew, so did Air Afrique. Traffic, of both passengers and freight, increased, a progressive promotion of native managers took place, and significant investments were made to acquire planes: from the Caravel, DC 8 and DC 10s, to a modern fleet of 1 Boeing 747 cargo bought in 1980 and 3 Airbuses A–300 bought in 1981–84. The company also created training and maintenance centres in Abidjan, Brazzaville, and Dakar to train cockpit and ground maintenance personnel.

A new French president and chief executive officer (PDG in French usage) was named in 1989, Yves Roland–Billecart, a former president of the Caisse Française de Développement, with no previous airline experience. Despite a very low cash–flow, Air Afrique took delivery of four Airbus A–310 jets between 1991 and 1993.[35] The steep increase of the debt level, as well as the unusually short maturity of the loan (12 years, as opposed to a 20–year average amortisation period for an aircraft) made the company very vulnerable to the 1994 CFA franc devaluation.[36] A reorganisation was started in 1995, with the elimination of unprofitable European destinations such as London, Geneva, Nice, and Marseilles, but it proved insufficient.[37] In 1996, losses peaked at US$ 35 million, on revenues of US$ 398 million, and business in 1997 was further hit by the civil war in Congo that effectively shut down the Brazzaville airport for more than 4 months.

In September 1996, in a clear and unprecedented sign of uneasiness with management, the board of directors refused to approve the company's annual report, prompting the resignation of Roland–Billecart. A formal process of recruitment conducted by an international head–hunter led to the appointment of Sir Harry Tirvengadum, PDG of Air Mauritius (on which see below), as CEO (and not as PDG). Under his stewardship, significant progress has been made, with the introduction of tight cost controls, the freezing of new hirings, and the substitution of expatriates with local cabin crew. Perhaps ironically, the seizure of four jets in July 1998 by creditors for non–payment of debt has also helped Air Afrique, since leasing repayments have been reduced.[38] A plan was also designed to create a special–purpose company, owned by Agence pour la Sécurité de la Navigation Aérienne en Afrique et Màdagascar (ACSENA[39]) and the eleven governments, to buy and lease back the fleet, in an effort to reduce Air Afrique's debt burden. But despite the fact that ASECNA, in which France still exercises considerable pressure, deposited its 64.5 per cent share in an escrow account, only five regional shareholders did so and no international air leasing company has agreed to participate.[40] Sir Tirvengadum, however, suddenly resigned in January 1999 — officially for health reasons, although insiders blamed the resignation on shareholders' lack of support for him[41] — and after a few months of tortuous negotiations Pape Sow Thiam was appointed as PDG in late April.

Air Afrique has suffered from a number of problems, some of them chronic to African aviation: high fuel prices,[42] control charges, and airport taxes, as well as steep insurance premiums due to inadequate safety, both in the air and on the ground. Moreover, in many cases the lack of subcontractors has obliged the company to internalise services such as handling, general sales agents, and catering. Others, in turn, characterise many state–owned carriers around the world. Cash–strapped governments have not provided adequate financial compensation for universal service obligations, that require it to ply uneconomical inter–state routes, and have failed to supply the much–needed capital infusion.[43] Bureaucracy and weak organisation make Air Afrique poorly equipped to slash costs to compete against aggressive carriers that have a strong presence in the West African market, such as Sabena, or that are striving to build it, such as British Airways and Royal Air Maroc.[44] Given that France represents 40 per cent of its market, Air Afrique's competitiveness has been particularly damaged by the change in attitude of Air France, that, facing increased competition on its own home market, has started being more aggressive in West Africa.

Finally, some problems are idiosyncratic to the working of a multi–partner carrier. First of all, national sensibilities have impeded the sole consideration of managerial skills when appointing personnel.[45] Roland–Billectart, in particular, was accused of weakening the staff's morale by marginalising African managers, and Thiam is indeed the first chairman to emerge from Air Afrique's rank–and–file. Second, in this multinational context, corporate governance has proved deficient: Air Afrique has 32 directors, for example, whereas General Motors, ranked first in the Fortune 500 List, has 15. In the absence of strong controls by their principals, managers have chosen to acquire large, top–of–the–range aircraft, instead of turboprop–equipped short–haul planes that are better equipped to operate regional routes.[46] Third, similar political considerations have forged the need for multi–stop routes, which are more costly to operate than direct flights. All member governments wanted a direct liaison with Europe, whereas in many cases it would have been much more profitable to develop Abidjan, and possibly Dakar, as hubs.[47] The result is that while European competitors started servicing the major destinations with non stop–flights long ago, Air Afrique could do so from Paris to Abidjan and Dakar only in June 1999, when it was also finally able to align daily departure timings. Finally, some countries started free riding, subtly opening their markets to charters from Europe in disobedience of the spirit of the Yaoundé treaty.[48]

There are two, though not alternative, strategies for assuring the future of Air Afrique. Privatisation has been aired for a long time, and has so far met strong resistance from the unions, despite the fact that employee share participation is envisaged.[49] Member states have agreed to a slow reduction in their holding from 70.4 to 51 per cent by 2002, although it is not so clear that foreign investors would content themselves with a minority participation. As for forging a strategic alliance with an OECD airline, Air France is considered as the "natural partner", possibly more for political and historical than for purely business reasons. In any case, the advantages that the African airline could gain from a global partnership greatly outweigh those for the chosen bridegroom, as European executives do not fail to mention.[50]

V. PRIVATISATION: THE CASE OF KENYA

As budget constraints, aid conditionality, foreign examples, and new public spending priorities push for an overall reduction of public ownership, some airlines are being partially privatised.[51] Air Mauritius, for instance, opened up shareholding in 1995, listing on the stock exchange of Mauritius, although the government still controls a 51 per cent majority. It now plans to invest in other African countries, and is considering the possibility of establishing a regional carrier in the Indian Ocean.[52] Senegal is another country that has embraced an ambitious strategy with regard to air transport, aimed at ensuring safety, increasing the national supply of air transport, and promoting an international traffic platform at Dakar airport (IMF 1998a). Air Senegal should be fully privatised by December 1999, upon implementation of a business plan, prepared and discussed with the World Bank, focused on reducing staffing and covering the liabilities incurred by the loss of two aircraft. Other governments that envisage similar action in 1998/99 are those of Uganda (IMF 1998b) and Cameroon (IMF 1998c).

It is true, however, that many airlines are not as attractive an investment as their counterparts in other regions and adequate legal guarantees for foreign investment are lacking in a number of countries. A case in point are uncertainties concerning traffic rights. Jointly with Tanzanian authorities and SAA (a 40 per cent shareholder naming 4 directors out of 8), the government of Uganda launched a new carrier, Alliance Airline, that started direct flights between Dar er Salaam, Entebbe, and London on 1 July 1995.[53] Other European countries, however, refused the designation of Alliance as flag carrier, because it is not Ugandan–owned. In the wake of the privatisation of Uganda Airlines, authorities are trying to reclaim traffic rights from Alliance, arguing that the earlier deal was based on a decree law that had not been ratified by Parliament.[54] Delays are generally the order of the day. The privatisation of Air Madagascar was announced by the end of 1997, but in 1999 the IMF was still urging the authorities to complete the process of divestiture (IMF 1999).[55] An initial tender for 51 per cent of Air Ivoire was launched in September 1998 to no avail, prompting the government to take over the company's debts in April 1999 in a renewed effort to ease the privatisation and send a positive signal to the IMF. Finally, the Harare government named a former Irish consultant as chief executive at Air Zimbabwe in 1997, with a mandate to sell the airline. This task is made difficult by President Mugabe's habit to use one of the fleet's few aircraft for his own trips overseas and by the existing business deals between the airlines and the ruling Zanu–PF party.[56]

In very few cases, however, have governments shown the necessary resolve to stop providing subsidies and close them. One such case is Zambia, where President Chiluba took the decision to liquidate the loss–making national airline and to allow the establishment of private airlines. Four such companies — Aero Zambia, Zambia Express,[57] Eastern Air, and Stabo Air — now operate, without government financing or subsidies (Fundanga and Mwaba 1997, p. 14). The national airline of Sierra Leone was also liquidated.

The most complex deal concluded so far has concerned Kenya Airways.[58] The airline had been established in 1976 out of the ruins of the East African Airways Corporation. Largely for reasons of speed and administrative convenience, Kenya Airways was registered as a limited liability company, wholly owned by the government but not subject to the provisions of State Corporations Act. Mismanagement and political interference combined to produce a situation whereby, in the early 1990s, the airline was in desperate conditions,

burdened by debt arrears and penalties arising from 17 years of accumulated losses. In 1993, the government chose to restructure the airline. A former governor of the Central Bank and economic advisor to President Moi was appointed as the airline's chairman and the board was completely overhauled. Philip Ndegwa, who had also been a businessman in the private sector, brought in a new, partly foreign management team, recruited through Speedwing, British Airways' consulting spin–off. Routes, fares, and the fleet were rationalised, while specific training was provided to staff to engender a corporate culture oriented towards consumer satisfaction and financial viability. In the spring of 1994, the International Finance Corporation, the World Bank group's merchant bank, was engaged by Kenyan authorities as principal advisor. The government accepted the IFC's suggestion to assume the company's pre–1993 debt arrears and to convert most of its own "bridging" loans to equity. While not needed for other sell–offs, parliamentary approval was obtained in order to reassure potential investors over the respect of conditions. A privatisation committee was also formed, composed of government representatives, airline senior staff, and — in a purely consultative role — two IFC experts.

Following a complex 18–month process — which comprised debt restructuring, approval of the IFC's recommendation of introducing a foreign shareholder, preparation of the information memorandum, short–listing of acceptable strategic partners, and negotiation with two of them — in January 1996 KLM purchased 26 per cent of Kenya Airways. The price of US$26 million was three times its book value and at the top of the range indicated in the valuer's report. A comprehensive co–operation agreement was signed between Kenya Airways and KLM detailing corporate governance and management and stating that KLM will deliver US$3 million in goods and services to Kenya Airways free of charge. The following phase of the privatisation programme consisted in the completion of the sale of the shares of Kenya Airways to the Kenyan public through an offering on the Nairobi Stock Exchange (20 per cent) and to Kenyan and international institutional investors through private placements (14 per cent each). A 3 per cent portion of shares was made available to Kenya Airways staff through an employee share ownership plan. More than 100 000 investors bought into the company at Ks 11¼ per share, a spectacular success for the Kenyan stock market.

A combination of stringent fiscal need, strong management will, and direct links between the chairman and the top government echelon has made this privatisation one of the best concluded so far in sub–Saharan Africa. Profits rose 41 per cent in 1998 and in 1999 Kenya Airways has added two new aircraft to its 6–strong fleet, hired new staff, opened new regional routes, and focused its services with Europe on routes code–shared with KLM and Alitalia. It also plans new routes to the United States with Continental and Northwest, partners of KLM and Alitalia in the Wings international alliance.[59] The Kenyan privatisation programme, however, quickly lost momentum, contributing to the severing of relations with the IMF in 1998. Citing the worsening political climate, international financial investors got out, and Kenyan Airways' stock price has fallen below Ks 7.[60]

There is, however, "a sting in the tail" (Campbell White and Bhatia 1998, p. 28). As part of the deal, all charter operations have been banned from Nairobi airport for at least five years, even if such flights are possible to and from Mombasa airport. In 1998, to boost tourism, a new venture, East African Safari Air, that associates local and European investors, was awarded a license on routes discontinued by Kenya Airways. Arguing that it had not completely withdrawn from those routes, the latter tried to revoke the license, but the matter landed in court and still is. A separate development has been the 1999 opening of a new cargo centre in Nairobi, that has finally broken Kenya Airways' cargo and ramp handling monopoly. Launch customers include British Airways, DHL, and Lufthansa.[61]

V. ON THE ROAD TOWARDS OPEN SKIES: THE CASE OF SOUTH AFRICA

General Features

As shown in Tables 2–3, the South African air transport industry is by far the continent's most developed, and it is now advancing at the fastest pace on the road towards liberalisation — though not, perhaps ironically, on that of privatisation. South African Airways (SAA) was formed in 1934, when the Union of South Africa acquired all assets and liabilities of a private airline. With two Gypsy Moths, a Puss Moth, three Junkers F13s and a Junkers W34, the airline started chartered and scheduled flights between Cape Town, Durban, and Johannesburg. The range of destinations expanded after WWII, to include most European capitals. To protest against apartheid, most African countries withdrew over–flying rights in the 1960s, obliging SAA to fly an over–water route around the bulge of Africa to and from Europe, and in the mid–1980s Australia, Canada, and the United States revoked SAA's landing rights and forbade their airlines from flying to South Africa (Pirie 1992).

SAA became a division of Transnet on 1 April 1990, and began the process of forming the airline into a fully market–related commercial enterprise.[62] Once relations between South Africa and the rest of the world normalised again, SAA launched new services to African destinations, such as Abidjan in 1992. More importantly, SAA could finally re–route its planes, thus saving considerably on fuel and labour costs. A new, wholly–owned, feeder (SA Express) took to the air in April 1994, taking over SAA's Johannesburg–Kimberley, Johannesburg–Upington, and Bloemfontein–Durban service routes.

The transition to democracy opened new trade and tourism opportunities, leading to a dramatic increase in the number of airlines servicing the country, which skyrocketed from 21 in 1990 to 59 in 1998. The lift of Commonwealth's "people–to–people" sanctions allowed the resumption of flights to and from Australia in 1992, while a New York service was launched by USAfrica on 4 June 1994. After eight months, however, the airline suspended flights, as did Avia Airways, a South–African–based company with local and British shareholders, in August 1995, only three months after it had started flying between Johannesburg and London. When Logans Travel also ended its flights, operated with Sudan Airways, in August, hundreds of passengers were stranded at Gatwick Airport near London. The collapse of several short–lived, cut–price airlines prompted the government to investigate the situation and to put in force a moratorium on all new default travel insurance.[64]

Domestic liberalisation marched in parallel. Some private airlines existed, but they were restricted to low–density routes. The dismantling of SAA's monopoly in 1990 opened the window for commercial airlines, which initially tried to tackle the state–owned carrier head–on in the business market. The failure of Flite Star, however, convinced the three large private airlines — British Airways Comair,[64] Nationwide, and Sunair — to focus on the tourist niches. By 1996 BA Comair and Sunair had reportedly eroded more than two thirds of SAA's market share on the Cape Town–Durban–Johannesburg triangle. The 25 per cent foreign ownership ceiling was increased to 49 in early 1998, and later that year Comair was listed on the Johannesburg Stock Exchange.

On the international front, authorities have adopted a double–disapproval policy on fares, whereby all tariffs are allowed unless both countries in question object. The United States and South Africa reached a new aviation agreement in March 1996, the first with an African nation to allow airlines from each country to operate code–share service with those of the other country, expanding service over a five–year period.[65] More competition was also introduced on the London routes in 1996, when Virgin Atlantic started competing with BA and SAA. Fares fell immediately, but unconfirmed rumours are that the London–Johannesburg route remains one of the most lucrative for the former duopolists.[66] SAA has indeed repeatedly opposed any relaxation on restrictions on charter flights.[6] The end of apartheid has also enlarged the possibilities for sub–regional co–operation. In 1996, the 12–member Southern African Development Community (SADC) signed a SADC Protocol on Transport, Communications and Meteorology, that calls *inter alia* to restructure state–owned transport assets, maximise private sector investment, and develop transparent investment regimes and incentives. Progress within the SADC Civil Aviation Committee, however, has been rather limited, on account of the smaller countries' opposition to South Africa's liberal policy towards franchises.

Progress in Privatisation

Under the umbrella of the Reconstruction and Development Program (RDP), economic policy since the end of apartheid has aimed at redressing the inequalities of the racist regime, while also preparing the South African economy for the new requirements of the global economy. Since the mid–1990s, the government has approved numerous transport policy documents to this end (Table 6). They all share some general features, which are broadly in line with the emergent international consensus in this area: consistency between different transport means and between transport policy and other economic objectives (environment preservation, consumer protection, macroeconomic discipline); introduction of user charges and other cost–recovery mechanisms; establishment of independent specialised regulatory agencies; regionalisation of transport policies; and ultimately privatisation — or at least corporatisation and increasing reliance on private–public partnerships. They also embrace the principle of black economic empowerment, i.e. a deliberate proactive programme designed to achieve meaningful participation by blacks in the mainstream of the South African economy as entrepreneurs, owners, and managers of productive assets and wealth.

Decreasing funds, increasing workloads, and the inability to attract and retain skilled staff have made it difficult for the Department of Transport to fulfil its functions (Department of Transport 1998). The creation of new specialised agencies — such as the South African Maritime Safety Authority, the South African National Roads Agency, and the South African Cross–Border Transport Authority, all established in April 1998 — reflects the government's new priorities of policy development, economic restructuring, addressing social inequalities, and reducing the burden of the general taxpayer by introducing a user–pay system (Maharaj 1998a). The South African Civil Aviation Authority (CAA) was established on 1 October 1998. It is governed by no more than seven directors, appointed by the Minister of Transport, of whom at least two must represent participants in civil aviation. The CAA is funded by a combination of user charges, a fuel levy placed on all industry participants and government funding for services which the CAA performs on its behalf. The CAA will continue to receive a subsidy, to be phased out by 2002.

Table 6. **Major Policy Documents and Legal Initiatives in South Africa**

Document	Date	Highlights
Airports Policy Review	April 1995	A committee was established to provide a strategic vision for the upgrading of the airport system. The Department of Transport and the Airports Company were represented in the committee, which was independently chaired and included representatives from the British Airports Authority, Vienna International Airport, and a consultant experienced in privatisation and economic regulation. The committee found that the airports system operated by the Airports Company Ltd (ACL) since August 1993 was working and should remain in its present form, although a further two to four years would be necessary to establish a reasonable track record and to improve the efficiency of the company to maximise its privatisation value. It also recommended the modification of the passenger terminals at the three major airports, rather than the building of new terminals or even new airports.
Constitution	1996 (effective since February 1997)	Transferred to provincial and local governments some specific functions hitherto allocated at the federal level. As regards airports in particular, all those not belonging to ACSA became provincial assets.
Green Paper on National Policy on Airports and Airspace Management	June 1997	Proposed that all of South Africa's estimated 600 unlicensed airports and heliports be required to obtain a licence to ensure a minimum set of safety standards. The Paper stressed that the issuing of an airport licence should remain an aviation safety regulatory instrument and should not be used for other purposes. The document also suggested that strategies to promote private-sector involvement should be encouraged and, where on the borderline of viability, methods of stimulating private-sector participation should be examined.
White Paper on National Transport Policy	1997	Recommended to establish transportation infrastructure networks in conjunction with provincial and local governments, as well as other Southern African countries. Certain ports and airports elevated to hub status in keeping with international trends. According to the White Paper, ownership and regulation of transport infrastructure, whether state-owned or privatised, should also be separated.
Moving South Africa	October 1997	This planning project aims at determining the country's land, sea and air transport needs over the next 20 years. The project focuses on the structure, infrastructure and functioning of the South African transport system and categorises problems which may be solved in the short, medium and long term. It also clarified the split-up of responsibilities, leaving policy, regulatory and financial control with the central government, while foreseeing the creation of four separate agencies, funded through user charges, to deal with the construction and management of roads, the issue of cross-border permits for goods and passengers, and maritime and aviation safety.

A discussion document on the restructuring of government assets was unveiled in September 1995. It identified the policy objectives as to promote economic growth, widen ownership, reduce debt, enhance the competitiveness of state enterprises, promote fair competition, and fund the RDP. In December 1995, the government adopted a number of recommendations, proposed by an *ad hoc* task team, aimed at inviting strategic equity partners to join the transport sector's public corporations. Such recommendations included:

— form alliances which will allow the airline sector to be strengthened by working with the partners and facilitating the growth of these sectors. The Airports Company and SAA were specifically identified in this option, leaving the majority and controlling share in the state's hands while widening the scope for employee share ownership and broadening black ownership;

— sell Sun Air, Transkei Airways and Autonet, enterprises which operate in a highly competitive sector and were not deemed strategic and therefore requiring a specific state involvement. It was also recommended that divestiture should promote black economic empowerment;

— place greater focus on internal restructuring to enable the enterprises to become more efficient and effective in their operations before further steps could be considered. Enterprises affected by this recommendation included Spoornet, Portnet, and the South African Rail Commuters Corporation;

— regulate monopolies and prevent excessive tariffs for Portnet and Petronet;

— strengthen the role of the South African Roads Board, which controls the national road network.

At the end of March 1995, the Minister of Public Enterprises, Stella Sigcau, appointed a committee to recommend changes to SAA's corporate identity, which led *inter alia* to the appointment of six black executive directors in Transnet and the introduction of a more "African feel". As early as December 1995 the government announced its intention to sell a 20 to 25 per cent stake to a strategic investor, prompting an immediate negative reaction from the unions.[68] In June 1997, four consortia — led by Malaysian Airlines (MAS), Phoenix, Rethabile/BA Comair and Virgin Atlantic — were short–listed for Sun Air.[69] Following the withdrawal of MAS and Virgin — the latter due to disagreements with the South African Railway and Harbours Workers Union, which was a member of the consortium — Rethabile/BA Comair won the bid for R 50 million. Rethabile bought a 55 per cent controlling share and BA Comair 25 per cent, the remaining stake being held by employees and the National Empowerment Fund (NEF). The deal was widely criticised as being hasty and undervalued, and criticism was raised at the lack of co–ordination between the sponsoring Ministries (Transport and Public Enterprises).[70]

SAA is a rather attractive asset — although it fell into the red again after reporting positive results in 1995–96 — and its co–operation agreement with Lufthansa, signed in December 1995, is the most ambitious for an African carrier (Table 5).[71] The agreement centres on code–share flights, the inter–linking of frequent flyer programmes, and cargo operations. Nonetheless, over the last few years the airline's poor capital base has proved a major obstacle, since the lack of new aircraft has limited the opening of new routes.[72] Various spanners have been in the wheel of restructuring. Corporatisation was only started on 1 April 1999, well behind schedule, when SAA became a proprietary limited company (plc); in view of frequent, and ineffective, management changes, staff morale is reportedly sagging; and no progress was made in alleviating the airline's portion of the enormous

pension fund liabilities of Transnet.[74] A private SAA is also needed if the company wishes to invest in other African carriers without eliciting protests. Examining the shipping industry, Iheduru (1996) strongly makes the point that developments in African transport, especially in the Southern part of the continent, cannot be grasped without paying due attention to their impact on international relations. Johannesburg's development as a regional hub is already seen as further evidence of the country's somewhat imperialistic foreign economic policy (Maharaj 1998*b*).

The appointment of a new chief executive and the resolution of problems with the company's pension fund finally allowed restructuring to gain momentum in 1999. SAA moved back into the black in the year to March 1999, with a small profit against a loss of more than R 300 million the previous year. The first deadline for registering non–binding expressions for a 30 per cent strategic stake was extended in view of a spate of late bids. Although Lufthansa was credited as the leading contender, the SAirGroup, parent of Swissair, clinched the deal to purchase a 20 per cent stake for US$ 230 million. SAA, Swissair and other Qualiflyer Group members account for over 40 per cent of all air traffic between South Africa and Europe.

Fixed infrastructure privatisation has proceeded much faster. The assets and operations of the nine previously state–operated airports were transferred to the Airports Company of South Africa (ACSA) in 1993.[75] Another parastatal, the Air Traffic and Navigational Services Company (ATNS) remains responsible for air traffic control. An *ad hoc* Regulating Committee decides upon a CPI–x formula on regulated charges and specific service standards. Breaking with the past, when all charges were subject to a flat rate that was 2 per cent below inflation, costs for services are now billed directly to the airlines. More transparency was also introduced in the relationship with SAA, so as to avoid suspicions of favouritism.[76] In 1997, the Minister of Transport set up the Airports Company Restructuring Committee, bringing together government, management, and labour. In March 1998, a 49 per cent stake in the Airports Company of South Africa (ACSA) was put up for sale. Aeroporti di Roma bought a 20 per cent stake as strategic partner, paying a substantial premium on the prospects of raising non–aeronautical revenues to the levels prevailing in OECD countries. Minority stakes were placed with empowerment investors and the NEF (10 per cent each) and management and employees (9 per cent).[76]

Pending issues

The dynamics of entry and exit have been rather similar to those of liberalised OECD markets, with more than a few companies entering and leaving within the space of months. It is not so clear, however, that these developments responded to market dynamics only. In 1993 the Competition Board, following a complaint from Flitestar accusing SAA of unfair competition, recommended that SAA increase its fares. In 1997 BA–Comair accused SAA of poaching cabin staff using illegal means.[77] Finally, the three privately–owned domestic airlines filed a complaint against SAA with the Competition Board in late 1998, accusing the parastatal of predatory behaviour. The three airlines argued that SAA's large capacity increases on a number of domestic routes, combined with pricing policies which "are clearly below cost, constitute predatory behaviour on the part of a dominant market share holder". The airlines charged that on the Johannesburg–Durban route, SAA has increased flight capacity by 50 per cent and charged prices that cannot even cover its costs.[78] As the country's overall competition policy is being overhauled, at the time of writing (mid–1999)

no formal investigation had been launched. Additionally, some legal norms impede the full realisation of consumer gains. The most important one is SASOL's monopoly at Johannesburg International Airport (JIA). While SASOL may not market fuel at JIA, it holds the sole right to sell to petrol companies, which then sell to airlines. The result is that the fuel price is around 20 per cent dearer than in other major airports.[79]

The privatisation of ACSA has certainly been a success, and criticism that some degree of yardstick competition could have been introduced by carving up its assets and selling the airports separately (as in Mexico) may reflect theoretical more than practical considerations. Given the still limited size of the country's market, it is indeed questionable whether foreign investors would have shown interest in airports other than JIA. From the start in 1994, the Regulating Committee has employed the common till approach, where total revenue is pooled to offset total expenditures, in order to force directly regulated tariffs to converge towards their efficient levels. Following its privatisation, ACSA has tendered concessions for non–aeronautical services (including land transport) and liberalised ground handling services. While in 1997, in the first revision of ACSA's permission, the common till approach has been maintained, the Committee came out strongly in favour of phasing it out to ensure that resources, funds, and risks are apportioned accurately and individual services are priced in line with actual costs. Over the medium term, the main policy issue has to do with the allotment of slots at JIA. According to the 1998 Comair IPO prospectus, current facilities are saturated, especially in the international terminal — during peak periods optimum capacity is exceeded by 30 per cent. Slots remain allocated according to the grandfathering rule, whereby airlines holding such rights in the past continue to receive them, but the introduction of market–based mechanisms to reflect true economic value should be contemplated as this rule discriminates against new entrants.

Concerning SAA, the limited progress made so far may not be sufficient for assuring the carrier's future, expansion, and contribution to trade and tourism growth. Transnet's weak capital base has kept investment at a minimum. It would be naïve, however, to try dissociating the case of the airline from the more general features of South African privatisation, where, despite a genuine start, there is certainly significant room for a bolder approach. On the one hand, the use of privatisation policy for contributing to solving the country's biased economic structure, while fully justified on political and social grounds, has certainly not made things easier. It is sad, but nonetheless true, that affirmative action appointments within public enterprises in general, and SAA in particular, have not always allowed the choosing of the best management team for SAA, as proved by the marked improved following the naming of a new American CEO in mid–1998.[80] On the other hand, trade unions in parastatals like SAA have been traditionally dominated by whites, Afrikaners in particular. They have taken a very strong stance against privatisation that has made things equally difficult in the context of the consensus–oriented approach to economy policy taken by the ANC government with the establishment of the quadripartite National Economic Development and Labour Council.

VII. CONCLUSION

The world of air transport is moving fast, and Africa cannot fall further behind. In a market still dominated by bilateral agreements, the continent already trails well behind regulatory reforms undertaken in the rest of the world, both in the OECD area and in the emerging markets of Asia and Latin America. An inefficient, costly, and non–economical civil aviation sector may not allow the continent to increase tourism flows, share in the OECD countries' rising consumption of fresh perishable foodstuffs, attract FDI and integrate it into the just–in–time and lean production systems.

In OECD countries, behind liberalisation lay a political dynamic, a regional dimension, and some major regulatory issues. A consensus slowly emerged, first in the United States and then spreading to Europe and Asia, concerning the advantages of private provision of air transport, of the removal of entry barriers, and of competition whenever and wherever possible. While the combination varies in different national contexts, in all cases interest groups — notably trade associations and organised consumers — pushed for reforms, finding a more or less attentive audience in public authorities, such as the Federal government in Washington or the EC Commission in Brussels. As competition grew, so did the propensity for countries to designate more than one carrier to operate their international routes, thus weakening the very foundations of the protectionist building. Even in Asia and Latin America, where the pressures from foreign airlines and governments are playing a very important role in opening up domestic, regional, and international air markets, the basic predicament of pluralist political theory — that policies reflect at least partly interest groups' preferences — applied.

In sub–Saharan Africa, however, it is probably naïve to expect these forces to exercise the same strength. It is true that many national business associations have pushed for more investment and liberalisation in air transport, but governments remain the main players. In Kenya and Mauritius, where privatisation has advanced most, this has come thanks to a peculiar combination of political factors, lacking which even a more developed country like South Africa, and one with a vocal and well–organised business community, continues to trail behind its own divestiture timetable. The same is true for the establishment of purely regional airlines, a goal to which all governments pay constant lip service, but that also necessitates sacrifices that few are willing to make.[81]

Foreign countries have lately stepped up the profile of their civil aviation co–operation with Africa. While in the past ex–colonial powers, and France in particular, were the main actors, the US government has made major inroads, to the extent that air transport has become one of the pillars of Washington's Africa policy. Foreign governments are unlikely to be purely disinterested in their motives, but they can provide sound foundations for the emergence of a competitive airline industry. What role, then, can OECD countries play? There are two dimensions, that while not strictly separate deserve to be treated separately. On the one hand, the growth in traffic, and especially the rapid increase in the number of frequencies into and out of South Africa, has posed almost intolerable pressure on infrastructure. The lack of an international authority capable of enforcing safety standards on states, thus ensuring that safe aeronautical services are provided, seems to be the crux of the problem. At least in Africa, if not in other developing areas, ICAO, which has traditionally supervised aircraft operations, air worthiness, and licensing, could expand its mandate to the implementation of standards in air traffic services, airports, and support facilities.

The second dimension is the economic one. In a global economy, it is obvious that African airlines cannot survive in their present form. Aid therefore can be a means of accelerating restructuring and privatisation, although this is certainly a more contentious issue. It is clear that African states do not have the financial resources to aid their airlines, nor would they have the capacity to control the respect of performance criteria. This means that African countries would certainly gain from the introduction of multilateral restraints on the granting of public aid, and the European experience may contain some positive lessons on the methodology for making donors' restructuring aid effective. In most European countries, privatisation, which was unthinkable before the public capital injections, is today a reasonable and feasible project, mainly dependent on the political will of the owners. The complement to this, however, must be sincere political will to act transparently and an increasing policy effort to increase the degree of product market competition. As for the former element, the changing attitude of donors, that make their support contingent on good governance, will potentially percolate to privatisation in general. As regards competition promotion and enforcement, the experience accumulated so far points to the scarce attention paid to this issue in Africa, a choice that risks to forfeit some of the welfare gains from ownership change.

Finally, what position would be most appropriate for Africa in the forthcoming review of the GATS Annex on Air Transport Services (WTO 1998)? And what can OECD countries do to limit the fears that "the negotiation of increasingly liberal agreements [may not] provide for the necessary security, predictability, and increased participation of developing countries in trade in air transport services" (UNCTAD 1999, p. 9)? The application of the MFN rule to air transport services may put at risk the very existence of carriers from Africa and other developing countries. Stricter anti–pollution rules on a global scale, while certainly desirable for the defence of the environment, may also prove very costly for airlines from the developing world. This is why the idea of a staggered liberalisation in a regional and sub–regional framework — market opening within a bloc and use of the critical mass as a bargaining tool vis–à–vis the rest of the world — was mooted by the Director General of IATA already in 1995 (Findlay *et al.* 1998). The ICAO Secretariat has more recently expressed its preference for a set of non–reciprocal measures in the regulation of routes, fifth freedom rights, capacity, and slot allocation, as well as a waiver of the national ownership requirement (Abeyratne 1998). It is also important to consider with due attention the concern of developing countries for the proliferation of "flags of convenience" in air transport. While these are based in non–OECD countries, they are most likely to be financed and insured by OECD (or at least OECD–based) financial institutions. As always, a co–operative solution would be optimal for both parties. Aid could be made conditional on the respect of safety standards in recipient countries, while OECD countries should monitor investment outflows, in order to maximise the penalties for "regulatory dumping" in air transport.

It is also true that the possible inclusion of air transport in the multilateral trading system may provide Africa, and other developing areas, a powerful bargaining tool. For this to be effective, however, African governments should be able to present a common position on the negotiating table. The experience of the European Union in this domain is not very auspicious, as member countries have concluded individual and separate "open skies" agreements with the United States, to the dismay of the Commission itself. More fundamentally, widening liberalisation to all possible services should not obscure the need for addressing the existing and rising obstacles to Southern trade to the North. The advantages to Northern consumers and Southern producers have been shown and quantified often enough to prove this point. Needless to add, this is the area where political leadership by OECD member countries can do the most to alleviate the cost of underdevelopment and promote equitable and sustainable growth.

NOTES

1. It should be rather natural to expect transport costs to have a significant effect on intra–African trade. Coe and Hoffmaister (1998), however, find that after controlling for a country's access to the sea, composition of exports, linguistic ties with OECD countries, and trade policies, African regional trade is not low by developing countries' standards. Their result should hold *a fortiori* when controlling for transport costs.

2. An extreme case of market barrier concerns flights of Senegalese pilgrims to Mecca. Between 1993–98, the government had chosen the official carrier through an open tender based on some minimum requirements. In 1998, after the Saudi airline had won the tender against Air Afrique, the air transport union at Dakar airport went on strike. The president of Senegal therefore decided to assign Air Afrique a monopoly on this route starting with the 1999 *hadj*. *Jeune Afrique*, 31 March 1998, p. 83.

3. Because of their visibility, national–flag carriers can also be the object of more or less violent actions targeted at the whole country. While difficult to test empirically, it is thus possible to argue that the risk of asset confiscation in a given developing country may restrain an industrialised nation's airline from flying there.

4. While there are no example of "pure" vertical relationships between airports and airlines, a quasi–pure case was until recently that of Italy, where IRI, the public sector holding company, controlled both Alitalia and Aeroporti di Roma. In Australia, the Airports Act of 1996 forbids airlines from acquiring a participation in an airport company exceeding 5 per cent. In Belgium, in 1997 the European Commission ordered Brussels Airport to stop subsidising Sabena by making it pay lower landing rights.

5. Civil aviation freedoms are 8 in total. The sixth is the combination of the third, fourth, and fifth; the seventh allows a company to operate between two countries, none of which is the airline's one; and the eight (cabotage) allows a company to operate a domestic flight in a foreign country.

6. Under Title 49 of the United States Code, anyone who wants to provide air transportation service as an air carrier must first obtain two separate authorisations from the Department of Transportation: "safety" authority in the form of an Air Carrier Certificate from the Federal Aviation Administration, and "economic" authority from the Office of the Secretary of Transportation. Economic authority may be in the form of either a certificate for interstate or foreign passengers and/or cargo and mail authority, an all–cargo air transportation certificate, or authorisation as a commuter air carrier.

7. However, as shown by Nicoletti (1997) for Italy, the process of liberalisation is not happening without resistance.

8. The Council has so far refused the Commission a full mandate to negotiate the creation of a common aviation area with the United States.

9. In Latin America, an open sky regime was established in the Andean Pact as early as in 1991. Mercosur countries signed the Fortaleza Agreement in December 1996, establishing freedom of the air for sub–regional airlines for intra–zone traffic on routes not served by existing bilateral agreements. Also in 1996, 14 Caribbean states concluded the Multilateral Agreement Concerning the Operation of Air Services, which entered into force at the end of 1998. See UNCTAD (1999).

10. Carriers have adopted the hub–and–spoke system, that permit them to combine traffic flows from many routes (the "spokes") at a central point (the "hub") and transport them to another point.

11. *Aviation Week & Space Technology*, 21 September 1998, p. 37. Moreover, by 1997, today's top ten US airlines had increased their share of domestic revenue per passenger kilometres (RPKs) to 91 per cent compared to just 67 per cent prior to deregulation (Airbus 1998, p. 10).

12. *Aviation Week & Space Technology*, 29 June 1998, p. 49.

13. The bulk of the world's air cargo (freight and mail) is still carried by combination airlines (passenger/cargo) in scheduled and non–scheduled operations. In 1996, approximately 50 per cent of the world's total air cargo was performed using the belly compartments of passenger aircraft, and 25 per cent was carried on freighter aircraft belonging to combination carriers (OECD 1998, p. 17).

14. The US Department of Transport has approved a number of international alliances (KLM–Northwest, United–Lufthansa, and Delta–Swissair), insisting on carve–outs — the requirement that partners have to continue to offer competing services and fares — on routes where the partners are particularly dominant. The EU Commission, which is also scrutinising all the transatlantic alliances, has instead demanded restrictions on the number of flights that partners are allowed to offer on routes where they are dominant. Alliances would only have to give up frequencies if other airlines were ready to compete. A revision of Bermuda II, on the other hand, would provide American Airlines and British Airways with the necessary antitrust immunity to co–operate in setting fares and schedules.

15. See also Nicoletti (1997).

16. The 1999 results of the Airline Quality Rating survey in the United States show an industry that is declining in quality relative to customer performance criteria (Bowen and Headley 1998). On–time percentage declined slightly, denied boarding per passenger served improved, mishandled baggage rates worsened, and consumer complaint rates increased by over 25 per cent. This continued increase in complaints gave reasonable cause for Congress to pass the Airline Passenger Fair Treatment Initiative, commonly called the Airline Passengers' Bill of Rights. This consumer–oriented measure would require airlines to provide accurate and timely information to consumers about problems and flight delays, increase reporting requirements regarding consumer complaints, increase airline liability regarding lost or damaged luggage, and increase penalties for involuntary denied boarding.

17. Interlining refers to an agreement between airlines allowing one to issue tickets for a journey or transportation on another airline, or allowing the consumer to change airlines with the same ticket. The agreement includes specifications on how the price of the travel is reimbursed to the airline or how it is shared between the different airlines which have effectively operated the transportation. This flexibility offered to passengers and freight is only possible for tariffs approved by all airlines attending the IATA tariffs conferences, or for tariffs specified in bilateral interlining agreements between two airlines.

18. A recent report by the Intergovernamental Panel on Climate Change estimates that in 1992 aircraft accounted for about 3.5 per cent of global warming from greenhouse gas emissions relating to human activities, against 13 per cent for the transport sector as a whole. *Financial Times*, 6 June 1999, p. 4.

19. A more detailed analysis on indicators such as financial performance, labour and capital productivity, and state subsidies has proved impossible to perform due to the lack of comparable data in ICAO (1998), (1999b) and (1999c).

20. Ethiopian Airlines was established in 1946 by TWA, the US company, and has always been run on commercial terms. Even when Ethiopia was a socialist economy, for example, it did not substitute its Boeing jets with Soviet ones, and it prioritised African and Asian routes relative to European ones, establishing Addis Ababa as a primordial regional hub. There was indeed a time in the 1960s when Ethiopia could do the major maintenance and establish an African centre for regional air travel competence. Focusing capabilities in one or two centres might help develop overall capabilities. In 1998 Ethiopian Airlines started a new service to Washington, flying through Rome with fifth freedom rights, the only carrier connecting the Italian and US capitals. Ethiopian authorities have stated quite clearly that privatisation is not an issue at present. *Jeune Afrique*, 19 May 1998, pp. 38–40 and Bill Swan, Chief Economist, Boeing Commercial Airplane Group, personal communication.

21. Founded in 1970 in partnership with the national airlines of France, India, and the United Kingdom, Air Mauritius inaugurated a weekly service to London in 1973, rapidly expanding to Europe. A link was established with Singapore in 1985, followed by other destinations in the area, thus setting Mauritius

as a hub for air traffic between South East Asia and South Africa. Mauritius being highly dependent on tourism, garments, and flowers, a fast–perishable export good, efficient air transport has been key to its development. While the authors say that the evidence is not conclusive, air freight rates shown by Lall and Wignaraja (1998, Table 7.5, p. 142) are the lowest for a selection of newly–industrialised countries.

22. Routes served by two code–sharing airlines are coded as monopolies. It is important to highlight that on most routes, especially intra–African ones, the frequency is far from daily. This means that even if airlines compete on tariffs, the choice for time–sensitive passengers is often much more limited. Also note that on some routes the monopoly may not be enjoyed by the flag–carrier; this means that this indicator does not strictly show the degree of market power in the hub which is usually analysed for OECD markets.

23. In other words, while there may be a limited point–to–point competition between, say, Johannesburg and Milan, customers face a much wider menu of choice by connecting through Amsterdam, Brussels, Frankfurt, London, Madrid, Paris, Sofia, Tel Aviv, and Zurich.

24. Indicator calculated on the basis of the Major Airline Disasters database (http://dnausers.d–n–a.net/dnetgojg/disasters.html).

25. *Aviation Week & Space Technology*, 6 April 1998, p. 59.

26. *Aviation Week & Space Technology*, 2 June 1997, p. 34. Having determined that no effective security measures are carried out at Lagos' Murtala Muhammad, the US Department of Transport discontinued in 1993 the authority of any air carrier to operate between the United States and this airport, the only international one in the world where such rule applies (DOT Order 93–8–15).

27. *Aviation Week & Space Technology*, 6 July 1998, p. 47.

28. *Aviation Week & Space Technology*, 12 May 1997, p. 65.

29. Since the average age is high, the fleet of African airlines is dominated by US–made aircraft.

30. The chairman of Lufthansa recently estimated that the Star Alliance of which his airline is a member could achieve savings of US$ 1 billion a year through joint purchase. *Financial Times*, 6 May 1999, p. SII.

31. *Aviation Week & Space Technology*, 17 November 1997, p. 82.

32. 32 *The Economist*, 4 March 1995. In 1997 Sierra Leone signed the Banjul Accord to implement the Yamoussoukro Declaration with Cape Verde, the Gambia, Ghana, Guinea Bissau, and Nigeria.

33. 33 The problems of EAA, perhaps the Community's most notable success, played a role in bringing on its demise. Kenya is a more compact country with a more sophisticated transportation infrastructure than Tanzania, whose policy of rural development, coupled with its inferior transport systems and resources, resulted in wide population dispersion. Consequently Tanzania determined that EEA should serve primarily as a domestic carrier (serving 20 destinations), while Kenya only had 4 destinations, saw it as an international one, primarily ferrying tourists from Europe. Opposed to Kenyan instance on cutting back services on uneconomical domestic routes, Uganda and Tanzania withheld payments (Fredland 1980). A similar fate was that of the Eastern Africa National Shipping Line, which also comprised Zambia. After a promising start in the early 1970s, the company started accumulating debt arrears, leading to the withdrawal of Kenya and bankruptcy in 1981 when one of the ships was seized by creditors (Nkonoki 1983).

34. Both countries subsequently created their own independent airlines, associating Air France as investor.

35. Roland–Billecart argued at the time that Airbus was offering very good terms, since the prospective buyers of the planes (one of which was Air France) had withdrawn, and that this constituted a window of opportunity for Air Afrique. Finance was also provided by a French source, Crédit Lyonnais.

36. *Jeune Afrique*, 14 July 1998, pp. 9–11.

37. *Aviation Week & Space Technology*, 17 November 1997, p. 84.

38. Sir Tirvengadum had estimated that a staff reduction of about 20 per cent was necessary to slash costs and improve the airline's overall efficiency. See *Aviation Week & Space Technology*, 22 June 1998, p. 49; *Jeune Afrique Economie*, 2 November 1998, p. 35; *African Business*, March 1999; and *Financial Times*, 4 March 1999.

39. Established in 1959 by 15 former French colonies and France, ACSENA is responsible for air traffic control in regional member countries. The African nature of the agency has been strengthened since its creation by the transfer of the head–quarter from Paris to Dakar and by the appointment of local directors.

40. *Jeune Afrique Economie*, 2 December 1996, p. 42; 16 March 1998, pp. 42–3; and 31 August 1998, pp. 46–7.

41. *Airline Business*, December 1998, pp. 38–9; *Jeune Afrique Economie*, 15 February 1999, pp. 44–6.

42. Fuel represents 18–20 per cent of total cost for Air Afrique, compared to an industry average of 12 per cent (*Jeune Afrique*, 21 July 1998, p. 52).

43. In 1995 Air Afrique had an own capital–to–debt ratio of 0.29, compared to an industry norm of around 0.6.

44. The average load factor hovers around on 65 per cent, compared to 75 per cent for Air France's African network, while Air Afrique's market share on European routes has fallen from 32 to 26 per cent (*Jeune Afrique*, 29 September 1998, pp. 72–4).

45. "Un autre phénomène auquel je ne m'attendais pas du tout: la bureaucratie qui sévit dans cette entreprise. […] Air Afrique ne manque pas d'employés et de cadres compétents. Malheureusement, il y a aussi beaucoup de salariés incompétents. Et ce, en raison d'une politique de recrutement qui avait tendance à privilégier la représentativité des Etats membres au détriment de l'efficacité", *Jeune Afrique*, 16 December 1997, pp. 109–13 (interview with Sir Tirvengadum).

46. It is often argued that big transactions, such as the purchase of aircraft and military equipment, are conducive to corruption. Suspicions of corruption are indeed recurrent even for directors of Air Afrique, that have been accused of exploiting their position to receive free air tickets for them and their relatives (*Jeune Afrique Economie*, 14 October 1996, p. 48).

47. Iheduru (1993) analyses how similar economic and political nationalism prevented the establishment of a regional shipping hub in West Africa.

48. A limited degree of competition has also been introduced on intra–area flights in 1998. Air Ivoire, for example, can offer two flights a week from Abidjan to each of the other ten countries.

49. *Le Jour* (Abidjan), 3 May 1999.

50. According to Air France's general manager for Africa and the Middle East, the benefits for Air Afrique would be four times as large as those for the French airline. It is noteworthy that in the same interview the representative from Air France shared the concerns of Air Afrique about the "unfair" competition from charters (*Jeune Afrique Economie*, 4 November 1996, p. 46). In June 1999, Air Afrique moved its terminal in Paris to CDG2, Air France's hub. Air France of course may find buying into Air Afrique a better option than leaving the room to a competitor.

51. Besides South Africa, other countries such as Benin and Ivory Coast have also opened their airports to private investors.

52. *Jeune Afrique*, 7 April 1998, p. 11.

53. In 1997 Alliance bought a 49 per cent stake in state–owned Air Rwanda, forming a Kigali–based subsidiary, Alliance Express.

54. *African Business*, December 1998.

55. *Le Monde*, 24 April 1999, p. S13.

56. *Mail & Guardian*, 20 March 1997, 30 May 1997 and *African Business*, January 1998. The precedent set by the concession for a new terminal at Harare airport is not very auspicious. The contract was originally awarded in 1992 to Aéroport de Paris (ADP), but the government, saying it wanted a bid with

"more Zimbabwean features", decided to drop the French firm and give the order to AHT, a Cyprus–based company. Under pressures from foreign donors, the government held a fresh bidding round, in which ADP put forward two new offers, but the authorities opted again for AHT, despite its offer being the dearest.

57. Zambia Express is a joint venture between South African Express and a Zambian investor.

58. The following section draws heavily on Tiller (1996).

59. *The Weekly Review* (Nairobi), 12 March 1999.

60. *Financial Times*, 14 July 1998. One of the reasons for the withdrawal of the IMF loan to Kenya has been the building of a new international airport at Eldoret, President Moi's home town, that has remained idle since its completion in 1997 (*New African*, November 1997 and February 1998).

61. *African Review*, September 1998, p. 41 and *Financial Times*, 2 June 1999, p. 7.

62. Transnet is a state–owned company, also founded on 1 April 1990, consisting of six transport businesses other than SAA — Spoornet (rail transport), Portnet (harbours), Autonet (road transport), Petronet (liquid petroleum transport), PX (container shipments) and Metrorail (commuter rail services), and a number of related and support businesses. A similar structure is in place in Namibia, where the national airline is run as a separate business division of TransNamib Limited, which is also engaged in rail, road, and sea transport.

63. A domestic airline, Phoenix Airways, took off in December 1994, but was also placed under provisional liquidation in October 1995.

64. Comair commenced business in 1946, and for 47 years operated on feeder routes to outlying areas, most notably transporting miners and builders to the Free State gold fields and fly–in safari tourists to Skukuza in the Krueger National Park. With deregulation, Comair launched a scheduled service between Cape Town and Johannesburg in 1992, expanding later on its routes to the rest of the country. In 1996 Comair entered into a franchise agreement with British Airways.

65. The carriers of each country were allowed to operate 11 weekly passenger flights during the first year, increasing to 21 by the fifth year. US carriers could previously operate only a total of seven weekly flights, including passenger and cargo. In addition, carriers from each country will be permitted to serve the other under a code–share alliance with a third–country carrier. No later than 18 months from now, the United States will be allowed two such alliances, increasing to four during the fourth year. Other provision of the agreement include: *i)* access for US carriers to Johannesburg, Cape Town and Durban, and code–sharing services to five additional South African cities; *ii*) access for South African carriers to New York, Miami and four additional US cities, and code–share services to 10 additional cities, increasing to 25 cities in late 1998; *iii)* all–cargo access by the carriers of each country to all cities in the other. In 1995, in order to push South Africa into accepting the principle of code–sharing flights with third–party airlines, US airlines opposed with the Department of Transport SAA's request for additional frequencies (*Financial Mail*, 22 September 1995).

66. *The Economist*, 28 September 1996 and *Financial Mail*, 26 September 1997. A new airline, African Star, was granted a licence in April 1999. It is expecting delivery of two Boeing 747–300 aircraft bought from Singapore Airlines to start flying from Johannesburg to London–Stansted and Munich.

67. *Financial Mail*, 1 March 1996.

68. *Mail & Guardian*, 15 December 1995.

69. Sun Air was initially the flagship airline of the apartheid homeland of Bophuthatswana. With the May 1994 elections Bop became part of greater South Africa and its "national" airline's licences and agreements suddenly became applicable in the newly constituted state.

70. *African Business*, January 1998, *Financial Mail*, 27 March 1998 and *Mail & Guardian*, 10 January 1997.

71. In spring 1999, SAA and Ghana Airways signed a memorandum of understanding, covering jointly air services and marketing co–operation, that is a first between African airlines.

72. In November 1995, SAA placed a R 3.5 billion contract with Boeing for the purchase of nine new aircraft, the airline's largest single order in its 61–year history. The airframe and the engine manufacturers agreed to place various counter trade contracts in South Africa. The order was cancelled in June 1996.

73. *Financial Mail*, 24 April 1998 and *Mail & Guardian*, 11 April 1997.

74. International airports are those where the necessary facilities and services exist to accommodate international flights. They vary from small airports used for cross–border flights to and from neighbouring countries, to larger airports for flights to and from other African countries, to large airports for intercontinental flights. At present, there are over 30 such designated international airports in South Africa, but the intention is to reduce this number to eight in order better to control imports and exports, and criminal activities such as the smuggling of drugs. Gateway airports are those designated international airports with scheduled international flights. At present, there are only three such airports designated by the Department of Transport, namely at Cape Town, Johannesburg and Durban. These airports underwent a name change on 31 May 1995: Jan Smuts Airport to Johannesburg International, DF Malan Airport to Cape Town International, and Louis Botha Airport to Durban International.

75. *Mail & Guardian*, 8 August 1996.

76. While tangential to the core of this paper, it is important to note that ACSA, being one of the largest companies privatised so far, is charged with a highly symbolic role for the official black empowerment policy. By intervening in the procurement of goods and services to ensure equitable representation of black business, the company can contribute to social equity and true diversity in economic activity. ACSA intends to assist with the transfer of skills and technology in the property, retail, airport services, building and other industries in which it is involved and by encouraging the development of black consultants, contractors, concessionaires, and suppliers in all areas of business. To ensure that an increasing proportion of contracts and concessions are awarded to black–owned businesses and to businesses with a clear and proven commitment to black economic empowerment, economic empowerment criteria are taken into account in adjudicating all submissions. Where appropriate, ACSA intends to simplify procurement procedures and specification documents, review quality standards to ensure that they have not been "overdone" to exclude potential black businesses, split contracts or projects into smaller components to enable emerging black businesses to qualify; and assure that the payment process is not prolonged unnecessarily, in order to accommodate the possible cash flow problems likely to be experienced by such investors.

77. *Business Times*, 29 November 1998.

78. *Mail & Guardian*, 30 November 1998.

79. *Financial Mail*, 3 April 1998.

80. *Business Times*, 25 April 1999.

81. Similar considerations apply to maritime freight policy in Southern Africa. The "Moving South Africa" project unveiled in May 1999 does not make a clear choice between the competing Durban, Richards Bay, and Maputo container hubs, and sustaining more than one of them is clearly financially inefficient. Bénédict de Saint–Laurent, transport economist, DBSA, personal communication.

BIBLIOGRAPHY

Abbot, K. and D. Thompson (1991), "De–regulating European Aviation: the Impact of Bilateral Liberalisation", *International Journal of Industrial Organisation*, vol. 9, no. 1.

Abeyratne, R. (1998), "The Future of African Civil Aviation", *Journal of Air Transport World–wide*, vol. 3, no. 2.

Airbus (1998), *Global Market Forecast 1998–2027*.

Baliles, G. (1997), "Fear of Flying. Aviation Protectionism and Global Growth", *Foreign Affairs*, vol. 76, no. 3.

Bailey, E. and J. Panzar (1981), "The Contestability of Airline Markets during the Transition to Deregulation", *Law and Contemporary Problems*, vol. 44, no. 1.

Bloom, D. and J. Sachs (1998), "Geography, Demography, and Economic Growth in Africa", *Brookings Papers on Economic Activity*, vol. 2.

Bowen, B. and D. Headley (1998), *Airline Quality Rating 1999*, W. Frank Barton School of Business, Wichita State University.

Button, K. (1996), "Aviation Deregulation in the European Union: Do Actors Learn in the Regulatory Game?", *Contemporary Economic Policy*, vol. 14, no. 1.

Campbell White, O. and A. Bhatia (1998), *Privatization in Africa*, The World Bank.

Collier, D. and J. Gunning (1999), "Explaining African Economic Performance", *Journal of Economic Literature*, vol. 37, no. 1.

Coe, D. and A. Hoffmaister (1998), "North–South Trade: Is Africa Unusual?", *IMF Working Paper*, no. 98/94.

Department of Transport (South Africa) (1997), *White paper on National Policy on Airports and Airspace Management*.

Department of Transport (South Africa) (1998), *Annual Report 1997–1998*.

European Commission (1994), *The Way Forward for Civil Aviation in Europe*.

European Commission (1996), *Impact of the Third Package of Air Transport Liberalisation Measures*.

European Commission (1999), *The European Airline Industry: from Single Market to World–wide Challenges*.

Findlay, C., P. Hooper and T. Warren (1998), "Resistances to and Options for Reform in International Air Transport", University of Adelaide, Centre for International Economic Studies, *Policy Discussion Paper*, no. 98/07.

Freeman, R. and D. Lindauer (1999), "Why Not Africa?", *NBER Working Paper*, no. 6942.

Fredland, R. (1980), "Who Killed the East African Community?", in *Integration and Disintegration in East Africa*, edited by C. Potholm and R. Fredland, University Press of America.

Fundanga, C. and A. Mwaba (1997), "Privatisation of Public Enterprises in Zambia", African Development Bank, *Working Paper*, no. 35.

Green, R. and I. Vogelsang (1994), "British Airways: A Turn–Around Anticipating Privatization" in *Privatization and Economic Performance*, edited by M. Bishop, J. Kay and C. Mayer, Oxford University Press.

Hernández–Catá, E. (1999), "Sub–Saharan Africa: Economic Policy and Outlook for Growth", *Finance and Development*, vol. 36, no. 1.

IATA (1998), *Annual Report*.

ICAO (1984), *Transport aérien international de passagers et de fret: Afrique*.

ICAO (1997), *Report of the Seventh Africa–Indian Ocean Regional Air Navigation Meeting*.

ICAO (1999*a*), *The World of Civil Aviation 1997–2000*.

ICAO (1999*b*), *Study on Aircraft Leasing*.

Iheduru, O. (1993), "Competing Nationalism, Regional Cooperation, and the Politics of International Shipping in West Africa", *Ocean Development and International Law*, vol. 24, no. 3.

Iheduru, O. (1996), "Post–Apartheid South Africa and Its Neighbours: a Maritime Transport Perspective", *The Journal of Modern African Studies*, vol. 34, no. 1.

IMF (1998*a*), *Senegal – Enhanced Structural Adjustment Facility Policy Framework Paper, 1998–2000*.

IMF (1998*b*), *Uganda – Enhanced Structural Adjustment Facility Policy Framework Paper, 1998/99–2000/01*.

IMF (1998*c*), *Cameroon – Enhanced Structural Adjustment Facility Medium–Term Economic and Financial Policy Framework Paper, 1998/99–2000/01*.

IMF (1999), "IMF Concludes Article IV Consultation with Madagascar", *Public Information Notice (PIN)*, no. 99/15, 2 March.

Lall, S. and G. Wignaraja (1998), *Mauritius. Dynamising Export Competitiveness*, Commonwealth Secretariat.

Maharaj, M. (1998*a*), "Launch of the SA Civil Aviation Authority", 23 November.

Maharaj, M. (1998*b*), "Opening of British Airway's Lounge", 24 November.

Nayar, B.R. (1995), "Regimes, Power, and International Aviation", *International Organization*, vol. 49, no. 1.

Nicoletti, G. (1997), "Economia, struttura di mercato e regolamentazione dei sistemi aeroportuali", *Economia e politica industriale*, no. 95.

Nkonoki, S. (1983), "The East African Community in Retrospect", The Chr. Michelsen Institute, *DERAP Working Paper*, no. 287.

OECD (1998), *Competition Policy and International Airport Services*, DAFFE/CLP(98)3.

OECD (1999), *Regulatory Reform in International Air Cargo Transportation*, DSTI/DOT(99)1.

O'Reilly (1997), "From State–Control to EC Competence: Air Transport Liberalisation", European University Institute, *Robert Schuman Centre working papers*, no 97/33.

Pirie, G. (1992), "Southern African Air Transport After Apartheid", *The Journal of Modern African Studies*, vol. 30, no. 2.

Regulating Committee for Airports Company and ATNS Company (1997), *Report on the 1998/9–20002/3 Permission Issued to the Airports Company South Africa*.

Slater, R. (1999), *US Trade and Economic Initiatives Toward Africa*, keynote address by the US Transportation Secretary at the African Trade and Investment Conference, Chicago, 20 April.

Tiller, M. (1996), "A First for Africa: The Privatization of Kenya Airways", *IFC Review*, Summer.

UNCTAD (1999), *Air Transport Services. The Positive Agenda for Developing Countries*, TB/D/COM.1/EM.9/2.

UN Economic Commission for Africa (1995), *Etude sur la planification de la flotte et étude financière sur la compagnie aérienne commune de la CEPGL*, CEA/GSY/MUL/CIE/III/09.

US Department of Transportation (1998), *Competition in the U.S. Domestic Airline Industry: The Need for A Policy to Prevent Unfair Practices*.

Winston, C. (1993), "Economic Deregulation: Days of Reckoning for Microeconomists", *Journal of Economic Literature*, vol. 31, no. 3.

World Bank (1996), *Tanzania. The Challenge of Reforms: Growth, Incomes and Welfare*.

World Trade Organization (1998), "Air Transport Services", background note by the Secretariat, Council for Trade in Services, S/C/W/59.