

**OWNERSHIP AND OPERATION OF  
AIRPORTS: THE NAMIBIAN CASE STUDY**

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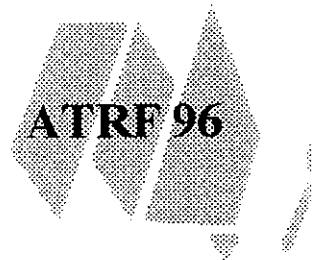
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**ABSTRACT**

Since obtaining independence in 1990, Namibia has embarked on an ambitious programme of government restructuring with a view to improving efficiency and effectiveness in government services. The commercialisation, or corporatisation of services currently being undertaken by Government is viewed as a necessary first step in this process. This paper focuses on the commercialisation of airports, aerodromes and air navigation services in particular. The principal issue which had to be considered was the choice or development of an appropriate vehicle to commercialise these functions and to prevent (or at least contain) typical non-market failures in public enterprises, which could result from corporatisation. A hybrid system incorporating the Companies Act and specific duties on the Company to strike a balance between its commercial mandate and its public obligations, was proposed. The distinctive feature of this system is that the Company conducts "auto-price-cap-regulation". This means that although no formal economic regulator is being proposed, the Company is obliged to act as if one did exist. The proposals are currently being taken forward to implementation.

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## INTRODUCTION

Airports worldwide, including those in Australia and New Zealand, are increasingly being viewed as public facilities which can be operated on commercial principles and in a self-sustainable manner. Where airports were previously commonly owned and operated by Government, they are now being transferred into the private sector or into public companies owned by the State. The same trend towards commercialisation is also increasingly finding favour in the area of air traffic control.

Since obtaining independence in 1990, Namibia has embarked on an ambitious programme of government restructuring with a view to improving efficiency and effectiveness in government services. The role of Government is increasingly being seen as one of ensuring that certain necessary services are provided without the need for direct Government participation in the provision or operation of these services. This thinking is in line with past or current developments in New Zealand and Australia. The commercialisation or corporatisation of services currently being provided by Government, is viewed as a necessary first step in this process. This policy has led to institutional reform of government services in several areas, e.g. NamPost and Telecom, which were established to be responsible for postal and telecommunications services respectively, and NamPort which was established to take over the operation of the two main ports.

Transport-related matters resort primarily under the Ministry of Works, Transport and Communication. Through the MWTC 2000 Programme, the Ministry has embarked on a broad programme of restructuring, to be completed by the year 2000. Details of this programme are the topic of another paper at this conference and are not repeated here. The main thrust of the programme is not only to enhance the Ministry's efficiency in performing its functions, but also to improve productivity in, and the quality of, operational functions.

As part of this general Government initiative, a study was initiated to determine the most appropriate structure for the commercialisation of state airports, aerodromes and air navigation services (ANS). This study was carried out with the assistance of three consultants, namely, Africon Engineering International, Coopers and Lybrand and ISO Swedish Management Group. Recommendations were made to Government and were accepted in principle, subject to suitable implementation arrangements being made.

The purpose of this paper is to present the main features of this Namibian case study on the commercialisation of airports, aerodromes and air navigation services, with a special emphasis on the approach adopted to regulate the proposed structure. Issues are addressed within the context of a theoretical framework for efficiency in the provision of government

services

The paper is organised as follows: Firstly, existing attributes of airports, aerodromes and ANS which form the backdrop to commercialisation are addressed. The proposed organisational structure for the provision of these services is then discussed, with a special emphasis on the mechanisms introduced to ensure a balance between the various interests, in a self-regulatory way. The paper is concluded with a brief assessment of these proposals in the light of the original objectives of Government, as well as the theory of efficiency in the delivery of government services and the criteria emanating from the theory.

### AIRPORTS, AERODROMES AND AIR NAVIGATION SERVICES IN NAMIBIA

Namibia is situated on the south-west coast of Africa. It is a sparsely populated country with approximately 1,4 million people (1.7 persons per sq km). The main population centre is the capital, Windhoek, with some 145 000 inhabitants. More than two thirds of the population live in rural areas with the northern region of the country accounting for approximately 60% of the population.

Namibia is served by a geographically extensive network of airports and aerodromes. Roughly thirty of these are licensed, and of these, the Government owns fifteen. The Namibian airports and aerodromes generally serve several functions, namely:

- providing access for economic and other activities close to urban areas
- providing access to mining communities and mines
- providing access to game parks and other isolated tourist destinations
- providing access to remote areas
- previous military airports/aerodromes developed by South Africa before independence, and now serving only a limited civil aviation function

**Table 1** indicates the activity levels at the ten busiest airports and aerodromes in the system. As can be seen, these levels are low in comparison with international figures. For example, Windhoek International handled 320 000 passengers (arriving and departing) during 1995. This is in contrast to the figure for the main regional hub at Johannesburg International Airport, namely 7.6 million passengers. Eros, by its nature the general aviation hub of the country, attracts by far the biggest proportion of air traffic movements (landings).

The first five airports and aerodromes listed in **Table 1** all fall into the first functional category discussed above. Windhoek International Airport is the main gateway to the country, while Eros Aerodrome (also situated in the Windhoek area) serves as a general

aviation and domestic hub airport. Walvis Bay, Swakopmund and Lüderitz aerodromes provide access to the west coast towns. Arandis and Tsumeb are mining aerodromes while Mokuti Lodge serves traffic to the Etosha National Park. Oshakati and M'Pacha are previous military aerodromes that now serve the northern area of the country.

**TABLE 1 : ESTIMATED ACTIVITY AT THE TEN BUSIEST AIRPORTS AND AERODROMES IN NAMIBIA, 1995**

<b>Airport</b>	<b>ATMs* per annum</b>	<b>Passengers per annum</b>	<b>Scheduled Weekly Capacity (Seats)</b>
Windhoek International	6 100	320 000	13 600
Eros	22 700	73 700	800
Walvis Bay	4 900	54 300	1 700
Swakopmund	5 100	13 500	300
Lüderitz	2 500	11 000	300
Arandis	3 300	10 900	0
Tsumeb	3 400	7 900	400
Oshakati	2 200	6 300	0
M'Pacha	1 500	5 900	300
Mokuti Lodge	1 900	4 300	300

\* *Air Traffic Movements*

Air navigation services are relatively limited, with seven airports/aerodromes being served by air traffic control or a flight information service. *En route* control takes place from Windhoek International Airport and covers the largest part of the country.

Responsibility for government-owned airports/aerodromes rests mainly under the Civil Aviation Directorate (CAD) of the Ministry of Works, Transport and Communication. The CAD manages airports and aerodromes, aviation safety, meteorological services, air traffic services, air navigation facilities and administrative duties. The Directorate employs approximately 200 persons. Various duties are distributed over other ministries (e.g. the Department of Works for the erection and maintenance of some infrastructure, the Ministry of Home Affairs for immigration services and the Ministry of Finance for the disbursement of funds for airports and aerodromes).

The different Ministries, departments and directorates involved with airports and aerodromes are funded by Government using a budget vote method. Similarly, revenues from relatively limited charges at airports/aerodromes accrue to the Central Revenue Fund (ANS is currently provided free of charge). Bookkeeping occurs on a cash accounting basis, but it is estimated that government airports, aerodromes and ANS operated at an accrued loss of approximately N\$ 18 million (US\$ 4,5 million) in 1995.

#### **THE STUDY INTO THE COMMERCIALISATION OF AIRPORTS, AERODROMES AND AIR NAVIGATION SERVICES IN NAMIBIA**

One project of the MWTC 2000 Programme is the creation of a State-Owned Operational Entity (SOOE) for airports, aerodromes and air navigation services (i.e. navigational aids and air traffic services). More precisely, the terms of reference for this exercise was to identify the institutional and organisational arrangements which would be the most appropriate for the operation of airports, aerodromes and air navigation services in Namibia. An important aspect is the separation of regulatory from operational functions, and the provision of commercial (operational) services in an organisational format that allows for the imposition of user charges.

The study therefore entailed a review of MWTC's and other Ministries' functions regarding airports, aerodromes and ANS, and the separation of operational functions into an SOOE. The new SOOE had to be operated according to a more commercial approach.

The nature of the SOOE would largely hinge on the interpretation of *commercialisation*. In this study, the term was defined as creating an institution autonomous enough to have

"the freedom and the incentives to make decisions on commercial principles including reacting to price signals, making decisions with a view to long-term profitability, aiming for efficient allocation of resources and reacting to the needs of customers. In exchange for commercial freedom, the (SOOE) should be accountable for its actions to a shareholder and provide it with a surplus over resources employed at least commensurate with the enterprise's risk profile" (Republic of Namibia, MWTC (1996), p15)

This definition refers to the organising principles of the new enterprise (i.e. structured to react to market challenges) and the outcome of its operations (i.e. profitability). What is conspicuously absent is a reference to ownership, since it may well be argued that a change in ownership alone might go a long way towards "commercialising" airports, aerodromes and ANS - especially since what we are dealing with here is not a typical utility, or even a

natural monopoly. However, as mentioned above, public enterprise reform under MWTC 2000 focuses firstly on the creation of SOOEs, and the consequential issues of privatisation and divestiture are largely downplayed.

#### STRUCTURE OF THE NAMIBIA AIRPORTS AND ANS COMPANY

Four main issues had to be dealt with in defining the appropriate vehicle for operational duties associated with airports, aerodromes and ANS. The first concerned the most appropriate organisational structure (i.e. legal form), the second the basic characteristics of the company, the third pertained to the airport/aerodrome network assigned to the restructured entity and the fourth related to the most desirable positioning of ANS.

##### *Options for Organisational Structure*

A spectrum of legal forms, ranging from large to relatively less potential for government interference, present themselves for the new SOOE. Civil aviation functions may be retained in a government *department*, potentially with its own trading account to encourage self-financing. Regulatory and operational functions will remain intertwined and the non-market qualities identified above will largely persist. An *authority* (or administration) may be established as a separate legal and financial (accounting) entity outside the domain of the Public Service Commission. Although it may have commercial goals, an authority is largely an extension of the State with limited incentives to act commercially.

Alternatively, the *Companies Act* may form the basis of the new SOOE, either through a not-for-profit company or an ordinary company with a profit motive. The Company is a dedicated business and financial unit, managed on commercial principles, self-financing in principle and divorced from, but accountable to, a shareholder. Clearly, this was the legal form most appropriate to realise our definition of "commercialisation". The Companies Act and related legal instruments provide a ready-made legal, procedural and philosophical framework within which to provide airports, aerodromes and ANS, although its launch usually requires an establishing (empowering) statute separate from the Companies Act.

In the case of the Airports and ANS Company, these concerns were addressed by clearly circumscribing the *scope of the company's activities* in its establishing act, namely, to acquire, establish and manage any airport, part of an airport or any facility or service at an airport normally related to the functioning of an airport. This would also apply to air navigation infrastructures, air traffic services or air navigation services. It is likely that this definition in the act will be interpreted to include ancillary activities complementing the core business (as is the case with the interpretation of companies' objectives as stated in their

founding documents), but at the same time it is regarded as tight enough to prevent the company from extending its influence into areas which were clearly not foreseen by the law giver

### *Characteristics of the Company*

The company has a *profit and efficiency motive*. The draft establishing act states that it shall conduct its business in accordance with sound and generally accepted business principles and on a commercial basis, subject to a duty to ensure that it obtains maximum usage of its facilities and services. This mandate is supported by an explicit duty to subcontract services where this is clearly cost-efficient

A Shareholding Minister designated by the President, will hold the State's *shares* in the Company and exercise the rights attached to the shares. Parliament has to approve any divestiture. A *board of directors* will head the Company with fiduciary duties as circumscribed in the Companies Act. An exception to standard practice is that the Shareholding Minister will appoint the Chairman. However, the Board will still appoint the executive director (CEO) and the management team. All directors will be appointed for fixed terms

The proposed act states explicitly that provisions of the *Companies Act* will apply except where they are inconsistent with specific arrangements in the establishing act

### *Airport Aerodrome Network in Company*

As alluded to earlier in this paper, airports and aerodromes are currently provided in excess of the means and institutional capacity of the Government, and in many cases, in excess of the level required to maintain a viable aviation sector in Namibia. The SOOE cannot realistically be expected to operate the existing network of state airports and aerodromes without large scale and continuous transfers from Government, and the oversupply in general of airport infrastructure had to be addressed in an attempt to align the services rendered more closely with the demand for them

On this issue, our study interfaced with the nascent National Policy on Airports and Aerodromes. Provision was made for a "strategic" network of airports and aerodromes - i.e. a network to ensure international access to Namibia by air (a point of entry), a general aviation and domestic hub airport and primary regional access airports/aerodromes (selected according to their geographic location and amount of activity). Only the targeted international access and domestic hub airport and aerodrome (Windhoek International and

Eros respectively) have realistic prospects of being profitable, and the number of primary access airports and aerodromes was therefore limited to the financial carrying power of these two. In the end, a further six government-owned airports and aerodromes were included in the Company's network.

It is foreseen that the airports and aerodromes will be divided into two separate business units. Windhoek International should form the first business unit. It serves primarily international passengers and jet aircraft and its business opportunities therefore relate to these traffic characteristics. Eros Aerodrome and the other airports/aerodromes in the network handle largely domestic traffic and are complementary in nature (Eros is most often the reciprocal aerodrome on a flight from or to the other airports/aerodromes).

It was recommended that Government should phase out its involvement at the government-owned airports and aerodromes excluded from the Company's network. These airports and aerodromes should be offered to local authorities or other interested parties to buy, or take over, for continued use in this capacity. The State may also decide to retain services at some airports and aerodromes and remunerate the Company (or someone else) specifically for their operation.

#### *Treatment of Air Navigation Services*

Air navigation services are typically rendered separately from airport services since particular skills are required which are usually more easily accommodated in a separate organisation. Because of the premium on safety and issues of national sovereignty, ANS has a certain non-commercial flavour, and it is probably not appropriate for ANS to have quite the same financial objectives as airports and aerodromes would typically have (i.e. profit maximisation). This is part of the reason why separate air traffic and navigation services companies were formed during privatisation or commercialisation, in countries such as New Zealand and South Africa.

However, the circumstances in Namibia were not conducive to ANS being commercialised independently. ANS is a relatively small component of the civil aviation service rendered by MWTC, and indications are that it may only be marginally profitable. Being part of the larger airports company will give ANS access to the necessary financial resources required for capital renewal and expansion (which has been neglected) and to attract highly skilled and highly remunerated air traffic controllers and support personnel. It is foreseen that ANS will form the third business unit in the company.



## FINANCIAL VIABILITY OF THE COMPANY

Detailed financial models were developed to simulate the actual (past two years) as well as future (next five years) operation of the company under a number of traffic, cost, capital expenditure and other scenarios. The net conclusion drawn from these models was that the proposed company with its network of airports and aerodromes, and at tariff levels comparable to that found in the region (most notably South Africa), could be financially self-sufficient and feasible.

## STAKEHOLDER INTERACTION AND SELF REGULATION

The challenge in commercialising a service previously operated by a government department into a successful state-owned Companies Act company lies in the mechanisms utilised to balance the multiple trade-offs imposed on the Company by its various stakeholders and their concerns. There are four primary areas of concern, shown in **Figure 1**.

The first is a *policy environment*, created by the State, within which civil aviation occurs. These are policies on civil aviation specifically (e.g. ratification of international conventions) as set by the Minister of Transport, but also policies of a more general nature (e.g. socio-economic goals) potentially fixed by a number of Ministers. Airports, aerodromes and ANS have to conform with minimum *safety and technical standards* as set by the Minister of Transport. The State is also the owner of the Company and therefore has *shareholder claims* in the Company. The Company has very definite monopoly characteristics which creates the potential for exploitation of its users and persons who do business with the Company. The fourth stakeholder concern is therefore *economic regulation*.

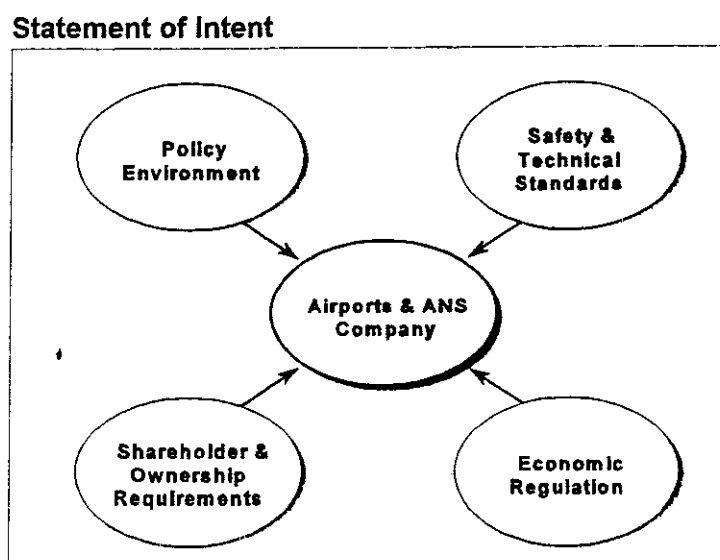
In our proposed model, these concerns are dealt with individually and the Company is required to respond to these concerns by way of a legally binding *Statement of Intent*. This Statement of Intent is unique in the sense that it practically becomes a mechanism of self-regulation.

### *The Company's obligations towards the State as Policy Maker*

The Minister of Transport is the only Minister who may intervene in the Company's operations on policy grounds and then only to give effect to any official state policy, to discharge or facilitate the discharge of an international obligation of the State, or in the interests of national security. Should such an intervention impose a cost on the Company which could not reasonably be recovered from users, the State shall then compensate the Company for these costs.

An outright duty has been placed on the Company to implement and maintain an employment equity programme which corresponds with, and complements, national policies in this regard.

**FIGURE 1: STATEMENT OF INTENT AS A RESPONSE TO THE PRIMARY AREAS OF STAKEHOLDER CONCERN**



*The Company's obligations to the State as Safety and Technical Regulator*

The State is ultimately responsible for enforcing safety and technical standards in terms of its guardian role over civil aviation, and on the basis of international treaties and conventions to which it is party. This duty is not affected by the State now not being responsible for operational functions regarding airports, aerodromes and air navigation services. Correspondingly, the Act places a duty on the Company to facilitate the performance of any state function at company airports/aerodromes or navigation infrastructure. The rules of oversight and intervention over operational functions are contained mainly in the Aviation Act (Act No 74 of 1962) and regulations in terms of this act. It is foreseen that the practical implications of the working relationship between the Company and the Department of Transport (e.g. points of contact, the exchange of information, relations with ICAO, etc.) will be formalised in a *memorandum of understanding* between them.

*The Company's obligations to the State as Shareholder*

Although the usual Companies Act procedures apply (i.e. annual or special general meetings), the shareholder relationship with the Company has been extended and formalised

to prevent undue and persistent intervention by the Shareholder in the operations of the Company. This relationship is embodied and formalised through a *performance brief*. The establishing act places a duty on the Company to negotiate such brief with the Shareholding Minister, and defines the contents as the commercial parameters within which the Company shall carry out its functions and the parameters that influence the State's shareholding. In respect of commercial parameters, these are the required rate of return by the State on its shareholding, the Company's dividend policy and other financial performance measures identified by the Shareholder in consultation with the Company. In respect of parameters that influence the State's shareholding, the brief requires specification of the Company's cover against exchange rate risk, particulars regarding subsidies to the Company and the Company's insurance risk cover. The terms on which, and the extent to which, the Company may make loans are also spelt out to ensure that loans do not lead to an imprudent ratio of equity to debt, or, to inordinately straining the Company's anticipated cash flow.

Although the performance brief sets out the shareholder relationship, it is subordinate to the other provisions of the establishing act, to ensure that an overzealous Company or Minister do not contract themselves out of the act. For purposes of transparency, there is a duty on the Company to publish its performance brief.

*The Company's obligations towards Users and Contracting Parties: Economic self-regulation of the Company*

The Company will be vested with considerable market power due to its market share, its discretionary powers as a commercial institution and the existence of substantial barriers to entry in the market. To counteract the potential abuse of monopoly position in its dealings with stakeholders, an economic regulatory mechanism should be established as surrogate for the market environment.

The main choices when it comes to economic regulation are the form of regulation and the regulating agent. Regarding form, the two predominant models are rate of return regulation (favoured in the USA) and price cap regulation (well-established in the UK, for example in the case of the British Airports Authority and many utilities). Rate of return control involves permitting increases in prices provided the implied rate of return does not exceed a predetermined maximum. Control of prices through a price cap limits increases by reference to increases in a general price index, such as the Consumer Price Index. (The differences between the two models are less clear in practice than in theory.) Neither rate of return or price cap regulation is clearly superior to the other. This is not the forum to debate the relative merits of the two models, but for our purposes in Namibia, the price capping paradigm was more appropriate (less interventionist, and strong incentives to

Specifically, the statement of intent has to include:

- projected annual financial statements
- a plan for the expansion and curtailment of infrastructure and services
- a description of the policies the Company intends implementing to comply with its performance brief
- a service standards plan indicating the steps the Company intends taking to improve service levels
- actions taken by the Company to comply with its duty not to abuse its monopoly position
- an employment equity plan
- a tariff plan

The establishing act requires the tariff plan to restrict to a maximum, in relation to inflation for the duration of the statement of intent, any tariff which falls under the tariff rules. It is foreseen that this tariff cap will function in the same manner as the RPI-X price cap regulation mechanism widely employed in the UK for the regulation of utility-type enterprises, or the CPI-X regime applicable to South African airports. The gist of the system is that the whole business is assessed (i.e. actual, projected and potential revenues and costs) whereafter a limit is placed on certain tariffs; which is tight enough to force the enterprise to develop alternative sources of revenue and minimise costs. In this case (i.e. the Namibian Airports and ANS Company) it differs in that the Company lays down its own tariff cap (and this may well be less exerting on the Company than would be the case had it been set by an external body).

The statement of intent is a contract between the Company and stakeholders and binding on the Company - it equates to a *permission* in the price cap framework. In the absence of a dedicated (economic) regulator, any complaints against the final (published) statement of intent will have to be addressed in a court of law.

At the end of each financial year, the Company will evaluate in an annual report, the year's performance in terms of the goals set in the statement of intent. The revision of the statement of intent is only possible under special circumstances. The annual report will also include Companies Act prerequisites such as audited financial statements and a directors report.

## EVALUATION OF THE PROPOSED COMMERCIALISED STRUCTURE FOR AIRPORTS, AERODROMES AND ANS SERVICES

An objective assessment of the proposed structure and its contents is, of course, very difficult due to the policy-driven nature of the approach that was followed to the project. It is nevertheless of interest to assess the proposed structure against some theoretical tenets for efficiency found in economic literature.

The theory confirms that governments are generally not the most efficient providers of services, and that by implication, someone else should be doing it (except, perhaps, in cases of natural monopoly, externalities or specific non-economic objectives - so-called "market failures")

Bureaucratic or non-market failures of public enterprises and reasons for such failures are well documented (see for example Shirley and Nellis (1991) and Mihyo (1994)). Galal (1989) recognises the reasons for public enterprise failure not as being in neo-classical micro-economic theory, but in the arguments developed by the property rights, public choice and X-efficiency schools. He interprets the basic argument of this literature as:

" public enterprise managers are likely to deviate from profit maximisation to a greater extent than their private counterparts" (Galal (1989), p4)

This often stems from public enterprise managers being faced by multiple and often conflicting political goals (e.g. employment generation, regional development, the appointment of loyalists and interference in setting prices) which may have their origin in the fact that ownership is often diffused with many government agencies or ministries attempting to perform the ownership function.

The solution of divestiture proposed by Galal is workable in principle (for an exposition of the marketability of airports, see IBRD (1994), p114), but, as stated above, not part of the reform agenda at this stage. Also, there is an argument to be made for "first things first", that is, to separate the operation of airports, aerodromes and ANS from the State, to establish a track record of efficient operation and profitability and in so doing, improve the attractiveness of investing in the concern when divestiture does become a policy option.

If we now measure our attempt against Galal's reasons for public enterprise failure, we can propose the following findings:

*On the argument of political interference creating multiple objectives*

The proposed framework has not reduced the number of interested parties. What it has done is to identify them, deal with each in a pro-active manner and provide specific instruments for interaction with them. In summary it has also placed the Company in a position to steer its own course through these objectives. It may be argued that the performance brief provides a vehicle for interference in the Company. Even so, such interference is then limited to the Shareholding Minister and provides at least a procedural check on *ad hoc* political demands. Should demands on the Company exceed pre-determined parameters (in the establishing act), the Company may (perhaps only nominally) claim compensation.

*On the argument of diffusion and ill-allocation of public enterprise ownership*

There is only one owner - the Shareholding Minister. He is, to a large extent, treated like any commercial shareholder and his shareholder duties are divorced from any other interest he may have in the Company.

*On the argument of public agents' inability to devise and implement efficient monitoring and incentive mechanisms*

As a business concern, the Company can operate without any intervention from public agents. The initiative statutorily lies with the Company.

*On the argument of public enterprises usually escaping the discipline of financial markets*

The Company is set up to be financially independent and to be subject to financial market pressures. Probably the main reason for it being formed is the fact that the State cannot afford to do the job itself.

An added concern which threads through the proposed framework, and which is not part of Galal's construct, is the need for economic regulation of a monopoly public enterprise. In this case, the regulatory mechanism is integrated in the Company's mandate, and self-administered. It very much rests on the pressure transparency places on the Company. All stakeholders are placed in a position to participate in the Company's planning and are therefore aware of the Company's intentions. The Company has to motivate its plans to avoid recourse to the courts, and if it fails to deliver, its failure is public knowledge.

## SUMMARY AND CONCLUSION

In this paper the Namibian approach to the commercialisation of airports, aerodromes and

air navigation services was put forward. While following the approach outlined by a substantial body of knowledge internationally, some unique aspects were highlighted, most notably the approach to self-regulation. We also briefly assessed the proposed approach against a number of theoretical tenets for soundness, and we concluded that these requirements were met.

At the time of writing, the "pre-implementation" phase of the study was drawing to a close. A draft bill had been prepared, but still needed to pass through the legislative process. It is foreseen that the formation of the Airports and ANS Company will occur in 1997.

#### **ACKNOWLEDGEMENTS**

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