USAID FROM THE AMERICAN PEOPLE | SPEED For a Better Business Environment

IMPACT OF AIR TRANSPORT LIBERALIZATION ON TOURISM AND THE WIDER ECONOMY IN MOZAMBIQUE

DRAFT -- OCTOBER 2013

This publication was produced for review by the United States Agency for International Development. It was prepared by DAI and Nathan Associates.

IMPACT OF AIR TRANSPORT LIBERALIZATION ON TOURISM AND THE WIDER ECONOMY IN MOZAMBIQUE

Program Title:	**Mozambique Support Program for Economic and Enterprise Development (SPEED).**
Sponsoring USAID Office:	**USAID/Mozambique**
Contract Number:	**EDH-I-00-05-00004-00/13**
Contractor:	**DAI and Nathan Associates**
Date of Publication:	**DRAFT – October 2013**
Author:	**Rafael Enriquez**

CONTENT

ABBREVIATIONS AND ACRONYMS

ADM	Aeroportos de Moçambique
CAGR	Compound Annual Growth Rate
BASA	Bilateral Air Service Agreement
bn MZN	Billion meticais (1,000,000,000 meticais)
bn US$	Billion US dollars (1,000,000,000 dollar)
DFI	Direct Foreign Investment
EBITDA	Earnings before Interests Taxes Depreciation and Amortization
FAA	Federal Aviation Administration (USA)
GDP	Gross Domestic Product
GoM	Government of Mozambique
IACM	Instituto de Aviação Civil de Moçambique
IATA	International Aviation Transport Association
IASA	International Aviation Safety Assessment
ICAO	International Civil Aviation Organization
IMF	International Monetary Fund
IOSA	IATA Operational Safety Audit
MoTC	Ministry of Transport and Communications
MPM	Maputo International Airport
MEX	Moçambique Expresso, S.A.
MZN	Meticais
LAM	Linhas Aéreas de Moçambique
LLC	Low Cost Carrier
PPP	Public Private Partnership
IACM	Civil Aviation Institute of Mozambique
SADC	Sothern African Development Community
WTO	World Tourism Organization
WTTC	World Travel & Tourism Council
YD	The Yamoussoukro Decision

EXECUTIVE SUMMARY

Mozambique has taken important steps towards a liberalized skies policy, but additional efforts are needed to implement these policies and promote more competition and the participation of the private sector. However, the government of Mozambique still considers LAM as a strategic asset for the country, so Mozambique's formal policy and civil aviation institutional framework combine to protect the airline.

Passenger traffic at Mozambique airports increased significantly over the last 10 years from 829,337 in 2002 to 1,675,948 total passengers in 2012, which represented a 7.3 percent CAGR. However, traffic has grown less than the country's GDP showing an elasticity of 0.97X.[1] This compares to 1.44X in Kenya and 1.45X in Tanzania, neighboring countries that have undergone substantive liberalization.

LAM and MEX are dominant in the Mozambique domestic market. LAM and MEX have only two small competitors that serve the domestic market: Kaya Airlines and TTA Airlink. However, they provide fundamentally different services and do not pose a competitive threat.

Regional air fares are higher in Mozambique than in other regional destinations because of limited connectivity and regulated offers. For most of these markets, competitive conditions assure travelers from South Africa cheaper fares than when flying to Maputo.

The average air fare between Johannesburg and Maputo is one of the highest in the region. This is more than two times the price per mile compared to a sample of similar routes in the region. From this, it is evident that South African Airways and LAM, far from establishing fair competition, have managed to keep prices as high as possible through an informal agreement in a market dominated by business travelers with very low price elasticity. This situation is preventing access by non-business travelers from South Africa to the tourism market in Mozambique at reasonable prices.

Domestic fares in Mozambique (in US$ per mile) are 27.4 percent higher than Tanzania; 33.5 percent higher than in South Africa; and 46.5 percent higher than in India.

Mozambique is among the most attractive destinations for tourism in the region with a variety of natural and cultural resources. However, for different reasons, this sector has not developed its real potential.

International arrivals to Mozambique (all modes) were around 1,830,000 in 2012 (WTTC-2013), Direct contribution of Travel & Tourism (T&T) to GDP is estimated at 2.97 percent, that is to say, around MZN 8.5 billion (US$ 290 million).[2].

THE REGULATORY AND INSTITUTIONAL CHANGE

Liberalization requires effective regulation of the government to ensure that market forces operate effectively and that rules are followed in the provision of air transport.

The consultant proposes to apply an institutional framework that strictly separates the functions of policymaking, operations, technical regulation, and investigation. The Ministry of Transport and Communications should make policy, including bilateral agreements, tariff regulation, and market/route access. IACM should ensure observance of air transport safety international standards. The sector's three operational components: airport infrastructure, air traffic control

[1] Indicates that for every 1.00 percent growth in GDP, traffic has grown only by 0.97 percent.
[2] Source: WTTC-Mozambique 2013.

services, and the airlines should be handled by separate entities not controlled directly by the government. Finally, a technically capable independent antitrust commission is required to regulate monopolistic practices and encourage competition. Such an entity is envisioned under the recently passed Competition Law.

THE OPERATIONAL CHANGE

The logic behind liberalization is the creation of competition between air service providers, which will induce lower air fares and better air services. This will produce traffic growth and economic development. The evidence suggests that the market responds to improved and more affordable service.

Liberalizing the civil aviation market will induce competition and new airline entrance into it. This will push prices down, while pushing level of service and reliability up. All these will generate the credibility and certainty to major foreign investors to reinitiate long term investments in Mozambique in the tourism industry and this, together with the aviation sector improvements, will generate a more competitive product and will induce a significant increase in the inflow of foreign travelers. This, in turn, will develop the tourism industry and strengthen the domestic air system, allowing for more efficient and less expensive travel. A more reliable domestic system will then be better able to support tourism and investment, both foreign and local. Foreign traffic will then increase because its demands for a better product will be met.

Exhibit ES-1 presents a market analysis of the current situation in Mozambique compared to other countries in a more advanced stage of liberalization. Note the correlation between the stage of the liberalization process and the evidence of economic development.

EXHIBIT ES-1

Comparative Market Analysis

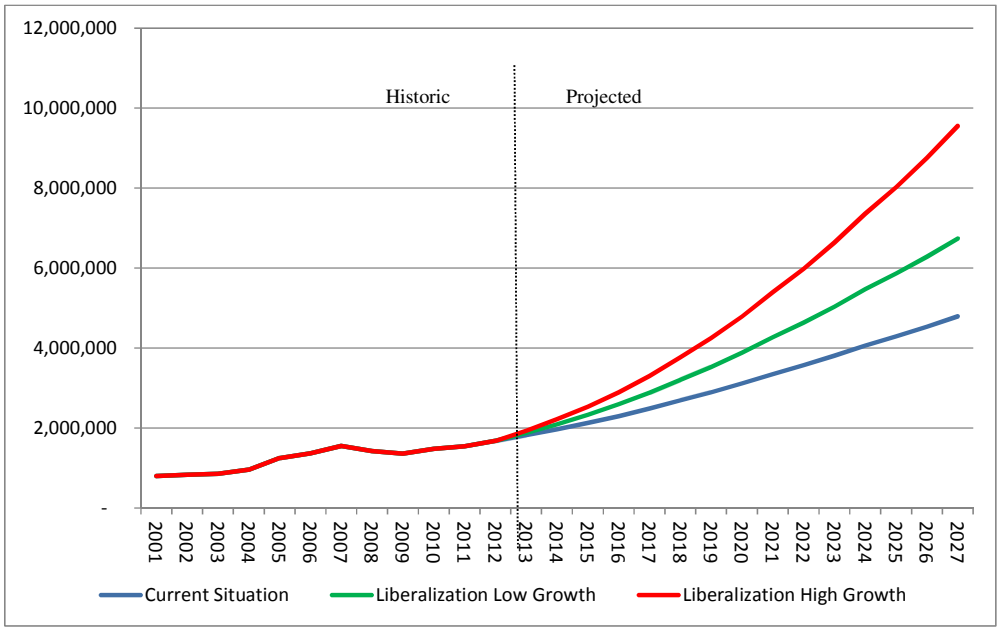
Parameter	India	Kenya	Tanzania	Mozambique
Civil Aviation Sector Institutional and Regulatory Environment: Separation between Policy, Operations and Regulation	Clear separation	Clear separation	In Transition	No Effective Separation
Economic Regulation	Effective independent regulatory entity	Independent regulatory entity	Independent regulatory entity	No functional independent regulatory entity
Provision of Aviation Services (Airlines)	More than Five with a market share lower than 25%	Concentrated but some new participants appearing	Concentrated but some new participants appearing	Highly Concentrated and Protected
Airline Ownership and Operations	Mainly Private Sector	PPP	PPP	Government
Provision of Airport Services	PPP/Government in charge of smaller airports	PPP	PPP	Government
Ground Handling	Several Participants	Concentrated	Concentrated	Concentrated
Domestic and regional Airfares	Low Successful entrance of LCC	Mid-High	Mid-High	High
General Demand for air travel services. (Passengers arriving or departing per 1000 habitants)	Mid 104 Passengers per 1,000 habitants in Yr2010 from 25 in Yr2000	Mid204 Passengers per 1,000 habitants in Yr2012 from 143 in Yr2000	Low 62 Passengers per 1,000 habitants in 2012 from 26 in in YR2000	Low 74 Passengers per 1,000 habitants in YR2012 from 44 in YR2000
Current Pax Profile	Business and Leisure (60/40?)	Business and Leisure (70/30)	Business and Leisure (75/25)	Mostly Business (80/20 at most)
Historical traffic growth vs GDP growth (2000-2012)	>2.50X. The domestic market have 20% CAGR during the last 10 years	1.44X	1.45X	0.97X
Airport Infrastructure	Insufficient due to last decade domestic market boom. But developing very fast under PPP arrangements	Airports require moderate investment	Airports require substantial investment	Maputo recently expanded and modernized. Other airports require substantial investment
Tourism Sector (Source WTO/IMF/WTTC))	Developing Rapidly	Developing at a moderated rate	Developing slowly	Undeveloped

Source: Nathan own research

Nathan created two scenarios considering further air travel liberalization in Mozambique. A low-growth scenario, considering a Traffic-GDP growth elasticity of 1.4X, similar to the elasticity experienced in countries like Kenya and Tanzania, and a high growth scenario considering a Traffic-GDP growth elasticity of 1.8X. This more optimistic scenario should be compared to a more advanced liberalization case like India, where the reforms have induced a Traffic-GDP growth elasticity of more than 2.5X during the last 10-12 years. A summary of Nathan's traffic forecasts for ADM airports is presented in Figure ES-2. Traffic forecast econometric results are presented in Appendix A.

EXHIBIT ES-2

Nathan's preliminary ADM long term traffic forecast based on GDP and population growth (number of passengers)



Source: Nathan forecast based on ADM traffic statistics and IMF GDP and population statistics and short term forecast.

ASSESSMENT OF THE ECONOMIC IMPACT OF AIR TRANSPORT LIBERALIZATION

There is strong evidence around the world that air travel liberalization has important benefits for the tourism sector and the entire economy of a country. Numerous studies have suggested that large traffic and growth expansion would result from a reduction in the barriers to entry into the Mozambican air transport market.

The World Travel & Tourism Council (WTTC) has been investing in economic impact research for over 20 years. This research assesses the Travel & Tourism industry's contribution to GDP and jobs for 184 countries and 24 regions and economic groups in the world, including Mozambique.

Nathan considers the methodology and assumptions utilized by the Council to be sound and valid. However, we have to consider that the assessment of the council includes visitors in general, that is, visitors and tourists arriving to Mozambique in all modes of transportation. According to our estimations based on ADM and WTTC statistics, only 17 percent of international visitors and tourists in Mozambique arrive by air, which is equivalent to 316,472 international visitors arriving by air in 2012.

Based on the WTTC methodology and Nathan's traffic forecast scenarios, we projected the economic impact of the proposed reform. As mentioned before, Nathan's projection scenarios include some slight adjustments to the WTTC historic parameters to incorporate some of the air market liberalization assumptions under the proposed scenarios.

CONCLUSIONS

1. Mozambique's legal and regulatory framework for the Civil Aviation Sector has undergone important fundamental changes over the last 5 years. The government has successfully introduced and sustained changes through liberalization of the sector that have and will have

a very positive effect on the economy. However, some fundamental changes have yet to be implemented.

2. Despite important legal and regulatory reforms, there is still no clear separation from policy making, operations, and regulation. The government of Mozambique still owns and controls ADM and LAM. The independence and capabilities of IACM as a regulator should be enhanced.
3. The government policymaker, not LAM, should promote and negotiate more liberalized BASAs with neighboring countries, with more relaxed operational and ownership restrictions, and with a serious intent to grant general fifth freedom within the region.
4. The tourism sector has the potential to contribute to the prosperity of Mozambique if it provides a quality product at a competitive price. We anticipate that the reforms in the aviation sector will give the international investor in the tourism sector the incentives to make the required long term investments, but the Ministry of Tourism must facilitate and guide the process.

Main Priorities

1. Ensure a clear separation of the government policy making, regulation, and operation roles.
2. Make a stronger and independent IACM.
3. Review all the legislation that impedes the emergence of more national operators.
4. Promote the entrance of new participants in the civil aviation domestic market.
5. Make LAM independent from the Government.
6. Negotiate 5th freedom rights with SADC countries.
7. Provide a quality tourism product at a competitive price.

The consultant estimates that the net present value of a well implemented liberalization plan in the Civil Aviation Industry combined with a well-designed and implemented tourism strategy for Mozambique is between 105 and 165 bn MZN (US$ 3.6 and US$ 5.7 bn).

Disclaimer

The consultant's analysis draws on technical, financial, and economic data provided by the SPEED, ADM, and other stakeholders, as well as data from official and unofficial sources. These sources are considered reliable; however, the results of our analysis could change significantly if some data proves to be inaccurate or incomplete.[3]

The consultant applied his expertise and experience to model a reasonable and consistent economic impact assessment; however, he cannot predict the future or guarantee the expected economic

[3] Despite different attempts, Nathan Associates did not received updated official statistics from MITUR. Therefore, some estimations are based on statistics published by World Travel & Tourism Council (mainly the WTTC Economic Impact Assessment 2013).

performance of the recommended liberalization policy, which is subject to the typical risks and uncertainties of the economy in general, and in the Southern African region in particular.

1. SCOPE OF WORK AND OBJECTIVES

The consultant was retained by SPEED, a USAID-financed project, to prepare an assessment of the economic impact of further liberalization of the civil aviation sector in Mozambique as a support document for those in favor of promoting an efficient and competitive air travel market in the region.

As part of the first stage of the study, a group of consultants retained by SPEED developed the following tasks:

1. Evaluation of the compatibility between the Tourism Strategy and Transport Strategy and degree of implementation.
2. Review of the Mozambique Air Transport Legal Framework and Practices.
3. Analysis of the Regional Bilateral Air Services Agreements (BASA).
4. Evaluation the effectiveness of the Civil Aviation Authority.
5. Identification of entry barriers to the market.

In this second part of the study, based partially on the analysis done in the first part of the study and mainly on previous related work conducted by Nathan in Mozambique, Nathan conducted an economic impact assessment of the proposed Air Transport Liberalization Reform on tourism and the wider economy in Mozambique. The specific scope of work for the consultant was to:

1. Assess economic benefits and costs of potential liberalization scenarios.
2. Refine the proposed liberalization reform.
3. Establish an implementation plan.

To achieve the study objectives, the consultant performed the following activities during May-July 2013:

1. Interviewed relevant stakeholders and collected relevant information related to the potential development of tourism and civil aviation markets in Mozambique.
2. Based on the first part of the study, proposed a clear air transport liberalization strategy. This was done in coordination with the group of consultants already working on the study.
3. Identified market development scenarios with and without the proposed reform.
4. Projected number of passengers and tourists induced by the proposed strategy under different scenarios.
5. Estimated economic costs and benefits of the different scenarios.

At the beginning of the study, Nathan held a kickoff meeting with the SPEED Team in order to discuss in detail the study's objectives and the current progress of the study and its main preliminary conclusions. The SPEED Team included COP Ms. Brigit Helms and Mr. Antonio S. Franco, as well as Mr. Lance Brogden, the team leader on the first portion of the study, and Ms. Anne-Mary Chiobvu, a local expert in legal and regulatory issues.

This report includes:

1. Review of current situation, including a summary analysis of:
    a. General overview of the civil aviation and tourism market in Mozambique.
    b. Outlook, benefits, and consequences of the current and new liberalization policy.

c. Other limitations to air transport markets (infrastructure, compliance with intentional regulation, regulatory framework, etc.).

2. Identification of development scenarios– including a summary of:
    a. Economic justifications for further air travel liberalization in Mozambique.
    b. Identification of air routes that will be included in the reform.
    c. Air travel service and tourism attractions as an integrated product.
    d. Impact of air travel service enhancements (fare reductions, schedule, connectivity, non-stop service, frequencies, amenities, etc.).
    e. Benefits for tourism sector and complementary businesses provided by a deregulated air transport market.
    f. Civil aviation and tourism markets outlook and projection of future expected activity.
3. Assessment of economic impact– including a summary of applied methodology and results:
    a. Analyze economic factors of main routes (airfares, airport fees, etc.)
    b. Assessment of economic impact.
    c. Net present value of economic cost and benefits.

Following the ToR, the consultant conducted a technical visit to Maputo from May 1 to May 9, 2013. The consultant had different meetings with the Speed Team to review and discuss the situation and potential of the civil aviation sector. The consultant was able to gather a substantial amount of information. However, some relevant information was not available; therefore several important assumptions were made in order to conduct the study.

As part of this visit, the consultant conducted initial kickoff meetings with the Speed Team to discuss the study objectives for airport and tourism sector development. During these initial meetings, the consultant also met with staff of the Ministry of Tourism, ADM, LAM, and other key stakeholders. The kick-off meetings enabled the team to gain a better understanding of the recent development of the Civil Aviation Sector in Mozambique.

The consultant's analysis draws on technical, financial, and economic data provided by the SPEED Group, MITUR, ADM, and other stakeholders, as well as other data from official and unofficial sources. These sources are considered reliable; however, the results of our analysis could change significantly if some data proves to be inaccurate or incomplete.

The consultant applied his expertise and experience to model a reasonable and consistent economic impact assessment. However, the consultant cannot predict the future or guarantee the expected economic performance of the recommended liberalization policy, which is subject to the typical risks and uncertainties of the economy, in general, and the Southern African region in particular.

2. INTRODUCTION

Mozambique is emerging as one of the best performing economies in the region. Macroeconomic stability, direct foreign investments, structural reforms, and reconstruction have driven post-conflict growth which has been sustained over the past decade with the support of important projects in mining and energy production. The International Monetary Fund (IMF) has reported a sustained

economic growth in the Mozambican economy with 7.5 percent CAGR of GDP from 2001 to 2012 and is projecting that this economic indicator growth will continue during the coming years4.

Infrastructure spending as well as foreign investments in new strategic projects are expected to drive significant economic growth over the medium-term and long-term. In recent years, the Government of Mozambique has discovered significant amounts of natural gas and other hydrocarbon resources. The development of gas and hydrocarbon resources, including oil, will have major implications for the Mozambique economy, producing substantial new revenue sources for the government and reducing the importance of foreign assistance.

Mozambique is among the most attractive destinations for tourism in the region with a variety of natural and cultural attractions. However, this sector has not developed to its full potential.

Protectionist aviation policies severely constrain the development of tourism as well as businesses, including those related to high-value added agriculture and just-in-time manufacturing. This protectionism, for example, pulls customers from the entire travel and tourism chain—from hotels, restaurants, and resorts, to car rentals, computer reservation systems, and entertainment, as well as beach and cultural attractions. Further liberalization of air transport will facilitate access to potential regional and domestic tourists, helping to increase income for hotels and other tourist and business related activities. Furthermore, a more liberalized air transport sector will give Mozambique's products greater access to international markets, reduce the cost of doing business with and within Mozambique, and improve the overall business enabling environment. It will also attract more private investment, which, in turn, will create more jobs and more export opportunities. A well planned and realistic liberalization strategy in the Aviation Sector in Mozambique is fundamental to stimulating access to private sector participation and to promoting the competitiveness and diversification of the country's economy.

The Yamoussoukro Decision, signed in 1999, recognizes the necessity to adopt measures with the aim of progressively establishing a liberalized intra-African aviation market concerning, among other things, traffic rights, capacity, frequency and pricing. Additionally, it considers the importance of enhancing cooperation among African airlines in order to stimulate the development of inter-African air transport and the need to improve the quality of service to consumers.

Influenced by the Yamoussoukro Decision and by the globalization of the world economy, African countries are pursuing civil aviation systems that are based on effective market competition with minimum government interference, limiting the government's role as an effective regulator.

Internationally, African governments are entering into negotiations for more ''liberal'' bilateral/multilateral air services agreements. There is evidence of relevant developments in air transport liberalization in developing countries like Kenya and Tanzania. India, Brazil, and Mexico also provide a good example of the positive effects of air transport liberalization. Civil aviation performance indicators in these countries are showing signs of success as their air transport markets have been registering significant growth. We will use some of these examples to try to generate economic scenarios for a more liberalized civil aviation sector in Mozambique, both in the domestic and the regional/international markets.

Mozambique has taken important steps towards a liberalized skies policy, but additional efforts are needed to implement these policies and promote more competition and the participation of the private sector.

[4] International Monetary Fund, World Economic Outlook Database, April 2013

3. POLICY AND LEGAL FRAMEWORK

The Instituto de Aviação Civil de Moçambique (IACM) is the policy maker, the technical regulator, and the investigator of accidents in the sector. The consolidation of these functions within one body generates several conflicts of interest that limit the effectiveness of performance. This highly concentrated institutional arrangement is contrary to international best practice and prevents the healthy and safe growth of the civil aviation sector in Mozambique.

As such, the Republic of Mozambique's aviation legislation is at an "unhealthy" stage as it does not provide for a robust civil aviation regulatory oversight system. The IACM lacks the capability for effective safety oversight of aviation under the law. First, the law combines the policy, safety, and economic regulatory functions under the same authority. Placing policy and economic oversight within the same agency that is entrusted with safety oversight presents an immediate conflict of interest which might tempt the agency to accept a lesser level of safety in air operations than that required by Lei n.º 21/2009 de 28 de Setembro Aprova a Lei de Aviação Civil (Civil Aviation Law) and its subsidiary legislation. Second, the accident investigation responsibilities must be separated from the regulator. As it stands, the technical regulator is authorized to investigate itself, which stands contrary to ICAO guidance and international best practice.

The proper institutional arrangements which govern and oversee the policy, economics, and safety of the system, is the single most critical element for ensuring the safe and prosperous growth of civil aviation in Mozambique, especially in the movement towards liberalization and increased passenger traffic.

This section (a) presents and reviews Mozambique's current legal and institutional arrangements, and (b) discusses the recommended legal and institutional reforms which conform to international best practice.

CURRENT INTERNATIONAL AVIATION LEGISLATION IN MOZAMBIQUE

The Government of the Republic of Mozambique is a signatory to, and has ratified, the following international aviation treaties:

- Convention on International Civil Aviation (Chicago Convention), and its Annexes
- Article 83bis
- Article 3bis
- Convention on Offences and Certain Other Acts Committed on Board Aircraft (Tokyo Convention)
- Convention for the Suppression of Unlawful Seizure of Aircraft (Hague Convention)
- Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation
- Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation
- Convention on the Marking of Plastic Explosives for the Purpose of Detection

Mozambique has not ratified the following international aviation treaties:

- Convention for the Unification of Certain Rules for International Carriage by Air, Montreal, May 28, 1999 (Montreal Convention) – Signature only, no ratification

- Convention on International Interests in Mobile Equipment Cape Town – Ratified the Convention only, and not the Aircraft Equipment Protocol5

Mozambique should consider ratifying the following treaties:

THE MONTREAL CONVENTION

Mozambique should consider ratifying the 1999 Montreal Convention. Although Mozambique signed the treaty in 1999, signature is subject to ratification, acceptance or approval. Signature alone does not impose obligations on Mozambique under the treaty.

This Convention provides a modern and consolidated framework for the liability of air carriers for:

- injury or death of a passenger
- loss or damage to cargo and baggage, and
- damage caused by delay in the scheduled arrival of a passenger, baggage and freight, which occurs in the course of international air carriage.

The Convention provides for a two-tier system of liability. Applicants will be able to claim up to 100,000 Special Drawing Rights (SDRs) on a strict liability basis - (i.e. they will not need to prove that the carrier was at fault). Damages above the 100,000 SDR threshold are available to the claimant, unless the air carrier is able to prove that either the damage was not caused by the negligence or other wrongful act or omission of the carrier, its servants or agents, or was solely due to the negligence or other wrongful act or omission of a third party.

BENEFITS FOR MOZAMBICAN CITIZENS

The 1999 Montreal Convention includes a number of innovative mechanisms, refinements, and reforms. It substantially improves consumer protection in international carriage by air and modernizes the smooth flow of passengers, baggage, and cargo. Most importantly, it improves the international regime for air carriers' liability, particularly in relation to injury or death.

Mozambique consumers who seek damages from carriers will also benefit from the provision in the Montreal Convention for a "fifth jurisdiction". This would give most Mozambique citizens access to Mozambican courts to pursue claims in relation to flights to which the Montreal Convention applies.

The Montreal convention aims to be a fresh start. Implementation of the convention will make it easier for Mozambicans to seek fair and timely compensation, representing a big step forward in passenger and consumer protection. It will also be good for business by cutting the time consuming paperwork that is currently associated with passenger and cargo transportation, clearing the way for modern electronic billing systems. As of July 2013, there were 104 States parties to the Montreal Convention, including some of Mozambique's aviation partners such as South Africa and Kenya.

It is recommended that Mozambique ratify such convention, and in the interim, that the provisions of the Montreal Convention be applicable in Mozambique for all contracts of carriage by air of passengers, baggage and cargo, whether it concerns domestic air carriage in Mozambique, or international carriage where Mozambique is the point of origin, point of destination or agreed stopping place.

[5] Mozambique deposited its instrument of accession in respect of the Convention only. In accordance with its Article 49(2), the Convention shall enter into force for Mozambique as applied to aircraft equipment when it accedes to the Aircraft Equipment Protocol.

THE CAPE TOWN CONVENTION AND ITS AIRCRAFT PROTOCOL

Although the Government of Mozambique ratified the Convention on International Interests in Mobile Equipment (Cape Town Convention) in 2012, it has not ratified its Aircraft Protocol. In accordance with Article 49(2) of the Cape Town Convention, the Cape Town Convention shall enter into force for Mozambique as applied to aircraft equipment when it accedes to the Aircraft Protocol. As such, Mozambique is currently unable to reap the benefits of the Cape Town Convention itself.

The Cape Town Convention was adopted at a diplomatic conference in South Africa in November 2001 under the joint auspices of ICAO and the International Institute for the Unification of Private Law (UNIDROIT). The Cape Town Convention consists of two instruments: the Convention, which contains the overarching treaty framework, and the Aircraft Protocol, which contains aircraft specific provisions and gives the Convention its operative effect. Both the Convention and the Aircraft protocol entered into force on 1 March 2006, and both have been ratified by fifty-one States to date.[6]

As aircraft constantly move among different jurisdictions, they are, by their very nature, likely to cross political borders in the regular course of business. Although a creditor may benefit from a more liberal understanding of the rights in aircraft equipment allowed by the creditor's home country's laws, there is still an inherent risk that the debtor is located in an environment more hostile to creditors. As such, the availability of aircraft financing in a particular country is heavily dependent upon the clarity and effectiveness of that country's laws governing the protection of creditors. How the laws of a country deal with the protection of rights and interests in aircraft is relevant to creditors' decision of whether and under which conditions they will make financing available in a certain market.

As such, aircraft financiers face considerable uncertainties. In many countries, local laws may not adequately protect creditors in the event of a debtor default or bankruptcy. Also, as aircraft move readily between countries it can be difficult for creditors to know where the aircraft will be on the date of default or bankruptcy, creating further uncertainty for creditors who seek to gain control or possession of collateral. This uncertainty may force creditors to increase costs associated with aircraft financing.

The Cape Town Convention aims to address this problem by establishing a register for international security interests in aircraft equipment. Creditors will be able to record their security interests on the register and search for pre-existing security interests. The Government of Mozambique, should it ratify the Aircraft Protocol, will be subject to one set of rules where there are competing interests in the same aircraft equipment or where a debtor defaults.

In a nutshell, the Convention aims to reduce the uncertainty and risk that aircraft financiers incur in extending credit, which may lead to a consequential reduction in the financing costs charged to the debtor. The Convention and its Protocol, as it relates to aircraft, aim to facilitate the buying, selling, leasing, and making efficient use of aircraft and aircraft equipment. In its most concrete terms, the Convention and Aircraft Protocol's goal is to make financing available where it is not and, where it

---

[6] Convention on International Interests in Mobile Equipment, 1 March 2006, http://www.unidroit.org/english /conventions/mobile- equipment/mobile-equipment.pdf.. Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment, 1 March 2006, http://www.unidroit.org/english/ conventions/mobile-equipment/aircraftprotocol.pdf . As of July 16, 2013, the Cape Town Convention and the Aircraft Protocol have entered into force for the following States: Afghanistan, Albania, Angola, Bangladesh, Bahrain, Belarus, Brazil, Cameroon, Canada, Cape Verde, China, Colombia, Congo, Costa Rica, Cuba, Ethiopia, European Union, Fiji, India, Indonesia, Ireland, Jordan, Kazakhstan, Kenya, Latvia, Lesotho, Luxembourg, Madagascar, Malaysia, Malta, Mexico, Mongolia, Mozambique, Myanmar, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Panama, Russian Federation, Rwanda, Saudi Arabia, Senegal, Seychelles, Singapore, South Africa, Syrian Arab Republic, Tajikistan, Togo, Turkey, Ukraine, United Arab Emirates, United Republic of Tanzania, and the United States of America. *See* http://www.unidroit.org/english/conventions/mobile-equipment/main.htm.

is, to permit one to buy and sell more cheaply through financing that minimizes the risks of financial loss. Likewise, the Convention and Aircraft Protocol will relieve pressure on the Government of Mozambique to finance aircraft and aircraft equipment purchases or to guarantee them. In its broadest sense, the lower the risk to the creditor, the lower the cost to the debtor.

Mozambique should consider ratifying the Cape Town Convention's Aircraft Protocol. The registration and insolvency regime established under the treaty gives financiers greater confidence in their decision to participate in aircraft finance transactions. This can lead to a reduction in borrowing costs for any future Mozambican's carriers, leading to a more modern fleet.

Although the Cape Town Convention is primarily a piece of legislation designed to protect the interests of creditors, it would confer on any future Mozambican carrier, as potential purchasers or lessees of aircraft, some advantages which are not found in many jurisdictions. For instance, the right of an Mozambican carrier to the use and quiet enjoyment of an aircraft, and such Mozambican carrier's purchase option right, could leave the Mozambican carrier less vulnerable where title to a leased aircraft is subsequently sold or mortgaged to a third party. The costs of borrowing could be reduced for Mozambican carriers if the Government of Mozambique ratified the Aircraft Protocol, as financiers benefit from greater certainty regarding the protection and enforcement of their rights.

Mozambican carriers could benefit from the Government of Mozambique's ratification of the Cape Town Convention and Aircraft Protocol in five key areas:

1. Access to more favorable international finance rates due to the lower risk to the creditors.
2. Access to secured finance.
3. Improvement of sovereign credit ratings (an assessment of the credit worthiness of individuals and corporations. It is based upon the history of borrowing and repayment, as well as the availability of assets and extent of liabilities).
4. Improvement of airline ratings due to the modernization of fleet (improvements in safety and lower environment impacts).
5. Benefits to airline shareholders in the form of increased stock prices.

It is expected that Mozambican carriers could modernize its aircraft fleet more regularly because of lower finance costs. This is expected to result in safer and cleaner aircraft being used in service.

CURRENT DOMESTIC AVIATION LEGISLATION IN MOZAMBIQUE

The responsibility of the Government is to establish one regulatory body for the development and implementation of regulations and economic security of the area of civil aviation.[7] The Instituto de Aviação Civil de Moçambique (IACM) is that regulatory body and the "institution designated by the Government to regulate and control the development of activities in the scope of civil aviation in all aspects of technical, operational, economic, including public order and territorial integrity in accordance with the applicable legislation."[8] According to the Civil Aviation Law, the IACM is under the supervision of the MoTC.

Some of the IACM's competencies are: (a) economic oversight involving air transport licensing, negotiation of international agreements for bilateral air transport, and the opening and assigning routes; (b) safety oversight involving flight operations, airworthiness, personnel licensing, airports standards, and air traffic service standards; (c) airspace regulation to ensure that an efficient service is provided to meet reasonable aviation demand; and (d) accident and incident investigation.

[7] Lei n.o 21/2009 de 28 de Setembro Aprova a Lei de Aviação Civil (Civil Aviation Law), §8(c).
[8] *Id.* at Glossario, "Órgão Regulador Aeronáutico".

Proper and effective safety oversight of the air transport system and regulation is assured only when it is carried out by an independent technical government body, and at arm's length from policymaking and economic regulation. Given the current arrangement, technical regulation can be manipulated and the impartiality and credibility of the regulator eroded. Additionally, an impartial and objective technical body should be responsible for the investigation of accidents and incidents, thus guaranteeing an open and transparent evaluation of the events. The regulator should not be responsible for such investigations, otherwise the investigator becomes the police, judge, and party when regulatory issues and oversight are involved in an accident.

The following depicts the deficiencies of the current legal and institutional arrangements in Mozambique:

SEPARATION OF POLICYMAKING, ECONOMIC REGULATION, AND TECHNICAL OVERSIGHT

The technical regulation of the sector must be independent of the economic regulator and policymaker to guarantee the independence of technical judgment. Concentrating both functions in one body facilitates manipulation of regulation for the sake of economics and policy. With the IACM as both policymaker/economic regulator and technical regulator, policy and economics may be affecting the judgment of the technical regulator. A new institutional arrangement, one in which the functions of policy formulation, regulation, and investigation are completely separate, should be implemented.

The IACM is given the difficult task of balancing two interests which might be frequently, if not inherently, in conflict: the protection of aviation safety on the one hand, and the fostering of successful air commerce, and consequently, the promotion of airline profitability, on the other. Placing economic oversight and policy within the same department that is entrusted with safety technical oversight presents an immediate conflict of interest which might tempt the IACM to accept a lesser level of safety in air operations than that required by ICAO, the Civil Aviation Law, and its subsidiary legislation. This presents the potential for continuing tension between economic opportunity and civil aviation safety. For example, safety oversight may be threatened or relaxed in the furtherance of encouraging competition.

The IACM is responsible for issuing the Certificates of Airworthiness and the Air Operating Certificates. The obvious problem is that for every recommended safety determination that the technical experts of the IACM make, the DG also has the potential to weigh the cost of implementation, the economic benefits, and the ability to determine if that technical determination is worth the financial strain on the airlines. Combining the two roles increases the threat that economic pressures to certify an unsafe carrier could influence the safety oversight role of the authority.

With all this in mind, it is advisable to separate the Mozambique's economic oversight function from the civil aviation safety oversight function. Placing safety oversight and economic oversight solely in the IACM puts Mozambique in a compromised position, having to defend itself from questions and concerns regarding conflicts of interest.

A Ministry with an economy-wide and economic development perspective such as the MoTC should be responsible for policy, including negotiating and implementing bilateral and multilateral agreements, economic regulation, and market/route access. It, in consultation with other relevant ministries, should be responsible for implementation of aviation policy and should be accountable accordingly.

DCA DIRECTOR LACKS THE POWER TO DEVELOP, ISSUE, AND REVISE OPERATING REGULATIONS

ICAO guidance materials require that the Director General have the authority to "develop, issue and revise operating regulations and rules consistent with the code of air navigation regulations."[9] However, the Civil Aviation Law gives the Government, not the Director General of the IACM, the power to "approve and promulgate regulations and technical norms of civil aviation."[10] Additionally, the Civil Aviation Law gives the power to the Government to "lay down the rules for validating licenses and permits granted to foreigners in accordance with international conventions and treaties that the Republic of Mozambique is a party to."[11]

While the Director General apparently directs and coordinates the technical activities of the IACM, it can only evaluate and execute legislation and procedures regarding the civil aviation activities of which the MoTC has the final authority. The Aviation Act does not give the Director General the final authority to develop, issue and revise operating regulations and rules consistent with the air navigation regulations and with the provisions of the Annexes to the Chicago Convention. That power is given to the MoTC, which has the authority to approve and promulgate such technical regulations. With the power to approve comes the power to disapprove, or overturn, the DG's technical recommendations. As such, the DG's power to effectively oversee aviation safety is diluted when Governmental interests trump technical determinations.

As the MoTC may lack trained manpower and technical expertise in aviation safety, ideally and in line with ICAO's mandates, the IACM, specifically the Director General, must have the jurisdiction to take decisions in the name of safety and make rules, regulations, instructions, standards, and other normative acts applicable to other organs and to physical and legal persons involved in civil aviation activities. For instance, at a minimum, the Director General should have the authority to adopt Emergency Regulations.

It is strongly urged that the Mozambique laws and regulations allow for the Director General to have the final authority in developing, issuing, and revising operating regulations in conformity for the ICAO SARPs and with international best practice.

CREATION OF AN AUTONOMOUS ACCIDENT INVESTIGATION UNIT

Article 49 of the Civil Aviation Law states that the IACM has the responsibility to investigate accidents and incidents. Such authority is housed under the Departamento de Segurança de Voo of the IACM.[12] Under the Diploma Ministerial n.º 117/2011 de 3 de Maio, the Director-General may appoint the head of the commission of inquiry to investigate any accident or incident.

ICAO SARPs and international best practices dictate that the body responsible for investigating accidents should be independent of the regulator, comply with ICAO Annex 13, and implement the "no blame" concept of investigation therein. The accident investigation authority must be strictly objective and completely impartial, and it must also be perceived to be so. Mozambique's accident investigation unit should be established in such a way that it can withstand political or other interference or pressure. As such, the Government of Mozambique can meet this objective by setting up its accident investigation authority as an independent statutory body separate from the IACM.

However, as the IACM has the authority to conduct the investigation of aircraft accidents and appoint the head of the commission of inquiry, this raises serious potential conflicts of interests as the regulator is in the position of regulating and investigating itself. The determination of cause for

---

[9] ICAO Guidance Material (GM) Doc 8335, §2.1.2.b.
[10] Civil Aviation Law, *supra* note **Error! Bookmark not defined.**~~**Error! Bookmark not defined.**~~, §8(h).
[11] *Id.*, §34(3).
[12] http://faa.gov/air_traffic/publications/ifim/country_info/PDF/mz.pdf (last visited July 15, 2013).

aviation accidents is normally entrusted to a governmental authority different from the regulator, including the power to make regulations for the investigation of any accident. Combining analysis of probable cause with safety regulation and enforcement within the same governmental organization presents the potential for continuing conflict.

Moreover, if the investigators come from the IACM itself, this is not an ideal arrangement since the IACM investigators may fear retribution when they return to their normal duties should the IACM react unfavorably to the findings in the Final Report of the investigation.

The potential IACM conflict of interest of regulating and investigating itself could have ramifications for the safety of Mozambique's carriers, in particular, and the overall safety of civil aviation of Mozambique, in general. As such, it is important that Mozambique promote the establishment of a separate accident investigation unit at the federal level.

The accident investigation unit must be an autonomous, independent body and should be completely independent of the aviation industry, the IACM, and other public authorities, officials, and entities engaged in air transport. The accident investigation unit should not receive its funding from the same budget as that which funds the IACM. The accident investigation unit should have ready access to sufficient funds to enable it to properly investigate those accidents and incidents that fall within its area of responsibility. Since it is impossible to accurately forecast annual budget requirements for accident investigation, provision should be made for supplementary funding as required. Only then, as an independent entity, unrelated to any civil aviation regulatory or policy-making body, would the accident investigation unit be able to truly maintain its integrity and produce investigations and recommendations that are not only unbiased, but also perceived to be so. Therefore, it is highly recommended that the IACM divest itself from its regulatory and investigatory roles of accident investigation.

The Government of Mozambique can meet this objective of removing all conflicts of interests by setting up its accident investigation authority as an independent statutory body separate from the IACM, the MoTC, and the industry. The accident investigation authority should report to the President or the Prime Minister's office.

REGIONAL AGREEMENTS

In 1988, at the Economic Commission for Africa, 40 states of the African continent met in Yamoussoukro, Cote D'Ivoire and agreed on a declaration concerning a new aeronautical policy for Africa. This new policy was aimed at integrating and liberalizing the African aviation market. The far-reaching objectives of the Yamoussoukro Declaration were the development of a Common Air Transport Policy for the whole African region and the integration of African air transport companies. While the Yamoussoukro Declaration was hailed as a momentous step in defining the future of air transport in the region, the far-reaching goals of this declaration have not been achieved. There were some efforts, mostly through bilateral negotiations, to exchange traffic rights. However, by October 1999, 11 years after the promulgation of the declaration, little had changed. So once again the African ministers met in Yamoussoukro, Cote D' lvoire to review the policy and during their meeting adopted the Yamoussoukro Decision. The Yamoussoukro Decision was signed in Lome, Togo by all African countries, and has enough ratification to be in force. The main thrust of the decision is to gradually liberalize scheduled and non-scheduled intra-African air transport services in order to facilitate access to air transport in Africa. This decision states that:

1) Carriers should be able to operate between any city pair with no limits on capacity, frequency, or aircraft type.
2) Fifth freedom rights are freely available when no third or fourth operators exist and when they do exist, a carrier should be limited to not less than 20 percent of offered capacity or 20 percent of business traffic.

3) There should be no regard to routing.
4) Free codesharing between African carriers is encouraged.

While this regional agreement has not been fully implemented throughout Africa, LAM may benefit from delays in full implementation as its domestic market will be protected from competition.

MOZAMBIQUE SAFETY STATUS

The FAA established the International Aviation Safety Assessments (IASA) Program through public policy in August of 1992. The FAA's foreign assessment program focuses on a country's ability, not the individual air carrier, to adhere to international standards and recommended practices for aircraft operations and maintenance established by the United Nation's technical agency for aviation, the International Civil Aviation Organization (ICAO).

On April 2, 2011, the European Commission announced that it had added all airlines registered in Mozambique to its "no fly" or "'ban list". According to the European Union (EU) report, a delegation from the ICAO visited Maputo in January, 2010 to carry out an audit of safety procedures which "reported a large number of significant deficiencies with regard to the capability of the civil aviation authorities of Mozambique to discharge their air safety oversight responsibilities". The ban listing will persist until the Mozambican air safety authorities have overcome the flaws listed in the report.

According to LAM, the ban list issue is not related specifically to LAM or any other Mozambican air company, but rather to the regulatory agency, the Mozambican Civil Aviation Institute (IACM). LAM complies with all the above safety regulations and is fully certified, but because of issues identified with the IACM the entire country remains on the EU ban list.

LAM received the IATA Operational Safety Audit (IOSA) certificate for the first time in 2007, and was then recertified in 2009, and again in 2011.

BILATERAL AIR SERVICE AGREEMENTS

Mozambique has signed bilateral air service agreements (BASAs) with the following countries: Brazil, Malawi, Portugal, South Africa, Swaziland, Tanzania, and Zambia. In addition, Mozambique has signed MOUs on bilateral ASA's with Angola, China, Ethiopia, Mauritius, Kenya, the UK and Singapore. The government of Mozambique is working to negotiate ASA's with Egypt, the UAE, the US, India, Macau, Qatar, and Turkey.

LAM is Mozambique's designated flag carrier for the purposes of BASAs with foreign countries. The negotiation of BASA's is between the civil aviation authorities and governments of the various countries. However, although decisions ultimately lie with the government, LAM staff participates in the negotiations.

The government of Mozambique does not regulate fares; LAM operates as a commercial enterprise and sets rates that the market will bear.

BASA BETWEEN MOZAMBIQUE AND REPUBLIC OF SOUTH AFRICA[13]

The parties have sought to liberalize the current BASA pending full liberalization of the industry. Although the BASA is still restrictive in nature, it contains some form of liberalized arrangements. There is a gradual move from a restrictive position to a more liberal position.

[13] This section, and the "textbox" included at the end of the section, was prepared by Lance Brogden and Anne-Mary Chiobvu, consultants hired by SPEED under the Open-Skies analytical work.

This does show further Liberalization relative to the previous arrangements together with a documented commitment to drive the Yamoussoukro Decision - YD - (Freedom of Flight and Open Skies Flight between and amongst African States - Total Liberalization). This involves driving more frequencies and the increased involvement of air operators [Paragraph 4.1.1 of the MOU].

Frequencies: Increased frequencies and increased involvement of air operators. This is only partial liberalization between Mozambique and RSA and not with other countries that Mozambique has BASAs with; this is also not synonymous to open skies. This is opening up to the extent that they have agreed in the BASA and is not absolute.

Designation: Confirmation of Dual Designation of Airlines per route (*meaning that two airlines are permitted to fly a specific route*) and Multiple Designation per country (*meaning that an airline from one country may fly to multiple points in the other country*) - as an interim measure pending the full implementation of YD [Paragraph 4.1.2]. This definitely results in increased traffic. With full implementation of the YD, the parties can designate as many carriers as they want. The question that then still remains unanswered is what happens in the case were one party has one carrier and the other has multiple players?

Passenger Seat Capacity Limitations: There are passenger seat capacity limitations [Paragraph 4.4]; however from October 2012 these were handsomely increased (*e.g. Jhb-Maputo has a 51% increase to 3400 seats and e.g. Beira-Lanseria has a 30% increase to 550 seats*). Whether this is still too restrictive or not will depend a lot on the statistical analysis).

Tariffs: The Yamoussoukro Decision provides for the removal of restrictions on pricing. In this BASA, parties still have to file their fares and notify each other of any changes. This creates conditions for cartels, where collusion can thrive. In the BASA – Article 10 - it states that: '*The designated airlines of both contracting parties may not offer, sell or advertise tariffs different from those which have been established in accordance with the provisions in the BASA*'. (There is a process in the BASA which makes it such that the tariffs are subject to the approval by the aeronautical authorities of the Contracting Party). Note that the prices do not have to be captured in the BASA, but the BASA clearly states that they have to be approved by the aeronautical authorities of the contracting party.

This should not be seen as 'price fixing'. This is a standard practice as airlines have a number of prices of seats on a particular route relating to the time of the flight, availability of seats, marketing strategy, the particular size and type of aircraft flown at a particular time (some airlines have different aircraft flying the same route at different times of the day), the season and other factors. It is legal because the two countries involved in the BASA formally agree to this process.

It is very important that consumers know what they are paying for their flight and have access to flight prices.

The airlines should be allowed freedom to charge what they deem fit.

Be this as it may, it is important that the very same steps taken by Mozambique and South Africa, in implementing principles of Yamoussoukro Decision into the BASA, be taken with the other contracting parties so as to promote a continual liberalization process.

Interesting Observation in the South Africa-Mozambique BASA: The BASA between Mozambique and South Africa makes specific provision for 5th Freedom rights, under certain conditions (paragraph 4.3 of the MOU states: Fifth freedom traffic rights may be exercised by the designated airlines of each contracting party where there are no third and fourth freedom rights being exercised, subject to the approval of the Aviation Authorities concerned - *3rd and 4th freedoms are the standard flights from A to B and then returning to A*).

Participation of airline representatives in BASA negotiation meetings: Although it is all too common that airline representatives are involved in BASA negotiations and discussions, this should be strongly discouraged. In the latest discussions, within the 'List of Delegates' involved from both Countries, there were representatives of both National Carriers and of other Airlines from the Countries. Their names are captured in the MOU (under Annexure A – List of Delegations); there were also two members from MEX and one from Kaya Airlines. One must note that the South African Delegation had members from SAA, Airlink, SAX, Federal Airlines and Comair. Although this happens regularly, many believe it not to be appropriate (as these individuals have the interest of their Airlines as a priority) and should strictly involve formal Government Representatives (although the National Airline representatives do work for the Government) and professional external advisers/consultants

General Observation on all BASAs

BASAs have their shortcomings. Their existence creates an unfair ground for operations. They are being used as a means to achieve the desired end, being that of full liberalization. There seems to be a gradual move from a restrictive regulatory regime to a more liberalized regime. BASAs are the primary vehicle for liberalization in Mozambique. This is evidenced in the gradual shift from a more restrictive BASA to one that contains some form of liberalized arrangements (case of the BASA between South Africa and Mozambique refers).

There has been progressive liberalization of the Air Transport Industry between Mozambique and the Republic of South Africa. Mozambique is pursuing the same concept of progressive liberalization with several other countries namely Portugal, Zimbabwe, Kenya, Tanzania, Ethiopia, Qatar. Over the past thirty six months, the agreements have shown a sign of being practiced due to the fact that the number of airlines into Mozambique is on the rise.

SUMMARY

The government of Mozambique has taken important steps towards a liberalized skies policy, but it is evident that additional efforts are required for effective implementation of these policies and to induce competition in the Civil Aviation Sector and promote the participation of the private sector.

Although LAM is an independent company, in practice it lacks the proper separation from the institutions that define sector policy. IACM, for example, considers the well-being of LAM a "matter of national interest" and executes policy accordingly. This lack of separation of functions creates a potential conflict of interest. Proper control and regulation are assured only when carried out by an independent body.

4. THE AVIATION SECTOR IN MOZAMBIQUE

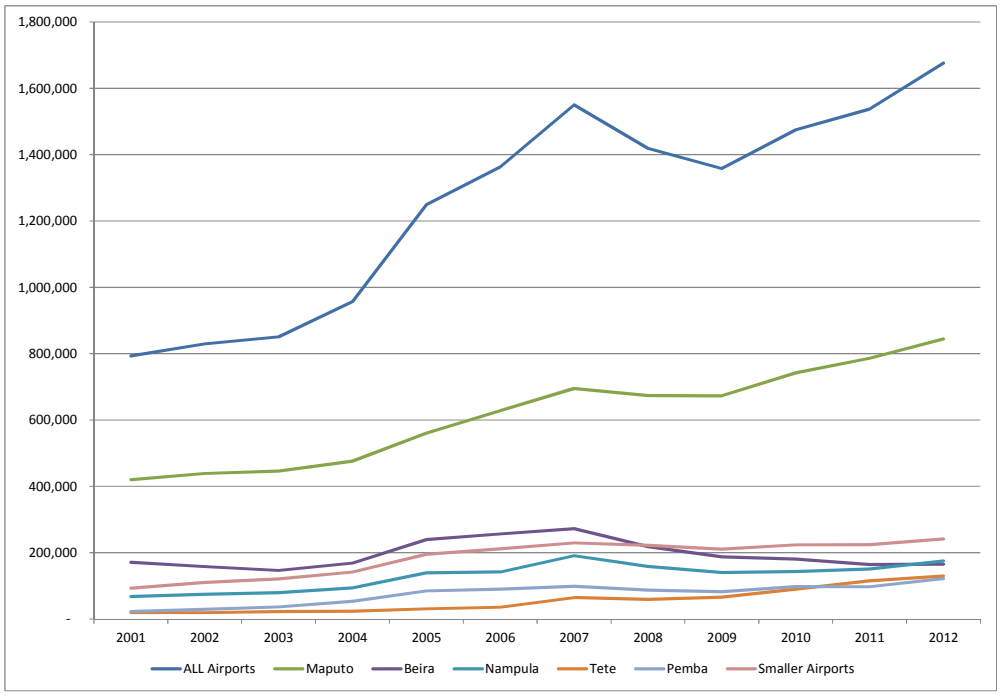
Passenger traffic at Mozambique airports increased significantly over the last 10 years from 829,337 in 2002 to 1,675,948 total passengers in 2012, which represented a 7.3 percent CAGR. Traffic growth has been fueled by traffic growth at Maputo as well as new air services and flight frequencies at medium-sized airports. However, traffic has grown less than the country's GDP

showing an elasticity of 0.97X.[14] This compares to 1.44X in Kenya and 1.45X in Tanzania, neighboring countries that have undergone substantive liberalization.

Growth in the aviation industry in Mozambique has resulted in the need for airport infrastructure and facilities; however, due to the large number of airports managed and operated by ADM combined with the fact that most are not economically viable, providing the necessary resources remains a challenge for the GoM. In addition, the majority of the smaller airports in Mozambique do not have adequate infrastructure for safe and efficient operations, further hindering the growth of the airport sector.

EXHIBIT 4-1

Traffic Evolution in Mozambique Airports from 2001 to 2012(Number of Passengers arriving or departing)



Source: Nathan estimations based on ADM's data.

Currently, the primary utilization of the nation's airports is for business; however, a recent increase in the disposable income of Mozambican citizens and the potential to develop tourism enterprises have generated increased interest and activity for regional air transportation.

Mozambique's current airport infrastructure, while in serious need of equipment upgrades and improvements in some of the smaller airports, does not represent any kind of serious limitation for the development of traffic. The development of the air transport market is constrained by the country's aviation sector policy framework. Development of the sector is not conditional on improvement of existing airport infrastructure, and in fact the market potential exists. Rather, the sector's ability to realize its growth potential lies in the possibility of liberalizing the market and inducing competition.

[14] Indicates that for every 1.00 percent growth in GDP, traffic has grown only by 0.97percent.

AIRPORT SERVICES IN MOZAMBIQUE

Aeroportos de Moçambique (ADM) is responsible for infrastructure operations. The airport system of Mozambique is comprised of 3 international airports: Maputo, Beira, and Nampula; 6 additional primary airports including: Inhambane, Quelimane, Tete, Lichinga, Pemba, and Vilankulos; and 10 secondary airports, 6 military airfields, and almost 300 additional landing strips.

Maputo International Airport is the most important airport in Mozambique serving as the main gateway for visitors to Mozambique. In 2009, ADM successfully completed a US $32 million expansion and modernization of the airport, which included development of the new terminal building and all necessary associated facilities, such as taxi-ways, aprons, car parking, and access roads.

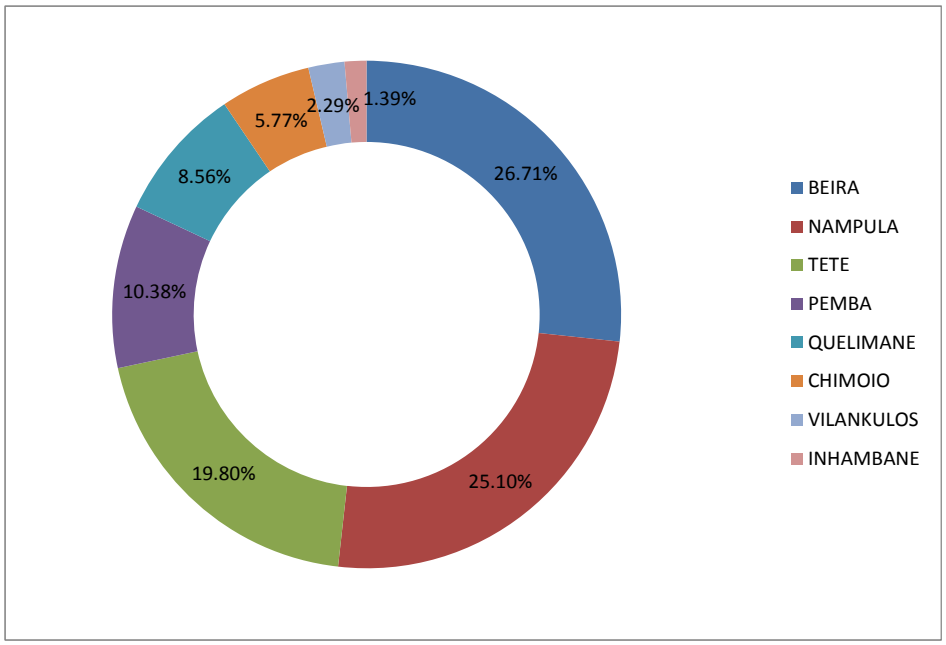
The new international terminal opened in November of 2010. The new terminal has a capacity of 900,000 passengers per year. A new domestic terminal opened in October of 2012 which has a larger service capacity than the international terminal, as Maputo airport deals with more domestic than international flights. The new terminal has 14 check-in desks with a capacity to handle 300 departing passengers and 225 arriving passengers per hour.

Maputo top 5 main domestic destinations, in terms of number of departing seats, are Beira with 26.7 percent, Nampula with 25.1 percent, Tete with 19.8 percent, and Pemba with 10.4 percent. Maputo main regional destinations, in terms of number of departing seats, are Johannesburg with 62.6 percent, Lisbon with 12.9 percent, Addis Ababa with 10.2 percent, and Nairobi with 7.1 percent.

The high concentration of number of seats in the Maputo-Johannesburg route. Johannesburg, as a main hub in the region, creates a great deal of indirect competition for many of LAM's intra-Africa routes.

EXHIBIT 4-2

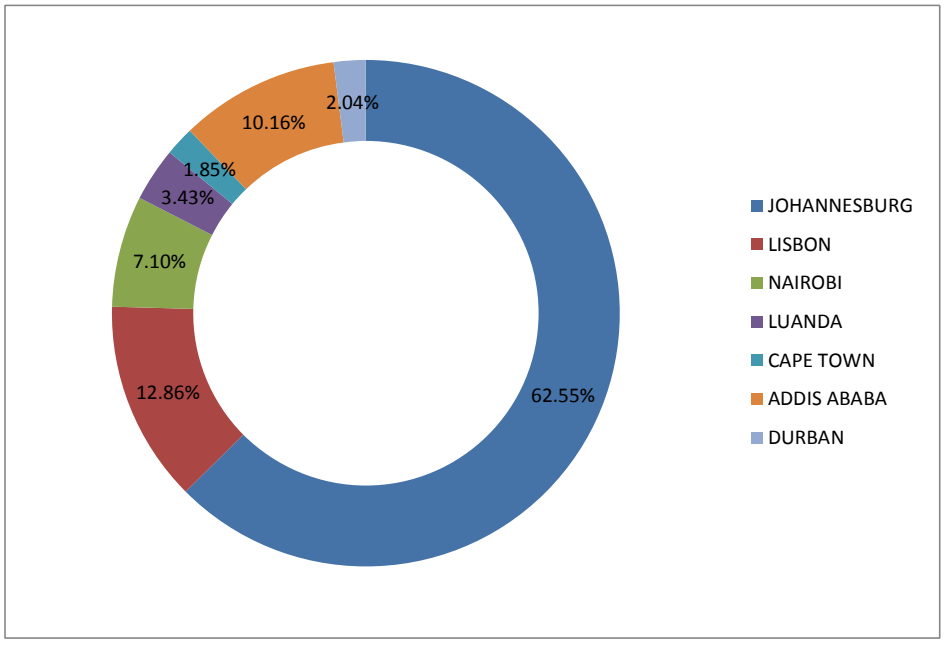
Maputo Domestic Market Share. Number of Seats



Source: Nathan calculations based on OAG figures.

EXHIBIT 4-3.

Maputo International/Regional Market Share. Number of Seats



Source: Nathan calculations based on OAG figures.

It is widely accepted within the ADM, that non-aeronautical revenues play an important role in supplementing the ADM's highly regulated aeronautical revenues. However, despite the brand new facilities, the ADM has not been able to develop sufficient non-aeronautical revenues.

The Maputo airport has the potential to develop commercial activities under PPP arrangements. However, despite various attempts, PPP and involvement of the private sector in MPM have not been possible.

Several air service operators perform scheduled services on international, regional, and domestic routes including LAM and its subsidiaries MEX, Air Portugal (TAP), South Africa Airlines (SAA), SA Airlink, Ethiopian Airlines, Qatar Airways, Kenya Airways, Federal Airways, and BA Comair. See Exhibit 4-4.

EXHIBIT 4-4

Regular Operators per airport

ARP/ARD	LAM	KAYA	TAP	SAA	SA LINK	KENYA	ETHIO PIA	FEDE RAL	QATAR	COMM AIR
MAPUTO										
BEIRA										
NAMPULA										
QUELIMAN										
TETE										
PEMBA										
LICHINGA										
INHAMBA										
CHIMOIO										
VILANKUL										
INHACA										

Source: Nathan estimations based on ADM information.

LAM provides domestic services and regional services mainly to South Africa. By special arrangement with Air Portugal (TAP), it operates a code share flight between Maputo and Lisbon. TAP operates 4 frequencies in the low season and 5 frequencies in the high season between Maputo and Lisbon, with an intermediate stop in Johannesburg, without traffic rights between Mozambique and South Africa. All frequencies are operated with Airbus A340-300. TAP is the only carrier performing intercontinental flights. LAM was flying to Lisbon through a wet lease agreement with LuxAir, but the lease ended in the spring of 2005. Thus, connectivity to intercontinental destinations is poor; Maputo is linked to only one point outside the region.

Mozambique's bilateral agreement with Portugal requires each party to designate a single carrier. The Portuguese authorities have been interested in obtaining traffic rights from Maputo to Johannesburg, and vice versa, for TAP's flights to link South Africa and Mozambique with Portugal[15]. Those operations are known as Fifth Freedom rights, meaning the entrance of a new contender on the Maputo–Johannesburg route. TAP is also interested in obtaining traffic rights (Fifth Freedom) for flights between Luanda and Maputo. With such rights it could combine the operations of both former Portuguese colonies in a single flight and possibly offer flights between the two African countries. The operation of flights with the possibility of stopping in Luanda and

[15] Not currently in operation.

Johannesburg, as intermediate stops between Maputo and Lisbon, could provide the market build-up to grant daily frequencies between Europe and Mozambique, as well as additional connections in Africa.

South Africa is the strongest international link to Mozambique. Mozambique's bilateral agreement with South Africa, last revised in June 15, 2012 through a MoU, allows dual designation per route and multiple designations from the two countries. The agreement allows South African carriers to fly from points in South Africa to Beira, Maputo, Nampula, Pemba, Vilankulo, Tete, and Inhambane. In turn, operators designated by Mozambique can fly from points in Mozambique to Cape Town, Durban, Johannesburg, Nelspruit, KMIA[16], and Lanseria. In October 2012, Maputo-Johannesburg increased from 2,250 seats to 3,400 seats, other city pairs increased about 30 percent capacity. Fifth Freedom traffic rights may be exercised by the designated airlines of either contracting party where there are no Third and Fourth Freedoms[17] traffic rights being exercised, subject to the approval of the Aviation Authorities concerned. Designated carriers for Mozambique are: LAM, TTA, MEX, and Kaya. Designated carriers for South Africa are SAA, Federal, Airlink, and SAE. Designated carriers for Maputo-Johannesburg are LAM and TTA, for Mozambique, and SAA and BA Comair[18] for South Africa.

Few flights link Mozambique with international cities. The only intercontinental link is between Maputo and Lisbon. In Africa, it is linked to Johannesburg, Harare, Nairobi, Dar es Salaam, Addis and Doha. Beira is linked to Lilongwe and Blantyre in Malawi and occasionally, Dar es Salaam. Pemba receives flights from Dar es Salaam that may continue to Maputo, as well as from Nairobi In addition, Vilankulo receives frequent flights of South African tourists from Johannesburg. The operation of non-regular services is carried out on a case-by-case basis.

AIR TRANSPORT SERVICES IN MOZAMBIQUE

LAM, founded in 1936, is a state-owned entity and has been the flag carrier of Mozambique since 1980. LAM serves ten domestic destinations and four international destinations. While LAM has some competition in its international/regional routes, it has a virtual monopoly in many of its domestic markets. Due to its strong market position and growth in the air transportation market, LAM has seen significant passenger growth and revenue growth over the past three years.

In 2011, LAM successfully renewed its certificates for its operational safety system (IOSA), and quality of service, ISO 9001:2008.

Currently, the State of Mozambique holds 96 percent of the shares of LAM through IGEPE (State Holding Company) and LAM employees own the remaining 4 percent.

LAM has several subsidiaries, including Mozambique Express, SA (MEX), Mozambique Airport Handling Services, Lta., and Sociedade Mozambique de Services, SA (SMS).

MEX, established in 1995, is LAM's only wholly owned subsidiary. MEX started as a charter company and gradually became feeder carrier for LAM. MEX operates turboprop aircraft and provides passenger transport to LAM's smaller domestic markets. MEX's revenues totaled approximately US $17 million in 2011 which was only about 10 percent of LAM's total revenue. As the parent company, LAM provides a number of administrative services to MEX.

Mozambique Airport Handling Services provides airport handling services to LAM, MEX and third party carriers at Maputo and Beira airports.

---

[16] Kruger Mpumalanga International Airport
[17] See definitions in Appendix C
[18] On May 6, 2013, BA Comair, the South African subsidiary of British Airways, started operations between Johannesburg ORTIA and Maputo.

In addition to the subsidiaries identified above, LAM has the following affiliated companies in which it holds minority ownership: Hotel Cardoso, SA, Casino Hotel Polana, SA, and Salvor Hoteis.

In 2011, LAM generated almost 68 percent of its revenue from passenger service and just under 23 percent in fuel surcharges. LAM also generates smaller amounts of revenue from cargo, mail, commissions, handling, rental income from the lease of aircraft to its subsidiary, sale of goods, and rent of buildings as service and maintenance income.

Approximately 60 percent of LAM's traffic is business traffic and 40 percent is leisure traffic. A large portion of the business travelers are traveling on official government business. Due to the relatively short stage lengths of most of LAM's flights, most business travelers fly coach rather than business class. However, business travelers in general are typically less price sensitive than leisure travelers so having strong business traffic, even in coach, improves yields. LAM has matched its schedules to meet the business travelers' needs. Flights depart business centers early in the morning and return late in the evening.

LAM operates scheduled services to 10 domestic destinations as well as to four international destinations. LAM operates an average of about 20 round trip flights daily. Some of the flights also include stopovers.

The LAM domestic operating network covers Maputo, Beira, Quelimane, Tete, Nampula, Pemba, and Lichinga. Through its subsidiary, MEX, the airline also flies to Inhambane, Chimoio, and Vilankulo. Maputo is not only Mozambique's capital, but is the country's center of government, business, culture, gastronomy, and sustainable development. Over 80 percent of LAM's flights fly out of Maputo. 83 weekly domestic flights and 32 weekly regional flights depart from Maputo.

EXHIBIT 4-5

LAM Weekly Schedule

	Weekly Domestic Flights	Weekly Regional Flights
Maputo	83	32
Nampula	32	3
Beira	25	3
Tete	19	3 (JHB)
Vilankulo	10	7
Inharnbane	9	7
Chimoio	4	
Quelimane	13	
Pemba	7	
Lichinga (Nampula)	5	

Source: LAM

In the International (Regional) arena, LAM does not provide services directly, and is not part of a global alliance. LAM does have codeshare arrangements with the following airlines: Ethiopian Airlines, South African Airways, South African Express, TAP Portugal, TAAG Angola, and Precision Air. The codeshares are fairly simple with an agreed-upon commission rate for the marketing airline.

LAM presently uses a fleet of Boeing, Embraer, and Bombardier aircraft as shown in Exhibit 4-6.

EXHIBIT 4-6

LAM Current Fleet

Aircraft	Number	Seats	Years old	Owner
B 737-500	1	111	14	LAM
EMB-190 LR/AR	3	93	2	LAM
Dash 8 Q400	3	72	12	LAM
EMB-120	2	30	21	MEX
Total	9			

Source: LAM

As of April 30, 2012, LAM and MEX employed 798 workers.

COMPETITION

LAM has prime slots in all of its current markets, including early morning departures from Maputo to Johannesburg and late returns to Maputo from Johannesburg to best accommodate the schedule of business travelers. At this time, LAM does not require a large number of slots. LAM does not anticipate any problems getting the required airport slots to support current or future routes.

DOMESTIC COMPETITION

LAM and MEX are dominant in the Mozambique domestic market. LAM and MEX have only two small competitors that serve the domestic market: Kaya Airlines and TTA Airlink. At the moment, both Kaya and TTA provide fundamentally different services and do not pose a competitive threat.

Kaya flies aging Embraer EMB-120 Bandeirante turboprop aircraft which carry up to 15 passengers. Kaya serves Inhambane, also served by MEX. The company also used to serve lnhaca, but has recently discontinued service to that destination. Kaya is more of a small scale charter operation. It offers neither the network scope nor scale to pose a competitive threat to LAM at the moment.

TTA Airlink offers charter flights but no scheduled flights. The airline was formed with support from SAA Airlink; however, operations have not been developed successfully. Although TTA has publicly announced intentions to develop operations between Johannesburg and Maputo, no such flights have been started. At present, the company lacks the fleet and resources to pose a competitive threat.

Generally, LAM and MEX, combined, have superior infrastructure, lower seat costs, a more advanced reservation system, and premium slots in all of their current markets which make it very difficult for these other small domestic competitors to effectively compete.

REGIONAL COMPETITION

Currently LAM serves a limited number of regional routes with direct flights. LAM has no direct competition on some of the non-stop regional routes shown in Exhibit 4-7.

EXHIBIT 4-7

LAM Non-Stop Regional Routes

City pair	Airline	Weekly Frequencies	Share seats	Airline	Weekly Frequencies	Share seats
JHB/lnhambane	LAM	7	100%			
Maputo/Luanda	LAM	4	100%			
Nairobi/Pemba	LAM	4	100%			
Dar es Salaam/Pemba	LAM	4	100%			
JHB/Maputo	LAM	31	50%	SSA/BA COMAIR[19]	30	50%
JHB/Tete	LAM	6	32%	SSA Airlink	12	68%
JHB/Biera	LAM	6	46%	SSA	14	54%
JHB/Vilanculo	LAM	7	48%	Federal Airlines	10	52%

Source: SABRE AIRDI

All direct competition is from Johannesburg to various major cities in Mozambique.

Other carriers fly into Mozambique but on routes that LAM does not currently serve with nonstop service. These are airlines with which LAM has existing codeshare agreements such as South African Airways, Ethiopian, and Kenya Airways. Also, SAA and Airlink have a number of secondary connections within Mozambique.

Surface transport to/from and within Mozambique is still a viable alternative for certain passengers on some routes. At present, surface transport carries more passengers than air transport. It is constrained by infrastructure quality and distance, with bus travel being viable only on shorter routes where there are sufficiently high quality roads. The presence of an international quality highway between Maputo and Johannesburg allows bus travel to be a viable and popular mode of transport between the two cities. However, the lack of quality highways north of Maputo means that many distant domestic destinations remain best served by air transport.

REGIONAL AND DOMESTIC AIR FARES IN MOZAMBIQUE

Regional air fares are higher in Mozambique than in other regional destinations because of limited connectivity and regulated offers. For most of these markets, competitive conditions assure travelers from South Africa cheaper fares than when flying to Maputo. Maputo is still a restricted market, where capacity is controlled as a matter of protective policy. Nathan conducted a research to see the price difference between regional air fares departing from Mozambique and other comparable countries in the region. Based on a sample of regional air fares in Mozambique and South Africa, we observed that, on average, regional air fares departing from Mozambique (in US$ per mile) are 3.7 percent higher than regional routes departing from South Africa. If the Maputo-Johannesburg is not considered, on average, regional air fares departing from Mozambique (in US$ per mile) are 6.7

[19] On May 6, 2013, BA Comair started operations in the Johannesburg to Maputo route.

percent higher than regional routes departing from South Africa. The Maputo-Johannesburg, in terms of average price per mile, is 164.4 percent higher than the regional air fares departing from Mozambique not considering MPM-JHB. See Exhibit 4-8 and 4-9 for more details.

Tickets issued in Maputo for the Maputo–Johannesburg route are slightly cheaper than when issued in Johannesburg. The lower cost is due to lower demand in Mozambique for travel to South Africa; local residents do not have purchasing power. Fares from Maputo to other destinations, such as Harare, Nairobi, and Luanda, are about 6 percent higher than same destinations from Johannesburg. The reduced offer in these segments pushes air fares up. See Exhibit 4-8 and 4-9 for more details.

EXHIBIT 4-8

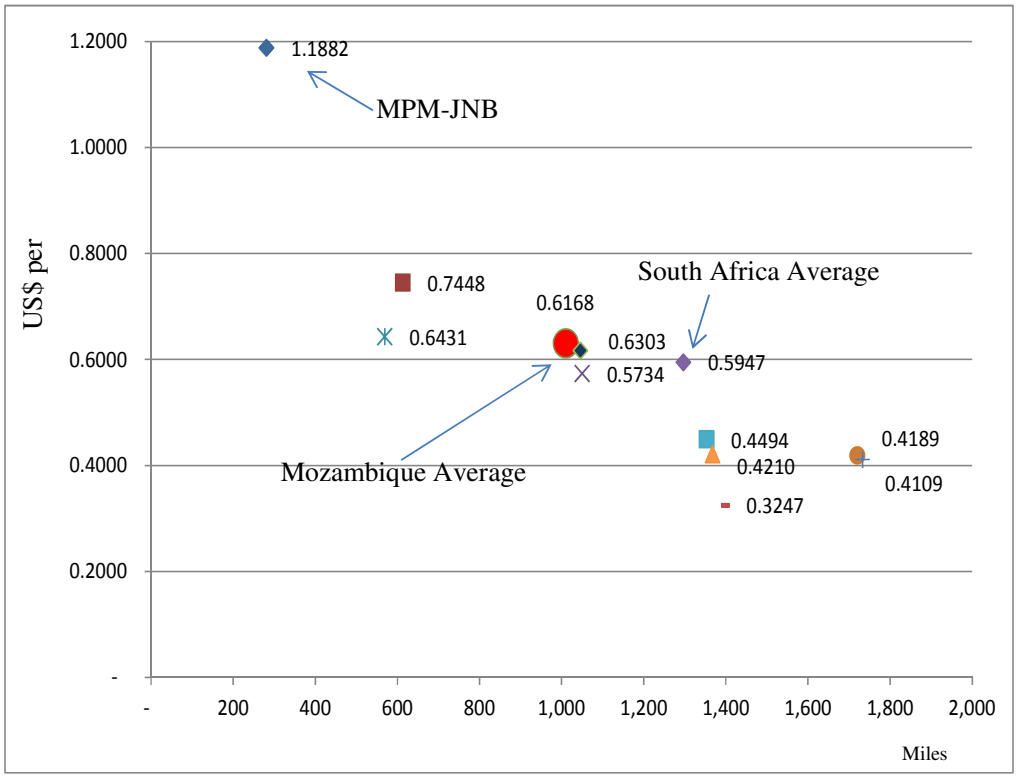
Sample of Regional Air Fares from Mozambique

Air Carrier	Origin	Destination	Air Fare Local $	Exchange Rate	Air fare $USD	Distance Miles	$USD/Mile	Compared to Avg
LAM	Maputo	Johannesburg	9,933	29.75	333.88	281	1.1882	192.6%
LAM	Beira	Johannesburg	13,583	29.75	456.57	613	0.7448	120.8%
LAM	Maputo	Cape Town	18,939	29.75	636.61	1,010	0.6303	102.2%
LAM	Nampula	Johannesburg	17,911	29.75	602.05	1,050	0.5734	93.0%
LAM	Maputo	Harare	10,887	29.75	365.95	569	0.6431	104.3%
LAM	Maputo	Nairobi	21,435	29.75	720.50	1,720	0.4189	67.9%
LAM	Maputo	Luanda	21,187	29.75	712.17	1,733	0.4109	66.6%
LAM	Maputo	Dar es Salaam	13,429	29.75	451.39	1,390	0.3247	52.6%
Average Regional Fares from Mozambique						**1,046**	**0.6168**	100.0%
Average Regional Fares from South Africa						1,296	0.5947	96.4%
Average Regional Fares from Mozambique (Not including MPM-JNB)						1,353	0.4494	72.9%
Average Regional Fares from South Africa (Not including JNB-MPM)						1,368	0.4210	68.2%

Source: Nathan direct research

EXHIBIT 4-9

Sample of Regional Air Fares from Mozambique (Graph)



Source: Nathan direct research

The average air fare between Johannesburg and Maputo is one of the highest in the region. This is more than two times the price per mile compared to a sample of similar routes in the region. From this, it is evident that South African Airways and LAM, far from establishing fair competition, have managed to keep prices as high as possible through an informal agreement in a market dominated by business travelers with very low price elasticity. This situation is preventing access by non-business travelers from South Africa to the tourism market in Mozambique at reasonable prices. [20]

Domestic fares for travel in Mozambique are high because of the limited offer of services and the weak position of domestic operators given average tariffs for domestic routes, which are higher than in South Africa.

Domestic fares in South Africa are significantly lower than in Mozambique because South Africa's mature market provides economies of scale that keep costs low and its deregulated environment does not control prices.

Nathan conducted desk research to see the price difference between domestic air fares in other comparable markets. Based on a sample of domestic air fares in Mozambique, India, South Africa, Kenya and Tanzania, we observed that, on average, domestic fares in Mozambique (in US$ per mile) are 27.4 percent higher than Tanzania; 33.5 percent higher than in South Africa; and 46.5 percent higher than in India.

Domestic fares in Mozambique (in US$ per mile) are equivalent to those observed in Kenya. However; it is important to highlight that air travel distances within Kenya are significantly shorter[21] than in Mozambique so the airport and other fixed costs push the average cost per mile up. See Exhibit 4-10 and 4-11 for more details.

EXHIBIT 4-10

Sample of Domestic Air Fares from Mozambique

Air carrier	Origin	Destination	Air Fare Local $	Exchange Rate	Air fare $USD	Distance Miles	$USD/Mile	Compared to Avg
LAM	Maputo	Beira	10,186	29.75	342.39	445	0.7694	137.3%
LAM	Maputo	Nampula	13,158	29.75	442.29	862	0.5131	91.6%
LAM	Maputo	Pemba	15,504	29.75	521.14	1,032	0.5050	90.1%
LAM	Maputo	Tete	9,162	29.75	307.97	678	0.4542	81.1%
Average Domestic Fares in Mozambique						**754**	**0.5604**	100.0%
Average Domestic Fares in South Africa						530	0.4225	75.4%
Average Domestic Fares in Tanzania						349	0.4398	78.5%
Average Domestic Fares in India						622	0.3825	68.3%

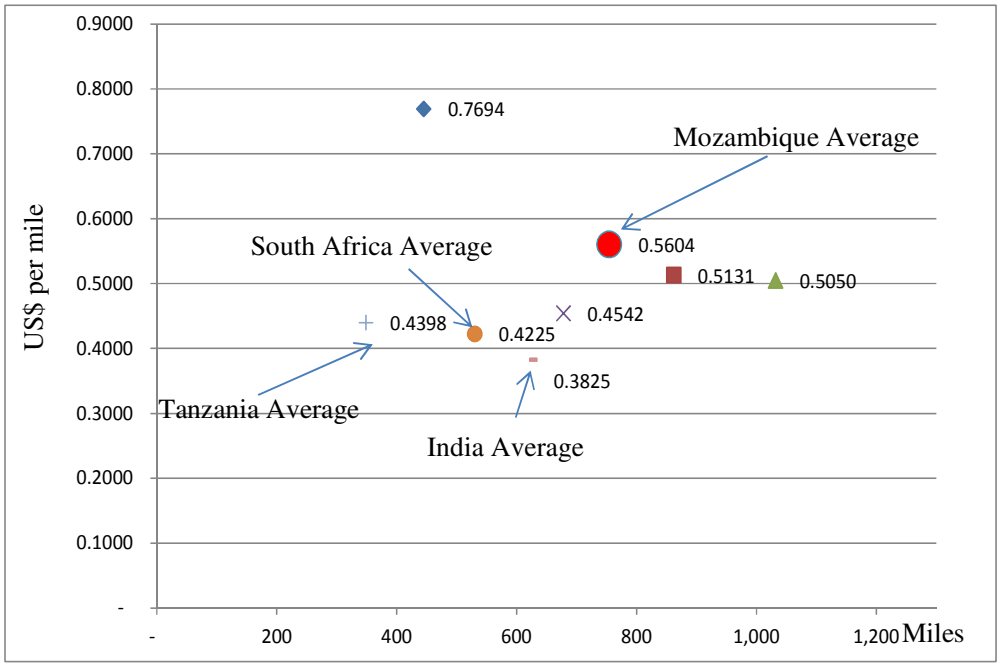
Source: Nathan direct research

[20] The Competition Commission has to oversee the level of fees in this city pair to avoid unhealthy pricing practices.

[21] Nairobi-Mombasa has only 274 miles (Airfare is USD 164 and USD/mile is 0.5985) compared to the 754 miles average distance of the Mozambique sample.

EXHIBIT 4-11

Sample of Domestic Air Fares from Mozambique (Graph)



Source: Nathan direct research

On May 6, 2013, BA Comair, the South African subsidiary of British Airways, started operations on the Johannesburg to Maputo route, with 9 weekly frequencies using a B377. The service includes daily return flights with a double daily service on Tuesdays and Saturdays between Johannesburg ORTIA and Maputo using a Boeing 737-400.

As expected, this has forced South African Airways and LAM to reduce air fares to match the incumbent low-prices. Although we have not kept a detailed record of the pricing history since that date, we have noticed a 15 percent average fare drop from about US$ 490 round trip to about US$ 420 in the case of SSA and to US$ 334 in the case of LAM.

EXHIBIT 4-12

New BA Comair Service

BA6255 JNB 09:00– 1005MPM	BA6257 JNB1340-1445MPM
BA6256 MPM 1050-1200JNB	BA6258 MPM1530-1640JNB

5. THE TOURISM SECTOR IN MOZAMBIQUE

Mozambique is among the most attractive destinations for tourism in the region with a variety of natural and cultural resources. Mozambique has the potential to become an important tourism destination for regional and international tourists. The possibility to combine high quality beach experiences in Africa with excellent opportunities for eco-tourism offered by the diversity of flora and fauna, as well as a rich history and culture, offers an excellent base upon which to build a sustainable tourism destination. However, for different reasons, this sector has not developed its real potential.

The growth of tourism in Mozambique depends on an efficient, reliable, and affordable air transport sector, as well as on the long-term plan that requires integrated planning, investment, strategic alliances, and strategic management, but more important on the possibility to offer a quality product at a competitive price.

International arrivals to Mozambique (all modes) were around 1,830,000 in 2012 (WTTC-2013), and the tourism industry includes some 14,400 beds (DINATUR 2006) in accommodation throughout the country. Direct contribution of Travel & Tourism (T&T) to GDP is estimated at 2.97 percent, that is to say, around MZN 8.5 billion (US$ 290 million). The industry has a contribution of around 255,000 direct employees and 620,900 total employees[22]. (WTTC-2013). In terms of travel and tourism's total contribution to GDP (relative to size), Mozambique ranks 115 out of 184 countries by the World Travel & Tourism Council. See Exhibit 5-1.

Maputo possesses about half of the country's hotel accommodations. It is slow and expensive to access land for new hotel developments. Air access is limited, with only one direct connection to Portugal other than regional services to Johannesburg, Dar es Salaam, Harare, and Nairobi, Addis and Doha. Air fares are high and domestic air transport is limited and unreliable.

The prime tourism leisure flows are road tourists coming from South Africa. There are small numbers coming through airports such as Maputo, Nampula, Tete, and Pemba airports.

A major growth in Mozambique's tourism sector implies an increase of tourists and visitors arriving by air. Currently, tourism coming from South Africa and Zimbabwe to the southern regions of Mozambique is dominated by visitors coming by road using their own car. However, when the conditions are appropriate, the number of tourists and visitors arriving by air to the mid and northern regions of Mozambique has to become the major part of leisure tourism for the numbers in Mozambique to grow to substantial levels.

[22] Total contribution to employment, is the number of jobs generated directly (direct employees) in the travel and tourism industry plus the indirect and induced impacts.

EXHIBIT 5-1

Direct contribution of Travel and Tourism in Mozambique

Concept	2008	2009	2010	2011	2012
International Arrivals (000) all Modes	1,815,000	1,663,000	1,744,000	1,811,000	1,830,000
Direct Contribution of T&T to GDP (Nominal MZN bn)	7.8	8.9	8.9	10.9	12.3
Total Contribution of T&T to GDP (Nominal MZN bn)	18.2	20.7	21.2	26.2	29.5
Direct Contribution of T&T as a % of GDP	3.25%	3.34%	2.83%	2.98%	2.97%

Source: WTTC Mozambique 2013 and other sources

The demand for Mozambique's tourism products exists both in neighboring countries (e.g. South Africa), and in the long-haul international markets (mostly Europe). The real issue is how well and how competitively Mozambique can develop the supply of products to sell into these markets.

The Mozambique "Tourist Integrated Product" (Air Travel, Accommodation, Food, Attraction, emergency services, and safety) has to be as good and as price-competitive as those in other regional destinations (South Africa, Mauritius, Maldives, etc.).

The current state of the tourism market in Mozambique can be summarized as follows:

- Huge potential development, based on a variety of natural and cultural attractions.
- Generally high rates (airfare and accommodation) especially when adjusted for quality.
- Unreliable air travel within the domestic network.
- Friendly people but weak service culture.
- High concentration in Maputo.
- No clear Tourism Development Master Plan.
- No integrated strategy with the Ministry of Transport.
- Weak support infrastructure (Roads, hospitals, emergency and rescue, etc).
- Weak consular services for obtaining visas.
- Weak security / police harassment.
- Lack of public information, creating uncertainty for investors.
- Limited incentives for foreign investment.

6. THE PROPOSED CHANGE

The civil aviation international market in Mozambique is constrained by the government's policy of protecting LAM. Therefore, international connectivity is rather poor, limiting access to the country and conditioning the offer and prices. In spite of protection, however, LAM is not developing properly the international market. With the international market underdeveloped, the domestic market does not get the international inflow required to support profitable operations.

Mozambique's civil aviation market does not generate the critical mass to make domestic air transport operations profitable, so the market remains underserved, unreliable, and expensive.

An increase in international traffic could provide economies of scale to maintain domestic routes and strengthen the financial capability of private sector local carriers, allowing for better services in the domestic market.

The main concern for foreign travelers in Mozambique is reliability. Most tourists and visitors arriving by air to Mozambique are consumers of mid and high value tourism products. At present, most tourists and visitors using air transport are business people and they are not very sensitive to prices but quality and reliability. The number of foreign visitors is also constrained by the limited offer of flights and the lack of services convenient enough to avoid lengthy connections. International visitors also demand suitable accommodation and hotel rooms. At present, accommodation capacity is limited and prices are high.

Foreign visitors traveling in domestic flights are not particularly price sensitive, so price is not the main relevant driver of traffic development. However, on the other hand, South Africans consider Mozambique a tourist destination because of its convenience and its affordability, been substantially more price sensitive than international travelers.

Currently, Mozambicans using air transportation are generally civil servants or company employees and they are no very sensitive to prices but quality. In contrasts, Mozambicans traveling for leisure or visiting family and friends (VFF) are extremely price sensitive because they have much less purchasing power than foreign and business travelers. The large majority of Mozambicans travel by road which is significantly cheaper.

Foreign traffic in international travel is driven mainly by offer, but is sensitive to the development of domestic traffic. The level of development of domestic traffic sets the demand for foreign travelers arriving in Mozambique.

In 2006, Nathan Associates proposed several institutional, regulatory, and operational changes to liberalize the civil aviation market in Mozambique. In our opinion, these recommendations are still valid.

THE REGULATORY AND INSTITUTIONAL CHANGE

The consultant proposes to apply an institutional framework that strictly separates the functions of policymaking, operations, technical regulation, and investigation.

- Policymaker. The Ministry of Transport and Communications should make policy, including bilateral agreements, tariff regulation, and market/route access.
- Technical Regulator. IACM should ensure observance of air transport safety standards. These standards emanate from local laws and the norms and recommendations of the 18 Annexes to the Chicago Convention (1944) of the International Civil Aviation Organization.

- Operations. The sector's three operational components: airport infrastructure, air traffic control services, and the airlines should be handled by separate entities not controlled directly by the government.
- Accident Investigation. Aviation accidents and incidents should be investigated by a fully independent body.
- Economic Regulator. A technically capable independent antitrust commission is required to regulate monopolistic practices and encourage competition. Such an entity is envisioned under the recently passed Competition Law.

Liberalization requires effective regulation of the government to ensure that market forces operate effectively and that rules are followed in the provision of air transport.

THE OPERATIONAL CHANGE

Liberalization will open new connection alternatives within and to points outside the region. Alternatives mean competition, price reductions, and better services. The introduction of low-cost carriers in international routes is possible only under a deregulated scheme of competition free of price controls. Mozambique offers unique opportunities for South African tourists, who are within flight distances of less than three hours. Such a market is ideal for low-cost carriers. Such carriers would boost air traffic, replacing road transportation in longer routes while expanding the whole market substantially.

Following the accords of the YD, Mozambique should negotiate Fifth Freedom rights with other countries in the region. For example, LAM or TAP could fly from Maputo to Lisbon and enjoy traffic rights between those two cities and Luanda. Foreign carriers could eventually connect Maputo and Johannesburg while serving both cities from points beyond the region.

The logic behind liberalization is the creation of competition between air service providers, which will induce lower air fares and better air services. This will produce traffic growth and economic development. The evidence suggests that the market responds to improved and more affordable service.

Liberalizing the civil aviation market in Mozambique will induce competition and new airline entrance into it. This will push prices down, while pushing level of service and reliability up, which will generate the credibility and certainty to major foreign investors to reinitiate long term investments in the tourism industry in Mozambique. Working together, the aviation sector and tourism sector improvements will generate a more competitive product and will induce a significant increase in the inflow of foreign travelers. Consequently, an increase in international travelers entering Mozambique will reinforce the domestic system, making it more reliable and efficient. This will attract more tourists, strengthening the domestic network even further.

Exhibit 6-1

The Air Service Liberalization and Economic Development Logic

Source: Nathan own experience

Liberalization of traffic rights will boost the offer, improve service and efficiency, lower prices, and improve tourists' general experience. The rise in foreign traffic will allow local carriers to better serve domestic routes, while strengthening their financial situation.

The tourism sector requires a reliable network of air travel to ensure a constant inflow of users. Tourism will in turn bring more traffic, allowing for the coexistence of various carriers serving international and domestic markets.

The proposed Liberalization strategy does not involve the participation of foreign carriers in domestic routes. While competition in the international market will increase, all foreign carriers will still depend on the domestic distribution of that foreign traffic by Mozambican airlines.

LAM'S PATH TO FULL COMPETITIVENESS

Under the new proposed policy and market conditions, LAM will need to build its ability to meet the competitive challenges and take advantage of the opportunities of an unprotected and liberalized fast-growing market. It will need to develop a new business model that positions it under the new scheme of liberalized competition. It will develop its own skills so it will no longer require government protection. Thus, the new business plan will involve reallocation of resources, a marketing strategy, and a comprehensive capacity-building program. The rules of the government should be substituted by the rules of the market. Employees should be compensated under private sector parameters.

The new LAM's business model should involve implementing alternatives for private sector participation in the form of a strategic partnership and a change in ownership structure. Alternative, LAM would also consider a management contract to provide the competitiveness required without the implications of a change in ownership structure.

In our opinion, LAM's current top management is capable enough to compete successfully in a real open market arena; they only need to substitute the government rules for the efficient market rules.

Exhibit 6-2 shows relevant parameters or indictors of the stage/level of liberalization of the civil aviation market in Mozambique compared with other developing countries that are in the process of liberalizing their markets. Note the correlation between the stage of the liberalization process and the evidence of economic development.

EXHIBIT 6-2

Comparative Market Analysis

Parameter	India	Kenya	Tanzania	Mozambique
Civil Aviation Sector Institutional and Regulatory Environment: Separation between Policy, Operations and Regulation	Clear separation	Clear separation	In Transition	No Effective Separation
Economic Regulation	Effective independent regulatory entity	Independent regulatory entity	Independent regulatory entity	No functional independent regulatory entity
Provision of Aviation Services (Airlines)	More than Five with a market share lower than 25%	Concentrated but some new participants appearing	Concentrated but some new participants appearing	Highly Concentrated and Protected
Airline Ownership and Operations	Mainly Private Sector	PPP	PPP	Government
Provision of Airport Services	PPP/Government in charge of smaller airports	PPP	PPP	Government
Ground Handling	Several Participants	Concentrated	Concentrated	Concentrated
Domestic and regional Airfares	Low Successful entrance of LCC	Mid-High	Mid-High	High
General Demand for air travel services. (Passengers arriving or departing per 1000 habitants)	Mid 104 Passengers per 1,000 habitants in Yr2010 from 25 in Yr2000	Mid 204 Passengers per 1,000 habitants in Yr2012 from 143 in Yr2000	Low 62 Passengers per 1,000 habitants in 2012 from 26 in in YR2000	Low 74 Passengers per 1,000 habitants in YR2012 from 44 in YR2000
Current Pax Profile	Business and Leisure (60/40?)	Business and Leisure (70/30)	Business and Leisure (75/25)	Mostly Business (80/20 at most)
Historical traffic growth vs GDP growth (2000-2012)	>2.50X. The domestic market have 20% CAGR during the last 10 years	1.44X	1.45X	0.97X
Airport Infrastructure	Insufficient due to last decade domestic market boom. But developing very fast under PPP arrangements	Airports require moderate investment	Airports require substantial investment	Maputo recently expanded and modernized. Other airports require substantial investment
Tourism Sector (Source WTO/IMF/WTTC))	Developing Rapidly	Developing at a moderated rate	Developing slowly	Undeveloped

Source: Nathan own research

7. THE NEW LIBERALIZED MARKET OUTLOOK

Based on the previous discussion, we have developed several traffic forecast scenarios. This will be one of the foundations to estimate the economic impact of further liberalization in the civil aviation market.

We developed 15-year growth scenarios, some linked to GDP growth and others linked to population growth with very strong econometric results.

The main assumptions of our traffic scenarios are the following:

- Mozambique will sustain significant economic growth and, in general, healthy macroeconomic indicators. Mozambique is among the most attractive destinations for tourism in the region with a variety of natural attractions.
- Significant growing demand for air transport services due to the rapid emergence of large enterprises, Foreign Direct Investments (FDI) and emerging growth directly in the Mozambican economy and sub-Saharan Africa.
- In the Base Case Scenario, traffic growth is assumed to be driven by traffic growth at Maputo as well as new air services and flight frequencies at medium sized airports. Passenger traffic at ADM will be projected with the country's historical Traffic-GDP elasticity of 0.97X.
- In the proposed new liberalized air travel scenario traffic forecast we have assumed the following fundamental changes:
  - ✓ The government of Mozambique achieves a clear and effective separation from policy making, operations, and regulation.
  - ✓ The government of Mozambique yields partial control of LAM and eliminates protectionist strategy.
  - ✓ LAM reaches it full autonomy and gets the required capital investment and technology through a strategic partnership with an international operator.
  - ✓ Subsidy to non-profitable routes is granted publicly in open bidding auctions.
  - ✓ ADM promotes the expansion and modernization of its top 5 airports through a public private partnership mechanism. All airports comply with safety and security international standards.
  - ✓ The independence and increased capabilities of IACM as regulations are enhanced.
  - ✓ The government, as policymaker (not LAM), promotes and negotiates more liberalized BASAs with neighboring countries, including more relaxed operational and ownership restrictions, and with a serious intent to grant general Fifth Freedom within the region.
  - ✓ The tourism sector contributes to its part of the equation providing a real quality product at reasonable prices. Reforms in the aviation sector will give the international investor in the tourism sector the incentives to make the required long term investments, with the Ministry of Tourism facilitating and guiding the process.

A major element of a more developed air transportation system is an increased ability to support and attract international travel to Mozambique. As a result, we have identified six airports as the primary regional airports and the focus of short-term development. These airports include Maputo International Airport (MPM), Nampula International Airport (APL), Beira International Airport (BEW), Pemba International Airport (POL), and Tete International Airport (TET), as well as the

Nacala Military airport, which has been converted to civilian use to facilitate long-haul air travel between Europe and the Cabo Delgado provinces in northern Mozambique.

Based on the above assumptions, Nathan developed 15-year traffic forecasts for the Top-5 airports in Mozambique independently, and for the entire system. IATA forecasts that passenger air travel within/to/from Mozambique will grow approximately 5.9 percent annually through 2015.

Boeing, in its 2012 Market Outlook for the region, has forecasted a 5.6 percent long term growth rate for the region.

In Nathan's long-term forecast "business as usual" scenario, total traffic for all ADM airports is expected to grow from 1,675,948 total passengers in 2012 to 4,434,111 total passengers in 2027, representing a 6.7 percent CAGR, slightly higher than the average growth rate forecasted by Boeing and IATA.

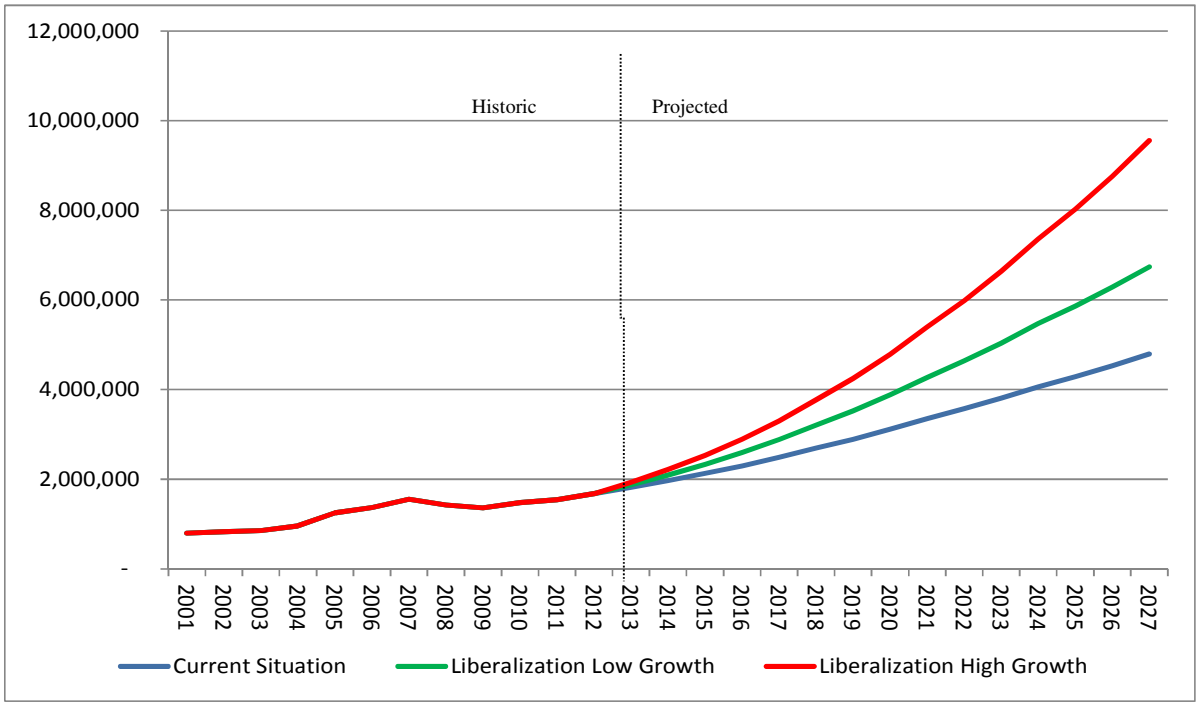
Nathan created two scenarios considering further air travel liberalization in Mozambique. A low-growth scenario, considering a Traffic-GDP growth elasticity of 1.4X, similar to the elasticity experienced in countries like Kenya and Tanzania, and a high growth scenario considering a Traffic-GDP growth elasticity of 1.8X. This more optimistic scenario should be compared to a more advanced liberalization case like India, where the reforms have induced a Traffic-GDP growth elasticity of more than 2.5X during the last 10-12 years.

In Nathan's long-term forecast "liberalized low growth" scenario, total traffic for all ADM airports is expected to grow from 1,675,948 total passengers in 2012 to 6,738,556 total passengers in 2027, representing a 9.7 percent CAGR. In Nathan's long-term forecast "liberalized high growth" scenario, total traffic for all ADM airports is expected to grow from 1,675,948 total passengers in 2012 to 9,553,150 total passengers in 2027, representing a 12.3 percent CAGR. These scenarios are significantly higher than the average growth rate forecasted in the base case "business as usual" scenario. It is important to mention that, in addition to the air transport liberalization reforms, in both cases it is assumed relevant transformation of the tourism sector in Mozambique.

A summary of Nathan's traffic forecasts for ADM airports is presented in Figure 7-1. Traffic forecast econometric results are presented in Appendix A.

EXHIBIT 7-1

Nathan's preliminary ADM long term traffic forecast based on GDP and population growth (number of arriving or departing passengers)



Source: Nathan forecast based on ADM traffic statistics and IMF GDP and population statistics and short term forecast.

8. ASSESSMENT OF THE ECONOMIC IMPACT OF AIR TRANSPORT LIBERALIZATION

There is strong evidence around the world that air travel liberalization has important benefits for the tourism sector and the entire economy of a country. Numerous studies have suggested that large traffic and growth expansion would result from a reduction in the barriers to entry into the Mozambican air transport market.

A study prepared by InterVISTAS concluded that traffic growth subsequent to liberalization of air service agreements between countries typically averaged between 12 percent and 35 percent, significantly greater than during years preceding liberalization. In a number of situations, traffic growth was at rates exceeding 50 percent and in some cases reached almost 100 percent of the pre-liberalization rates.

The Single European Aviation Market resulted in the generation of an incremental 44 million passengers, an increase in post-liberalization years of over 33 percent as contrasted with historical Intra-European market growth of between 4 percent and 6 percent per annum. The additional traffic required an additional 681 daily return flights. The traffic expansion spurred development of both the travel/tourism sector and other industries. The liberalization resulted in the creation of 1.4 million full-time jobs and a GDP increment of US$ 85 billion in Europe.

As part of its "Key Conclusions and Recommendations," IATA highlighted that further liberalization can provide substantial consumer benefits. Further operational and ownership liberalization can protect and enhance consumer benefits in terms of greater choice and lower fares, which has already been shown by liberalization in the airline industry. It can also widen and expand these consumer benefits to new regions and routes that currently have highly regulated markets. Therefore, it can continue to provide benefits for airline users, while also providing significant benefits for the wider economy. [IATA Economics Briefing No. 07]

THE WTTC METHODOLOGY.

The World Travel & Tourism Council (WTTC) has been investing in economic impact research for over 20 years. This research assesses the Travel & Tourism industry's contribution to GDP and jobs for 184 countries and 24 regions and economic groups in the world, including Mozambique.

Travel and tourism is an important economic activity in most countries around the world. As well as its direct economic impact, the industry has significant indirect and induced impacts. The UN Statistics Division-approved Tourism Satellite Accounting methodology (TSA:RMF 2008) quantifies only the direct contribution of travel and tourism. However, WTTC recognizes that travel and tourism's total contribution is much greater, and aims to capture its indirect and induced impacts through its annual research.

DIRECT CONTRIBUTION

The direct contribution of Travel & Tourism to GDP reflects the 'internal' spending on Travel & Tourism (total spending within a particular country on Travel & Tourism by residents and non-residents for business and leisure purposes) as well as government 'individual' spending - spending by government on Travel & Tourism services directly linked to visitors, such as cultural (e.g. museums) or recreational (e.g. national parks).

Visitors Exports is the spending by foreign tourists and visitors for business and leisure trips within the country including spending in transport.

The direct contribution of Travel & Tourism to GDP is calculated to be consistent with the output, as expressed in national accounting, of tourism-characteristic sectors such as hotels, airlines, airports, travel agents, and leisure and recreation services that deal directly with tourists. The direct contribution of Travel & Tourism to GDP is calculated from total internal spending by 'netting out' the purchases made by the different tourism sectors. This measure is consistent with the definition of Tourism GDP, specified in the 2008 Tourism Satellite Account: Recommended Methodological Framework (TSA: RMF 2008).

TOTAL CONTRIBUTION

The total contribution of Travel & Tourism includes its 'wider impacts' (i.e. the indirect and induced impacts) on the economy.

The 'indirect' contribution includes the GDP and jobs supported by: i)Travel & Tourism investment spending – an important aspect of both current and future activity that includes investment activity such as the purchase of new aircraft and construction of new hotels; ii) Government 'collective' spending, which helps travel and tourism activity in many different ways as it is made on behalf of the 'community at large' – e.g. tourism marketing and promotion, aviation, administration, security services, resort area security services, resort area sanitation services, etc.; and iii) Domestic purchases of goods and services by the sectors dealing directly with tourists - including, for example, purchases of food and cleaning services by hotels, of fuel and catering services by airlines, and IT services by travel agents.

The 'induced' contribution measures the GDP and jobs supported by the spending of those who are directly or indirectly employed by the travel and tourism industry.

Exhibit 8-1 presents the last five years travel and tourism economic impact in Mozambique.

EXHIBIT 8-1

Travel & Tourism Historical Economic Impact in Mozambique (All modes of transportation)

Concept (All figures MZN bn Nominal Prices, except when other units are specified)	2008	2009	2010	2011	2012
Total Passengers Arriving or Departing (000 airport pax)	1,419	1,358	1,475	1,537	1,676
International Passengers Arriving or Departing (000 airport pax)	425	411	478	580	633
International Arrivals all Modes (000 of visitors)	1,815	1,663	1,744	1,811	1,830
International Arrivals by Air (000 of visitors)	213	205	239	290	316
Visitors Exports (a)	5.1	5.9	7.8	7.8	8.5
Domestic Expenditure (b)	8.4	9.3	7.6	10.6	12.1
Internal Tourism Consumption (c=a+b)	13.5	15.2	15.4	18.4	20.6
Purchases by Tourism Provides, including imports (d)	5.7	6.3	6.5	7.5	8.3
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**7.8**	**8.9**	**8.9**	**10.9**	**12.3**
Other Final Impacts Domestic supply chain (f)	4.7	5.3	5.3	6.5	7.3
Capital Investment (g)	2.1	2.5	3.0	3.7	4.0
Government Collective Spending (h)	0.6	0.7	0.9	1.1	1.2
Imported Goods from Indirect Spending (i)	0.4	0.5	0.7	0.8	0.8
Induced (j)	3.4	3.8	3.8	4.8	5.5
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**18.2**	**20.7**	**21.2**	**26.2**	**29.5**
Basic Ratios					
Visitors Exports/Per visitor (USD)	96.9	122.3	154.2	148.5	160.2
Direct Contribution of T&T to GDP/Per visitor (USD)	148.2	184.4	176.0	207.5	231.8
Total Contribution of T&T to GDP/Per visitor (USD)	345.8	429.2	419.2	498.9	555.9
Nominal GDP (IMF)	240.4	266.2	315.0	365.3	414.4
Direct Contribution of T&T as percentage of GDP (%)	3.25	3.34	2.83	2.98	2.97

Source: Nathan estimations based on WT&TC Economic Impact Assessment 2013 and ADM statistics.

THE NATHAN ASSUMPTIONS.

Nathan considers the methodology and assumptions utilized by the Council to be sound and valid. However, we have to consider that the assessment of the council includes visitors in general, that is, visitors and tourists arriving to Mozambique in all modes of transportation. According to our estimations based on ADM and WT&T statistics, only 17 percent of international visitors and tourists in Mozambique arrive by air, which is equivalent to 316,472 international visitors arriving by air in 2012. But most importantly, according to our experience, the profile in terms of length stay and spending per day is totally different for a regional visitor arriving by car[23] than for an international visitor or tourist arriving by air. The 2012 average Direct Contribution of Travel & Tourism/per visitor (all modes of transportation) in the world was US$ 2,056 per

[23] The topical profile of this type of visitor is a family staying in its own house or in a budget hotel and carrying must part of its food in its trunk. That is why the average spending per visitor is so low compared international standards.

visitor compared with US$ 232 per visitor (all modes of transportation) in Mozambique. In the Liberalization Low-Growth and High- Growth Scenarios, Nathan estimation for the average Direct Contribution of Travel & Tourism for the air travel segment in Mozambique was US$ 579 per visitor for 2013 (see Exhibits 8-1, 8-2, and 8-3). This figure is 2.5 time higher than the average direct contribution for all modes of transportation in Mozambique, but it is still 3.5 times lower than the average in the world for all modes of transportation (probably 4-5 lower if we consider the niche of air travelers in the world). In addition, this figure was escalated by Nathan to an average of US$ 649 (2.6X) in year 2017 and to US$ 695 (3.0X) in year 2022 in real terms. In the absences of more detailed statistics in the tourism sector of Mozambique, we think that this is a reasonable (and conservative) assumption to be able to estimate the potential economic benefits of further liberalization of the air transport sector in Mozambique. In the same way, Total Contribution of Travel & Tourism/per visitor in the world (all modes of transportation) was US$ 6,630 per visitor compared with US$ 556 per visitor (all modes of transportation) in Mozambique. Nathan estimation for the average Total Contribution of Travel & Tourism for the air travel segment in Mozambique was US$ 1,390 per visitor for 2013. This figure was escalated by Nathan to US$ 1,556 in year 2017 and to US$ 1,668 in year 2022.

In contrast, In the Base Case, Nathan estimation for the average Direct Contribution of Travel & Tourism for the air travel segment in Mozambique was US$ 464 per visitor for 2013 and Total Contribution of Travel & for the air travel segment in Mozambique was US$ 1,112 per visitor for 2013, these figure are assumed to be lower the in the case of the more advances stage of liberalization scenarios. All figures mentioned are in 2012 constant prices. Exhibit 8-2 presents, as a benchmark, different concepts of tourism and travel contributions to GDP per visitor in relevant countries.

EXHIBIT 8-2

WT&TC Travel & Tourism Historical Economic Impact in relevant countries, figures in USD per visitor

Concept	World	Kenya	Tanzania	Mozambique	Mozambique
USD/Visitor	All Modes 2012	All Modes 2012	All Modes 2012	All Modes 2012	Arrivals by Air 2013 Projected
Visitors Exports	1,243	1,238	2,022	160	400
Direct Contribution	2,056	1,321	1,741	232	579
Total Contribution	6,630	3,292	4,788	556	1,390

Source: Nathan estimation based on WT&TC and other sources. The Kenya and Tanzania number of arrivals by air are very similar to the number of arrivals by all modes.

In addition, Nathan independently estimated the expected investment in new hotel room per year. These calculations were based on the number of additional visitors per year; the average number of nights per stay (3 nights); the average number of guest per room (1.5); the occupation factor (varying from 85 percent to 75 percent); the average cost per room (4-5 stars US$100,000); and other non-hotel room required investments (1.8X).

Direct Employment was projected at a rate of one direct worker per every 7.2 visitors and Total Employment of at a rate of 1 total worker per every 2.9 visitors. These projecting parameters were estimated from the WT&TC statics for 2012.

Nathan adjustments to the multipliers/parameters applied by the council are presented in Exhibit 8-3.

EXHIBIT 8-3

Nathan adjustments to the WT&TC Travel & Tourism Historical Economic Impact in Mozambique, assumptions per visitor

Contributions of Travel and Tourism to GDP/per visitor All figures in USD (Real Prices 2012)	WTTC World Visitors all Modes	WTTC Mozambique Visitors all Modes	Nathan Assumptions Mozambique Visitors and Tourist Arrivals by Air		
	2012	2012	2013	2017	2027
Visitors Exports (a)	1,242.9	160.2	400.4	448.5	480.5
Domestic Expenditure (b)	2,995.6	228.0	570.0	638.4	684.0
Internal Tourism Consumption (c = a+b)	4,238.5	388.2	970.4	1,086.9	1,164.5
Purchases by Tourism Provides, including imported goods (d)	2,182.7	156.4	391.0	437.9	469.2
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2,055.8**	**231.8**	**579.4**	**649.0**	**695.3**
Other Final Impacts Domestic supply chain (f)	1,901.8	137.6	343.9	385.2	412.7
Capital Investment (g)	764.9	75.4	188.4	211.0	75.4
Government Collective Spending (h)	418.9	22.6	56.5	63.3	22.6
Imported Goods from Indirect Spending (i)	284.0	15.1	37.7	42.2	15.1
Induced (j)	1,203.9	103.6	259.1	290.2	310.9
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**6,629.2**	**555.9**	**1,389.7**	**1,556.4**	**1,667.6**

Source: Nathan estimations based on WT&TC Economic Impact Assessment 2013

THE NATHAN RESULTS.

Based on the WT&TC methodology and Nathan's traffic forecast scenarios, we projected the economic impact of the proposed reform. As mentioned before, Nathan's projection scenarios include some slight adjustments to the WT&TC historic parameters to incorporate some of the air market liberalization assumptions under the proposed scenarios.

The results of our assessment are presented in Exhibits 8-4, 8-5, 8-6, and 8-7.

EXHIBIT 8-4

Base Case Scenario: Estimated Total Contribution of Induced Travel and Tourism to GDP.

Concept (All figures MZN bn 2012 Constant Prices, except when other units are specified)	2012	2013	2014	2015	2016	2017	2022	2027	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air (Number of Visitors and Tourists)	316,472	342,894	370,284	399,997	431,540	465,550	657,487	866,528	9,133,486		6.9%
Visitors Exports (a)	1.5	3.2	3.4	3.7	4.0	4.3	6.1	8.0	83.4	40.7	12.0%
Domestic Expenditure (b)	2.1	4.5	4.9	5.3	5.7	6.2	8.7	11.5	118.7	58.0	12.0%
Internal Tourism Consumption (c = a+b)	3.6	7.7	8.3	9.0	9.7	10.5	14.8	19.5	202.1	98.7	12.0%
Purchases by Tourism Provides, including imported goods (d)	1.4	3.1	3.4	3.6	3.9	4.2	6.0	7.9	81.4	39.8	12.0%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2.1**	**4.6**	**5.0**	**5.4**	**5.8**	**6.3**	**8.8**	**11.6**	**120.7**	**59.0**	**12.0%**
Other Final Impacts Domestic supply chain (f)	1.3	2.7	3.0	3.2	3.4	3.7	5.2	6.9	71.6	35.0	12.0%
Capital Investment (g)	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.7	21.4	11.0	6.0%
Government Collective Spending (h)	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	6.4	3.3	6.0%
Imported Goods from Indirect Spending (i)	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	4.3	2.2	6.0%
Induced (j)	1.0	2.1	2.2	2.4	2.6	2.8	4.0	5.2	53.9	26.4	12.0%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**5.1**	**11.1**	**11.9**	**12.9**	**13.9**	**15.0**	**21.2**	**25.6**	**269.8**	**138.0**	**11.4%**
Visitors Exports (USD/Visitor)	160.2	320.3	320.3	320.3	320.3	320.3	320.3	320.3			
Direct Contribution of Travel & Tourism to GDP (USD/Visitor)	231.8	463.5	463.5	463.5	463.5	463.5	463.5	463.5			
Total Contribution of Travel & Tourism to GDP (USD/)Visitor)	555.9	1,111.7	1,111.7	1,111.7	1,111.7	1,111.7	1,111.7	1,018.8			
Mozambique GDP bn MZN	164.0	177.7	192.0	207.3	223.5	240.9	337.3	438.7			
Total Contribution of Travel & Tourism to GDP (%)	3.1%	6.2%	6.2%	6.2%	6.2%	6.2%	6.3%	5.8%			
Sector Employment Direct Contribution (Number of jobs)	40,000	43,340	46,802	50,557	54,544	58,843	83,102	109,523			6.9%
Additional Visitors and Tourists (Number of Visitors)		26,422	27,391	29,713	31,542	34,010	38,544	43,653	550,056		
Number of new rooms (5 & 4 Stars)		170	188	204	230	248	282	319	3,970		
Total Hotel Investment (million USD)		17.0	18.8	20.4	23.0	24.8	28	32	397.0		
Total Investment (million USD)		30.7	33.8	36.6	41.5	44.7	51	57	715	386	
Total Investment (MZN)		889,095	979,312	1,062,345	1,202,934	1,297,054	1,469,957	1,664,783	20,722,822	11,183,188	

Source: Nathan estimations based on WT&TC Economic Impact Assessment 2013

EXHIBIT 8-5

Liberalization Low-Growth Scenario: Estimated Total Contribution of Induced Travel and Tourism to GDP Summary.

Concept (All figures MZN bn 2012 Constant Prices, except when other units are specified)	2012	2013	2014	2015	2016	2017	2022	2027	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air (Number of Visitors and Tourists)	316,472	354,148	394,316	439,054	487,792	541,671	867,822	1,256,480	11,679,889		9.6%
Visitors Exports (a)	1.5	4.1	4.6	5.3	6.1	7.0	12.1	17.5	155.8	72.1	18.0%
Domestic Expenditure (b)	2.1	5.9	6.5	7.5	8.7	10.0	17.2	24.9	221.8	102.6	18.0%
Internal Tourism Consumption (c = a+b)	3.6	10.0	11.1	12.9	14.8	17.1	29.3	42.4	377.6	174.6	18.0%
Purchases by Tourism Provides, including imported goods (d)	1.4	4.0	4.5	5.2	6.0	6.9	11.8	17.1	152.1	70.4	18.0%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2.1**	**6.0**	**6.6**	**7.7**	**8.9**	**10.2**	**17.5**	**25.3**	**225.4**	**104.3**	**18.0%**
Other Final Impacts Domestic supply chain (f)	1.3	3.5	3.9	4.6	5.3	6.1	10.4	15.0	133.8	61.9	18.0%
Capital Investment (g)	0.7	1.3	1.4	1.6	1.9	2.1	2.6	3.2	36.2	17.9	10.7%
Government Collective Spending (h)	0.2	0.4	0.4	0.5	0.6	0.6	0.8	1.0	10.9	5.4	10.7%
Imported Goods from Indirect Spending (i)	0.1	0.3	0.3	0.3	0.4	0.4	0.5	0.6	7.2	3.6	10.7%
Induced (j)	1.0	2.7	3.0	3.4	4.0	4.6	7.8	11.3	100.8	46.6	18.0%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**5.1**	**14.3**	**15.9**	**18.4**	**21.2**	**24.4**	**42.0**	**55.2**	**499.8**	**242.2**	**17.2%**
Visitors Exports (USD/Visitor)	160.2	400.4	400.4	416.4	432.4	448.5	480.5	480.5			
Direct Contribution of Travel & Tourism to GDP (USD/Visitor)	231.8	579.4	579.4	602.6	625.8	649.0	695.3	695.3			
Total Contribution of Travel & Tourism to GDP (USD/)Visitor)	555.9	1,389.7	1,389.7	1,445.3	1,500.8	1,556.4	1,667.6	1,515.0			
Mozambique GDP bn MZN	164.0	177.7	192.0	207.3	223.5	240.9	337.3	438.7			
Total Contribution of Travel & Tourism to GDP (%)	3.1%	8.0%	8.3%	8.9%	9.5%	10.1%	12.4%	12.6%			
Sector Employment Direct Contribution (Number of jobs)	40,000	44,762	49,839	55,494	61,654	68,464	109,687	158,811			9.6%
Additional Visitors and Tourists (Number of Visitors)		37,676	40,168	44,737	48,738	53,879	68,212	83,515	940,008		
Number of new rooms (5 & 4 Stars)		243	275	306	356	394	498	610	6,796		
Total Hotel Investment (million USD)		24.3	27.5	30.6	35.6	39.4	50	61	679.6		
Total Investment (million USD)		43.7	49.5	55.2	64.1	70.9	90	110	1,223	642	
Total Investment (MZN)		1,267,816	1,436,140	1,599,515	1,858,738	2,054,788	2,601,415	3,185,016	35,477,669	18,618,071	

Source: Nathan estimations based on WT&TC Economic Impact Assessment 2013

EXHIBIT 8-6

Liberalization High-Growth Scenario: Estimated Total Contribution of Induced Travel and Tourism to GDP Summary.

Concept (All figures MZN bn 2012 Constant Prices, except when other units are specified)	2012	2013	2014	2015	2016	2017	2022	2027	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air (Number of Visitors and Tourists)	316,472	364,553	417,304	477,690	545,303	622,080	1,125,441	1,793,680	14,872,338		12.3%
Visitors Exports (a)	1.5	4.2	4.8	5.8	6.8	8.1	15.7	25.0	199.9	89.7	20.8%
Domestic Expenditure (b)	2.1	6.0	6.9	8.2	9.7	11.5	22.3	35.6	284.6	127.6	20.8%
Internal Tourism Consumption (c = a+b)	3.6	10.3	11.7	14.0	16.6	19.6	38.0	60.6	484.5	217.3	20.8%
Purchases by Tourism Provides, including imported goods (d)	1.4	4.1	4.7	5.6	6.7	7.9	15.3	24.4	195.2	87.5	20.8%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2.1**	**6.1**	**7.0**	**8.3**	**9.9**	**11.7**	**22.7**	**36.2**	**289.3**	**129.7**	**20.8%**
Other Final Impacts Domestic supply chain (f)	1.3	3.6	4.2	5.0	5.9	6.9	13.5	21.5	171.7	77.0	20.8%
Capital Investment (g)	0.7	1.6	1.9	2.2	2.6	2.9	4.2	5.7	56.5	26.9	15.1%
Government Collective Spending (h)	0.2	0.5	0.6	0.6	0.8	0.9	1.3	1.7	17.0	8.1	15.1%
Imported Goods from Indirect Spending (i)	0.1	0.3	0.4	0.4	0.5	0.6	0.8	1.1	11.3	5.4	15.1%
Induced (j)	1.0	2.7	3.1	3.7	4.4	5.2	10.1	16.2	129.4	58.0	20.8%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**5.1**	**14.7**	**16.8**	**20.0**	**23.7**	**28.1**	**54.4**	**80.1**	**652.6**	**302.2**	**20.1%**
Visitors Exports (USD/Visitor)	160.2	400.4	400.4	416.4	432.4	448.5	480.5	480.5			
Direct Contribution of Travel & Tourism to GDP (USD/Visitor)	231.8	579.4	579.4	602.6	625.8	649.0	695.3	695.3			
Total Contribution of Travel & Tourism to GDP (USD/)Visitor)	555.9	1,389.7	1,389.7	1,445.3	1,500.8	1,556.4	1,667.6	1,538.9			
Mozambique GDP bn MZN	164.0	177.7	192.0	207.3	223.5	240.9	337.3	438.7			
Total Contribution of Travel & Tourism to GDP (%)	3.1%	8.3%	8.8%	9.7%	10.6%	11.7%	16.1%	18.2%			
Sector Employment Direct Contribution (Number of jobs)	40,000	46,077	52,744	60,377	68,923	78,627	142,248	226,709			12.3%
Additional Visitors and Tourists (Number of Visitors)		48,081	52,751	60,386	67,613	76,777	110,232	148,868	1,477,208		
Number of new rooms (5 & 4 Stars)		310	361	414	494	561	805	1,088	10,699		
Total Hotel Investment (million USD)		31.0	36.1	41.4	49.4	56.1	81	109	1,069.9		
Total Investment (million USD)		55.8	65.0	74.4	88.9	101.0	145	196	1,926	980	
Total Investment (MZN)		1,617,923	1,886,038	2,159,003	2,578,572	2,928,042	4,203,911	5,677,372	55,850,871	28,407,540	

Source: Nathan estimations based on WT&TC Economic Impact Assessment 2013.

EXHIBIT 8-7

Estimated Total Contribution of Induced Travel and Tourism to GDP Summary.

Mozambique MZN bn (Real Prices 2012)	Base Case Scenario			Liberalization Low Growth			Liberalization High Growth		
	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air	9,133,486		6.9%	11,679,889		9.6%	14,872,338		12.3%
Visitors Exports (a)	83.4	40.7	12.0%	155.8	72.1	18.0%	199.9	89.7	20.8%
Domestic Expenditure (b)	118.7	58.0	12.0%	221.8	102.6	18.0%	284.6	127.6	20.8%
Internal Tourism Consumption (c = a+b)	202.1	98.7	12.0%	377.6	174.6	18.0%	484.5	217.3	20.8%
Purchases by Tourism Provides, including imported goods (d)	81.4	39.8	12.0%	152.1	70.4	18.0%	195.2	87.5	20.8%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**120.7**	**59.0**	**12.0%**	**225.4**	**104.3**	**18.0%**	**289.3**	**129.7**	**20.8%**
Other Final Impacts Domestic supply chain (f)	71.6	35.0	12.0%	133.8	61.9	18.0%	171.7	77.0	20.8%
Capital Investment (g)	21.4	11.0	6.0%	36.2	17.9	10.7%	56.5	26.9	15.1%
Government Collective Spending (h)	6.4	3.3	6.0%	10.9	5.4	10.7%	17.0	8.1	15.1%
Imported Goods from Indirect Spending (i)	4.3	2.2	6.0%	7.2	3.6	10.7%	11.3	5.4	15.1%
Induced (j)	53.9	26.4	12.0%	100.8	46.6	18.0%	129.4	58.0	20.8%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h+i+j)	**269.8**	**138.0**	**11.4%**	**499.8**	**242.2**	**17.2%**	**652.6**	**302.2**	**20.1%**
Number of new rooms (5 & 4 Stars)	3,970			6,796			10,699		
Total Hotel Investment	397			680			1,070		
Other Related Investment	318			544			856		
Total Investment (million USD)	715			1,223			1,926		

Source: Nathan estimations using a modified WTTC methodology

In the Base Case Scenario, with positive economic development in Mozambique and in the region and with the current label of liberalization extended for projecting horizon, the estimated present value[24] of Total Contribution of Travel and Tourism to GDP is 249.3bn MZN. This scenario implies no separation of responsibilities within the government (policy, regulation and operations) and LAM continue protected as a strategic asset for the government of Mozambique, as well as some slightly more liberalized BASAs and some sort of limited competition in the regional market.

In our Liberalization Low-Growth scenario where liberalization recommendations are implemented properly and the market responses positively, the estimated present value[8] of Total Contribution of Travel and Tourism to GDP is 315.9 bn MZN. This scenario implies clear separation of responsibilities within the government (policy, regulation and operations) and LAM is treated as an autonomous self-sustainable company. The government as policy maker negotiates more liberalized BASAs increasing competition in the regional market, lowering air fares and increasing level of service. The competition commission avoids monopolistic practices in the aviation sector. IACM capacities are upgraded and the EU ban is removed. IACM capacities are upgraded and the EU ban is removed. The Tourism sector contributes with its part of the equation providing a quality product at competitive price

In our Liberalization High-Growth scenario where implementation of the liberalization recommendations are applied properly and on time and the market responds very positively, the estimated present value[8] of Total Contribution of Travel and Tourism to GDP is 302.2 bn MZN. This scenario implies a clear separation of responsibilities (policy, regulation and operations) within the government and LAM is treated as an autonomous self-sustainable company. The government as policy maker negotiates more liberalized BASAs increasing competition in the regional market. The YD is implemented substantially with some Fifth Freedom Rights granted in the region. More regional traffic creates the critical mass in the domestic market to attract several private sector operators. IACM capacities are upgraded and the EU ban is removed. The competition commission avoids monopolistic practices in the aviation sector effectively. The Tourism sector contributes with its part of the equation providing a quality product at competitive price

In these last two scenarios, it is assumed that with fully implemented liberalization policies, LAM would transform successfully into an efficient and competitive air service provider.

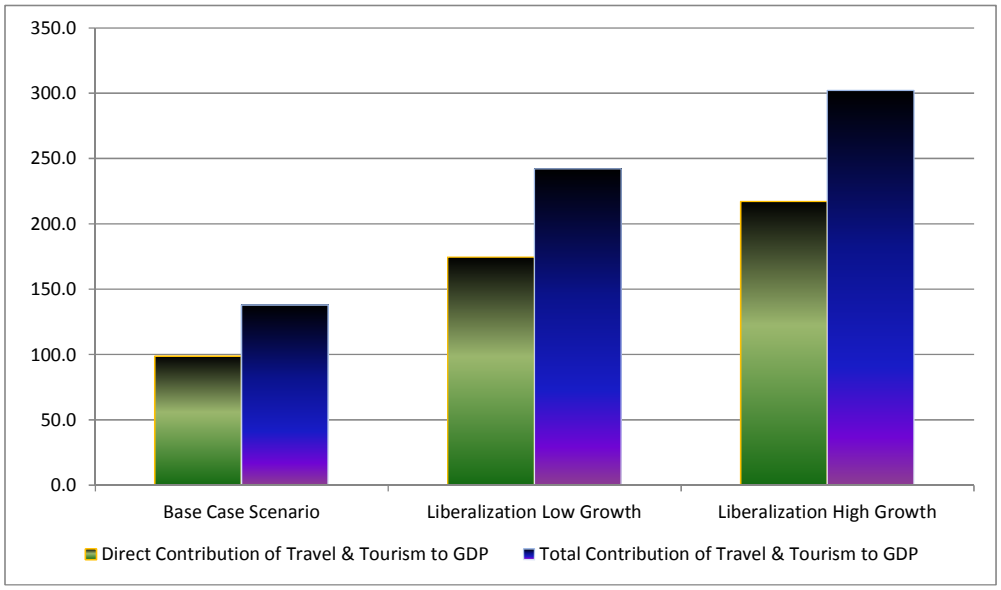
In short, Mozambique could more than double the contribution of travel and tourism to GDP by liberalizing air traffic.

Nathan estimates that the 15-year net present value of a well implemented liberalization plan in the Civil Aviation Industry combined with a well-designed and implemented tourism strategy for Mozambique is between 105 and 165 bn MZN (US$ 3.6 and 5.7 bn).

[24] 15-year flow (2013-2027) discounted at 5.0 percent discount rate in real terms.

EXHIBIT 8-8

Estimated Internal Tourism Consumption and Total Contribution to GDP (bn MZN constant 2012 prices).



Source: Nathan estimations using modified WTTC methodology

9. CONCLUSIONS AND RECOMMENDATIONS

1. Mozambique has demonstrated significant economic growth and, in general, healthy macroeconomic indicators and is one of the few African countries that has enjoyed peace and political stability in recent years due to its strong and democratic political environment.
2. Mozambique is among the most attractive destinations for tourism in the region with a variety of natural and cultural attractions. However, this sector has not developed its real potential.
3. The continued integration of the Southern African Development Community (SADC) countries will improve the aviation market in Mozambique and the region. However, it is expected that with this integration, airports throughout SADC partner countries will create stiff competition amongst themselves.
4. Passenger traffic at ADM airports increased significantly over the last 12 years from 793,015 in 2000 to 1,675,948 total passengers in 2012, which represented a 7.0 percent CAGR. Traffic growth has been fueled by traffic growth at Maputo as well as new air services and flight frequencies at medium sized airports. However, traffic has grown slightly less than the country's GDP showing an elasticity of 0.97X, which is significantly lower than key reformers in the region (Kenya, Tanzania) and India
5. In the long-term Base Case "business as usual" forecast scenario, total traffic for all ADM airports is expected to grow from 1,675,948 total passengers in 2012 to 4,434,111 total passengers in 2027, representing a 6.7 percent CAGR, slightly higher than the 5.6 percent growth rate forecast estimated by Boeing in its 2012 Market Outlook for the region.
6. Mozambique's legal and regulatory framework for the Civil Aviation Sector has undergone important fundamental changes over the last 5 years. Under different Structural Adjustment

Programs and working closely with institutions like USAID, the World Bank, and the IMF, the government has successfully introduced and sustained changes through liberalization of the sector that have and will have a very positive effect on the economy. However, some fundamental changes have yet to be implemented.

7. Despite important legal and regulatory reforms, there is still no clear separation from policy making, operations, and regulation. The government of Mozambique still owns and controls ADM and LAM. The independence and capabilities of IACM as a regulator should be enhanced.
8. The liberalization strategy does not involve the participation of foreign carriers in domestic routes. While competition in the international market will increase, all foreign carriers will still depend on the domestic distribution of that foreign traffic by Mozambican airlines.
9. Liberalizing the air transport systems in Mozambique will help to promote tourism and other vital sectors in the local economy. A strategic alliance or a public private partnership with a strategic international operator should be implemented within LAM.
10. The government should promote the entrance of new participants in the civil aviation domestic market, through the creation of investment incentives (i.e. tax exemptions) and the facilitation of business operations in terms of licenses, permits, access to premium slots, and, if applicable, the grant of subsidies in equal conditions to ALL participants (i.e. fuel subsidy).
11. The top 5 ADM airports will require a PPP strategic arrangement in order to meet growth objectives and private sector efficiency.
12. Safety and environment at airports should be enhanced in accordance with ICAO Annex 14, Annex 16 and National Legislations.
13. Security at airports should be enhanced in accordance with ICAO Annex 17, Security Related Provision of Annex 9, and National Legislations.
14. The government policymaker, not LAM, should promote and negotiate more liberalized BASAs with neighboring countries, with more relaxed operational and ownership restrictions, and with a serious intent to grant general fifth freedom within the region.
15. The tourism sector has the potential to contribute to the prosperity of Mozambique if it provides a quality product at a competitive price. We anticipate that the reforms in the aviation sector will give the international investor in the tourism sector the incentives to make the required long term investments, but the Ministry of Tourism must facilitate and guide the process.
16. Expand the short number of very expensive beds and include a program to bring interest to invest in Mozambique by the world's large chains, of which only Radisson and Southern Sun are the only in Mozambique. At the same time the tourism sector requires a well-structured training program.
17. Nathan created two scenarios considering further air travel liberalization in Mozambique. A low-growth scenario considering a Traffic-GDP growth elasticity of 1.4X, similar to the elasticity experienced in countries like Kenya and Tanzania; and a high-growth scenario considering a Traffic-GDP growth elasticity of 1.8X. This more optimistic scenario should be compared to a successful liberalization case like India, where the reforms have induced a Traffic-GDP growth elasticity of more than 2.5X during the last 10-12 years.

18. In Nathan's long-term forecast "Liberalization Low-Growth" scenario, total traffic for all ADM airports is expected to grow from 1,675,948 total passengers in 2012 to 6,738,556 total passengers in 2027, representing a 9.7 percent CAGR.
19. In Nathan's long-term forecast "Liberalization High-Growth" scenario, total traffic for all ADM airports is expected to grow from 1,675,948 total passengers in 2012 to 9,553,150 total passengers in 2027, representing a 12.3 percent CAGR. This is significantly higher than the average growth rate forecast in the base case "business as usual" scenario.
20. In Nathan's Liberalization Low-Growth scenario where liberalization recommendations are implemented properly and the market responses positively, the estimated present value[25] of Total Contribution of Travel and Tourism to GDP is 242.2 bn MZN. This scenario will create 54,000 more new direct jobs and 132,000 more total new jobs by year 2027 than those created by the Base Case Scenario.
21. In Nathan's Liberalization High-Growth scenario where implementation of the liberalization recommendations are applied properly and on time and the market responds very positively, the estimated present value[9] of Total Contribution of Travel and Tourism to GDP is 302.2 bn MZN. This scenario will create 129,000 [26]more new direct jobs and 315,000 more total new jobs by year 2027 than those created by the Base Case Scenario. In these two last cases, it is assumed that with fully implemented liberalization policies, LAM would transform successfully into an efficient and competitive air service provider.
22. Nathan estimates that the net present value of a well implemented liberalization plan in the Civil Aviation Industry combined with a well-designed and implemented tourism strategy for Mozambique is between 105 and 165 bn MZN (US$ 3.6 and US$ 5.7 bn).
23. In addition, the increase of foreign visitors traveling in domestic flights will give the domestic air travel market in Mozambique the critical mass required to make the sector profitable attracting private sector operators, increasing completion, and achieving a more reliable service at more competitive prices. This positive effect, in addition to the government officers and local business men traveling by air, will motivate Mozambicans to use domestic air service for leisure and visiting relatives and family (VRF). The economic impact of Mozambicans switching to domestic flights for VRF is difficult to quantify since most part of it represent only as switch in demand from one service/product to another (air transport).

Main Priorities

1. Ensure a clear separation of the government policy making, regulation, and operation roles.
2. Make a stronger and independent IACM.
3. Review all the legislation that impedes the emergence of more national operators and
4. Promote the entrance of new participants in the civil aviation domestic market.
5. Make LAM independent from the Government and include the participation of a strategic a partner that can bring higher degree of internationalization and competitiveness as well as financial freedom to the company.

[25] 15-year flow (2013-2027) discounted at 5.0 percent discount rate in real terms.

[26] Nathan estimations based on WT&TC Economic Impact Assessment 2013Despite different attempts, Nathan Associates has not received official statistics from MITUR.

6. Negotiate[27] 5th freedom rights with SADC countries.
7. Provide a quality tourism product at a competitive price.

Disclaimer

Nathan's analysis draws on technical, financial, and economic data provided by the SPEED Group, ADM, and other stakeholders, as well as other data from official and unofficial sources. These sources are considered reliable; however, the results of our analysis could change significantly if some data proves to be inaccurate or incomplete.[28]

Nathan has applied all its expertise and experience to model a reasonable and consistent economic impact assessment; however, Nathan cannot predict the future or guarantee the expected economic performance of the recommended liberalization policy, which is subject to the typical risks and uncertainties of the economy in general, and in the Southern African region in particular.

[27] Through the MoT not through LAM.

[28] Despite different attempts, Nathan Associates did not received updated official statistics from MITUR. Therefore, some Nathan estimations are based on statistics published by World Travel & Tourism Council (mainly the WT&TC Economic Impact Assessment 2013).

ANNEX A TRAFFIC FORECAST SCENARIOS

EXHIBIT A1. BASE CASE: MAPUTO, BEIRA, NAMPULA

	Historic	Projected														
Base Case	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Maputo																
Passengers																
Domestic	380,922	410,347	440,536	472,945	506,975	543,260	582,226	619,705	659,597	702,057	740,794	781,669	824,798	862,723	902,391	943,883
Regional	383,381	412,996	443,380	475,998	510,248	546,767	585,984	623,706	663,855	706,589	745,576	786,715	830,123	868,292	908,216	949,976
International	72,465	78,063	83,806	89,971	96,445	103,347	110,760	117,890	125,479	133,556	140,926	148,701	156,906	164,121	171,667	179,560
Transfer/Transit/Other	7,358	7,926	8,510	9,136	9,793	10,494	11,246	11,970	12,741	13,561	14,309	15,099	15,932	16,665	17,431	18,232
Total	844,126	909,333	976,232	1,048,050	1,123,461	1,203,868	1,290,217	1,373,272	1,461,673	1,555,764	1,641,605	1,732,183	1,827,759	1,911,800	1,999,705	2,091,652
Operations																
Domestic	9,535	10,169	10,809	11,490	12,195	12,938	13,729	14,468	15,247	16,067	16,786	17,537	18,321	18,974	19,650	20,350
Regional	9,038	9,640	10,247	10,892	11,560	12,265	13,014	13,715	14,453	15,231	15,913	16,624	17,368	17,987	18,628	19,291
International	345	368	391	416	441	468	497	524	552	581	607	635	663	687	711	736
Total	18,918	20,178	21,448	22,797	24,196	25,671	27,240	28,706	30,252	31,880	33,306	34,796	36,352	37,647	38,988	40,377
Beira																
Passengers																
Domestic	106,320	107,309	108,260	109,219	110,165	111,115	112,075	112,944	113,819	114,702	115,464	116,231	117,003	117,651	118,303	118,958
Regional	34,893	35,218	35,530	35,844	36,155	36,467	36,782	37,067	37,354	37,644	37,894	38,146	38,399	38,612	38,826	39,041
International	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8
Transfer/Transit/Other	24,308	24,534	24,752	24,971	25,187	25,404	25,624	25,822	26,023	26,224	26,399	26,574	26,751	26,899	27,048	27,197
Total	165,528	167,068	168,548	170,041	171,515	172,993	174,487	175,840	177,203	178,577	179,764	180,958	182,161	183,169	184,184	185,203
Operations																
Domestic	4,610	4,607	4,601	4,596	4,590	4,584	4,578	4,567	4,557	4,547	4,532	4,517	4,502	4,482	4,462	4,443
Regional	1,916	1,915	1,913	1,911	1,908	1,906	1,903	1,899	1,895	1,890	1,884	1,878	1,872	1,863	1,855	1,847
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	6,526	6,522	6,514	6,507	6,498	6,489	6,481	6,466	6,452	6,438	6,416	6,395	6,374	6,345	6,317	6,289
Nampula																
Passengers																
Domestic	115,627	126,903	138,690	151,570	165,339	180,278	196,602	212,580	229,856	248,535	265,848	284,366	304,174	321,831	340,513	360,279
Regional	29,019	31,849	34,807	38,040	41,495	45,245	49,341	53,351	57,687	62,375	66,720	71,368	76,339	80,770	85,459	90,420
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer/Transit/Other	30,107	33,043	36,112	39,466	43,051	46,941	51,191	55,352	59,850	64,714	69,222	74,043	79,201	83,799	88,663	93,810
Total	174,753	191,795	209,609	229,076	249,885	272,463	297,135	321,283	347,393	375,624	401,789	429,777	459,714	486,400	514,634	544,508
Operations																
Domestic	3,901	4,239	4,587	4,963	5,361	5,787	6,249	6,690	7,162	7,667	8,120	8,600	9,108	9,541	9,995	10,470
Regional	952	1,034	1,119	1,211	1,308	1,412	1,524	1,632	1,747	1,870	1,980	2,097	2,221	2,327	2,438	2,554
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,853	5,273	5,706	6,174	6,668	7,199	7,773	8,321	8,908	9,537	10,100	10,697	11,329	11,868	12,432	13,024

Source: Nathan Estimations

EXHIBIT A2. BASE CASE: TETE, PEMBA/NACALA, SMALLER AIRPORTS

	Historic	Projected														
Base Case	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Tete																
Passengers																
Domestic	84,633	94,010	103,931	114,898	126,756	139,769	154,148	168,382	183,929	200,912	216,812	233,972	252,489	269,141	286,892	305,813
Regional	30,931	34,358	37,984	41,992	46,326	51,082	56,337	61,539	67,221	73,428	79,239	85,510	92,278	98,364	104,851	111,766
International	17	19	21	23	25	28	31	34	37	40	44	47	51	54	58	61
Transfer/Transit/Other	13,622	15,131	16,728	18,493	20,402	22,496	24,811	27,102	29,604	32,337	34,897	37,659	40,639	43,319	46,176	49,222
Total	129,203	143,519	158,664	175,406	193,510	213,375	235,327	257,056	280,791	306,717	330,992	357,187	385,456	410,878	437,976	466,862
Operations																
Domestic	3,067	3,373	3,692	4,041	4,414	4,819	5,262	5,691	6,155	6,657	7,112	7,599	8,119	8,569	9,044	9,545
Regional	1,431	1,574	1,722	1,885	2,059	2,248	2,455	2,655	2,872	3,106	3,318	3,546	3,788	3,998	4,220	4,453
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,498	4,946	5,414	5,926	6,473	7,067	7,717	8,346	9,027	9,762	10,431	11,145	11,908	12,567	13,264	13,998
Pemba																
Passengers																
Domestic	77,093	89,430	103,059	118,765	136,468	156,702	179,986	203,987	231,189	262,019	291,968	325,341	362,528	397,060	434,880	476,304
Regional	27,189	31,540	36,347	41,886	48,129	55,265	63,477	71,942	81,535	92,408	102,971	114,741	127,856	140,034	153,373	167,982
International	111	129	148	171	196	226	259	294	333	377	420	468	522	572	626	686
Transfer/Transit/Other	16,954	19,667	22,664	26,118	30,012	34,461	39,582	44,860	50,842	57,622	64,209	71,548	79,726	87,320	95,637	104,747
Total	121,347	140,766	162,219	186,941	214,806	246,654	283,303	321,083	363,900	412,427	459,568	512,098	570,632	624,985	684,517	749,718
Operations																
Domestic	6,598	7,579	8,647	9,866	11,225	12,761	14,512	16,285	18,274	20,505	22,623	24,959	27,537	29,861	32,381	35,115
Regional	1,154	1,326	1,513	1,726	1,963	2,232	2,539	2,849	3,196	3,587	3,957	4,366	4,817	5,223	5,664	6,142
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	7,753	8,904	10,160	11,592	13,188	14,993	17,051	19,133	21,470	24,092	26,580	29,325	32,354	35,084	38,046	41,257
Smaller Airports																
Passengers																
Domestic	152,621	167,566	183,193	200,276	218,543	238,371	260,044	281,263	304,214	329,038	352,052	376,675	403,021	426,511	451,371	477,679
Regional	54,931	60,310	65,934	72,083	78,658	85,794	93,594	101,232	109,492	118,427	126,710	135,572	145,054	153,509	162,456	171,925
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer/Transit/Other	33,439	36,713	40,137	43,880	47,882	52,227	56,975	61,624	66,653	72,092	77,134	82,529	88,301	93,448	98,895	104,659
Total	240,991	264,589	289,264	316,239	345,084	376,391	410,613	444,119	480,359	519,556	555,896	594,776	636,377	673,468	712,722	754,263
Operations																
Domestic	12,913	14,037	15,194	16,447	17,769	19,189	20,727	22,196	23,770	25,455	26,965	28,566	30,261	31,708	33,224	34,812
Regional	3,540	3,848	4,166	4,509	4,871	5,261	5,682	6,085	6,516	6,978	7,393	7,831	8,296	8,693	9,108	9,544
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	16,453	17,885	19,360	20,956	22,640	24,450	26,409	28,281	30,286	32,433	34,358	36,397	38,557	40,400	42,332	44,356

Source: Nathan Estimations

EXHIBIT A3. BASE CASE: TOTAL SYSTEM

	Historic	Projected														
Base Case	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total System																
Passengers																
Domestic	917,216	995,566	1,077,669	1,167,674	1,264,248	1,369,494	1,485,081	1,598,861	1,722,604	1,857,263	1,982,938	2,118,254	2,264,014	2,394,917	2,534,349	2,682,916
Regional	560,344	606,271	653,982	705,843	761,011	820,619	885,516	948,836	1,017,145	1,090,871	1,159,110	1,232,051	1,310,048	1,379,581	1,453,181	1,531,109
International	72,600	78,217	83,982	90,172	96,674	103,608	111,058	118,225	125,856	133,982	141,397	149,224	157,487	164,754	172,359	180,315
Transfer/Transit/Other	125,788	137,015	148,903	162,064	176,327	192,023	209,429	226,730	245,713	266,551	286,169	307,452	330,550	351,449	373,849	397,867
Total	1,675,948	1,817,070	1,964,536	2,125,754	2,298,260	2,485,744	2,691,084	2,892,652	3,111,318	3,348,666	3,569,614	3,806,980	4,062,099	4,290,701	4,533,738	4,792,207
Operations																
Domestic	40,624	44,004	47,531	51,403	55,553	60,078	65,056	69,897	75,164	80,898	86,139	91,777	97,848	103,135	108,756	114,734
Regional	18,032	19,337	20,679	22,133	23,670	25,323	27,117	28,834	30,679	32,663	34,445	36,343	38,362	40,091	41,913	43,831
International	345	368	391	416	441	468	497	524	552	581	607	635	663	687	711	736
Total	59,000	63,709	68,601	73,952	79,664	85,870	92,670	99,254	106,394	114,142	121,191	128,755	136,873	143,913	151,379	159,302
Business																
Total System																
Passengers																
Domestic	642,051	696,896	700,485	758,988	821,761	821,696	891,049	879,373	947,432	1,021,495	1,090,616	1,165,039	1,245,208	1,317,204	1,393,892	1,475,604
Regional	448,275	485,017	490,486	529,382	570,759	574,433	619,861	616,743	661,144	709,066	753,421	739,230	786,029	827,748	871,908	918,666
International	65,340	70,396	71,385	76,647	82,173	82,887	88,846	88,669	94,392	100,486	98,978	104,457	110,241	115,328	120,651	126,221
Transfer/Transit/Other	88,052	95,911	96,787	105,342	114,613	115,214	125,658	124,702	135,142	146,603	157,393	169,098	181,802	193,297	205,617	218,827
Total	1,243,718	1,348,219	1,359,143	1,470,359	1,589,305	1,594,230	1,725,413	1,709,487	1,838,111	1,977,649	2,100,408	2,177,825	2,323,280	2,453,578	2,592,069	2,739,317
Non-Business																
Total System																
Passengers																
Domestic	275,165	298,670	377,184	408,686	442,487	547,797	594,032	719,487	775,172	835,768	892,322	953,214	1,018,806	1,077,713	1,140,457	1,207,312
Regional	112,069	121,254	163,495	176,461	190,253	246,186	265,655	332,093	356,001	381,805	405,688	492,820	524,019	551,832	581,272	612,444
International	7,260	7,822	12,597	13,526	14,501	20,722	22,212	29,556	31,464	33,495	42,419	44,767	47,246	49,426	51,708	54,095
Transfer/Transit/Other	37,736	41,105	52,116	56,722	61,714	76,809	83,772	102,029	110,571	119,948	128,776	138,353	148,747	158,152	168,232	179,040
Total	432,230	468,850	605,393	655,395	708,955	891,514	965,670	1,183,165	1,273,207	1,371,016	1,469,206	1,629,155	1,738,819	1,837,123	1,941,669	2,052,890

Source: Nathan Estimations

EXHIBIT A4. LIBERALIZATION LOW GROWTH: MAPUTO, BEIRA, NAMPULA

	Historic							Projected								
Liberalization Low Growth	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Maputo																
Passengers																
Domestic	380,922	425,719	473,400	526,419	584,084	647,725	718,454	788,862	866,171	951,056	1,030,944	1,117,544	1,211,417	1,296,217	1,386,952	1,484,038
Regional	383,381	428,467	476,456	529,818	587,855	651,906	723,092	793,955	871,762	957,195	1,037,599	1,124,758	1,219,237	1,304,584	1,395,905	1,493,618
International	72,465	80,987	90,058	100,144	111,114	123,220	136,676	150,070	164,777	180,925	196,123	212,597	230,455	246,587	263,848	282,317
Transfer/Transit/Other	7,358	8,223	9,144	10,168	11,282	12,512	13,878	15,238	16,731	18,371	19,914	21,587	23,400	25,038	26,791	28,666
Total	844,126	943,397	1,049,058	1,166,549	1,294,335	1,435,363	1,592,099	1,748,125	1,919,441	2,107,546	2,284,580	2,476,485	2,684,510	2,872,426	3,073,495	3,288,640
Operations																
Domestic	9,535	10,550	11,616	12,789	14,049	15,426	16,941	18,417	20,022	21,766	23,361	25,072	26,909	28,508	30,201	31,996
Regional	9,038	10,001	11,011	12,123	13,318	14,623	16,059	17,459	18,980	20,634	22,145	23,768	25,509	27,025	28,630	30,331
International	345	382	420	463	508	558	613	666	724	788	845	907	974	1,032	1,093	1,158
Total	18,918	20,934	23,048	25,375	27,876	30,607	33,613	36,542	39,726	43,187	46,351	49,747	53,392	56,564	59,924	63,484
Beira																
Passengers																
Domestic	106,320	118,823	132,132	146,930	163,025	180,788	200,529	220,181	241,759	265,451	287,749	311,920	338,121	361,790	387,115	414,213
Regional	34,893	38,996	43,364	48,221	53,503	59,333	65,811	72,261	79,342	87,118	94,436	102,369	110,968	118,735	127,047	135,940
International	7	8	9	10	11	12	13	14	16	17	19	21	22	24	25	27
Transfer/Transit/Other	24,308	27,167	30,209	33,593	37,273	41,334	45,847	50,340	55,273	60,690	65,788	71,314	77,305	82,716	88,506	94,702
Total	165,528	184,994	205,714	228,753	253,811	281,466	312,201	342,797	376,391	413,277	447,992	485,624	526,416	563,265	602,694	644,882
Operations																
Domestic	4,610	5,101	5,616	6,183	6,793	7,458	8,191	8,904	9,680	10,523	11,294	12,122	13,010	13,783	14,602	15,469
Regional	1,916	2,121	2,335	2,570	2,824	3,100	3,405	3,702	4,024	4,375	4,695	5,039	5,409	5,730	6,070	6,431
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	6,526	7,221	7,951	8,754	9,616	10,559	11,596	12,606	13,704	14,898	15,990	17,161	18,419	19,513	20,672	21,900
Nampula																
Passengers																
Domestic	115,627	129,225	143,698	159,792	177,296	196,614	218,083	239,455	262,922	288,688	312,938	339,225	367,720	393,460	421,002	450,473
Regional	29,019	32,432	36,064	40,103	44,496	49,344	54,733	60,096	65,986	72,452	78,538	85,136	92,287	98,747	105,659	113,055
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer/Transit/Other	30,107	33,648	37,416	41,607	46,164	51,194	56,785	62,349	68,460	75,169	81,483	88,327	95,747	102,449	109,621	117,294
Total	174,753	195,304	217,179	241,502	267,956	297,152	329,600	361,901	397,367	436,309	472,959	512,688	555,754	594,656	636,282	680,822
Operations																
Domestic	3,901	4,317	4,753	5,233	5,748	6,312	6,931	7,535	8,192	8,906	9,558	10,259	11,010	11,664	12,357	13,091
Regional	952	1,053	1,159	1,276	1,402	1,539	1,691	1,838	1,998	2,172	2,331	2,502	2,685	2,845	3,014	3,193
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,853	5,370	5,912	6,509	7,150	7,851	8,622	9,373	10,190	11,078	11,890	12,761	13,696	14,509	15,371	16,284

Source: Nathan Estimations

EXHIBIT A5. LIBERALIZATION LOW GROWTH: TETE, PEMBA/NACALA, SMALLER AIRPORTS

	Historic						Projected									
Liberalization Low Growth	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Tete																
Passengers																
Domestic	84,633	94,586	105,180	116,960	129,771	143,911	159,626	175,269	192,445	211,305	229,055	248,295	269,152	287,993	308,152	329,723
Regional	30,931	34,569	38,440	42,745	47,428	52,595	58,339	64,056	70,333	77,226	83,713	90,745	98,368	105,253	112,621	120,504
International	17	19	21	23	26	29	32	35	39	42	46	50	54	58	62	66
Transfer/Transit/Other	13,622	15,224	16,929	18,825	20,887	23,163	25,692	28,210	30,975	34,010	36,867	39,964	43,321	46,353	49,598	53,070
Total	129,203	144,397	160,570	178,554	198,113	219,699	243,689	267,570	293,792	322,584	349,681	379,054	410,894	439,657	470,433	503,363
Operations																
Domestic	3,067	3,393	3,736	4,114	4,519	4,962	5,449	5,924	6,440	7,001	7,514	8,064	8,655	9,169	9,714	10,291
Regional	1,431	1,583	1,743	1,919	2,108	2,315	2,542	2,764	3,005	3,266	3,506	3,763	4,038	4,278	4,532	4,802
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,498	4,977	5,479	6,033	6,627	7,277	7,991	8,688	9,444	10,267	11,020	11,827	12,694	13,448	14,246	15,093
Pemba																
Passengers																
Domestic	77,093	88,750	101,530	116,150	132,508	151,071	172,280	193,988	218,430	245,952	272,515	301,947	334,557	364,667	397,488	433,261
Regional	27,189	31,300	35,807	40,963	46,733	53,279	60,760	68,415	77,036	86,742	96,110	106,490	117,991	128,610	140,185	152,802
International	111	128	146	167	191	218	248	279	315	354	392	435	482	525	572	624
Transfer/Transit/Other	16,954	19,517	22,328	25,543	29,141	33,223	37,887	42,661	48,036	54,089	59,931	66,403	73,575	80,196	87,414	95,281
Total	121,347	139,695	159,811	182,823	208,572	237,791	271,175	305,343	343,817	387,138	428,948	475,275	526,605	573,999	625,659	681,968
Operations																
Domestic	6,598	7,521	8,519	9,649	10,899	12,303	13,891	15,486	17,265	19,248	21,116	23,164	25,412	27,425	29,597	31,941
Regional	1,154	1,316	1,490	1,688	1,906	2,152	2,430	2,709	3,020	3,367	3,694	4,052	4,445	4,797	5,177	5,587
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	7,753	8,837	10,009	11,337	12,805	14,455	16,321	18,195	20,285	22,615	24,809	27,216	29,857	32,222	34,774	37,529
Smaller Airports																
Passengers																
Domestic	152,621	170,569	189,673	210,916	234,020	259,519	287,857	316,067	347,042	381,052	413,060	447,757	485,369	519,345	555,699	594,598
Regional	54,931	61,391	68,267	75,913	84,228	93,405	103,605	113,758	124,907	137,147	148,668	161,156	174,693	186,921	200,006	214,006
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer/Transit/Other	33,439	37,371	41,557	46,211	51,273	56,860	63,069	69,250	76,036	83,488	90,501	98,103	106,344	113,788	121,753	130,275
Total	240,991	269,332	299,497	333,040	369,522	409,784	454,531	499,075	547,985	601,687	652,229	707,016	766,405	820,054	877,458	938,880
Operations																
Domestic	12,913	14,289	15,732	17,320	19,027	20,892	22,944	24,943	27,116	29,478	31,638	33,956	36,444	38,609	40,903	43,333
Regional	3,540	3,917	4,313	4,748	5,216	5,728	6,290	6,838	7,434	8,082	8,674	9,309	9,991	10,585	11,214	11,880
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	16,453	18,206	20,045	22,069	24,244	26,619	29,234	31,781	34,550	37,560	40,312	43,265	46,435	49,194	52,116	55,212

Source: Nathan Estimations

EXHIBIT A6. LIBERALIZATION LOW GROWTH: TOTAL SYSTEM

	Historic						Projected									
Liberalization Low Growth	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total System																
Passengers																
Domestic	917,216	1,027,672	1,145,613	1,277,167	1,420,706	1,579,628	1,756,830	1,933,823	2,128,769	2,343,505	2,546,262	2,766,688	3,006,337	3,223,471	3,456,408	3,706,306
Regional	560,344	627,155	698,399	777,763	864,243	959,863	1,066,339	1,172,541	1,289,366	1,417,881	1,539,065	1,670,653	1,813,543	1,942,851	2,081,423	2,229,926
International	72,600	81,142	90,234	100,344	111,341	123,479	136,969	150,399	165,146	181,339	196,580	213,102	231,013	247,194	264,508	283,035
Transfer/Transit/Other	125,788	141,151	157,584	175,948	196,021	218,286	243,158	268,049	295,512	325,817	354,484	385,699	419,691	450,541	483,683	519,289
Total	1,675,948	1,877,119	2,091,829	2,331,221	2,592,310	2,881,256	3,203,296	3,524,812	3,878,793	4,268,541	4,636,390	5,036,142	5,470,584	5,864,057	6,286,021	6,738,556
Operations																
Domestic	40,624	45,171	49,971	55,288	61,036	67,352	74,346	81,209	88,714	96,922	104,481	112,638	121,441	129,159	137,374	146,121
Regional	18,032	19,991	22,052	24,326	26,775	29,458	32,417	35,309	38,461	41,895	45,045	48,433	52,078	55,260	58,637	62,223
International	345	382	420	463	508	558	613	666	724	788	845	907	974	1,032	1,093	1,158
Total	59,000	65,544	72,443	80,076	88,319	97,367	107,377	117,185	127,899	139,605	150,371	161,978	174,493	185,450	197,105	209,502
Business																
Total System																
Passengers																
Domestic	642,051	719,371	744,648	830,158	923,459	947,777	1,054,098	1,063,603	1,170,823	1,288,928	1,400,444	1,521,678	1,653,485	1,772,909	1,901,024	2,038,468
Regional	448,275	501,724	523,799	583,322	648,182	671,904	746,437	762,152	838,088	921,623	1,000,392	1,002,392	1,088,126	1,165,711	1,248,854	1,337,956
International	65,340	73,027	76,699	85,293	94,640	98,783	109,575	112,799	123,859	136,004	137,606	149,171	161,709	173,035	185,155	198,124
Transfer/Transit/Other	88,052	98,805	102,430	114,366	127,413	130,971	145,895	147,427	162,531	179,199	194,966	212,134	230,830	247,798	266,026	285,609
Total	1,243,718	1,392,927	1,447,576	1,613,139	1,793,694	1,849,436	2,056,005	2,085,980	2,295,302	2,525,754	2,733,408	2,885,376	3,134,150	3,359,453	3,601,059	3,860,157
Non-Business																
Total System																
Passengers																
Domestic	275,165	308,302	400,965	447,008	497,247	631,851	702,732	870,220	957,946	1,054,577	1,145,818	1,245,010	1,352,852	1,450,562	1,555,383	1,667,838
Regional	112,069	125,431	174,600	194,441	216,061	287,959	319,902	410,389	451,278	496,258	538,673	668,261	725,417	777,140	832,569	891,971
International	7,260	8,114	13,535	15,052	16,701	24,696	27,394	37,600	41,286	45,335	58,974	63,931	69,304	74,158	79,352	84,910
Transfer/Transit/Other	37,736	42,345	55,154	61,582	68,607	87,314	97,263	120,622	132,980	146,618	159,518	173,564	188,861	202,743	217,657	233,680
Total	432,230	484,192	644,254	718,082	798,616	1,031,820	1,147,291	1,438,831	1,583,491	1,742,788	1,902,982	2,150,766	2,336,434	2,504,604	2,684,962	2,878,399

Source: Nathan Estimations

EXHIBIT A7. LIBERALIZATION HIGH GROWTH: MAPUTO, BEIRA, NAMPULA

	Historic	Projected														
Liberalization High Growth	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Maputo																
Passengers																
Domestic	380,922	438,518	501,666	573,903	654,732	746,452	851,250	958,508	1,079,280	1,215,269	1,346,518	1,491,942	1,653,071	1,801,848	1,964,014	2,140,775
Regional	383,381	441,349	504,904	577,608	658,958	751,271	856,745	964,695	1,086,247	1,223,114	1,355,210	1,501,573	1,663,743	1,813,479	1,976,693	2,154,595
International	72,465	83,422	95,435	109,177	124,553	142,002	161,938	182,342	205,318	231,188	256,156	283,821	314,473	342,776	373,626	407,252
Transfer/Transit/Other	7,358	8,471	9,690	11,086	12,647	14,419	16,443	18,515	20,848	23,474	26,010	28,819	31,931	34,805	37,937	41,352
Total	844,126	971,760	1,111,695	1,271,774	1,450,890	1,654,144	1,886,376	2,124,060	2,391,691	2,693,045	2,983,893	3,306,154	3,663,219	3,992,908	4,352,270	4,743,974
Operations																
Domestic	9,535	10,868	12,309	13,942	15,749	17,777	20,072	22,377	24,948	27,813	30,511	33,472	36,720	39,628	42,767	46,155
Regional	9,038	10,302	11,669	13,217	14,929	16,852	19,028	21,213	23,650	26,366	28,924	31,730	34,809	37,566	40,542	43,753
International	345	393	445	504	570	643	726	810	903	1,006	1,104	1,211	1,329	1,434	1,547	1,670
Total	18,918	21,563	24,424	27,664	31,248	35,272	39,826	44,400	49,500	55,185	60,539	66,414	72,858	78,629	84,857	91,578
Beira																
Passengers																
Domestic	106,320	122,396	140,021	160,183	182,744	208,344	237,594	267,531	301,240	339,196	375,830	416,419	461,392	502,918	548,180	597,517
Regional	34,893	40,169	45,953	52,570	59,974	68,376	77,976	87,801	98,864	111,320	123,343	136,664	151,424	165,052	179,907	196,098
International	7	8	9	11	12	14	16	18	20	22	25	27	30	33	36	39
Transfer/Transit/Other	24,308	27,983	32,013	36,623	41,781	47,634	54,321	61,166	68,873	77,551	85,926	95,206	105,488	114,982	125,331	136,611
Total	165,528	190,556	217,997	249,387	284,511	324,368	369,907	416,515	468,996	528,090	585,123	648,317	718,335	782,985	853,454	930,265
Operations																
Domestic	4,610	5,254	5,951	6,741	7,614	8,595	9,704	10,819	12,062	13,447	14,752	16,183	17,753	19,159	20,677	22,315
Regional	1,916	2,184	2,474	2,802	3,165	3,573	4,034	4,498	5,014	5,590	6,133	6,728	7,380	7,965	8,596	9,277
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	6,526	7,439	8,425	9,543	10,779	12,168	13,739	15,317	17,076	19,037	20,884	22,911	25,134	27,124	29,273	31,591
Nampula																
Passengers																
Domestic	115,627	133,110	152,278	174,206	198,741	226,582	258,393	290,950	327,610	368,889	408,729	452,872	501,782	546,942	596,167	649,822
Regional	29,019	33,407	38,217	43,720	49,878	56,865	64,849	73,020	82,221	92,580	102,579	113,658	125,933	137,266	149,620	163,086
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer/Transit/Other	30,107	34,659	39,650	45,360	51,748	58,997	67,280	75,758	85,303	96,051	106,425	117,919	130,654	142,413	155,230	169,201
Total	174,753	201,176	230,146	263,286	300,367	342,445	390,522	439,728	495,134	557,521	617,733	684,448	758,368	826,621	901,017	982,109
Operations																
Domestic	3,901	4,447	5,036	5,705	6,444	7,274	8,213	9,156	10,207	11,380	12,484	13,695	15,024	16,214	17,499	18,885
Regional	952	1,085	1,228	1,391	1,572	1,774	2,003	2,233	2,490	2,776	3,045	3,340	3,664	3,955	4,268	4,606
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,853	5,531	6,265	7,096	8,015	9,048	10,216	11,389	12,697	14,155	15,529	17,036	18,689	20,169	21,767	23,491

Source: Nathan Estimations

EXHIBIT A8. LIBERALIZATION HIGH GROWTH: TETE, PEMBA/NACALA, SMALLER AIRPORTS

	Historic						Projected									
Liberalization High Growth	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Tete																
Passengers																
Domestic	84,633	97,430	111,460	127,509	145,468	165,846	189,130	212,961	239,794	270,008	299,168	331,479	367,278	400,333	436,363	475,636
Regional	30,931	35,608	40,735	46,601	53,164	60,612	69,122	77,831	87,638	98,680	109,338	121,146	134,230	146,311	159,479	173,832
International	17	20	22	26	29	33	38	43	48	54	60	67	74	80	88	96
Transfer/Transit/Other	13,622	15,682	17,940	20,523	23,414	26,694	30,441	34,277	38,596	43,459	48,152	53,353	59,115	64,435	70,234	76,555
Total	129,203	148,739	170,157	194,659	222,075	253,185	288,731	325,111	366,075	412,201	456,719	506,044	560,697	611,160	666,164	726,119
Operations																
Domestic	3,067	3,496	3,959	4,485	5,065	5,718	6,456	7,198	8,024	8,946	9,814	10,766	11,811	12,746	13,756	14,845
Regional	1,431	1,631	1,847	2,092	2,363	2,668	3,012	3,358	3,744	4,174	4,579	5,023	5,510	5,947	6,418	6,926
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	4,498	5,126	5,807	6,577	7,429	8,386	9,468	10,556	11,768	13,120	14,393	15,789	17,321	18,693	20,174	21,772
Pemba																
Passengers																
Domestic	77,093	90,045	104,452	121,164	140,125	161,936	187,197	213,404	243,281	277,340	310,621	347,896	389,643	428,607	471,468	518,615
Regional	27,189	31,757	36,838	42,732	49,419	57,111	66,020	75,263	85,800	97,812	109,549	122,695	137,419	151,160	166,276	182,904
International	111	130	150	174	202	233	270	307	350	399	447	501	561	617	679	747
Transfer/Transit/Other	16,954	19,802	22,971	26,646	30,816	35,612	41,168	46,931	53,501	60,992	68,311	76,508	85,689	94,258	103,683	114,052
Total	121,347	141,734	164,411	190,716	220,561	254,892	294,654	335,906	382,932	436,543	488,928	547,600	613,312	674,643	742,107	816,318
Operations																
Domestic	6,598	7,631	8,764	10,065	11,525	13,187	15,094	17,036	19,229	21,704	24,068	26,689	29,596	32,234	35,106	38,234
Regional	1,154	1,335	1,533	1,761	2,016	2,307	2,640	2,980	3,364	3,797	4,210	4,669	5,177	5,638	6,141	6,688
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	7,753	8,965	10,297	11,826	13,541	15,494	17,734	20,017	22,593	25,501	28,278	31,358	34,773	37,872	41,247	44,922
Smaller Airports																
Passengers																
Domestic	152,621	175,698	200,998	229,941	262,326	299,075	341,064	384,038	432,426	486,912	539,499	597,764	662,323	721,932	786,906	857,728
Regional	54,931	63,237	72,343	82,760	94,416	107,642	122,755	138,222	155,638	175,248	194,175	215,146	238,382	259,836	283,221	308,711
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfer/Transit/Other	33,439	38,495	44,038	50,380	57,475	65,527	74,726	84,142	94,744	106,682	118,203	130,969	145,114	158,174	172,410	187,927
Total	240,991	277,429	317,380	363,081	414,217	472,244	538,545	606,402	682,808	768,842	851,877	943,880	1,045,819	1,139,942	1,242,537	1,354,365
Operations																
Domestic	12,913	14,718	16,671	18,883	21,329	24,076	27,184	30,307	33,787	37,668	41,323	45,332	49,731	53,670	57,921	62,509
Regional	3,540	4,035	4,570	5,177	5,847	6,601	7,453	8,309	9,263	10,327	11,329	12,428	13,634	14,714	15,879	17,137
International	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	16,453	18,753	21,241	24,059	27,176	30,677	34,637	38,615	43,050	47,995	52,651	57,760	63,365	68,384	73,800	79,646

Source: Nathan Estimations

EXHIBIT A9. LIBERALIZATION HIGH GROWTH: TOTAL SYSTEM

	Historic							Projected								
Liberalization High Growth	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total System																
Passengers																
Domestic	917,216	1,057,196	1,210,875	1,386,907	1,584,135	1,808,235	2,064,628	2,327,392	2,623,631	2,957,614	3,280,364	3,638,371	4,035,490	4,402,581	4,803,099	5,240,092
Regional	560,344	645,526	738,991	845,992	965,810	1,101,878	1,257,467	1,416,832	1,596,406	1,798,755	1,994,194	2,210,882	2,451,129	2,673,105	2,915,196	3,179,226
International	72,600	83,579	95,617	109,388	124,796	142,282	162,261	182,710	205,736	231,664	256,688	284,416	315,139	343,507	374,428	408,134
Transfer/Transit/Other	125,788	145,092	166,303	190,617	217,880	248,883	284,380	320,788	361,865	408,209	453,027	502,774	557,991	609,067	664,826	725,697
Total	1,675,948	1,931,393	2,211,785	2,532,903	2,892,621	3,301,278	3,768,736	4,247,722	4,787,637	5,396,241	5,984,273	6,636,442	7,359,749	8,028,259	8,757,549	9,553,150
Operations																
Domestic	40,624	46,413	52,691	59,821	67,726	76,627	86,724	96,893	108,258	120,958	132,952	146,138	160,635	173,652	187,725	202,942
Regional	18,032	20,572	23,322	26,441	29,893	33,774	38,170	42,591	47,524	53,029	58,219	63,918	70,175	75,785	81,844	88,387
International	345	393	445	504	570	643	726	810	903	1,006	1,104	1,211	1,329	1,434	1,547	1,670
Total	59,000	67,378	76,459	86,766	98,189	111,045	125,620	140,294	156,684	174,993	192,275	211,267	232,139	250,871	271,117	293,000
Business																
Total System																
Passengers																
Domestic	642,051	740,037	787,069	901,490	1,029,688	1,084,941	1,238,777	1,280,065	1,442,997	1,626,688	1,804,200	2,001,104	2,219,520	2,421,419	2,641,704	2,882,051
Regional	448,275	516,421	554,243	634,494	724,357	771,315	880,227	920,941	1,037,664	1,169,191	1,296,226	1,326,529	1,470,677	1,603,863	1,749,118	1,907,536
International	65,340	75,221	81,274	92,979	106,077	113,826	129,809	137,033	154,302	173,748	179,682	199,091	220,597	240,455	262,100	285,694
Transfer/Transit/Other	88,052	101,565	108,097	123,901	141,622	149,330	170,628	176,434	199,026	224,515	249,165	276,525	306,895	334,987	365,654	399,133
Total	1,243,718	1,433,244	1,530,683	1,752,864	2,001,744	2,119,411	2,419,441	2,514,472	2,833,988	3,194,141	3,529,273	3,803,250	4,217,689	4,600,724	5,018,576	5,474,414
Non-Business																
Total System																
Passengers																
Domestic	275,165	317,159	423,806	485,417	554,447	723,294	825,851	1,047,326	1,180,634	1,330,926	1,476,164	1,637,267	1,815,971	1,981,161	2,161,394	2,358,042
Regional	112,069	129,105	184,748	211,498	241,452	330,563	377,240	495,891	558,742	629,564	697,968	884,353	980,452	1,069,242	1,166,078	1,271,691
International	7,260	8,358	14,343	16,408	18,719	28,456	32,452	45,678	51,434	57,916	77,006	85,325	94,542	103,052	112,329	122,440
Transfer/Transit/Other	37,736	43,528	58,206	66,716	76,258	99,553	113,752	144,355	162,839	183,694	203,862	226,248	251,096	274,080	299,172	326,564
Total	432,230	498,150	681,102	780,039	890,877	1,181,867	1,349,295	1,733,250	1,953,649	2,202,100	2,455,000	2,833,192	3,142,060	3,427,535	3,738,973	4,078,736

Source: Nathan Estimations

EXHIBIT A10. SAMPLE OF NATHAN ECONOMETRIC ANALYSES RESULTS: REGRESSION OF 12-YEAR TRAFFIC DATA (ALL AIRPORTS) VS 12-YEAR GDP (NATURAL LOGARITHMS).

All Airports								
PAX VS GDP								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.931350112							
R Square	0.867413031							
Adjusted R Square	0.854154334							
Standard Error	0.104185014							
Observations	12							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.71012632	0.7101263	65.4221932	1.0693E-05			
Residual	10	0.10854517	0.0108545					
Total	11	0.81867149						
	Coefficients	*Standard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	9.412515843	0.56921492	16.535961	1.3655E-08	8.144225959	10.6808057	8.14422596	10.680806
X Variable 1	0.976093256	0.12067818	8.0883987	1.0693E-05	0.707205508	1.244981	0.70720551	1.244981

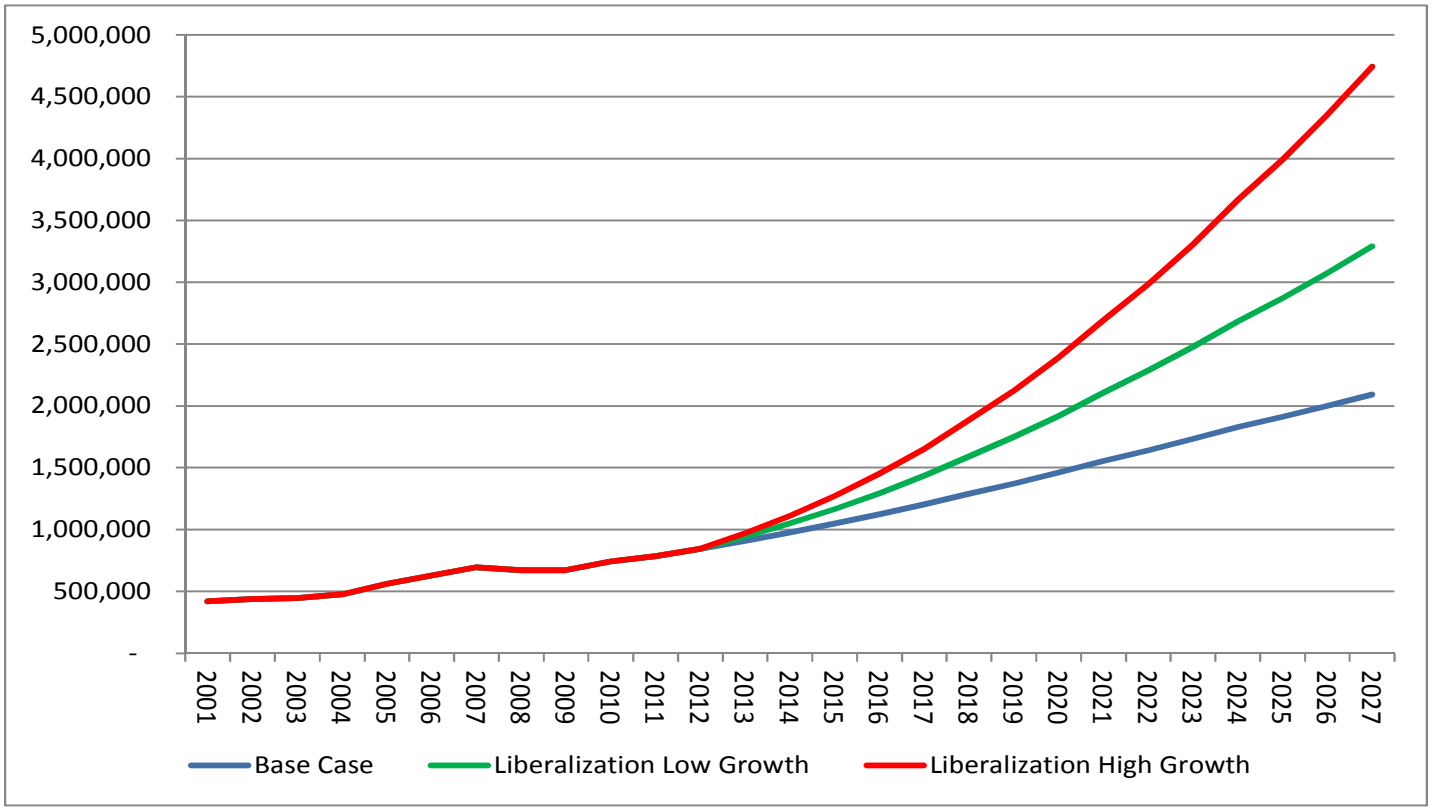
Source: Nathan Estimations

EXHIBIT A11. SAMPLE OF THE ECONOMETRIC ANALYSIS RESULTS: REGRESSION OF 12-YEAA TRAFFIC DATA (MPM) VS 12-YEAR GDP (NATURAL LOGARITHMS).

Maputo								
PAX VS GDP								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.979860587							
R Square	0.960126771							
Adjusted R Square	0.956139448							
Standard Error	0.051162887							
Observations	12							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	1	0.63031445	0.6303144	240.794837	2.52262E-08			
Residual	10	0.02617641	0.0026176					
Total	11	0.65649086						
	Coefficients	*Standard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	8.971420969	0.27952848	32.094837	2.0301E-11	8.348592697	9.59424924	8.3485927	9.5942492
X Variable 1	0.919606724	0.05926231	15.517565	2.5226E-08	0.787562076	1.05165137	0.78756208	1.0516514

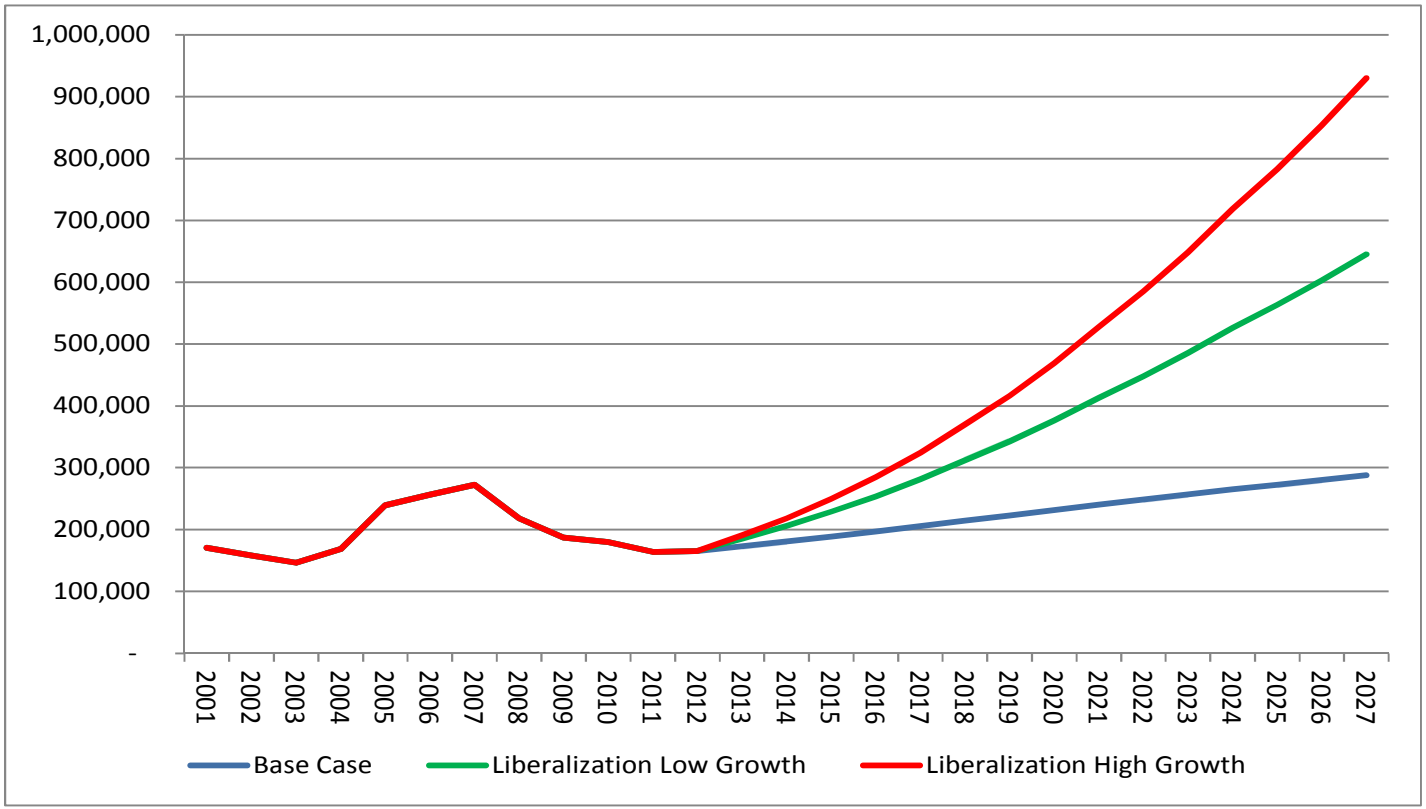
Source: Nathan Estimations

EXHIBIT A12. SUMMARY OF TRAFFIC FORECAST MAPUTO



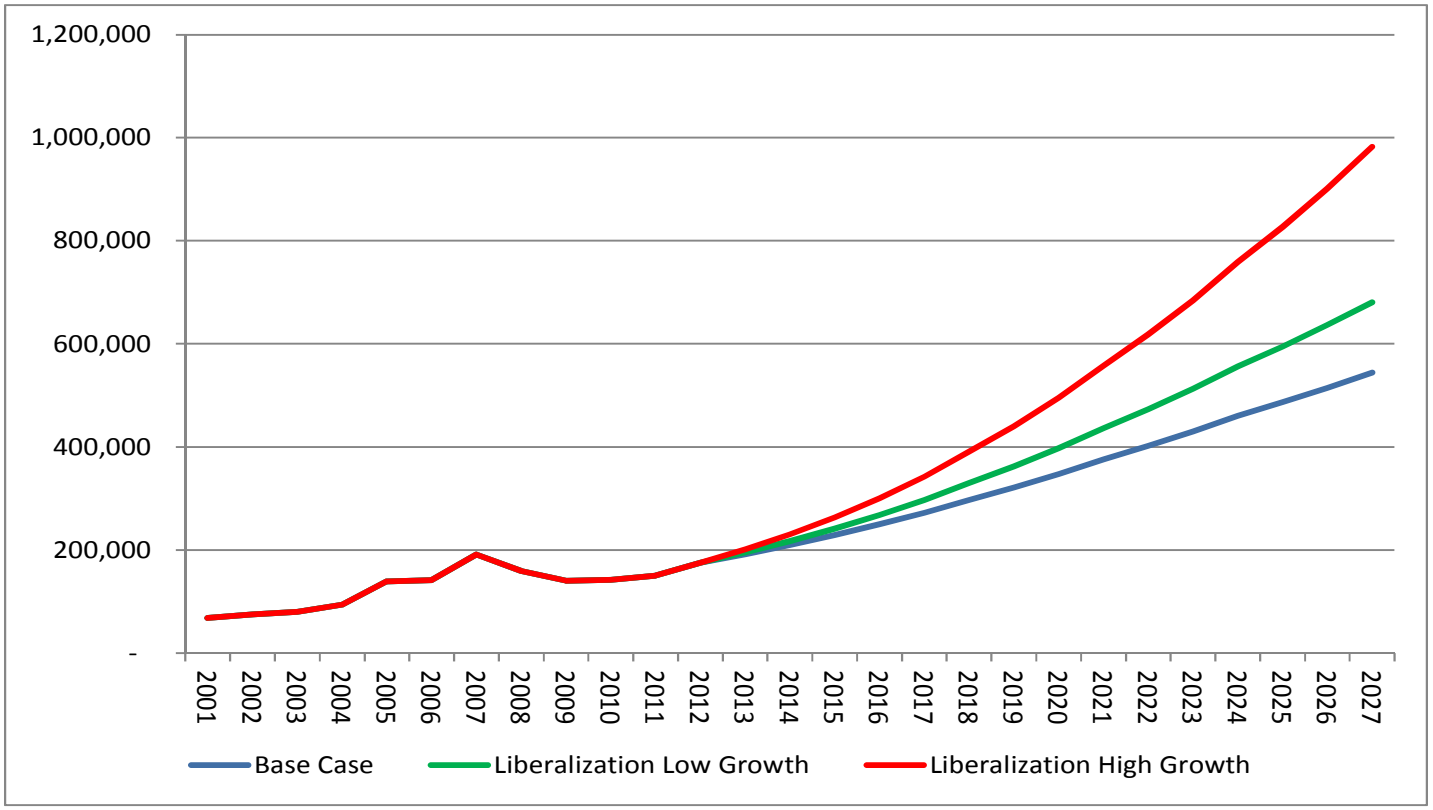
Source: Nathan Estimations

EXHIBIT A13. SUMMARY OF TRAFFIC FORECAST BEIRA



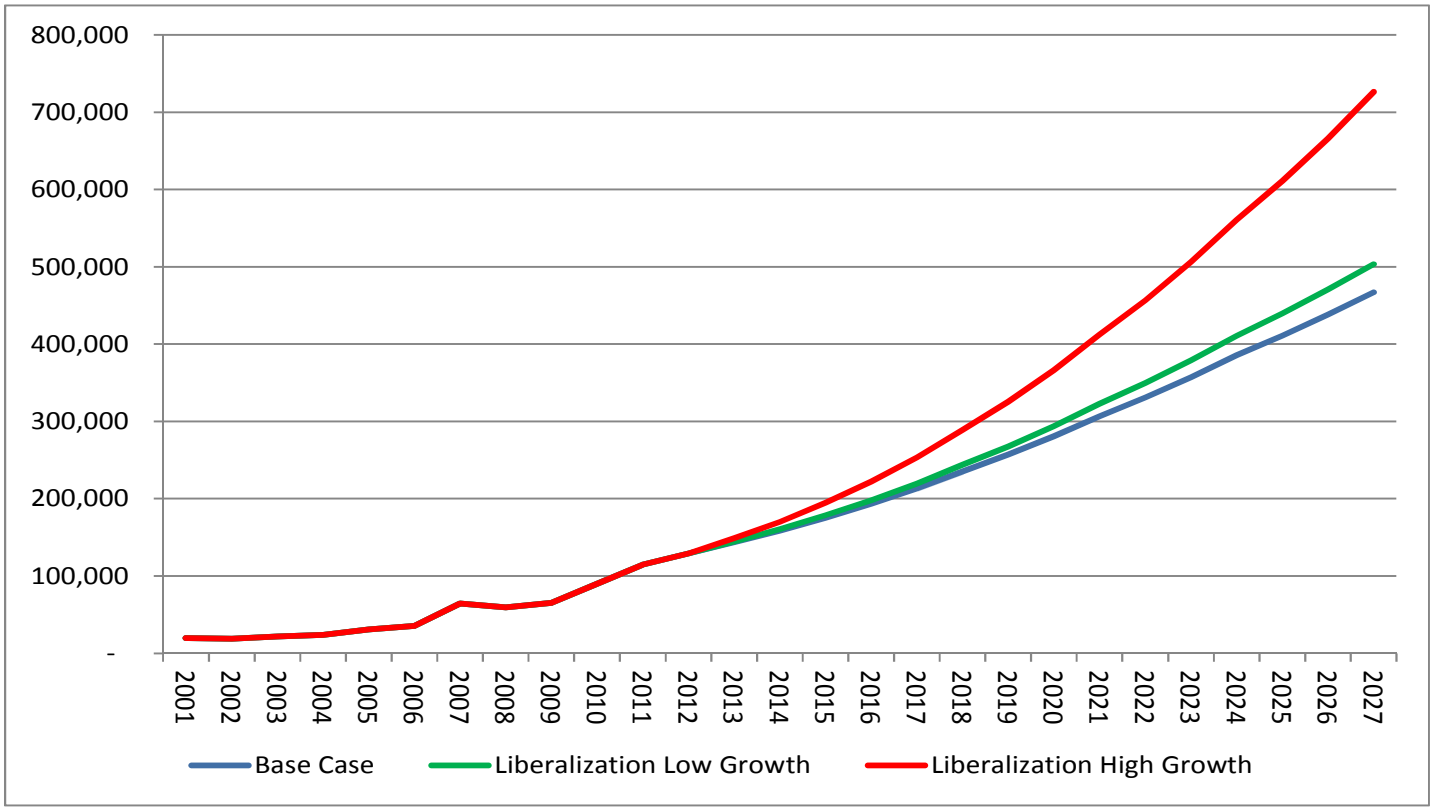
Source: Nathan Estimations

EXHIBIT A14. SUMMARY OF TRAFFIC FORECAST NAMPULA



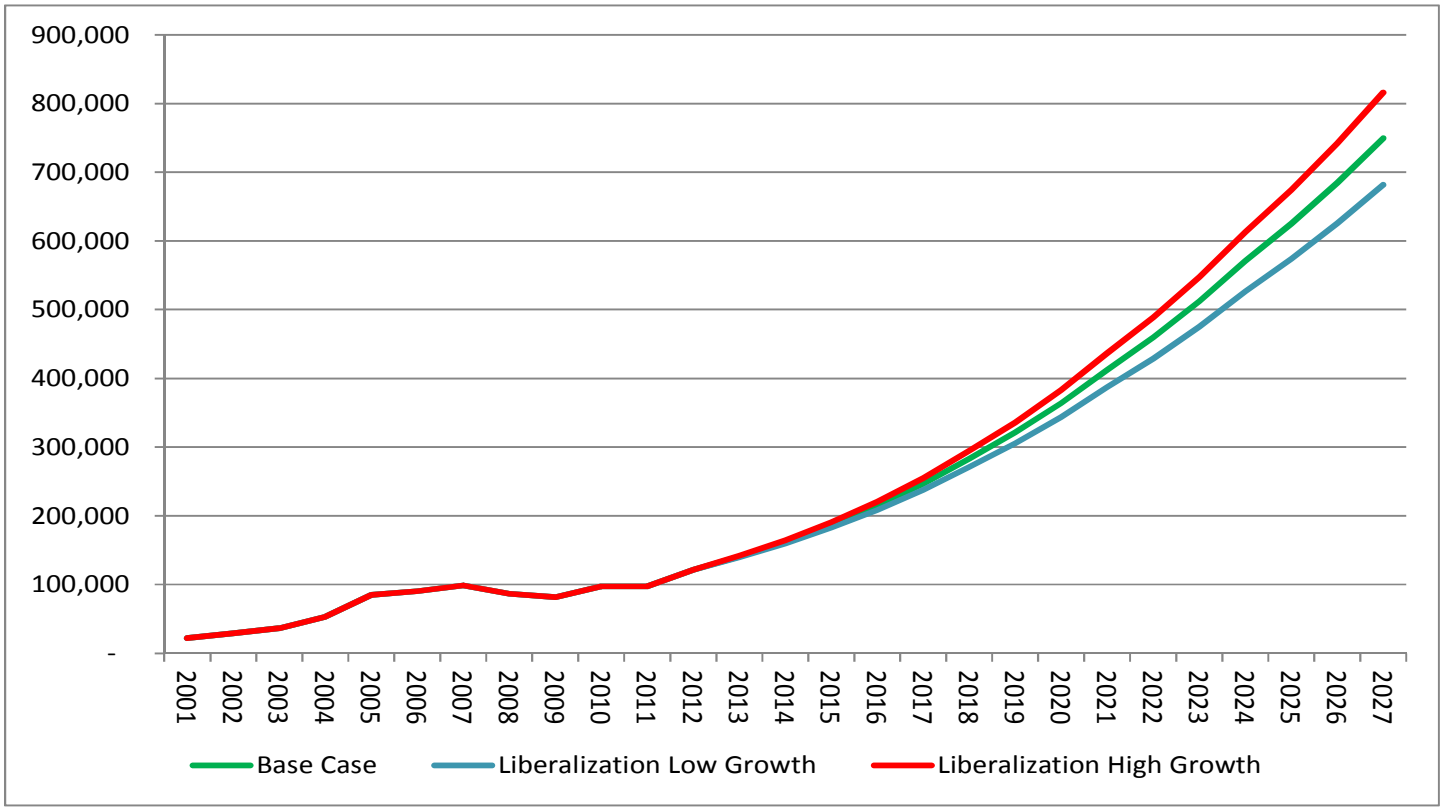
Source: Nathan Estimations

EXHIBIT A15. SUMMARY OF TRAFFIC FORECAST TETE



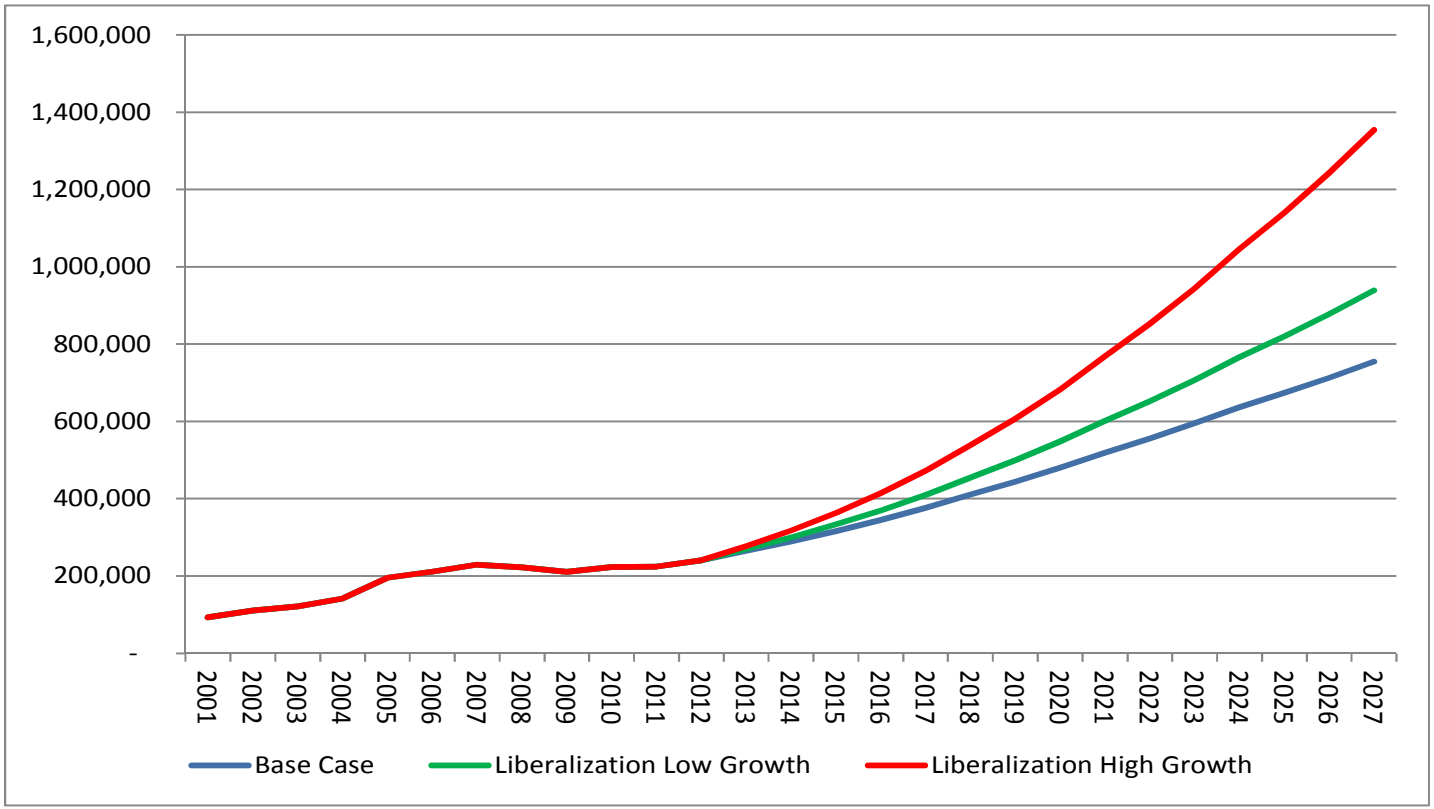
Source: Nathan Estimations

EXHIBIT A16. SUMMARY OF TRAFFIC FORECAST PEMBA/NACALA



Source: Nathan Estimations

EXHIBIT A17. SUMMARY OF TRAFFIC FORECAST SMALLER AIRPORTS



Source: Nathan Estimations

APPENDIX B. ECONOMIC IMPACT SCENARIOS

EXHIBIT B1. ECONOMIC IMPACT SUMMARY: BASE CASE.

Concept (All figures MZN bn 2012 Constant Prices, except when other units are specified)	2012	2013	2014	2015	2016	2017	2022	2027	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air (Number of Visitors and Tourists)	316,472	342,894	370,284	399,997	431,540	465,550	657,487	866,528	9,133,486		6.9%
Visitors Exports (a)	1.5	3.2	3.4	3.7	4.0	4.3	6.1	8.0	83.4	40.7	12.0%
Domestic Expenditure (b)	2.1	4.5	4.9	5.3	5.7	6.2	8.7	11.5	118.7	58.0	12.0%
Internal Tourism Consumption (c = a+b)	3.6	7.7	8.3	9.0	9.7	10.5	14.8	19.5	202.1	98.7	12.0%
Purchases by Tourism Provides, including imported goods (d)	1.4	3.1	3.4	3.6	3.9	4.2	6.0	7.9	81.4	39.8	12.0%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2.1**	**4.6**	**5.0**	**5.4**	**5.8**	**6.3**	**8.8**	**11.6**	**120.7**	**59.0**	**12.0%**
Other Final Impacts Domestic supply chain (f)	1.3	2.7	3.0	3.2	3.4	3.7	5.2	6.9	71.6	35.0	12.0%
Capital Investment (g)	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.7	21.4	11.0	6.0%
Government Collective Spending (h)	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	6.4	3.3	6.0%
Imported Goods from Indirect Spending (i)	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	4.3	2.2	6.0%
Induced (j)	1.0	2.1	2.2	2.4	2.6	2.8	4.0	5.2	53.9	26.4	12.0%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**5.1**	**11.1**	**11.9**	**12.9**	**13.9**	**15.0**	**21.2**	**25.6**	**269.8**	**138.0**	**11.4%**
Visitors Exports (USD/Visitor)	160.2	320.3	320.3	320.3	320.3	320.3	320.3	320.3			
Direct Contribution of Travel & Tourism to GDP (USD/Visitor)	231.8	463.5	463.5	463.5	463.5	463.5	463.5	463.5			
Total Contribution of Travel & Tourism to GDP (USD/)Visitor)	555.9	1,111.7	1,111.7	1,111.7	1,111.7	1,111.7	1,111.7	1,018.8			
Mozambique GDP bn MZN	164.0	177.7	192.0	207.3	223.5	240.9	337.3	438.7			
Total Contribution of Travel & Tourism to GDP (%)	3.1%	6.2%	6.2%	6.2%	6.2%	6.2%	6.3%	5.8%			
Sector Employment Direct Contribution (Number of jobs)	40,000	43,340	46,802	50,557	54,544	58,843	83,102	109,523			6.9%
Employment Direct Contribution (Visitors per Employee)	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9			
Additional Visitors and Tourists (Number of Visitors)		26,422	27,391	29,713	31,542	34,010	38,544	43,653	550,056		
Average Stay in Nights (Number of nights)		3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Additional number of room nights		79,265	82,172	89,139	94,627	102,031	115,632	130,958	1,650,168		
Persons per room		1.5	1.5	1.5	1.5	1.5	1.5	1.5			
New room nights (number)		52,843	54,781	59,426	63,085	68,021	77,088	87,305	1,100,112		
Room Occupation (%)		85%	80%	80%	75%	75%	75%	75%			
Number of new room nights		62,169	68,477	74,283	84,113	90,694	102,784	116,407	1,449,010		
Days in year		365	365	365	365	365	365	365			
Number of new rooms (5 & 4 Stars)		170	188	204	230	248	282	319	3,970		
Average investment per room (USD)		100,000	100,000	100,000	100,000	100,000	100,000	100,000			
Total Hotel Investment (million USD)		17.0	18.8	20.4	23.0	24.8	28	32	397.0		
Other Related Investment (Multiplier of Total Hotel Investment)		1.8	1.8	1.8	1.8	1.8	1.8	1.8			
Total Investment (million USD)		30.7	33.8	36.6	41.5	44.7	51	57	715	386	
Total Investment (MZN)		889,095	979,312	1,062,345	1,202,934	1,297,054	1,469,957	1,664,783	20,722,822	11,183,188	

EXHIBIT B2. ECONOMIC IMPACT SUMMARY: LIBERALIZATION LOW-GROWTH

Concept (All figures MZN bn 2012 Constant Prices, except when other units are specified)	2012	2013	2014	2015	2016	2017	2022	2027	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air (Number of Visitors and Tourists)	316,472	354,148	394,316	439,054	487,792	541,671	867,822	1,256,480	11,679,889		9.6%
Visitors Exports (a)	1.5	4.1	4.6	5.3	6.1	7.0	12.1	17.5	155.8	72.1	18.0%
Domestic Expenditure (b)	2.1	5.9	6.5	7.5	8.7	10.0	17.2	24.9	221.8	102.6	18.0%
Internal Tourism Consumption (c = a+b)	3.6	10.0	11.1	12.9	14.8	17.1	29.3	42.4	377.6	174.6	18.0%
Purchases by Tourism Provides, including imported goods (d)	1.4	4.0	4.5	5.2	6.0	6.9	11.8	17.1	152.1	70.4	18.0%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2.1**	**6.0**	**6.6**	**7.7**	**8.9**	**10.2**	**17.5**	**25.3**	**225.4**	**104.3**	**18.0%**
Other Final Impacts Domestic supply chain (f)	1.3	3.5	3.9	4.6	5.3	6.1	10.4	15.0	133.8	61.9	18.0%
Capital Investment (g)	0.7	1.3	1.4	1.6	1.9	2.1	2.6	3.2	36.2	17.9	10.7%
Government Collective Spending (h)	0.2	0.4	0.4	0.5	0.6	0.6	0.8	1.0	10.9	5.4	10.7%
Imported Goods from Indirect Spending (i)	0.1	0.3	0.3	0.3	0.4	0.4	0.5	0.6	7.2	3.6	10.7%
Induced (j)	1.0	2.7	3.0	3.4	4.0	4.6	7.8	11.3	100.8	46.6	18.0%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**5.1**	**14.3**	**15.9**	**18.4**	**21.2**	**24.4**	**42.0**	**55.2**	**499.8**	**242.2**	**17.2%**
Visitors Exports (USD/Visitor)	160.2	400.4	400.4	416.4	432.4	448.5	480.5	480.5			
Direct Contribution of Travel & Tourism to GDP (USD/Visitor)	231.8	579.4	579.4	602.6	625.8	649.0	695.3	695.3			
Total Contribution of Travel & Tourism to GDP (USD/)Visitor)	555.9	1,389.7	1,389.7	1,445.3	1,500.8	1,556.4	1,667.6	1,515.0			
Mozambique GDP bn MZN	164.0	177.7	192.0	207.3	223.5	240.9	337.3	438.7			
Total Contribution of Travel & Tourism to GDP (%)	3.1%	8.0%	8.3%	8.9%	9.5%	10.1%	12.4%	12.6%			
Sector Employment Direct Contribution (Number of jobs)	40,000	44,762	49,839	55,494	61,654	68,464	109,687	158,811			9.6%
Employment Direct Contribution (Visitors per Employee)	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9			
Additional Visitors and Tourists (Number of Visitors)		37,676	40,168	44,737	48,738	53,879	68,212	83,515	940,008		
Average Stay in Nights (Number of nights)		3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Additional number of room nights		113,029	120,504	134,212	146,215	161,637	204,637	250,545	2,820,025		
Persons per room		1.5	1.5	1.5	1.5	1.5	1.5	1.5			
New room nights (number)		75,353	80,336	89,475	97,477	107,758	136,425	167,030	1,880,017		
Room Occupation (%)		85%	80%	80%	75%	75%	75%	75%			
Number of new room nights		88,650	100,420	111,843	129,969	143,678	181,900	222,707	2,480,718		
Days in year		365	365	365	365	365	365	365			
Number of new rooms (5 & 4 Stars)		243	275	306	356	394	498	610	6,796		
Average investment per room (USD)		100,000	100,000	100,000	100,000	100,000	100,000	100,000			
Total Hotel Investment (million USD)		24.3	27.5	30.6	35.6	39.4	50	61	679.6		
Other Related Investment (Multiplier of Total Hotel Investment)		1.8	1.8	1.8	1.8	1.8	1.8	1.8			
Total Investment (million USD)		43.7	49.5	55.2	64.1	70.9	90	110	1,223	642	
Total Investment (MZN)		1,267,816	1,436,140	1,599,515	1,858,738	2,054,788	2,601,415	3,185,016	35,477,669	18,618,071	

EXHIBIT B3. ECONOMIC IMPACT SUMMARY: LIBERALIZATION HIGH-GROWTH

Concept (All figures MZN bn 2012 Constant Prices, except when other units are specified)	2012	2013	2014	2015	2016	2017	2022	2027	SUM (2013-2027)	NPV (2013-2027)	CAGR (2013-2027)
International Arrivals by Air (Number of Visitors and Tourists)	316,472	364,553	417,304	477,690	545,303	622,080	1,125,441	1,793,680	14,872,338		12.3%
Visitors Exports (a)	1.5	4.2	4.8	5.8	6.8	8.1	15.7	25.0	199.9	89.7	20.8%
Domestic Expenditure (b)	2.1	6.0	6.9	8.2	9.7	11.5	22.3	35.6	284.6	127.6	20.8%
Internal Tourism Consumption (c = a+b)	3.6	10.3	11.7	14.0	16.6	19.6	38.0	60.6	484.5	217.3	20.8%
Purchases by Tourism Provides, including imported goods (d)	1.4	4.1	4.7	5.6	6.7	7.9	15.3	24.4	195.2	87.5	20.8%
Direct Contribution of Travel & Tourism to GDP (e=c-d)	**2.1**	**6.1**	**7.0**	**8.3**	**9.9**	**11.7**	**22.7**	**36.2**	**289.3**	**129.7**	**20.8%**
Other Final Impacts Domestic supply chain (f)	1.3	3.6	4.2	5.0	5.9	6.9	13.5	21.5	171.7	77.0	20.8%
Capital Investment (g)	0.7	1.6	1.9	2.2	2.6	2.9	4.2	5.7	56.5	26.9	15.1%
Government Collective Spending (h)	0.2	0.5	0.6	0.6	0.8	0.9	1.3	1.7	17.0	8.1	15.1%
Imported Goods from Indirect Spending (i)	0.1	0.3	0.4	0.4	0.5	0.6	0.8	1.1	11.3	5.4	15.1%
Induced (j)	1.0	2.7	3.1	3.7	4.4	5.2	10.1	16.2	129.4	58.0	20.8%
Total Contribution of Travel & Tourism to GDP (k=e+f+g+h-i+j)	**5.1**	**14.7**	**16.8**	**20.0**	**23.7**	**28.1**	**54.4**	**80.1**	**652.6**	**302.2**	**20.1%**
Visitors Exports (USD/Visitor)	160.2	400.4	400.4	416.4	432.4	448.5	480.5	480.5			
Direct Contribution of Travel & Tourism to GDP (USD/Visitor)	231.8	579.4	579.4	602.6	625.8	649.0	695.3	695.3			
Total Contribution of Travel & Tourism to GDP (USD/)Visitor)	555.9	1,389.7	1,389.7	1,445.3	1,500.8	1,556.4	1,667.6	1,538.9			
Mozambique GDP bn MZN	164.0	177.7	192.0	207.3	223.5	240.9	337.3	438.7			
Total Contribution of Travel & Tourism to GDP (%)	3.1%	8.3%	8.8%	9.7%	10.6%	11.7%	16.1%	18.2%			
Sector Employment Direct Contribution (Number of jobs)	40,000	46,077	52,744	60,377	68,923	78,627	142,248	226,709			12.3%
Employment Direct Contribution (Visitors per Employee)	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9			
Additional Visitors and Tourists (Number of Visitors)		48,081	52,751	60,386	67,613	76,777	110,232	148,868	1,477,208		
Average Stay in Nights (Number of nights)		3.0	3.0	3.0	3.0	3.0	3.0	3.0			
Additional number of room nights		144,242	158,254	181,158	202,840	230,331	330,696	446,604	4,431,624		
Persons per room		1.5	1.5	1.5	1.5	1.5	1.5	1.5			
New room nights (number)		96,161	105,502	120,772	135,227	153,554	220,464	297,736	2,954,416		
Room Occupation (%)		85%	80%	80%	75%	75%	75%	75%			
Number of new room nights		113,131	131,878	150,965	180,302	204,739	293,952	396,981	3,905,281		
Days in year		365	365	365	365	365	365	365			
Number of new rooms (5 & 4 Stars)		310	361	414	494	561	805	1,088	10,699		
Average investment per room (USD)		100,000	100,000	100,000	100,000	100,000	100,000	100,000			
Total Hotel Investment (million USD)		31.0	36.1	41.4	49.4	56.1	81	109	1,069.9		
Other Related Investment (Multiplier of Total Hotel Investment)		1.8	1.8	1.8	1.8	1.8	1.8	1.8			
Total Investment (million USD)		55.8	65.0	74.4	88.9	101.0	145	196	1,926	980	
Total Investment (MZN)		1,617,923	1,886,038	2,159,003	2,578,572	2,928,042	4,203,911	5,677,372	55,850,871	28,407,540	

APPENDIX C. FREEDOMS OF THE AIR

First Freedom: The right of an air carrier to fly over another country without landing.

Second Freedom: The right to make a landing for technical reasons in another country without picking up/setting down revenue traffic.

Third Freedom: The right to carry revenue traffic from your own country A to the country B of your treaty partner.

Fourth Freedom: The right to carry traffic from country B back to your own country A.

Fifth Freedom: The right of an airline from country A to carry revenue traffic between country and other countries, such as C or D.

Sixth Freedom: The use by an airline of country A of two sets of 3rd and 4th rights to carry traffic between two other countries but using its base A as a transit point.